NUCLEAR ENGINEERING CALCULATION COVER SHEET

NEPM-QA-0221-1

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>2. TYPE: CALC >3. NUMBER: EC-RADN-1125 >4. REVISION: 0

*>5. UNIT 3 *>6. QUALITY CLASS: Q

>7. DESCRIPTION: CRHE and Off Site Post LOCA Doses - AST

8. SUPERSEDED BY:

9. Alternate Number: 10. Cycle:

11. Computer Code/Model used: RADTRAD V3.03 12. Discipline: R

>13. Are any results of this calculation described in the Licensing Documents?

☒ Yes, *Refer to NDAP-QA-0730 and NDAP-QA-0731* ☐ No

>14. Is this calculation changing any method of evaluation described in the FSAR and using the results to support or change the FSAR? (Refer to PPL Resource Manual for Definition of FSAR)

☒ Yes, *50.59 screen or evaluation required.* ☐ No

>15. Is this calculation Prepared by an External Organization?

☒ Yes ☐ No

EG771 Qualifications may not be required for individuals from external organizations (see Section 7.4.3).

	Print Name(EG771 Qualification Required)	Signature	Date
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PP&L CALCULATION SHEET

Dept. 0341 Rad & Eff Tech.
Date 08/19/05
Designed By M. M. Waselus
Checked By K. E. Weise

PROJECT
CRHE and Off Site Post LOCA Doses – AST

Calc. No. EC-RADN-1125
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PROJECT
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PP&L CALCULATION SHEET

Dept. 0341 Rad & Eff Tech.
Date 08/19/05
Designed By M. M. Waselus
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Checked By	K. E. Weise		

1.0 PURPOSE

This calculation documents the design basis evaluation of the Control Room Habitability Envelope (CRHE) and offsite radiological doses following a postulated design basis loss of coolant accident (LOCA) in accordance with the Alternate Source Term (AST) methodology described in USNRC Regulatory Guide 1.183 (Reference 1). The doses are calculated using the RADTRAD computer code (Reference 2).
The previous calculation EC-RADN-1095 (Reference 35) used the TID-14844 methodology described in USNRC Regulatory Guide 1.3 (Reference 4). The major changes in applying the AST methodology are:

- delayed source term releases
- revised iodine chemical species distribution
- revised release fractions
- six additional nuclide groups compared to the two groups (halogens and noble gases) considered in TID-14844
- dose acceptance criteria based on the total effective dose equivalent (TEDE) versus thyroid, whole body and beta doses.

2.0 CONCLUSIONS AND RECOMMENDATIONS

The offsite and CRHE dose acceptance criteria for the LOCA are provided in 10CFR50.67, Accident Source Term, subsections 10CRF50.67(b)(2)(i) and 10CRF50.67(b)(2)(iii), respectively. The offsite dose acceptance criterion is 25 Rem TEDE at the exclusion area boundary (EAB) and the low population zone (LPZ). The CRHE dose acceptance criterion is 5 Rem TEDE. The calculated doses are:

- EAB dose (Worst case 2 hour) 7.81 Rem TEDE
- LPZ dose (30 day) 3.80 Rem TEDE
- CRHE dose for activity infiltrating the CRHE (30 day) 3.93 Rem TEDE
- CRHE dose from the external cloud shine (30 day) 0.0515 Rem EDE
- CRHE dose from the elevation 806' cloud shine (30 day) 0.0454 Rem EDE

3.0 ASSUMPTIONS / INPUT

The post LOCA doses include contributions from the following pathways:

- Primary containment leakage to the reactor building.
- Primary containment bypass leakage directly to the environment.
- ESF leakage to the reactor building.
- MSIV leakage to the environment via the condenser.

The input data and assumptions used in this analysis are discussed as follows and summarized in Table 16 following the discussion of the parameters. .

3.1 Core Thermal Power (MWt) and Activity Inventory in Core (Ci/MWt)

The total core activity available for release following a postulated LOCA is given as the core thermal power (4032 MWt) times the Ci/MWt listed in Table 1. The isotopes used in the radiological analyses are the 60 dose significant isotopes listed in Reference 2, Table 1.4.3.2-3. The core thermal power is provided by SSES EPUMELLA+ Design Report Request T0200, Core Design (Reference 11). The specific values Ci in core isotopic activities are from EC-FUEL-1615 (Reference 3).

Table 1 Activity in Core Ci/MWt

Isotope	Ci in Core	MWt	Ci/MWt	Isotope	Ci in Core	MWt	Ci/MWt
Co-58	5.91E+05	4032	1.47E+02	Te-131m	2.15E+07	4032	5.33E+03
Co-60	3.19E+05	4032	7.91E+01	Te-132	1.54E+08	4032	3.82E+04
Kr-85	1.48E+06	4032	3.67E+02	I-131	1.07E+08	4032	2.65E+04
Kr-85m	2.68E+07	4032	6.65E+03	I-132	1.57E+08	4032	3.89E+04
Kr-87	5.37E+07	4032	1.33E+04	I-133	2.22E+08	4032	5.51E+04
Kr-88	7.45E+07	4032	1.85E+04	I-134	2.45E+08	4032	6.08E+04
Rb-86	2.17E+05	4032	5.38E+01	I-135	2.11E+08	4032	5.23E+04
Sr-89	1.03E+08	4032	2.55E+04	Xe-133	2.12E+08	4032	5.26E+04
Sr-90	1.31E+07	4032	3.25E+03	Xe-135	7.03E+07	4032	1.74E+04
Sr-91	1.31E+08	4032	3.25E+04	Cs-134	2.30E+07	4032	5.70E+03
Sr-92	1.39E+08	4032	3.45E+04	Cs-136	7.34E+06	4032	1.82E+03
Y-90	1.36E+07	4032	3.37E+03	Cs-137	1.73E+07	4032	4.29E+03
Y-91	1.34E+08	4032	3.32E+04	Ba-139	1.95E+08	4032	4.84E+04
Y-92	1.40E+08	4032	3.47E+04	Ba-140	1.96E+08	4032	4.86E+04
Y-93	1.07E+08	4032	2.65E+04	La-140	2.09E+08	4032	5.18E+04
Zr-95	1.92E+08	4032	4.76E+04	La-141	1.78E+08	4032	4.41E+04
Zr-97	1.90E+08	4032	4.71E+04	La-142	1.74E+08	4032	4.32E+04
Nb-95	1.92E+08	4032	4.76E+04	Ce-141	1.80E+08	4032	4.46E+04
Mo-99	2.02E+08	4032	5.01E+04	Ce-143	1.67E+08	4032	4.14E+04
Tc-99m	1.79E+08	4032	4.44E+04	Ce-144	1.51E+08	4032	3.75E+04
Ru-103	1.72E+08	4032	4.27E+04	Pr-143	1.61E+08	4032	3.99E+04
Ru-105	1.19E+08	4032	2.95E+04	Nd-147	7.24E+07	4032	1.80E+04
Ru-106	6.85E+07	4032	1.70E+04	Np-239	2.12E+09	4032	5.26E+05
Rh-105	1.11E+08	4032	2.75E+04	Pu-238	4.56E+05	4032	1.13E+02
Sb-127	9.40E+06	4032	2.33E+03	Pu-239	4.83E+04	4032	1.20E+01
Sb-129	3.47E+07	4032	8.61E+03	Pu-240	7.79E+04	4032	1.93E+01
Te-127	9.32E+06	4032	2.31E+03	Pu-241	1.92E+07	4032	4.76E+03
Te-127m	1.59E+06	4032	3.94E+02	Am-241	2.54E+04	4032	6.30E+00
Te-129	3.29E+07	4032	8.16E+03	Cm-242	6.67E+06	4032	1.65E+03
Te-129m	6.66E+06	4032	1.65E+03	Cm-244	3.90E+05	4032	9.67E+01

3.2 Radioisotope Decay Properties

The radioisotope decay properties for the isotopes considered in this analysis are taken from Reference 2, Table 1.4.3.2-3 and are listed in Attachment 5.

3.2 Radioisotope Decay Properties

3.3 Activity Release to Drywell following a Postulated LOCA

The core inventory release fractions into the drywell, by radionuclide groups, for the gap release and early in-vessel damage phases are listed in Table 2 as given in Reference 1, Section 3.2, Table 1. The RADTRAD Control files for the release fractions used in RADTRAD are provided in Attachment 1 (used for primary containment and secondary containment bypass release paths), Attachment 2 (used for MSIV leakage release path) and Attachment 3 (used for the ESF leakage release path).

Table 2 BWR Core Inventory Fraction Released Into Drywell

Group	Gap Release Phase	Early In-vessel Phase	Total
Noble Gases	0.05	0.95	1
Halogens	0.05	0.25	0.3
Alkali Metals	0.05	0.2	0.25
Tellurium Metals	0	0.05	0.05
Ba, Sr	0	0.02	0.02
Noble Metals	0	0.0025	0.0025
Cerium Group	0	0.0005	0.0005
Lanthanides	0	0.0002	0.0002

3.4 LOCA Release Timing

Reference 1, Section 3.3, Table 4 tabulates the onset and duration of each sequential release phase for DBA LOCAs at BWRs. The specified onset is the time following the initiation of the *accident* (*i.e.*, time = 0). The early in-vessel phase immediately follows the gap release phase. The activity released from the core during each release phase is modeled as increasing in a linear fashion over the duration of the phase. The values used in this analysis for the release to the drywell are provided in Table 3. The RADTRAD control file for the release timing is provided in Attachment 1 (used for primary containment and secondary containment bypass release paths).

Table 3 LOCA Release Phases BWRs

Phase	Onset	Duration
Gap Release	2 min	0.5 hr
Early In-Vessel Release	0.5 hr	1.5 hr

The RADTRAD control files for the release timing for MSIV leakage release path is provided in Attachment 2 and for the ESF leakage release path in Attachment 3. The MSIV leakage uses a release time of 1.0E-06 hours to simulate a conservative instantaneous release. The ESF leakage uses the Table 3 timing for the released iodine.

release time of 1.0E-06 hours to simulate a conservative instantaneous release. The ESF leakage

3.5 Radioiodine Chemical Species Released to Drywell

Per Reference 1, Appendix A, Section 2.0 for AST, the radioiodine chemical species released to the drywell are defined as 95% Aerosol (CsI), 4.85% Elemental and 0.15% Organic.

3.6 Primary Containment Volume

The primary containment free volume consists of the drywell free volume and the wetwell free volume. Per EC-012-0442, Containment Volume & Weights (Reference 7), the values for these free volumes are:

Drywell free volume	= 239600 ft^3
Wetwell free volume	= 148590 ft^3
Total Primary containment free volume	= 388190 ft^3

3.7 Primary Containment Cleanup (Natural Deposition)

Per Reference 1, Appendix A, Section 3.2, reduction in airborne radioactivity in the containment by natural deposition within the containment may be credited. Acceptable models for removal of iodine and aerosols are described in Chapter 6.5.2, "Containment Spray as a Fission Product Cleanup System," of the Standard Review Plan (SRP), NUREG-0800 and in NUREG/CR-6189, "A Simplified Model of Aerosol Removal by Natural Processes in Reactor Containments". The latter model is incorporated into the RADTRAD code (Reference 2). The 10th percentile Power's Aerosol Decontamination Model is conservatively used herein.
The prior practice of deterministically assuming that a 50% plateout of iodine is released from the fuel is no longer acceptable to the NRC staff as it is inconsistent with the characteristics of the revised source terms and is not used herein.

3.8 Primary Containment Cleanup (Drywell Sprays)

No credit is conservatively taken in this analysis for fission product reduction due to the initiation of the drywell sprays.

3.9 Primary Containment Design Leakrate

Per SSES Technical Specifications, Section 3.6.1.1 and Primary Containment and Technical Specification Bases, B3.6.1.1 (Reference 6), the technical specification leakage rate for the primary containment is defined as 1% by weight of containment air per 24 hours @ 45 psig. In accordance with Reference 1, Section 3.7: "The primary containment (i.e., drywell for Mark I and II containment designs) should be assumed to leak at the peak pressure technical specification leak rate for the first 24 hours. For BWRs, leakage may be reduced after the first 24 hours, if supported by plant configuration and analyses, to a value not less than 50% of the technical specification leak rate". Based on the significant reduction of the calculated internal pressure of primary containment at 24 hours into the LOCA the 50% reduction in leak rate is taken herein. Per PPL Drawing C-206-130

first 24 hours. For BWRs, leakage may be reduced after the first 24 hours, if supported by plant

Sheet 1, Primary Containment Zones (Reference 29), the Drywell LOCA peak pressure <24 hours equals 41.3 psig and at 24 hours equals approximately 15.3 psig.

3.10 Primary and Secondary Containment Bypass Leakage

The SSES secondary containment total bypass leakage is defined as 9 scfh or 0.15 scfm. The plant is tested based on a corrected mass basis with acceptance criteria specified in sccm. The test acceptance limit for the primary containment leakrate is 190,744 sccm which corresponds to 0.6 La based on the design leakage of 317,907 sccm for 1.0 La (1% by weight per day). The bypass test acceptance limit is 4247 sccm which corresponds to the design bypass leakrate of 9 scfh. Acceptance limits per NDAP-QA-0412 (Reference 47). The bypass rate as a % of the primary containment leak is the ratio of the primary containment design leakrate and the bypass design leak rate or

0.0134%/day [4247 sccm/317907 sccm] which translates to an actual flow of 0.036 cfm where 0.0134%/day * 388190 ft^3 * 1d/1440 min * 1/100% = 0.036 cfm.

Therefore, the secondary containment bypass leakage is 0.0134%/day for 0 to 1 day and 0.0067%/day for 1 to 30 days.

The fraction of the primary containment leakrate which enters the secondary containment and is processed by the SGTS is given as difference between the total leakrate and the secondary containment bypass leakrate or

1%/day – 0.0134%/day = 0.9866%/day for 0 to 1 day and ½ of 0.9866%/day or 0.4933%/day for 1 to 30 days.

3.11 Off Site Breathing Rates

In accordance with Reference 1, Section 4.1.3, for the first 8 hours, the breathing rate of persons offsite is assumed to be 3.5×10^{-4} cubic meters per second. From 8 to 24 hours following the accident, the breathing rate is assumed to be 1.8×10^{-4} cubic meters per second. After that and until the end of the accident, the rate is assumed to be 2.3×10^{-4} cubic meters per second.

3.12 Dose Conversion Factors

The dose conversion factors for the 60 isotopes considered in this analysis are taken from Reference 2, Table 1.4.3.3-2 and are reproduced in Attachment 4. The dose conversion factors are derived from Federal Guidance Reports 11 and 12 (References 39 and 40).

3.13 Suppression Pool Scrubbing

Per Reference 1, Appendix A, Section 3.5: "Reduction in airborne radioactivity in the containment by suppression pool scrubbing in BWRs should generally not be credited. However, the staff may consider such reduction on an individual case basis. The evaluation should consider the relative timing of the blowdown and the fission product release from the fuel, the force driving the release through the pool, and the potential for any bypass of the suppression pool. Analyses should consider iodine re-evolution if the suppression pool liquid pH is not maintained greater than 7".

No credit for suppression pool scrubbing is conservatively taken herein.

3.14 Secondary Containment (RB) Free Air Volume and Mixing

When a LOCA signal is received, SGTS starts. The unit with the LOCA and Zone III isolate. Thus, if a LOCA on Unit 1 occurs, Zones I and III isolate. In case of a LOCA and a LOOP, all three zones isolate. The most conservative zone isolation assumptions will be applied in this analysis.

The free volume of reactor building Zones I, II and III are evaluated in EC-034-0011, Free Volumes of Rooms & Areas in Ventilation Zone I & Zone II of Reactor Building (Reference 8), EC-034-0041, Reactor Bldg Zone III Free Air Volume - U2 Only (Reference 9) and EC-034-0040, Reactor Bldg Zone III Free Air Volume - U1 Only (Reference 10).

The reactor building volumes are as follows:

ZONE I	1,488,600. ft^3	ZONE I	1,488,600. ft^3	ZONE II	1,598,600. ft^3
ZONE II	1,598,600. ft^3	ZONE III	2,668,000. ft^3	ZONE III	2,668,000. ft^3
ZONE III	2,668,000. ft^3				
Total	5,755,200. ft^3	Total	4,156,600 ft^3	Total	4,266,600 ft^3

The scenario used in this analysis is the smallest dilution volume given as a LOCA in Unit 1 with Zones I and III isolating.

In accordance with Reference 1, Appendix A, Section 4.4: "Credit for dilution in the secondary containment may be allowed when adequate means to cause mixing can be demonstrated. Otherwise, the leakage from the primary containment should be assumed to be transported directly to exhaust systems without mixing. Credit for mixing, if found to be appropriate, should generally be

In accordance with Reference 1, Appendix A, Section 4.4: "Credit for dilution in the secondary

limited to 50%." Post-LOCA activity in the SSES reactor building is mixed by a recirculation system and a mixing efficiency of 50% is used in the RADTRAD analyses.

For 50% mixing in the reactor building, 50% of the reactor building free volume is input to the RADTRAD computer code. For mixing in Zones I + III, the reactor building volume is: 4,156,600 ft^3 x 0.5 = 2,078,300 ft^3.

3.15 Time for SGTS Full Flow

Following isolation of the reactor building from a DBA-LOCA, the Standby Gas Treatment System is automatically started to maintain or restore a negative pressure differential in the reactor building of 0.25 inch of water. For the FSAR licensing basis analysis, loss-of-offsite power (LOOP) is assumed to occur coincident with the DBA-LOCA. Following a LOOP, the Standby Gas Treatment System and the Reactor Building Recirculation System will start-up using power supplied by the diesel generators. From EC-070-0526, SGTS Drawdown Analysis (Reference 30), the post DBA-LOCA loading sequence is as follows:

Loading Sequence Time From DBA-LOCA (sec)	Description
10	--Standby Gas Treatment System Exhaust Fans Start --Reactor Building Recirc Fan Fails To Start
25	--Standby Gas Treatment System Exhaust Fans Reach Full Flow --Second Reactor Building Recirc Fan Starts (15 Second Timer)
30	--Reactor Building Recirc Fan Reaches Full Flow

3.16 Post LOCA RB Drawdown Time

From SSES Units 1&2 Technical Specifications 3.6.4.1 and B3.6.4.1.4 (Reference 41), technical specifications surveillance requirements state that one SGTS subsystem should draw down the reactor building including Zones I, II and III to greater than or equal to 0.25 inch of vacuum water gauge in less than or equal to 125 seconds or Zones I and III in less than or equal to 117 seconds. As part of the AST submittal a change is proposed to SSES Units 1&2 Technical Specifications 3.6.4.1 and B3.6.4.1.4 to increase the maximum drawdown time from 125 and 117 seconds for Zones I, II, & III and Zones I & III respectively, to 300 seconds for both cases.

A 10 minute reactor building drawdown time is conservatively used in this analysis.

3.17 RB Leakage Until the End of Drawdown

The reactor building leakage rate is obtained from EC-034-0015, Recirc Syst. & SGTS Flow Rates After Reactor Building Zone(S) Isolation (Reference 12) and is 100 %/day of the reactor building free volume. For three zone mixing, the reactor building leakage rate is:
100% /day x 5,755,200. ft^3 x 1 day/ 1440. min x 1/100.% = 4000 cubic feet per min (cfm). See also Reference 41.

For two zone mixing in Zones I + III, the reactor building volume is 4,156,600. ft^3 and the reactor building leakrate is:
100% /day x 4,156,600. ft^3 x 1 day/ 1440. min x 1/100.% = 2885 cubic feet per min (cfm). See also Reference 41.

Using the SGTS 2 zone case provides the maximum activity concentration in the reactor building for use in subsequent direct dose analyses (See Appendix A). Although using the two zone mixing results in a lower out leakage from the reactor building during the drawdown phase, the activity concentration and the flow rate are proportional and therefore, the quantity of activity released in curies to the environment is the same, i.e. 100% per day.

3.18 RB Leakage After Drawdown

At the end of the 10 minute drawdown period the reactor building is maintained at a negative pressure relative to the environment and surrounding structures and as such no flow other than the flow via the SGTS is assumed in the analysis, i.e., the leakage from the reactor building is 0 cfm.

3.19 SGTS Flowrate

The SGTS flow rate for reactor building drawdown is assumed to be at the maximum system flow rate of 11,110 cfm from SSES Units 1&2 Technical Specifications 5.5.7a (Reference 34) during the drawdown period and then 100% of the post LOCA secondary containment volume (Reference 41).

SGTS 3 zone flows		11,110 cfm for 10 min., 4000 cfm thereafter
SGTS 2 zone (1 & 3) flows	Case used	11,110 cfm for 10 min., 2885 cfm thereafter
SGTS 2 zone (2 & 3) flows		11,110 cfm for 10 min., 2960 cfm thereafter

3.20 SGTS Filter Depth and Removal Efficiency

The Standby Gas Treatment System charcoal filters provide 8 inches of charcoal for filtration SSES SPEC M-321, Technical Specification For Standby Gas Treatment System For SSES Units 1 & 2 (Reference 14). Per Table 2 of Regulatory Guide 1.52 (Reference 15), an SGTS charcoal filter efficiency of 99% is assumed for all species of iodine.

The Standby Gas Treatment System charcoal filters provide 8 inches of charcoal for filtration

3.21 MSIV Leakage Pathway

MSIV Leakage Path

The activity available for release from this leakage path is conservatively taken to be instantaneously released from the core and mixed in the drywell free volume (239,600 ft^3) for the first two hours. After two hours the activity is assumed to be further diluted in the drywell plus wetwell free volume (388,190 ft^3). (See section 3.6).

100% of the MSIV leakage is modeled with RADTRAD as flowing through the MS lines to the condenser via the drain lines. Previous work by GE for SSES documented in Reference 31 (copy provided in Attachment 9) demonstrated that although some of the MSIV leakage could travel via the high pressure turbine path to the environment, this path accounts for a negligible flow and negligible dose contribution. The SSES flow split was defined by GE as 98.7% to the condenser via the drain lines and 1.3% to the high pressure turbine via the main steam lines (See Attachment 7).

Leakage Flows

The MSIV leakage test limits are provided in SSES Technical Specification Surveillance Requirement 3.6.1.3.12 (Reference 24) as ≤100 scfh from any one valve or ≤300 scfh total from the four valves. The leakage is tested at 22.5 psig or Pa. This analysis assumes one MSL is faulted and the faulted line has 100 scfh flow. The remaining leakage is evenly split between the three non-faulted lines. Attachment 8 (Reference 28) provides the results of an evaluation performed by GE that indicates that there is an insignificant difference in the calculated doses between evenly splitting the flows in the four lines (75 scfh each) or assuming the flow is split between two lines (200 scfh in one line and 100 scfh in the other line). The flows used in this analysis are 1.67 scfm [100 scfh/60 min/hr] in the faulted line and 1.11 scfm in each of the remaining three lines[200 scfh/3/60 min/hr]. As calculated below at the tested pressure of 22.5 psig, the 1.67 scfm and 1.11 scfm MSIV leakage rates would result in a nominal flow of 1.28 cfm and 0.85 cfm, respectively at the steam line conditions where scf is defined at 60°F and 14.7 psia and the steam line conditions are 550 °F and 22.5 psig in the main steam lines.

MSL (550 °F, 22.5 psig): [1.67 ft^3/min or 1.11 ft^3/min] * [460 °R + 550 °F] / [460 °R + 60 °F] * 14.7 psi / [14.7 psi+22.5 psi] = [1.28 cfm or 0.85 cfm]. Therefore, the total flow entering the main steam line drain piping is 3.84 cfm [1.28 cfm + 3* 0.85 cfm].

The drain piping will be at a lower temperature. Conservatively assuming the temperature is equal to the peak drywell temperature of 340 °F for the 30 day duration and a conservatively low pressure of 14.7 psia which maximizes the calculated flow rate, the corrected flow for the drain piping path is given as follows.

equal to the peak drywell temperature of 340 °F for the 30 day duration and a conservatively low

Drain Line (340 °F, 0 psig): 3.84 ft^3/min * [460 °R + 340 °F] / [460 °R + 60 °F] * 14.7 psi / 14.7 psi = 5.9 cfm.

For RADTRAD input, this conservatively calculated total flow of 5.9 cfm is apportioned and used for the main steam lines in lieu of the flows of one faulted MS line @ 1.28 cfm and 3 non-faulted MS lines @ 0.85 cfm each. **The conservative apportioned values are one faulted MS line @ 1.97 cfm and 3 non-faulted MS lines @ 1.31 cfm each for a total of 5.9 cfm.**

In accordance with Reference 1, Appendix A, section 6.2, the leakages are reduced by 50% after the first 24 hours based on the reduction in the drywell accident pressure.

Removal of Aerosols and Elemental Iodine in Piping

Per Letter from Fermi 2 to USNRC, NRC-03-0095, Response to NRC Request for Additional Information Regarding the Implementation of Alternative Source Term, NRC Docket No. 50-341 (Reference 23), the NRC states that an acceptable method for modeling the removal of aerosols, elemental and organic iodine in the main steam line piping is provided in Appendix A to AEB-98-03 (Reference 22).
Note that only the horizontal runs of piping are considered in determining the aerosol and elemental iodine plateout. Additionally, since aerosol plateout is a mechanistic settling process only the bottom ½ of the inside surface area of the lines is applicable for plateout. In addition, since the bottom half of a circular pipe has sides which are essentially vertical or inclined, the area for aerosol plateout is modeled as the projected area of the diameter of the pipe [diameter X length] in lieu of the actual surface area [π X diameter X length]. Another potential issue related to the phenomenon of aerosol settling is the potential for steam condensation in the piping to wash out and re-evolve some of the settled aerosols. While the actual process would be difficult to quantify, a factor of 2 reduction in the conservatively calculated projected area is used in RADTRAD to provide additional margin. Therefore, the aerosol settling area is defined as ½ the projected area or ½ X pipe diameter X length.

The key parameter in the removal equations is the settling velocity of the material of interest. Reference 22, provides values for aerosol settling velocities. Early AST submittals used an aerosol settling velocity equal to the median value of the settling velocity or 0.00117 m/sec (page A-3 of Reference 22.). In a meeting with the NRC staff on May 24, 2005, PPL was informed that use of the median settling velocity of 0.00117 m/sec (50^{th} percentile value) was no longer acceptable to the staff. This analysis conservatively uses an aerosol settling velocity equal to ¼ of 10^{th} percentile value from AEB 98-03 or 5.25E-05 m/sec [1/4 * 2.1E-04]. Tables 7 and 8 provide the aerosol removal for the main steam lines and the drain line piping.

The elemental removal is based on the same Reference 22 methodology except that the elemental iodine deposition velocity based on J. E. Cline, MSIV Leakage Iodine Transport Analysis, Letter Report, 3/26/1991 (ADAMS Accession Number ML003683718) (Reference 25) is

The elemental removal is based on the same Reference 22 methodology except that the

used in the analysis. Also re-suspension of elemental iodine is included in the analysis. Tables 13 and 14 provide the net elemental removal for the main steam lines and the drain line piping.

The dimensions of the main steam lines and drain lines are given in EC-083-0512, MSIV-LCS Radiological Dose Calculation Data Sheet – Data Verification (Reference 38). Only the portion of the main steam lines from the primary containment isolation valve to the point where the drain piping takes off is used for plateout. The dimensions for the main steam lines for both units are identical. The dimensions are provided as follows:

Path	Pipe Size I.D. inches & feet	Length feet
NOZZLE N3A		
Between Isolation Valves HVB21-F022A and HVB21-F028A through Penetration X-7A	26" Nom 23.647" (1.97')	14.8125
Valve HVB21-F028A	26" Nom 23.647" (1.97')	5.25
From Valve HVB21-F028A through 26"x24" reducer to the Drain Line takeoff	24" Nom 22.062" (1.8385')	2.5
NOZZLE N3B		
Between Isolation Valves HVB21-F022B and HVB21-F028B through Penetration X-7B	26" Nom 23.647" (1.97')	16.8125
Valve HVB21-F028B	26" Nom 23.647" (1.97')	5.25
From Valve HVB21-F028B through 26"x24" reducer to the Drain Line takeoff	24" Nom 22.062" (1.8385')	2.5
NOZZLE N3C		
Between Isolation Valves HVB21-F022C and HVB21-F028C through Penetration X-7C	26" Nom 23.647" (1.97')	16.8125
Valve HVB21-F028C	26" Nom 23.647" (1.97')	5.25
From Valve HVB21-F028C through 26"x24" reducer to the Drain Line takeoff	24" Nom 22.062" (1.8385')	2.5
NOZZLE N3D		
Between Isolation Valves HVB21-F022D and HVB21-F028D through Penetration X-7D	26" Nom 23.647" (1.97')	14.8125
Valve HVB21-F028D	26" Nom 23.647" (1.97')	5.25
From Valve HVB21-F028D through 26"x24" reducer to the Drain Line takeoff	24" Nom 22.062" (1.8385')	2.5

Reviewing the data for the main steam lines it is seen that the lengths for lines "B" and "C" are longer than the lengths for the "A" and "D" lines. Shorter line lengths are conservative in this analysis as there is less surface area available for plateout. In modeling the MSIV leakage, it is assumed one of the longer lines fails ("C" MSL is used herein). No credit for plateout is taken in the failed line and the activity is assumed to be transported to the drain line header with no reduction. Credit is taken for removal in the three intact lines between the inner and outer MSIVs and the length of line to the takeoff for the drain lines. The path for the release of activity to the environment is via the main steam line drain piping to the condenser.

reduction. Credit is taken for removal in the three intact lines between the inner and outer MSIVs and the length of line to the takeoff for the drain lines. The path for the release of activity to the

The RADTRAD nodalization and flow path scheme for input to RADTRAD for the MSIV leakage is described as follows:

Volume 1	Drywell	239,600 ft^3 (0-2hrs) 388190 ft^3 (2-720 hrs)
Volume 2	MSIV "A" line	67.8 ft^3
Volume 3	MSIV "B" line	73.9 ft^3
Volume 4	MSIV "D" line	67.8 ft^3
Volume 5	Drain Line Mixing Volume	1 ft^3
Volume 6	Condenser	98601 ft^3 (Reference 32)

The MS line dimensions are listed in Table 4 based on the data provided in Reference 38.

Table 4 Unit 2 Main Steam Line Dimensions

	26" SA 106 Gr.		24"-DBB-103			
Segment	Horizontal Length ft	Inside Diameter in	Horizontal Length ft	Inside Diameter in	Volume ft^3	Total Internal Surface Area ft^2
"A" Line	20.0625	23.647	2.500	22.062	67.8	138.6
"B" Line	22.0625	23.647	2.500	22.062	73.9	151.0
"D" line	20.0625	23.647	2.500	22.062	67.8	138.6
"C" line	NA	NA	NA	NA	NA	NA

The drain line dimensions are given as follows based on the data provided in Reference 38. After short runs of piping for each MSL, the drain lines are headered together to the condenser. The drain line values for the "A" MSL are used in this analysis are listed in Table 5.

Table 5 Unit 2 Drain Line "A" Dimensions

Segment	Drain Line	Approximate Horizontal Length ft	Inside Diameter in	Volume ft^3	Total Internal Surface Area ft^2
1	2"-DBB-108	13.2	1.687	0.21	5.83
2	3"-DBB-108	5.3	2.624	0.20	3.63
3	3"-EBD-114	11.4	2.624	0.43	7.81
4	4"-EBD-114	11.8	3.624	0.84	11.15
5	4"-EAD-114	239.5	3.624	17.16	227.23
Total		281.2		18.83	255.65

A = inside surface area (m^2) = π X diameter X length
V = Volume (m^3) = $\pi/4$ X (diameter)^2 X length

A = inside surface area (m^2) = π X diameter X length

The flow paths and piping dimensions used in the evaluation are summarized in Table 6.

Table 6 RADTRAD Model Flow Paths

Flow Path #	From Volume	To Volume	Aerosol Removal (2)	Elemental Removal (3)
1 (1)	1 (Drywell)	5	None taken	None taken
2	1	2	NA	NA
3	1	3	NA	NA
4	1	4	NA	NA
5 (1)	2 ("A" MSL)	5	14.8% <24 hr 25.8% >24 hr	6.52% <24 hr 12.25% >24 hr
6 (1)	3 ("B" MSL)	5	15.9% <24 hr 27.5% >24 hr	7.06% <24 hr 13.19% >24 hr
7 (1)	4 ("D" MSL)	5	14.8% <24 hr 25.8% >24 hr	6.52% <24 hr 12.25% >24 hr
8 (1)	5 (Drain Line Mixing Volume)	6	6.7% <24 hr 12.5% >24 hr	4.27% <24 hr 8.19% >24 hr
9	6 (Condenser)	Environment	99.6% (4)	99.6% (4)

(1): Flow path 1 represents the faulted main steam line "C".
(2): Values per Tables 7 and 8.
(3): Values per Tables 13 and 14. Conservatively based on a constant T = 550 °F for 30 days.
(4): The condenser removal efficiency is taken from Attachment 7 (Excerpt from GE msivpgm).

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Aerosol Removal Efficiency

Table 7 Main Steam Line Aerosol Removal Efficiency

MSL	Length ft	Diameter inches	Length ft	Diameter inches	Volume ft^3	1/2 Projected Surface Area ft^2	
"A" Line	20.0625	23.647	2.500	22.062	67.8	22.1	
"B" Line	22.0625	23.647	2.500	22.062	73.9	24.0	
"D" line	20.0625	23.647	2.500	22.062	67.8	22.1	
AEB-98-03 Methodology							
MSL	u_s m/sec	Surface Area m^2	Volume m^3		Settling rate constant λ_s sec^{-1}		
"A" Line	5.25E-05	2.051	1.921		5.61E-05		
"B" Line	5.25E-05	2.234	2.093		5.60E-05		
"D" line	5.25E-05	2.051	1.921		5.61E-05		
MSL	Q (0-24 hrs) ft^3/min	Q (0-24 hrs) m^3/sec	C_{out}/C_{in} (0-24 hrs)		Q (24 hrs-30 d) ft^3/min	Q (24 hrs-30 d) m^3/sec	C_{out}/C_{in} (24 hrs-30 d)
"A" Line	1.31	0.000618	0.851688		0.655	0.000309	0.741687
"B" Line	1.31	0.000618	0.840554		0.655	0.000309	0.724962
"D" line	1.31	0.000618	0.851688		0.655	0.000309	0.741687
MSL	ή	DF			ή	DF	
"A" Line	14.8	1.2			25.8	1.3	
"B" Line	15.9	1.2			27.5	1.4	
"D" line	14.8	1.2			25.8	1.3	

Per Reference 22, Appendix A, the aerosol removal for the well mixed model is given as follows:
λ_s = rate constant for settling, sec^{-1}
$\lambda_s = u_s * A / V$ and
u_s = settling velocity = 5.25E-05 m/sec (1/4 of 10^{th} percentile value, Reference 22, page A-3)
A = aerosol settling surface area (m^2) conservatively assumed to be ½ of the projected pipe area.
A = ½ of projected area = ½ X diameter X length
V = Volume (m^3) = π/4 X (diameter)^2 X length

$C_{out} / C_{in} = [1 + (\lambda_s * V / Q)]^{-1}$ and
Q = volumetric flowrate (m^3/sec)
$ή = [1 - (C_{out} / C_{in})] * 100$ where ή = equivalent filter efficiency input to RADTRAD.
DF = 1/[1 – (ή/100)]
Conversion factors:
1 m^3 = 35.315 ft^3
1 m^2 = 10.76 ft^2
DF = 1/[1 – (ή/100)]

1 m^3/sec = 2118.88 ft^3/min

Table 8 Drain Line Aerosol Removal Efficiency – Unit 2 "A" MSL					
Segment	Length ft	Diameter inches	Volume ft^3	1/2 Projected Surface Area ft^2	
1	13.2	1.687	0.205	0.929	
2	5.3	2.624	0.198	0.577	
3	11.4	2.624	0.427	1.243	
4	11.8	3.624	0.842	1.774	
5	239.5	3.624	17.156	36.165	
Total	281.2		18.828	40.688	
AEB-98-03 Methodology					
u_s m/sec	Total Surface Area m^2	Total Volume m^3	Settling rate constant λ_s sec^{-1}		
5.25E-05	3.78	0.533	0.000372		
Q (0-24 hrs) ft^3/min	Q (0-24 hrs) m^3/sec	C_{out}/C_{in} (0-24 hrs)	Q (24 hrs-30 day) ft^3/min	Q (24 hrs-30 day) m^3/sec	C_{out}/C_{in} (24 hrs-30 day)
5.9	0.002784	0.933448	2.95	0.001392	0.875202
ή	DF		ή	DF	
6.7	1.07		12.5	1.14	

Per Reference 22, Appendix A, the aerosol removal for the well mixed model is given as follows:
λ_s = rate constant for settling, sec^{-1}
$\lambda_s = u_s * A / V$ and
u_s = settling velocity = 5.25E-05 m/sec (1/4 of 10th percentile value, Reference 22, page A-3)
A = aerosol settling surface area (m^2) conservatively assumed to be ½ of the projected pipe area.
A = surface area (m^2) = ½ of projected area = ½ X diameter X length
V = Volume (m^3) = π/4 X (diameter)^2 X length

$C_{out} / C_{in} = [1 + (\lambda_s * V / Q)]^{-1}$ and
Q = volumetric flowrate (m^3/sec)

ή = [1 – (C_{out} / C_{in})] * 100 where ή = equivalent filter efficiency input to RADTRAD.
DF = 1/[1 – (ή/100)]

Conversion factors:
1 m^3 = 35.315 ft^3
1 m^2 = 10.76 ft^2
1 m^3/sec = 2118.88 ft^3/min
Conversion factors:

Elemental Iodine Removal Efficiency

Elemental Iodine Deposition:

Reference 1, Appendix A Section 6.5 indicates that Reference A-9 provides acceptable methods for deposition of iodine on pipe surfaces. Reference 25, which is Reference A-9 of Regulatory Guide 1.183, is used to determine the deposition and re-suspension of elemental iodine.

Per Reference 25, page 12 the elemental iodine deposition velocity, d_i (cm/sec) is given by:

$d_i = e^{(2809/T-12.8(\pm 0.33))} = e^{(2809/T-12.5)}$ where T = temperature (K). This equation is identical to equation 30 in Reference 2, page 212a for the Bixler model in RADTRAD.

Table 9 provides values for d_i as a function of temperature.

Table 9 Elemental Iodine Deposition Velocity (d_i) versus Temperature

Temperature °F	Temperature K	2809/T-12.5	d_i cm/sec	d_i m/sec
550	560.93	-7.49	5.574E-04	5.574E-06
340	444.26	-6.18	2.076E-03	2.076E-05
320	433.15	-6.01	2.442E-03	2.442E-05
250	394.26	-5.38	4.630E-03	4.630E-05
212	373.15	-4.97	6.928E-03	6.928E-05
150	338.71	-4.21	1.489E-02	1.489E-04
100	310.93	-3.47	3.125E-02	3.125E-04

The elemental iodine deposition rate λ_{ed} (sec^{-1}) = d_i * A / V where:

A = inside surface area (m^2) = π X diameter X length
MSL "A" = 138.6 ft^2 (12.85 m^2)
MSL "B" = 151.0 ft^2 (14.0 m^2)
MSL "D" = 138.6 ft^2 (12.85 m^2)
Drain Piping = 255.65 ft^2 (23.69 m^2)

V = Volume (m^3) = π/4 X (diameter)^2 X length
MSL "A"= 67.8 ft^3 (1.92 m^3)
MSL "B"= 73.9 ft^3 (2.09 m^3)
MSL "D"= 67.8 ft^3 (1.92 m^3)
Drain Piping = 18.83 ft^3 (0.533 m^3)

Table 10 provides values for λ_{ed} for the main steam lines and the drain line piping.
MSL "D"= 67.8 ft^3 (1.92 m^3)

Table 10 Elemental Iodine Deposition Rates (λ_{ed}) for Main Steam Line and Drain Line					
Temperature °F	d_i m/sec	λ_{ed} "A" MSL (sec^{-1})	λ_{ed} "B" MSL (sec^{-1})	λ_{ed} "D" MSL (sec^{-1})	λ_{ed} Drain Line (sec^{-1})
550	5.574E-06	3.729E-05	3.727E-05	3.729E-05	2.477E-04
340	2.076E-05	1.389E-04	1.388E-04	1.389E-04	9.228E-04
320	2.442E-05	1.634E-04	1.633E-04	1.634E-04	1.085E-03
250	4.630E-05	3.097E-04	3.096E-04	3.097E-04	2.057E-03
212	6.928E-05	4.635E-04	4.632E-04	4.635E-04	3.079E-03
150	1.489E-04	9.965E-04	9.959E-04	9.965E-04	6.619E-03
100	3.125E-04	2.091E-03	2.089E-03	2.091E-03	1.389E-02

Elemental Iodine Re-suspension:

Re-suspension rate, λ_{rr} (sec^{-1}) of elemental iodine from Reference 25, page 12 is given by:

$\lambda_{rr} = 2.32(\pm 2.0) * 10^{-5} * e^{-600/T}$ or $4.32 * 10^{-5} * e^{-600/T}$

Table 11 provides values for the re-suspension rate, λ_{rr} for elemental iodine.

Table 11 Elemental Iodine Re-suspension Rates (λ_{rr}) versus Temperature			
Temperature °F	Temperature °K	-600/T	λ_{rr} (sec^{-1})
550	560.93	-1.070	1.482E-05
340	444.26	-1.351	1.119E-05
320	433.15	-1.385	1.081E-05
250	394.26	-1.522	9.431E-06
212	373.15	-1.608	8.653E-06
150	338.71	-1.771	7.348E-06
100	310.93	-1.930	6.272E-06

Net Elemental Iodine Removal:

The net iodine removal is the difference between the deposition rate and the re-suspension rate.
Net Deposition Rate $\lambda_e = \lambda_{ed} - \lambda_{rr}$
Table 12 provides the values.

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Table 12 Net Deposition Rate $\lambda_e = \lambda_{ed} - \lambda_{rr}$					
Temperature °F	λ_{ed} "A" MSL Table 10 (sec^{-1})	λ_{ed} Drain Line Table 10 (sec^{-1})	λ_{rr} Table 11 (sec^{-1})	λ_e "A" MSL $\lambda_{ed} - \lambda_{rr}$ (sec^{-1})	λ_e Drain Line $\lambda_{ed} - \lambda_{rr}$ (sec^{-1})
550	3.729E-05	2.477E-04	1.482E-05	2.247E-05	2.329E-04
340	1.389E-04	9.228E-04	1.119E-05	1.277E-04	9.116E-04
320	1.634E-04	1.085E-03	1.081E-05	1.526E-04	1.074E-03
250	3.097E-04	2.057E-03	9.431E-06	3.003E-04	2.048E-03
212	4.635E-04	3.079E-03	8.653E-06	4.548E-04	3.070E-03
150	9.965E-04	6.619E-03	7.348E-06	9.891E-04	6.612E-03
100	2.091E-03	1.389E-02	6.272E-06	2.084E-03	1.388E-02
Temperature °F	λ_{ed} "B" MSL Table 10 (sec^{-1})		λ_{rr} Table 11 (sec^{-1})	λ_e "B" MSL $\lambda_{ed} - \lambda_{rr}$ (sec^{-1})	
550	3.727E-05		1.482E-05	2.245E-05	
340	1.388E-04		1.119E-05	1.276E-04	
320	1.633E-04		1.081E-05	1.525E-04	
250	3.096E-04		9.431E-06	3.001E-04	
212	4.632E-04		8.653E-06	4.546E-04	
150	9.959E-04		7.348E-06	9.886E-04	
100	2.089E-03		6.272E-06	2.083E-03	
Temperature °F	λ_{ed} "D" MSL Table 10 (sec^{-1})		λ_{rr} Table 11 (sec^{-1})	λ_e "D" MSL $\lambda_{ed} - \lambda_{rr}$ (sec^{-1})	
550	3.729E-05		1.482E-05	2.247E-05	
340	1.389E-04		1.119E-05	1.277E-04	
320	1.634E-04		1.081E-05	1.526E-04	
250	3.097E-04		9.431E-06	3.003E-04	
212	4.635E-04		8.653E-06	4.548E-04	
150	9.965E-04		7.348E-06	9.891E-04	
100	2.091E-03		6.272E-06	2.084E-03	

Equivalent Elemental Iodine Filter Efficiencies (ή) Main Steam Line

Per Reference 22, Appendix A, removal for the well mixed model is given as follows:
Main Steam Line:
$C_{out} / C_{in} = [1 + (\lambda e\ MSL^* V_{msl} / Q_{msl})]^{-1}$ and
Q_{msl} = volumetric flowrate (m^3/sec)
Q_{msl} = 0.000618 m^3/sec (1.31 cfm) (0-24 hrs) and 0.000309 m^3/sec (0.655 cfm) (24 hrs-720 hrs)

V_{mslA} = MSL "A"= 67.8 ft^3 (1.92 m^3)
V_{mslB} = MSL "B"= 73.9 ft^3 (2.09 m^3)
V_{mslD} = MSL "D"= 67.8 ft^3 (1.92 m^3)

$ή = [1 - (C_{out} / C_{in})] * 100$ where ή = equivalent filter efficiency input to RADTRAD.

Table 13 provides the resulting equivalent elemental iodine filter efficiencies for input to RADTRAD for the MSL paths. As seen in Table 13, the effective removal efficiency increases with decreasing temperature of the piping. **This analysis uses the effective removal efficiency values based on 550 °F for the duration of the accident for the main steam piping which is very conservative.**

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Table 13 Equivalent Elemental Iodine Filter Efficiencies (ή) Main Steam Line

Temperature °F	λ_e "A" MSL Table 12 (sec^{-1})	C_{out} / C_{in} 1.31 cfm "A" MSL	ή "A" MSL 1.31 cfm %	C_{out} / C_{in} 0.655 cfm "A" MSL	ή "A" MSL 0.655 cfm %
550	2.247E-05	0.9348	6.52	0.8775	12.25
340	1.277E-04	0.7159	28.41	0.5576	44.24
320	1.526E-04	0.6785	32.15	0.5134	48.66
250	3.003E-04	0.5174	48.26	0.3489	65.11
212	4.548E-04	0.4144	58.56	0.2614	73.86
150	9.891E-04	0.2455	75.45	0.1400	86.00
100	2.084E-03	0.1338	86.62	0.0717	92.83
Temperature °F	λ_e "B" MSL Table 12 (sec^{-1})	C_{out} / C_{in} 1.31 cfm "B" MSL	ή "B" MSL 1.31 cfm %	C_{out} / C_{in} 0.655 cfm "B" MSL	ή "B" MSL 0.655 cfm %
550	2.245E-05	0.9294	7.06	0.8681	13.19
340	1.276E-04	0.6982	30.18	0.5364	46.36
320	1.525E-04	0.6595	34.05	0.4920	50.80
250	3.001E-04	0.4960	50.40	0.3298	67.02
212	4.546E-04	0.3938	60.62	0.2452	75.48
150	9.886E-04	0.2300	77.00	0.1300	87.00
100	2.083E-03	0.1242	87.58	0.0662	93.38
Temperature °F	λ_e "D" MSL Table 12 (sec^{-1})	C_{out} / C_{in} 1.31 cfm "D" MSL	ή "D" MSL 1.31 cfm %	C_{out} / C_{in} 0.655 cfm "D" MSL	ή "D" MSL 0.655 cfm %
550	2.247E-05	0.9348	6.52	0.8775	12.25
340	1.277E-04	0.7159	28.41	0.5576	44.24
320	1.526E-04	0.6785	32.15	0.5134	48.66
250	3.003E-04	0.5174	48.26	0.3489	65.11
212	4.548E-04	0.4144	58.56	0.2614	73.86
150	9.891E-04	0.2455	75.45	0.1400	86.00
100	2.084E-03	0.1338	86.62	0.0717	92.83

Equivalent Elemental Iodine Filter Efficiencies (ή) Main Steam Drain Line

Main Steam Drain Line:
Cout / Cin = $[1 + (\lambda e\ DL^* V_{msdl} / Q_{msdl})]^{-1}$ and
Q_{msdl} = volumetric flowrate (m^3/sec)
Q_{msdl} = 0.002784 m^3/sec (5.9 cfm) (0-24 hrs) and 0.001392 m^3/sec (2.95 cfm) (24 hrs-720 hrs)
V_{msdl} = 0.533 m^3 (18.83 ft^3)

ή = $[1 - (C_{out} / C_{in})] * 100$ where ή = equivalent filter efficiency input to RADTRAD.

Table 14 provides the resulting equivalent elemental iodine filter efficiencies for input to RADTRAD for the Main Steam Drain Line path. As seen in Table 14, the effective removal efficiency increases with decreasing temperature of the piping. **This analysis uses the effective removal efficiency values based on 550 °F for the duration of the accident for the main steam drain line piping which is very conservative.**

Table 14 Equivalent Elemental Iodine Filter Efficiencies (ή) Main Steam Drain Line

Temperature °F	λ_e DL Table 12 (sec^{-1})	C_{out} / C_{in} 5.4 cfm	ή 5.4 cfm %	C_{out} / C_{in} 2.7 cfm	ή 2.7 cfm %
550	2.329E-04	0.9573	4.27	0.9181	8.19
340	9.116E-04	0.8514	14.86	0.7413	25.87
320	1.074E-03	0.8294	17.06	0.7085	29.15
250	2.048E-03	0.7183	28.17	0.5605	43.95
212	3.070E-03	0.6298	37.02	0.4596	54.04
150	6.612E-03	0.4413	55.87	0.2831	71.69
100	1.388E-02	0.2734	72.66	0.1583	84.17

Condenser Removal

NEDC-31858P-A, BWROG Report for Increasing Main Steam Isolation Valve Leakage Rate Limits and Elimination of Leakage Control Systems, Appendix C, Section 7 (Reference 26) provides the BWROG evaluation of the MSIV leakage flow and removal in the BWR condenser. The conclusion reached in Reference 26 was that the BWROG condenser removal model was clearly conservative. It should be noted that the methodology in Reference 26 was based on the TID-14844 iodine species fractions of 91% elemental, 4% organic and 5% particulate. The NRC addressed this issue in Letter from Brenda Mozafari, Division of Licensing Project Management, Office of Nuclear Reactor Regulation to Mr. J. S. Keenan, Brunswick Steam Electric Plant, Carolina Power & Light Company, Southport, North Carolina, Brunswick Steam Electric Plant, Units 1 and 2 – Issuance of Amendment RE: Alternative Source Term (TAC Nos. MB2570 and MD2571) dated 3/30/02, Section 3.2.1.4, pages 14 and 15 (Reference 27), wherein the NRC Office of Nuclear Reactor Regulation to Mr. J. S. Keenan, Brunswick Steam Electric Plant, Carolina Power & Light Company, Southport, North Carolina, Brunswick Steam Electric Plant

states that use of the Reference 26 condenser iodine removal efficiency methodology is bounding for the AST with its 95% aerosol iodine species and 0.15% organic iodine species.

Reference 28 (Attachment 8) provided a SSES specific evaluation of the MSIV leakage dose effects. The condenser equivalent elemental and particulate (aerosol) DF of 250 (filter efficiency of 99.6%) was determined by GE as shown in Attachment 7 and is used herein for input to RADTRAD.

3.22 Minimum Suppression Pool Volume Post LOCA

The volume of water in the suppression pool following a LOCA is conservatively assumed to consist of the suppression pool water volume at low water level plus the normal volume of water in the reactor coolant system. From EC-012-0442, Containment Volume & Weights (Reference 7), the suppression pool low water volume is 122,410 ft^3 and is based on a low water level in the pool of 22 ft. The mass of water in the reactor coolant system is 610,500 lbm. This mass is obtained from EC-PUPC-1001, NEDC-32161P, General Electric Power Uprate Engineering Report For Susquehanna Steam Electric Station, Table A28.1 (Reference 5):
Coolant water volume = 610,500 lbm / 62.4 lb/ft^3 = 9784. ft^3 where use of the 62.4 lb/ft^3 density conservatively minimizes the pool water volume.
Pool Volume Post-LOCA = 122,410. ft^3+ 9784 ft^3 = 132000 ft^3

3.23 ESF Recirculation Leakage Outside Reactor Building

In accordance with Reference 1, Appendix A, Section 5: "ESF systems that recirculate sump water outside of the primary containment are assumed to leak during their intended operation. This release source includes leakage through valve packing glands, pump shaft seals, flanged connections, and other similar components. This release source may also include leakage through valves isolating interfacing systems. The radiological consequences from the postulated leakage should be analyzed and combined with consequences postulated for other fission product release paths to determine the total calculated radiological consequences from the LOCA".

Per Reference 1, Appendix A, Section 5.2: "The leakage should be taken as two times the sum of the simultaneous leakage from all components in the ESF recirculation systems above which the technical specifications, or licensee commitments to Item III.D.1.1 of NUREG-0737, would require declaring such systems inoperable. The leakage should be assumed to start at the earliest time the recirculation flow occurs in these systems and end at the latest time the releases from these systems are terminated."

For SSES the following conservative assumptions are used herein:
ESF Leakage assumed to be 20 gpm = 20 gpm x 1 ft^3/7.48 gal = 2.674 cfm.

The leakage is assumed to begin at time = 0 and continue for the 30 day duration of the LOCA.

ESF Leakage assumed to be 20 gpm = 20 gpm x 1 ft^3/7.48 gal = 2.674 cfm.

In accordance with Reference 1, Appendix A , Section 5.3: with the exception of iodine, all radioactive materials in the recirculating liquid are assumed to be retained in the liquid phase. An analysis of the response of the suppression pool under post-LOCA accident conditions is given in Reference 5, Section A20 for power uprate conditions. For all LOCA cases evaluated, the maximum bulk suppression pool water temperature does not exceed 212. °F. Therefore, per Reference 1, Appendix A, Section 5.5, "If the temperature of the leakage is less than 212°F or the calculated flash fraction is less than 10%, the amount of iodine that becomes airborne should be assumed to be 10% of the total iodine activity in the leaked fluid, unless a smaller amount can be justified based on the actual sump pH history and area ventilation rates."

For this analysis a flash fraction of 10% is conservatively assumed.

The iodine species available for release to the environment from ESF leakage are assumed to be 97% elemental and 3% organic consistent with Reference 1, Appendix A, Section 5.6.

3.24 Control Rom Habitability Envelope (CRHE) Volume

Under LOCA conditions, habitability for the Control Structure Habitability Envelope (CRHE) is provided by the Control Room Emergency Outside Air Supply System (CREOAS). This system provides habitability zone isolation and a positive pressure for the CRHE.
The CRHE is defined for SSES as six separate floors of the control building.

Per EC-030-0502, Control Structure Bldg. Volume (Reference 16), the volume for the CRHE is given as 518,000 ft^3. The Control Room itself has a volume of approximately 110,000 ft^3. Since the CRHE is modeled in RADTRAD as a single node with a volume of 518,000 ft^3, the calculated doses are adjusted for the finite volume with a single area of 110,000 ft^3. As shown in Section 2.3.2 of Reference 2, RADTRAD uses the following factor to determine the external dose or EDE portion of TEDE.

$GF = 1173. / V^{0.338}$
where:
GF = geometry factor
V = control room free volume in ft^3

THE CRHE dose acceptance criteria is given as 5 Rem TEDE. The TEDE (total effective dose equivalent) is defined as the sum of the external dose equivalent (EDE) from external contamination plus the committed effective dose equivalent (CEDE) from internal contamination in NRC Regulatory Issue Summary 2003-04, Use of the Effective Dose Equivalent in Place of the Deep Dose Equivalent in Dose Assessments (Reference 42).

In order to take credit for the radiation shielding effects of the control structure floors, the EDE portion of the TEDE is adjusted by the ratio of the geometry factor GF for 518,000 ft^3 to the GF for 110,000 ft^3 or

$GF = 1173./(518,000)^{0.338} = 13.74$

In order to take credit for the radiation shielding effects of the control structure floors, the EDE

GF = 1173. / $(110{,}000)^{0.338}$ = 23.19
and the resulting ratio = 0.59 [13.74/23.19].

3.25 CRHE post LOCA Isolation Time

The CRHE HVAC system automatically switches to the emergency filtration in the event of a RB HVAC/Secondary Containment Isolation Signal which is initiated by Reactor Vessel Water Level – Low Low Level 2 or Drywell Pressure – High, both of which occur essentially instantaneously at the start of the LOCA.

Therefore, in the RADTRAD model the CRHE isolation is assumed at time equal 0.

3.26 CRHE Emergency Intake Air Flow

Per SSES Units 1&2 Technical Specifications 5.5.7a and 3.3.7.4 (References 34 and 43, respectively), the Control Room Emergency Outside Air System (CREOAS) Filtered Intake Flow ranges from 5229 cfm to 6391 cfm with positive pressure guaranteed at ≤5810 cfm. RADTRAD runs were made at 5229 cfm (Attachments 11 to 16) and 6391 cfm (Attachments 17 and 18) and it was determined that 5229 cfm was marginally limiting. The reason the lower inleakage is conservative is that even though less activity is brought into the CRHE, the outflow which is an activity removal term from the CRHE is larger. The net effect for SSES is that the extra removal outweighs the additional activity over the range of CREOAS and inleakage flow rates considered in this analysis.

3.27 CRHE Unfiltered Air Inleakage Ingress/Egress

In accordance with NUREG-0800, USNRC Standard Review Plan Section 6.4, Control Room Habitability System (Reference 18), 10 cfm of unfiltered inleakage is added to the CRHE to account for ingress/egress of personnel.

3.28 CRHE Unfiltered Air Inleakage Other

500 cfm of unidentified unfiltered inleakage is conservatively assumed in the RADTRAD model. This inleakage bounds the tracer gas test results (including error band) from the December 2004 SSES CRHE inleakage test.

3.29 CRHE Exhaust Flow Rate

CRHE exhaust flow rates need to be explicitly modeled in RADTRAD. The CRHE exhaust flow input to RADTRAD is the sum of the filtered makeup air and unfiltered inleakages to the CRHE.

The CRHE exhaust flow rates range from 5739 cfm [5229 cfm+10 cfm+500 cfm] to 6901 cfm [6391 cfm+10 cfm+500 cfm].
input to RADTRAD is the sum of the filtered makeup air and unfiltered inleakages to the CRHE.

3.30 CSEOAS Intake Filter Bed Depth and Filter Efficiency

The CSEOAS intake filter provides 4 inches SSES SPEC M-325, Technical Specification For Ventilation Filters High Efficiency (Reference 19) of charcoal for filtration. In accordance with Table 2 of Regulatory Guide 1.52 (Reference 15), a charcoal filter efficiency of 99% is assumed for all species of iodine.

3.31 CRHE Operator and Offsite Breathing Rates

Per Reference 1, Section 4.2.6, for the duration of the event, the breathing rate of the CRHE operators should be assumed to be 3.5×10^{-4} m^3/sec.

Per Reference 1, Section 4.1.3, the offsite breathing rates for individuals should be assumed to be:
3.5E-04 m^3/sec (0 – 8 hours)
1.8E-04 m^3/sec (8 – 24 hours)
2.3E-04 m^3/sec (1 – 30 days

3.32 CRHE Operator Occupancy Times

Per Reference 1, Section 4.2.6: The dose receptor for these analyses is the hypothetical maximum exposed individual who is present in the control room for 100% of the time during the first 24 hours after the event, 60% of the time between 1 and 4 days, and 40% of the time from 4 days to 30 days.

3.33 *Offsite and* CRHE χ/Q's

The Offsite χ/Q's are taken from EC-ENVR-1057, Offsite χ/Q Values for the SSES Based on 1999-2003 Meteorological Data (Reference 36).

EAB (2 hr):

(0 - 2 hrs)	8.3E-04 sec/m^3

LPZ

(0 - 8 hrs)	4.9E-05 sec/m^3
(8 - 24 hrs)	3.50E-05 sec/m^3
(24 - 96 hrs)	1.70E-05 sec/m^3
(96 - 720 hrs)	6.10E-06 sec/m^3

The CRHE CREOAS χ/Q's at the RB Unit 2 CRHE Outside Air Intake Location are taken from EC-ENVR-1059 (Reference 37) and shown in Table 15. The CRHE χ/Q's at the location of the control structure, which are used to evaluate the external cloud dose contribution to the CRHE, are taken

The CRHE CREOAS χ/Q's at the RB Unit 2 CRHE Outside Air Intake Location are taken from EC-

from EC-ENVR-1058 (Reference 44) and are also listed in Table 15. Depending on the source of the release following a LOCA the χ/Q value is different.

The primary containment and ESF leakages to the reactor building are released to the environment via the SGTS vent.

The primary containment bypass and MSIV leakages are released to the environment via the Turbine Building exhaust vent. The TB Unit 2 values are used in RADTRAD.

Table 15 CRHE χ/Q's (sec/m3) without Occupancy Correction Factors

Release Point	CRHE χ/Q's (sec/m^3) without Occupancy Correction Factors				
Time Period	0 to 2 hours	2 to 8 hours	8 to 24 hours	1 to 4 days	4 to 30 days
	RB Unit 2 CRHE Outside Air Intake Location (Reference 37)				
TB Unit 1 Exhaust Vent	1.24E-03	9.55E-04	3.14E-04	1.99E-04	1.73E-04
TB Unit 2 Exhaust Vent	1.36E-03	1.03E-03	3.36E-04	2.20E-04	1.85E-04
SGTS Exhaust Vent	1.45E-03	1.12E-03	3.55E-04	2.29E-04	2.01E-04
	Outside Control Building Location (Reference 44)				
TB Unit 1 Exhaust Vent	5.09E-03	4.15E-03	1.20E-03	1.16E-03	1.01E-03
TB Unit 2 Exhaust Vent	6.00E-03	4.93E-03	1.44E-03	1.38E-03	1.21E-03
SGTS Exhaust Vent	5.15E-03	4.22E-03	1.23E-03	1.19E-03	1.04E-03

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Table 16 LOCA Analysis Input, Assumptions and References Summary

	Parameter	Input	Source
1	Core Thermal Power Level	4032 MWt	Reference 11 See Section 3.1
2	Activity Inventory in Core Ci/MWt	60 dose significant isotopes used in RADTRAD	References 2 & 3 Values listed in Section 3.1, Table 1
3	Radioisotope Decay Properties	RADTRAD Table 1.4.3.2-3	Reference 2 See Section 3.2 Values listed in Attachment 5
4	Activity Release to Containment	Per R.G. 1.183 Table 1 (Gap & Early In-Vessel Phases Only)	Reference 1 Values listed in Section 3.3, Table 2
5	Release Timing	Per R.G. 1.183 Table 4	Reference 1 Values listed in Section 3.4, Table 3
6	Radioiodine Chemical Species	95% Aerosol (CsI) 4.85% Elemental 0.15% Organic	Reference 1, Appendix A, Section 2.0. See Section 3.5
7	Primary Containment Volume	Drywell free volume = 239600 ft^3 Wetwell free volume = 148590 ft^3 Total free volume = 388190 ft^3	Reference 7 See Section 3.6
8	Primary Containment Cleanup (Natural Deposition)	Aerosol removal via Natural Deposition (10^{th} percentile Powers Model)	Reference 1, Appendix A, Section 3.2 See Section 3.7
9	Primary Containment Cleanup (Drywell Sprays)	No credit taken	Conservative Assumption See Section 3.8
10	Primary Containment Design Leak Rate	1%/day for first 24 hours; and 0.5%/day thereafter.	Reference 6, Section B3.6.1.1 50% reduction per Reference 1, App. A, Section 3.7 & Reference 29 Additional discussion in Section 3.9

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Table 16 LOCA Analysis Input, Assumptions and References Summary

	Parameter	Input	Source
11	Primary Containment Design Leak Rate into Secondary Containment (RB)	0.9866 %/day for first 24 hours; and 0.4933 %/day thereafter.	Calculated in Section 3.10
12	Containment Bypass Leak Rate	0.0134%/day (0.036 cfm) 0 - 24 hours 0.0067%/day (0.018 cfm) thereafter	Calculated in Section 3.10
13	Offsite Breathing Rates(m^3/sec)	3.5E-04, 0-8 hrs 1.8E-04, 8-24 hrs 2.3E-04, 1-30 d	Reference 1, Section 4.1.3 See Section 3.11
14	Dose Conversion Factors	RADTRAD Table 1.4.3.3-2	Reference 2 Values listed in Attachment 4. See Section 3.12
15	Suppression Pool Scrubbing	Not Credited	Reference 1, Appendix A, 3.5 See Section 3.13
16	Secondary Containment (RB) Free Air Volume	Zone I 1,488,600 ft^3 Zone II 1,598,600 ft^3 Zone III 2,668,000 ft^3 Total Volume = 5,755,200 ft^3	References 8, 9, 10 Accident defined as Unit 1 or Zones I & III isolation with a volume of 4,156,600 ft^3 See Section 3.14
17	Secondary Containment Volume Mixing Fraction / Analysis Volume	50% mixing. RADTRAD Volume = 2,078,300 ft^3	Reference 1, Appendix A, Section 4.4 50 % of 4,156,600 ft^3. See Section 3.14
18	SGTS at Full Flow Post LOCA	30 seconds	Reference 30 See Section 3.15
19	Post-LOCA RB Drawdown Time	10 minutes (Used in analysis)	See Section 3.16.
20	RB Leakage Till End of Drawdown	100 %/day or 2885 cfm for two Zone (I & III) mixing	References 12 and 41 See section 3.17
21	RB Leakage After Drawdown	0 cfm	Section 3.18

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Table 16 LOCA Analysis Input, Assumptions and References Summary

	Parameter	Input	Source
22	SGTS Flow Rate	11,110 cfm for the first 10 minutes and 2885 cfm thereafter	Reference 34 Reference 41 See Section 3.19
23	SGTS Filter Bed Depth	8 in. Charcoal	Reference 14 See Section 3.20
24	SGTS Filter Bed Efficiency	99% for all iodine species	Reference 15 See Section 3.20
25	MSIV Leak Rate	300 scfh (4 lines) modeled as: 100 scfh in one assumed faulted line 66.67 scfh each in the remaining lines	Reference 24 See Section 3.21
26	MSL "C" Faulted Line Length to Condenser	NA Pipe not used for plateout.	Reference 20, 21, 38 See Section 3.21
27	MSL "A" Length/ IDs MSL "B" Length/ IDs MSL "D" Length/ IDs	20.5625 ft./23.647" + 2.5 ft./22.062" 22.5625 ft./23.647" + 2.5 ft./22.062" 20.5625 ft./23.647" + 2.5 ft./22.062"	Reference 20, 21, 38 See Section 3.21
28	MSL Volume – Reactor to Condenser	MSL "A" – 67.8 ft^3 MSL "B" – 73.9 ft^3 MSL "D" – 67.8 ft^3	Calculated in Section 3.21, Table 7
29	MSL Projected Internal Surface Area – For Aerosol Plateout	MSL "A" – 22.1 ft^2 MSL "B" – 24.0 ft^2 MSL "D" – 22.1 ft^2	Calculated in Section 3.21, Table 7
30	MSL Internal Surface Area – For Elemental Plateout	MSL "A" – 136.6 ft^2 MSL "B" – 151.0 ft^2 MSL "D" – 136.6 ft^2	Calculated in Section 3.21, Table 4
31	Leakage Split Between Drain Line and MSL/HPT Pathways to Condenser	98.7%, Drain Line 1.3%, MSL/HPT.	Attachment 7 See Section 3.21

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Table 16 LOCA Analysis Input, Assumptions and References Summary

	Parameter	Input	Source
32	RADTRAD model for Leakage Split Between Drain Line and MSL/HPT Pathways to Condenser	100%, Drain Line	Assumption See section 3.21 for additional discussion.
33	Minimum Drain Line Length Volume Surface Area for Aerosol Plateout Surface Area for Elemental Plateout	281.2 ft 18.828 ft^3 40.688 ft^2 255.65 ft^2	Reference 38. See Section 3.21 Calculated herein – See Table 8 Calculated herein – See Table 8 Calculated herein – See Table 5
34	Effective Aerosol and Elemental Removal for MSIV Path	Table 6	Values calculated in Section 3.21
35	Effective Condenser Volume for Each Pathway	98,601 ft^3	Reference 32 See Section 3.21
36	Effective Removal Efficiency in Condenser for Drain Line Pathway	99.6%, effective on aerosols and elemental iodine No organic iodine removal.	Attachment 7 See Section 3.21
37	Modeled MSIV Leakage – MSL Inlet, Initial Pressure and Temperature.	Drywell Peak Accident Values MSL Pressure = 50 psia MSL Temperature = 340 °F	 SSES FSAR Figure 6.2-11 SSES FSAR Figure 6.2-12 See Section 3.21
38	MSIV Leakage Pressure and Temperature into Condenser	Pressure = 1 atm, Temperature = 100 °F	Consistent with Attachment 7 See Section 3.21
39	MSIV source release timing	Instantaneous	See Section 3.4. See Section 3.21
40	Minimum Suppression Pool Volume Post LOCA	122,410 ft^3 (Low volume based on 22 feet pool level) 610,000 lbm (reactor water mass) 610,000 lbm/62.4 lb/ft^3 = 9776 ft^3 Total: 132,000 ft^3	Reference 7 Reference 5, Table A.28-1 See Section 3.22

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Table 16 LOCA Analysis Input, Assumptions and References Summary

	Parameter	Input	Source
41	ESF System Leakage Source Term to Environment	Iodine only	Reference 1, Appendix A, Section 5.3 See Section 3.23
42	ESF Leakage into RB	20 gpm or 2.674 cfm	See Section 3.23
43	ESF Leakage Outside of the RB	None	No potential leakage path See Section 3.23
44	ESF Leakage post-LOCA Time	Begins at 0 Sec - Ends at 30 Days	See Section 3.23
45	SSES post-LOCA Suppression Pool maximum temperature	< 212 °F	Reference 5, Section A20 See Section 3.23
46	ESF Flash Fraction	10%	Reference 1, Appendix A, Section 5.5 See Section 3.23
47	SP Iodine Species	97% Elemental 3% Organic	Reference 1, Appendix A, Section 5.6 See Section 3.23
48	Iodine Re-evolution	None Assumed Since pH >7	Reference 33 See Section 3.23
49	RB Sump Iodine Species	97% Elemental 3% Organic	Assume same as suppression pool See Section 3.23
50	Control Structure Habitability Envelope Total Volume	518,000 ft^3	Reference 16 See Section 3.24
51	Control Room Free Air Volume	110,000 ft^3	Reference 16 See Section 3.24
52	Geometry Correction Factor	GF = $1173/V^{0.338}$ V= CRHE or Control Room Volume	Reference 2, Section 2.3.2 See section 3.24 for discussion
53	CR Isolation Time	0	See Section 3.25
54	Emergency Intake Air Flow, Total into Control Structure	5229 to 6391 cfm	Reference 43 See Section 3.26
55	Unfiltered Air Inleakage ingress/egress	10 cfm	Reference 18 See Section 3.27

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Table 16 LOCA Analysis Input, Assumptions and References Summary

	Parameter	Input	Source
56	Other Unfiltered Air Inleakage	500 cfm	See Section 3.28
57	CR Exhaust Flow	5739 to 6901cfm	Calculated in Section 3.29
58	Emergency Filter Bed Depth	4 in Charcoal	Reference 19 See Section 3.30
59	Emergency Filter Bed Removal Efficiency	99%	Reference 15 See Section 3.30
60	Operator Breathing Rates	3.5E-04 m^3/sec (0 – 30 days)	Reference 1, Section 4.2.6
	Offsite Breathing Rates	3.5E-04 m^3/sec (0 – 8 hours) 1.8E-04 m^3/sec (8 – 24 hours) 2.3E-04 m^3/sec (1 – 30 days)	Reference 1, Section 4.1.3 See Section 3.31
61	Operator Occupancy Factors	1.0 0-24 hrs 0.6 1-4 days 0.4 4-30 days	Reference 1, Section 4.2.6 See Section 3.32
62	χ/Q	EAB: (0 - 2 hrs) 8.3E-04 sec/m3 LPZ: (0 - 8 hrs) 4.9E-05 sec/m3 (8 - 24 hrs) 3.50E-05 sec/m3 (24 - 96 hrs) 1.70E-05 sec/m3 (96 - 720 hrs) 6.10E-06 sec/m3 CRHE χ/Q values listed on Table 15.	Reference 36 References 37 and 44 See Section 3.33

4.0 METHOD

The offsite and CRHE doses are calculated using the RADTRAD computer code and the input and assumptions listed in Table 16. Figure 1 provides a graphic representation of the release paths for the LOCA.

The RADTRAD control files for the RADTRAD runs are provided in Attachments 1 through 6.

As previously noted there are different χ/Q values for the CRHE depending on the release path. Table 17 provides the CRHE 0 to 2 hour χ/Q corresponding to the release point and the release rate from each release path. For determining the activity concentrations potentially entering the CRHE outside air intake the χ/Q's at the RB Unit 2 CRHE Outside Air Intake Location are used. For determining the unprotected CRHE dose for use in calculating the CRHE external cloud dose, the χ/Q's for the Outside Control Building Location are used. A complete list of the χ/Q's for all of the time periods is provided in Table 15. The LOCA is assumed to occur in Unit 2 since this leads to the most conservative values for the χ/Q's, reactor building volume and MSIV leakage path plateout.

Table 17 Post LOCA Release Paths

Release Path	Release Rate	Release Point	CRHE χ/Q 0-2 hr sec/m^3 (1)	CRHE χ/Q 0-2 hr sec/m^3 (2)
RB Bypass	0.0134 %/day (0-1 d) 0.0067 %/day(1-30 d)	TB EV	1.36E-03	6.00E-03
SGTS Discharge	11,100 cfm (0-10 min) 2885 cfm (10 min-30 d)	SGTS	1.45E-03	5.15E-03
ESF Leakage	2.674 cfm (0-30 d)	SGTS	1.45E-03	5.15E-03
MSIV Leakage	300 scfh (0-1 d) 150 scfh (1-30 d)	TB EV	1.36E-03	6.00E-03

(1). RB Unit 2 CRHE Outside Air Intake Location (Reference 37)
(2). Outside Control Building Location (Reference 44)

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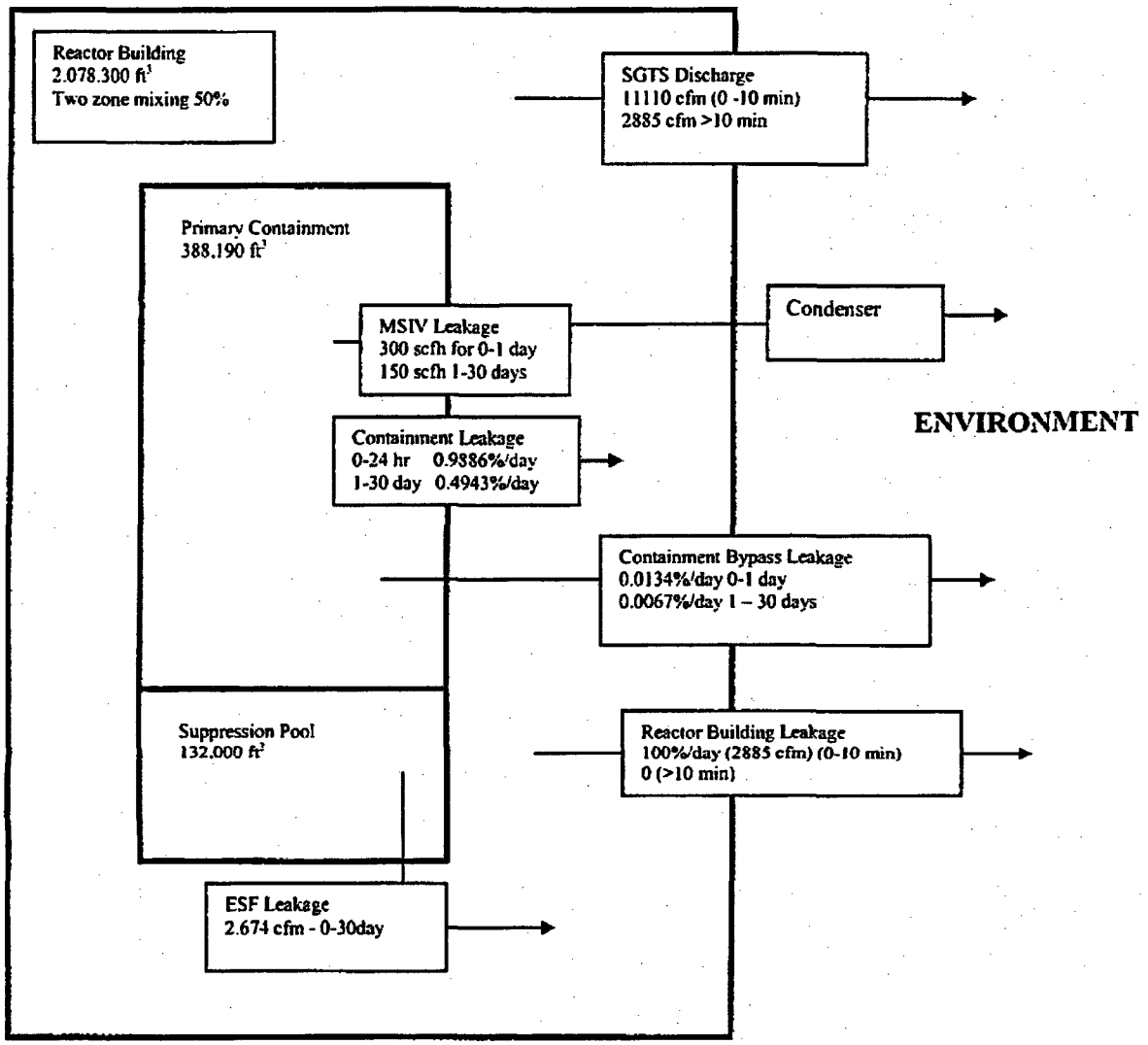
Figure 1



5.0 RESULTS

The RADTRAD output files are provided on Attachments 11 to 18.

5.1 Protected CRHE Doses from Infiltration

The protected CRHE doses from the RADTRAD runs for activity infiltrating the CRHE are summarized in Table 18. The CRHE dose acceptance criterion is 5 Rem TEDE.

Table 18 CRHE Dose Results from Infiltration

Release Path	Rem TEDE	Rem CEDE	Rem EDE	Adjusted Rem EDE (1)	Adjusted Rem TEDE (2)	Attachment
RB SGTS						
CREOAS 5739 cfm 0-720 hr	1.65	0.45	1.20	0.71	1.16	11
ESF						
CREOAS 5739 cfm 0-720 hr	1.39	1.09	0.30	0.18	1.27	12
Bypass						
CREOAS 5739 cfm 0-2 hr	0.51	0.50	0.01	0.01	0.50	13
CREOAS 5739 cfm 2-720 hr	0.65	0.61	0.04	0.03	0.64	14
MSIV						
CREOAS 5739 cfm 0-2hr	0.02	0.00	0.01	0.01	0.01	15
CREOAS 5739 cfm 2-720 hr	0.46	0.21	0.26	0.15	0.35	16
TOTAL					**3.93**	
CREOAS 6391 cfm (3)						
MSIV CREOAS 2-720 hr	0.45	0.17	0.27	0.16	0.33	17
RB SGTS 0-720 hr	1.61	0.39	1.22	0.72	1.11	18

1. TEDE = CEDE + EDE. Adjusted Rem EDE equals the Rem EDE from RADTRAD times the finite volume correction of 0.59 (See Section 3.24).
2. Adjusted Rem TEDE equals the Rem CEDE from RADTRAD plus the Adjusted Rem EDE.
3. These runs demonstrate that the use of the lower bound CREOAS flow is conservative.

5.2 Effluent Cloud Shine Dose to the CRHE

The direct shine to the control structure from the post-LOCA effluent cloud is evaluated by applying dose reduction factors for control structure radiation shielding to the RADTRAD unprotected whole body doses. The cloud shine dose is calculated as follows:

Cloud Shine Dose = Unprotected Dose X RF
where:
Cloud Shine Dose = Direct dose inside the control structure from the post-LOCA effluent cloud.
Unprotected Dose = Total control room unprotected whole body dose.
RF = Direct dose reduction factor for control structure radiation shielding.
RF = $B\ e^{-(\mu\rho)\,x}$

where:
B = buildup factor for shielding configuration
$\mu\rho$ = total linear attenuation factor (cm^{-1})
x = thickness of concrete shielding provided by control structure (cm)

An average gamma energy of 1.0 Mev is conservatively assumed for this analysis. Therefore, from Table 5-2 of Reference 46 for ordinary concrete:

μ(1.0 Mev) = 0.0637 cm^2/gm where ρ concrete = 2.35 gm/cm^3.
Therefore: $\mu\rho$ = 0.15 cm^{-1}

The layout and dimensions of the control structure are given in the drawings listed as Reference 45. The side walls of the control structure provide a minimum radiation shield thickness of 2.5 ft of concrete shielding for the effluent cloud. Elevation 806' of the control structure is not part of the habitability envelope. Floor elevation 806' provides a minimum of 1'-9" of concrete. The roof at control structure roof at elevation 825' is 2 ft of concrete.

For 2.5' of concrete:

μx = 0.15/cm X 2.5 ft X 30.48 cm/ft = 11.4

B(μx) at 1.0 Mev = 23.8 (obtained by interpolation of data given in Table 5.5 of Reference 44)

RF for 2.5 ' concrete = $Be^{-\mu x} = 23.8e^{-11.4}$ = 2.67E-04

For 1.75' of concrete:

μx = 0.15/cm X 1.75 ft X 30.48 cm/ft = 8.0

For 1.75' of concrete:

B(μx) at 1.0 Mev = 14.7 (obtained by interpolation of data given in Table 5.5 of Reference 46)

$RF = Be^{-\mu x} = 14.7e^{-8} = 4.93E\text{-}03$

The effluent cloud shine dose inside the control structure habitability envelope is calculated assuming a minimum of 2.5 ft of concrete shielding for the outside walls.

The direct shine dose contribution from Elevation 806' of the control structure is calculated assuming a minimum of 1'-9" of concrete shielding for the floor. Since elevation 806' is not part of the habitability envelop, a direct shine dose through 1'-9" floor slab will also result from the activity contained on this elevation. Dimensions for elevation 806' of the control structure are 58 ft x 131 ft x 19 ft . Therefore, the volume is 144,362 ft^3. The dose contribution from elevation 806' is a finite dose. The geometry factor is:

$GF = 1173. / V^{0.338}$; where V is volume in cubic feet
$GF = 1173./ (144{,}362)^{0.338} = 21.2$

The cloud shine inside the control structure habitability envelope from elevation 806' is calculated by multiplying the control room unprotected dose by the radiation shielding reduction factor and dividing by the finite volume geometry factor or
RF for 806' = 4.93E-03/ 21.2 = 2.33E-04

The resulting dose contributions are given in Table 19 as a function of time and release path. The activity source terms used in this evaluation are based on Regulatory Guide 1.183 Alternate Source Term (AST) Methodology. The AST source term for the DBA-LOCA uses the 60 dose *significant isotopes* identified in Reference 2 for use in the RADTRAD computer code. The 60 radionuclides that are contained in the RADTRAD code were selected based upon a study that determined that those 60 radionuclides have the greatest impact on offsite dose. In order to use this same source term and RADTRAD results for direct shine dose calculations, an analysis was performed for direct doses to determine correction factors for the doses to reflect consideration of additional isotopes. EC-RADN-1135, Justification of AST 60 Isotope RADTRAD Source Term For Direct Shine (Reference 48) provides this evaluation and furnishes correction factors as a function of time and shielding. Tables 20 provides the factors developed in Reference 48 for the AST airborne sources. The isotope correction factors from the 3 foot concrete case are conservatively applied for the external cloud shine doses in Table 21 and the 806' elevation shine doses in Table 22.

NOTE: Conservatively, no credit is taken for the CRHE occupancy factors of 100% of the time during the first 24 hours after the event, 60% of the time between 1 and 4 days, and 40% of the time from 4 days to 30 days (See section 3.32).

during the first 24 hours after the event, 60% of the time between 1 and 4 days, and 40% of the time from 4 days to 30 days (See section 3.32).

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Table 19 AST Airborne Sources - Comparison of Direct Shine Dose Resultd for 183 Isotope and 60 Isotope RADTRAD AST Sources

Time Post-Accident (hrs)	Ratio Of Dose Rates 183 Isotopes / 60 RADTRAD Isotopes						
	Unshielded	6 In Concrete	1 Ft Concrete	1.5 Ft Concrete	2 Ft Concrete	2.5 Ft Concrete	3 Ft Concrete
1	1.185	1.207	1.237	1.271	1.302	1.332	1.364
2	1.13	1.13	1.15	1.16	1.17	1.17	1.25
4	1.07	1.07	1.10	1.11	1.09	1.1	1.15
8	1.040	1.037	1.033	1.034	1.041	1.052	1.065
16	1.02	1.01	1.01	1.01	1.01	1.01	1.02
24	1.016	1.012	1.010	1.008	1.007	1.007	1.008

Table 20 Unprotected Cloud Dose Rem EDE

Time (hrs)	RBSGTS Attachment 11	ESF Attachment 12	BYPASS Attachment 13	BYPASS Attachment 14	MSIV Attachment 15	MSIV Attachment 16	Total Unprotected Cloud Dose Rem EDE
0.5	3.437E-02	5.557E-03	1.139E-01		6.714E-02		2.210E-01
2	2.108E+00	3.767E-02	2.154E+00		1.132E+00		5.432E+00
8	3.428E+01	2.616E+00		3.428E+00		5.136E+00	4.546E+01
24	1.867E+01	7.130E+00		5.347E-01		3.382E+00	2.972E+01
96	2.089E+01	1.257E+01		3.297E-01		5.868E+00	3.966E+01
120	3.449E+00	1.092E+00		6.228E-02		1.840E+00	6.443E+00
240	1.162E+01	3.510E+00		2.134E-01		8.751E+00	2.409E+01
480	8.829E+00	2.331E+00		1.735E-01		1.046E+01	2.179E+01
720	2.265E+00	4.790E-01		5.048E-02		3.689E+00	6.483E+00
TOTAL	1.021E+02	2.977E+01	2.268E+00	4.792E+00	1.199E+00	3.913E+01	1.793E+02

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Table 21 CRHE Dose Results from External Cloud Shine

Time Post-Accident (hrs)	Total Unprotected Cloud Dose Rem EDE	Reduction 2.5' Concrete	Dose Adjustment Factor 3' Concrete Reference 48	Cloud Dose Corrected (Rem)
0.5	2.210E-01	2.647E-04	1.364	7.978E-05
2	5.432E+00	2.647E-04	1.364	1.961E-03
8	4.546E+01	2.647E-04	1.250	1.504E-02
24	2.972E+01	2.647E-04	1.065	8.377E-03
96	3.966E+01	2.647E-04	1.000	1.050E-02
120	6.443E+00	2.647E-04	1.000	1.706E-03
240	2.409E+01	2.647E-04	1.000	6.378E-03
480	2.179E+01	2.647E-04	1.000	5.769E-03
720	6.483E+00	2.647E-04	1.000	1.716E-03
TOTAL	1.793E+02			5.153E-02

Table 22 CRHE Dose Results from Elevation 806' Cloud Shine

Time Post-Accident (hrs)	Total Unprotected Cloud Dose Rem EDE	Dose Adjustment Factor: 1'-9" concrete, geometry factor 21.2	Dose Adjustment Factor 1'-9" Concrete Reference 48	CRHE Elev 806' EDE Shine Rem "
0.5	2.210E-01	2.330E-04	1.364	7.023E-05
2	5.432E+00	2.330E-04	1.364	1.726E-03
8	4.546E+01	2.330E-04	1.250	1.324E-02
24	2.972E+01	2.330E-04	1.065	7.374E-03
96	3.966E+01	2.330E-04	1.000	9.240E-03
120	6.443E+00	2.330E-04	1.000	1.501E-03
240	2.409E+01	2.330E-04	1.000	5.614E-03
480	2.179E+01	2.330E-04	1.000	5.078E-03
720	6.483E+00	2.330E-04	1.000	1.511E-03
TOTAL	1.793E+02			4.535E-02

5.3 Total CRHE Dose

The protected CRHE doses for activity infiltrating the CRHE is 3.93 Rem TEDE.

The CRHE dose from the external cloud shine is 0.0515 Rem EDE.

The CRHE dose from the elevation 806' cloud shine is 0.0454 Rem EDE.

5.4 EAB and LPZ doses

The results of the EAB and LPZ doses from RADTRAD runs are summarized in Table 23. The EAB and LPZ dose acceptance criterion is 25 Rem TEDE. The EAB dose is for the worst two hour period at this location.

Table 23 EAB and LPZ Dose Results			
Release Path	EAB Dose Rem TEDE	LPZ Dose Rem TEDE	Attachment
Acceptance Criterion	25	25	
RB SGTS			
CREOAS 5739 cfm 0-720 hr	3.07	1.63	11
ESF			
CREOAS 5739 cfm 0-720 hr	0.95	1.13	12
Bypass			
CREOAS 5739 cfm 0-2 hr	3.44	0.20	13
CREOAS 5739 cfm 2-720 hr	NA	0.38	14
MSIV			
CREOAS 5739 cfm 0-2hr	NA	0.01	15
CREOAS 5739 cfm 2-720 hr	0.35	0.45	16
TOTAL	**7.81**	**3.80**	

5.5 Activity Released to Environment

The isotopic activity released to the environment as a function of time is shown in Table 24. The activities are taken from Attachments 11 through 16.

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Table 24 Activity Released to Environment as a Function of Time

Time	0.5 hr	2 hr	8 hr	24 hr	96 hr	240 hr	480 hr	720 hr
Isotope	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58	0.00E+00	5.35E-03	1.44E-02	1.83E-02	1.97E-02	1.97E-02	1.97E-02	1.97E-02
Co-60	0.00E+00	2.88E-03	7.76E-03	9.87E-03	1.06E-02	1.06E-02	1.06E-02	1.06E-02
Kr-85	6.51E-01	3.79E+01	1.17E+03	9.11E+03	4.01E+04	1.10E+05	2.50E+05	4.07E+05
Kr-85m	1.11E+01	5.40E+02	9.31E+03	2.22E+04	2.36E+04	2.36E+04	2.36E+04	2.36E+04
Kr-87	1.92E+01	6.01E+02	3.31E+03	3.60E+03	3.60E+03	3.60E+03	3.60E+03	3.60E+03
Kr-88	2.99E+01	1.31E+03	1.67E+04	2.78E+04	2.80E+04	2.80E+04	2.80E+04	2.80E+04
Rb-86	1.62E-02	2.33E-01	5.53E-01	7.08E-01	7.79E-01	8.11E-01	8.39E-01	8.51E-01
Sr-89	0.00E+00	7.42E+00	2.00E+01	2.54E+01	2.73E+01	2.73E+01	2.73E+01	2.73E+01
Sr-90	0.00E+00	9.47E-01	2.55E+00	3.25E+00	3.49E+00	3.49E+00	3.49E+00	3.49E+00
Sr-91	0.00E+00	8.47E+00	2.08E+01	2.33E+01	2.36E+01	2.36E+01	2.36E+01	2.36E+01
Sr-92	0.00E+00	6.82E+00	1.39E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
Y-90	0.00E+00	1.55E-02	7.38E-02	1.73E-01	2.51E-01	2.52E-01	2.52E-01	2.52E-01
Y-91	0.00E+00	9.77E-02	2.68E-01	3.49E-01	3.80E-01	3.80E-01	3.80E-01	3.80E-01
Y-92	0.00E+00	8.42E-01	3.95E+00	4.80E+00	4.82E+00	4.82E+00	4.82E+00	4.82E+00
Y-93	0.00E+00	6.95E-02	1.72E-01	1.94E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
Zr-95	0.00E+00	1.39E-01	3.73E-01	4.74E-01	5.10E-01	5.10E-01	5.10E-01	5.10E-01
Zr-97	0.00E+00	1.29E-01	3.29E-01	3.86E-01	3.94E-01	3.94E-01	3.94E-01	3.94E-01
Nb-95	0.00E+00	1.39E-01	3.74E-01	4.75E-01	5.11E-01	5.11E-01	5.11E-01	5.11E-01
Mo-99	0.00E+00	1.80E+00	4.77E+00	5.92E+00	6.24E+00	6.25E+00	6.25E+00	6.25E+00
Tc-99m	0.00E+00	1.61E+00	4.33E+00	5.44E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00
Ru-103	0.00E+00	1.55E+00	4.18E+00	5.31E+00	5.70E+00	5.70E+00	5.70E+00	5.70E+00
Ru-105	0.00E+00	8.47E-01	1.90E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00
Ru-106	0.00E+00	6.19E-01	1.67E+00	2.12E+00	2.28E+00	2.28E+00	2.28E+00	2.28E+00
Rh-105	0.00E+00	1.00E+00	2.67E+00	3.30E+00	3.45E+00	3.45E+00	3.45E+00	3.45E+00
Sb-127	0.00E+00	1.68E+00	4.47E+00	5.59E+00	5.93E+00	5.93E+00	5.93E+00	5.93E+00
Sb-129	0.00E+00	4.91E+00	1.10E+01	1.15E+01	1.15E+01	1.15E+01	1.15E+01	1.15E+01
Te-127	0.00E+00	1.68E+00	4.52E+00	5.72E+00	6.10E+00	6.10E+00	6.10E+00	6.10E+00
Te-127m	0.00E+00	2.87E-01	7.73E-01	9.84E-01	1.06E+00	1.06E+00	1.06E+00	1.06E+00
Te-129	0.00E+00	5.45E+00	1.29E+01	1.43E+01	1.45E+01	1.45E+01	1.45E+01	1.45E+01
Te-129m	0.00E+00	1.20E+00	3.24E+00	4.11E+00	4.42E+00	4.42E+00	4.42E+00	4.42E+00
Te-131m	0.00E+00	3.75E+00	9.79E+00	1.18E+01	1.23E+01	1.23E+01	1.23E+01	1.23E+01
Te-132	0.00E+00	2.74E+01	7.31E+01	9.10E+01	9.63E+01	9.63E+01	9.63E+01	9.63E+01
I-131	8.47E+00	1.38E+02	4.47E+02	1.17E+03	3.95E+03	7.68E+03	1.07E+04	1.19E+04
I-132	1.16E+01	1.72E+02	3.83E+02	4.26E+02	4.33E+02	4.33E+02	4.33E+02	4.33E+02
I-133	1.74E+01	2.76E+02	8.38E+02	1.77E+03	2.97E+03	3.09E+03	3.09E+03	3.09E+03
I-134	1.51E+01	1.14E+02	1.58E+02	1.59E+02	1.59E+02	1.59E+02	1.59E+02	1.59E+02
I-135	1.62E+01	2.37E+02	6.31E+02	9.29E+02	9.97E+02	9.97E+02	9.97E+02	9.97E+02
Xe-133	9.33E+01	5.42E+03	1.65E+05	1.24E+06	4.98E+06	9.73E+06	1.30E+07	1.40E+07
Xe-135	3.13E+01	1.95E+03	5.98E+04	3.19E+05	5.37E+05	5.39E+05	5.39E+05	5.39E+05
Cs-134	1.72E+00	2.48E+01	5.88E+01	7.55E+01	8.36E+01	8.79E+01	9.29E+01	9.61E+01
I-135	1.62E+01	2.37E+02	6.31E+02	9.29E+02	9.97E+02	9.97E+02	9.97E+02	9.97E+02

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Table 24 Activity Released to Environment as a Function of Time

Time	0.5 hr	2 hr	8 hr	24 hr	96 hr	240 hr	480 hr	720 hr
Isotope	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Cs-136	5.49E-01	7.88E+00	1.87E+01	2.38E+01	2.62E+01	2.71E+01	2.79E+01	2.82E+01
Cs-137	1.29E+00	1.86E+01	4.42E+01	5.69E+01	6.29E+01	6.62E+01	7.00E+01	7.25E+01
Ba-139	0.00E+00	6.63E+00	1.13E+01	1.14E+01	1.14E+01	1.14E+01	1.14E+01	1.14E+01
Ba-140	0.00E+00	1.41E+01	3.79E+01	4.80E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01
La-140	0.00E+00	2.85E-01	1.51E+00	3.67E+00	5.25E+00	5.26E+00	5.26E+00	5.26E+00
La-141	0.00E+00	9.82E-02	2.16E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.25E-01
La-142	0.00E+00	6.40E-02	1.13E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01
Ce-141	0.00E+00	3.25E-01	8.74E-01	1.11E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00
Ce-143	0.00E+00	2.92E-01	7.65E-01	9.29E-01	9.66E-01	9.66E-01	9.66E-01	9.66E-01
Ce-144	0.00E+00	2.73E-01	7.36E-01	9.36E-01	1.01E+00	1.01E+00	1.01E+00	1.01E+00
Pr-143	0.00E+00	1.16E-01	3.15E-01	4.03E-01	4.35E-01	4.35E-01	4.35E-01	4.35E-01
Nd-147	0.00E+00	5.22E-02	1.40E-01	1.77E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
Np-239	0.00E+00	3.76E+00	9.96E+00	1.23E+01	1.30E+01	1.30E+01	1.30E+01	1.30E+01
Pu-238	0.00E+00	8.23E-04	2.22E-03	2.82E-03	3.03E-03	3.03E-03	3.03E-03	3.03E-03
Pu-239	0.00E+00	8.74E-05	2.36E-04	3.00E-04	3.23E-04	3.23E-04	3.23E-04	3.23E-04
Pu-240	0.00E+00	1.41E-04	3.79E-04	4.82E-04	5.18E-04	5.18E-04	5.18E-04	5.18E-04
Pu-241	0.00E+00	3.47E-02	9.34E-02	1.19E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01
Am-241	0.00E+00	1.84E-05	4.95E-05	6.30E-05	6.78E-05	6.78E-05	6.78E-05	6.78E-05
Cm-242	0.00E+00	4.81E-03	1.29E-02	1.65E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
Cm-244	0.00E+00	2.82E-04	7.59E-04	9.66E-04	1.04E-03	1.04E-03	1.04E-03	1.04E-03
SUM	2.58E+02	1.10E+04	2.58E+05	1.63E+06	5.62E+06	1.04E+07	1.39E+07	1.50E+07

6.0 REFERENCES

1. USNRC Regulatory Guide 1.183, Alternative Radiological Source Terms For Evaluating Design Basis Accidents At Nuclear Power Reactors, July 2000.
2. NUREG/CR-6604, RADTRAD: A Simplified Model for RADionuclide Transport and Removal And Dose Estimation, and Supplement 1, 6/8/99.
3. PPL Calculation EC-FUEL-1615, AREVA Alternative Source Term (AST) Fission Product Inventory for Atrium-10 Fuel, Revision 1.
4. USNRC Regulatory Guide 1.3, Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss OF Coolant Accident for Boiling Water Reactors, 3/74.
5. Calculation EC-PUPC-1001, NEDC-32161P, General Electric Power Uprate Engineering Report For Susquehanna Steam Electric Station, Revision 6, 5/24/04.
6. SSES Units 1&2 Technical Specifications, Section 3.6.1.1 and Primary Containment and Technical Specification Bases, B3.6.1.1(Amendment 178/151).
7. PPL Calculation EC-012-0442, Containment Volume & Weights, Revision 0.
8. PPL Calculation EC-034-0011, Free Volumes of Rooms & Areas in Ventilation Zone I & Zone II of Reactor Building, Revision 0.
9. PPL Calculation EC-034-0041, Reactor Bldg Zone III Free Air Volume - U2 Only, Revision 1.
10. PPL Calculation EC-034-0040, Reactor Bldg Zone III Free Air Volume - U1 Only, Revision 2.
11. SSES EPUMELLA+ Design Report Request T0200, Core Design, Revision 0.
12. PPL Calculation EC-034-0015, Recirc Syst. & SGTS Flow Rates After Reactor Building Zone(S) Isolation, Revision 2.
13. Not Used.
14. SSES SPEC M-321, Technical Specification For Standby Gas Treatment System For SSES Units 1 & 2, Revision 7.
15. USNRC Regulatory Guide 1.52, Design, Testing and Maintenance Criteria For Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration And Adsorption Units Of Light-Water-Cooled Nuclear Power Plants, Revision 2, March 1978.
16. PPL Calculation EC-030-0502, Control Structure Bldg. Volume, Revision 0, 12/17/93.
17. SSES Drawing E106283, Sheet 1, Revision 30.
18. NUREG-0800, USNRC Standard Review Plan Section 6.4, Control Room Habitability System, Revision 2.
19. SSES SPEC M-325, Technical Specification For Ventilation Filters High Efficiency, Revision 5.
20. SSES Piping Isometric Drawings: FCIP-51-2951-1 R3.
21. PPL Letter PLG-4029, Crowthers to Green (GE), Susquehanna Steam Electric Station BWROG MSIV Leakage Closure Committee PP&L Radiological Evaluation, 11/16/93 (File A17-14, P145-1).
22. AEB-98-03, Assessment of Radiological Consequences for the Perry Pilot Plant Application using the Revised (NUREG-1465) Source Term, 12/9/98.
23. Letter from Fermi 2 to USNRC, NRC-03-0095, Response to NRC Request for Additional Information Regarding the Implementation of Alternative Source Term, NRC Docket No. 50-341, 12/12/03.

using the Revised (NUREG-1465) Source Term, 12/9/98.

24. SSES Technical Specification Surveillance Requirement 3.6.1.3.12, Amendment 190.
25. J. E. Cline, MSIV Leakage Iodine Transport Analysis, Letter Report, 3/26/1991 (ADAMS Accession Number ML003683718).
26. NEDC-31858P-A, BWROG Report for Increasing Main Steam Isolation Valve Leakage Rate Limits and Elimination of Leakage Control Systems, dated August, 1999.
27. Letter from Brenda Mozafari, Division of Licensing Project Management, Office of Nuclear Reactor Regulation to Mr. J. S. Keenan, Brunswick Steam Electric Plant, Carolina Power & Light Company, Southport, North Carolina, Brunswick Steam Electric Plant, Units 1 and 2 – Issuance of Amendment RE: Alternative Source Term (TAC Nos. MB2570 and MD2571) dated 3/30/02.
28. GE Letter from T. A. Green, Senior Technical Manager, BWR Owners Group Project to Michael Caruthers, PPL, OG94-574-09, Susquehanna Dose Calculations in Accordance With the BWROG Radiological Dose Methodology, 7/26/94. (ATTACHMENT 8).
29. PPL Drawing C 206-130, Sheet 1, Primary Containment Zones, Revision 6.
30. PPL Calculation EC-070-0526, SGTS Drawdown Analysis, Revision 1.
31. GE Letter from T. A. Green, Senior Technical Manager, BWR Owners Group Project to Michael Caruthers, PPL, OG93-1021-09, Susquehanna Dose Calculations in Accordance With the BWROG Radiological Dose Methodology (Revision 1), 12/2/93. (ATTACHMENT 9).
32. PP&L Letter PLA-4274, Byram to USNRC, Susquehanna Steam Electric Station Main Steam Isolation Valve/Leakage Control System: Response to Request for Additional Information, Committee PP&L Radiological Evaluation", 2/21/95 (File A17-2, R41-2). (ATTACHMENT 10).
33. PPL Calculation EC-059-1041, Suppression Pool pH post LOCA, Revision 1.
34. SSES Units 1&2 Technical Specifications 5.5.7a (Amendment 178/151.)
35. EC-RADN-1095, Evaluation of Offsite and Control Room Doses Assuming 20 GPM of ESF Leakage Into Secondary Containment, Revision 2.
36. PPL Calculation EC-ENVR-1057, Offsite χ/Q Values for the SSES Based on 1999-2003 Meteorological Data, Revision 0.
37. PPL Calculation EC-ENVR-1059, CRHE Accident Dispersion Factors (χ/Q) RB U2 Intake, Revision 0.
38. PPL Calculation EC-083-0512, MSIV-LCS Radiological Dose Calculation Data Sheet – Data Verification, Revision 3.
39. Federal Guidance Report No. 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," EPA 520/1-88-020,Environmental Protection Agency, Washington, DC (1988).
40. Federal Guidance Report No. 12, "External Exposure to Radionuclides in Air, Water and Soil, "EPA 420-R-93-081, Environmental Protection Agency, Washington, DC, 1993.
41. SSES Units 1&2 Technical Specifications 3.6.4.1 (Amendment 178/151) & B3.6.4.1.4 (Revision 3).
42. NRC Regulatory Issue Summary 2003-04, Use of the Effective Dose Equivalent in Place of the Deep Dose Equivalent in Dose Assessments, 2/13/2003.
43. SSES Units 1&2 Technical Specifications 3.7.3.4 (Amendment 178/151).
44. PPL Calculation EC-ENVR-1058, CRHE Accident Dispersion Factors (χ/Q), Revision 0.

Deep Dose Equivalent in Dose Assessments, 2/13/2003.

45. PP&L Civil Drawings: E105526, Sheet 1, Revision 8
E105526, Sheet 2, Revision 19
E105527, Sheet 1, Revision 6
E105529, Sheet 1, Revision 9.
46. J. C. Courtney, Editor, A Handbook of Radiation Shielding Data, Louisiana State University, July, 1976.
47. NDAP-QA-0412, Leakage Rate Test Program, Revision 9.
48. PPL Calculation EC-RADN-1135, Justification Of AST 60 Isotope RADTRAD Source Term For Direct Shine, Revision 0.

Attachment 1 RADTRAD Control File Release Fraction and Timing SSES-DBA.rft

```
Release Fraction and Timing Name:SSES_DBA.rft
 BWR, RG 1.183, Table 1 Section 3.2
 Duration (h):   Design Basis Accident
  0.5000E+00  0.1500E+01  0.0000E+00  0.0000E+00
 Noble Gases:
  0.5000E-01  0.9500E+00  0.0000E+00  0.0000E+00
 Iodine:
  0.5000E-01  0.2500E+00  0.0000E+00  0.0000E+00
 Cesium:
  0.5000E-01  0.2000E+00  0.0000E+00  0.0000E+00
 Tellurium:
  0.0000E+00  0.0500E+00  0.0000E+00  0.0000E+00
 Strontium:
  0.0000E+00  0.2000E-01  0.0000E+00  0.0000E+00
 Barium:
  0.0000E+00  0.2000E-01  0.0000E+00  0.0000E+00
 Ruthenium:
  0.0000E+00  0.2500E-02  0.0000E+00  0.0000E+00
 Cerium:
  0.0000E+00  0.5000E-03  0.0000E+00  0.0000E+00
 Lanthanum:
  0.0000E+00  0.2000E-03  0.0000E+00  0.0000E+00
 Non-Radioactive Aerosols (kg):
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 End of Release File
```

Attachment 2 RADTRAD Control File Release Fraction and Timing MSIV-IMREL.rft

```
Release Fraction and Timing Name: MSIV-imrel.rft
 FOR SSES MSIV and immediate release assumption
 Duration (h):
  0.1000E-05  0.0000E+00  0.0000E+00  0.0000E+00
 Noble Gases:
  0.1000E+01  0.0000E+00  0.0000E+00  0.0000E+00
 Iodine:
  0.3000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Cesium:
  0.2500E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Tellurium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Strontium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Barium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Ruthenium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Cerium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Lanthanum:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 Non-Radioactive Aerosols (kg):
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 End of Release File
```

Attachment 3 RADTRAD Control File Release Fraction and Timing SSES-ESF.rft

```
Release Fraction and Timing Name: SSES_ESF.RFT
 BWR, NUREG-1465, Tables 3.11 & 3.13, June 1992
 Duration (h):   Design Basis Accident
  0.5000E+00  0.1500E+01  0.0000E+00  0.0000E+00
Noble Gases:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Iodine:
  0.5000E-01  0.2500E+00  0.0000E+00  0.0000E+00
Cesium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Tellurium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Strontium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Barium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Ruthenium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Cerium:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Lanthanum:
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
Non-Radioactive Aerosols (kg):
  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
End of Release File
```

Attachment 4 RADTRAD Control File Dose Conversion File fgr11&12.inp

```
FGRDCF 10/24/95   03:24:50   beta-test version 1.10, minor FORTRAN fixes 5/4/95
Implicit daughter halflives (m) less than  90 and less than 0.100 of parent
         9 ORGANS DEFINED IN THIS FILE:
GONADS
BREAST
LUNGS
RED MARR
BONE SUR
THYROID
REMAINDER
EFFECTIVE
SKIN(FGR)
        60 NUCLIDES DEFINED IN THIS FILE:
Co-58      Y
Co-60      Y
Kr-85
Kr-85m
Kr-87
Kr-88
Rb-86      D
Sr-89      Y
Sr-90      Y
Sr-91      Y      Including:Y-91m
Sr-92      Y
Y-90       Y
Y-91       Y
Y-92       Y
Y-93       Y
Zr-95      D
Zr-97      Y      Including:Nb-97m , Including:Nb-97
Nb-95      Y
Mo-99      Y
Tc-99m     D
Ru-103     Y      Including:Rh-103m
Ru-105     Y
Ru-106     Y      Including:Rh-106
Rh-105     Y
Sb-127     W
Sb-129     W
Te-127     W
Te-127m    W
Te-129     W
Te-129m    W      Including:Te-129
Te-131m    W      Including:Te-131
Te-132     W
I-131      D
I-132      D
I-133      D
I-134      D
I-135      D      Including:Xe-135m
Xe-133
Xe-135
Cs-134     D
Cs-136     D
Cs-137     D      Including:Ba-137m
Ba-139     D
Ba-140     D
La-140     W
La-141     D
La-142     D
Ba-139     D
Ba-140     D
```

Ce-141	Y	
Ce-143	Y	
Ce-144	Y	Including:Pr-144m, Including:Pr-144
Pr-143	Y	
Nd-147	Y	
Np-239	W	
Pu-238	Y	
Pu-239	Y	
Pu-240	Y	
Pu-241	Y	
Am-241	W	
Cm-242	W	
Cm-244	W	

	CLOUDSHINE	GROUND SHINE 8HR	GROUND SHINE 7DAY	GROUND SHINE RATE	INHALED ACUTE	INHALED CHRONIC	INGESTION
Co-58							
GONADS	4.660E-14	2.867E-11	5.828E-10	9.970E-16-1.000E+00		6.170E-10	1.040E-09
BREAST	5.300E-14	2.737E-11	5.565E-10	9.520E-16-1.000E+00		9.370E-10	1.790E-10
LUNGS	4.640E-14	2.617E-11	5.319E-10	9.100E-16-1.000E+00		1.600E-08	8.530E-11
RED MARR	4.530E-14	2.671E-11	5.430E-10	9.290E-16-1.000E+00		9.230E-10	2.600E-10
BONE SUR	7.410E-14	3.795E-11	7.716E-10	1.320E-15-1.000E+00		6.930E-10	1.250E-10
THYROID	4.770E-14	2.720E-11	5.530E-10	9.460E-16-1.000E+00		8.720E-10	6.310E-11
REMAINDER	4.440E-14	2.585E-11	5.255E-10	8.990E-16-1.000E+00		1.890E-09	1.580E-09
EFFECTIVE	4.760E-14	2.732E-11	5.553E-10	9.500E-16-1.000E+00		2.940E-09	8.090E-10
SKIN(FGR)	5.580E-14	3.278E-11	6.664E-10	1.140E-15-1.000E+00		0.000E+00	0.000E+00
Co-60							
GONADS	1.230E-13	7.056E-11	1.480E-09	2.450E-15-1.000E+00		4.760E-09	3.190E-09
BREAST	1.390E-13	6.739E-11	1.413E-09	2.340E-15-1.000E+00		1.840E-08	1.100E-09
LUNGS	1.240E-13	6.537E-11	1.371E-09	2.270E-15-1.000E+00		3.450E-07	8.770E-10
RED MARR	1.230E-13	6.710E-11	1.407E-09	2.330E-15-1.000E+00		1.720E-08	1.320E-09
BONE SUR	1.780E-13	8.956E-11	1.879E-09	3.110E-15-1.000E+00		1.350E-08	9.390E-10
THYROID	1.270E-13	6.480E-11	1.359E-09	2.250E-15-1.000E+00		1.620E-08	7.880E-10
REMAINDER	1.200E-13	6.508E-11	1.365E-09	2.260E-15-1.000E+00		3.600E-08	4.970E-09
EFFECTIVE	1.260E-13	6.768E-11	1.419E-09	2.350E-15-1.000E+00		5.910E-08	2.770E-09
SKIN(FGR)	1.450E-13	7.948E-11	1.667E-09	2.760E-15-1.000E+00		0.000E+00	0.000E+00
Kr-85							
GONADS	1.170E-16	8.121E-14	1.704E-12	2.820E-18-1.000E+00		0.000E+00	0.000E+00
BREAST	1.340E-16	7.891E-14	1.656E-12	2.740E-18-1.000E+00		0.000E+00	0.000E+00
LUNGS	1.140E-16	7.056E-14	1.481E-12	2.450E-18-1.000E+00		0.000E+00	0.000E+00
RED MARR	1.090E-16	6.998E-14	1.469E-12	2.430E-18-1.000E+00		0.000E+00	0.000E+00
BONE SUR	2.200E-16	1.287E-13	2.702E-12	4.470E-18-1.000E+00		0.000E+00	0.000E+00
THYROID	1.180E-16	7.459E-14	1.565E-12	2.590E-18-1.000E+00		0.000E+00	0.000E+00
REMAINDER	1.090E-16	6.941E-14	1.457E-12	2.410E-18-1.000E+00		0.000E+00	0.000E+00
EFFECTIVE	1.190E-16	7.603E-14	1.596E-12	2.640E-18-1.000E+00		0.000E+00	0.000E+00
SKIN(FGR)	1.320E-14	2.304E-11	4.835E-10	8.000E-16-1.000E+00		0.000E+00	0.000E+00
Kr-85m							
GONADS	7.310E-15	2.594E-12	3.653E-12	1.570E-16-1.000E+00		0.000E+00	0.000E+00
BREAST	8.410E-15	2.527E-12	3.560E-12	1.530E-16-1.000E+00		0.000E+00	0.000E+00
LUNGS	7.040E-15	2.379E-12	3.351E-12	1.440E-16-1.000E+00		0.000E+00	0.000E+00
RED MARR	6.430E-15	2.346E-12	3.304E-12	1.420E-16-1.000E+00		0.000E+00	0.000E+00
BONE SUR	1.880E-14	5.286E-12	7.446E-12	3.200E-16-1.000E+00		0.000E+00	0.000E+00
THYROID	7.330E-15	2.395E-12	3.374E-12	1.450E-16-1.000E+00		0.000E+00	0.000E+00
REMAINDER	6.640E-15	2.313E-12	3.257E-12	1.400E-16-1.000E+00		0.000E+00	0.000E+00
EFFECTIVE	7.480E-15	2.511E-12	3.537E-12	1.520E-16-1.000E+00		0.000E+00	0.000E+00
SKIN(FGR)	2.240E-14	2.247E-11	3.164E-11	1.360E-15-1.000E+00		0.000E+00	0.000E+00
Kr-87							
GONADS	4.000E-14	4.962E-12	5.026E-12	7.610E-16-1.000E+00		0.000E+00	0.000E+00
BREAST	4.500E-14	4.740E-12	4.802E-12	7.270E-16-1.000E+00		0.000E+00	0.000E+00
LUNGS	4.040E-14	4.603E-12	4.663E-12	7.060E-16-1.000E+00		0.000E+00	0.000E+00
RED MARR	4.000E-14	4.708E-12	4.769E-12	7.220E-16-1.000E+00		0.000E+00	0.000E+00
BONE SUR	6.020E-14	6.514E-12	6.598E-12	9.990E-16-1.000E+00		0.000E+00	0.000E+00
GONADS	4.000E-14	4.962E-12	5.026E-12	7.610E-16-1.000E+00		0.000E+00	0.000E+00
[illegible]	4.500E-14	4.740E-12	4.802E-12	7.270E-16-1.000E+00		0.000E+00	0.000E+00

THYROID	4.130E-14	4.473E-12	4.531E-12	6.860E-16	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	3.910E-14	4.590E-12	4.650E-12	7.040E-16	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	4.120E-14	4.773E-12	4.835E-12	7.320E-16	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.370E-13	8.802E-11	8.916E-11	1.350E-14	-1.000E+00	0.000E+00	0.000E+00
Kr-88							
GONADS	9.900E-14	2.278E-11	2.655E-11	1.800E-15	-1.000E+00	0.000E+00	0.000E+00
BREAST	1.110E-13	2.177E-11	2.537E-11	1.720E-15	-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.010E-13	2.139E-11	2.493E-11	1.690E-15	-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.000E-13	2.190E-11	2.552E-11	1.730E-15	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	1.390E-13	2.886E-11	3.363E-11	2.280E-15	-1.000E+00	0.000E+00	0.000E+00
THYROID	1.030E-13	2.012E-11	2.345E-11	1.590E-15	-1.000E+00	0.000E+00	0.000E+00
REMAINDER	9.790E-14	2.139E-11	2.493E-11	1.690E-15	-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.020E-13	2.202E-11	2.567E-11	1.740E-15	-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	1.350E-13	5.607E-11	6.534E-11	4.430E-15	-1.000E+00	0.000E+00	0.000E+00
Rb-86							
GONADS	4.710E-15	2.788E-12	5.187E-11	9.740E-17	-1.000E+00	1.340E-09	2.150E-09
BREAST	5.340E-15	2.662E-12	4.953E-11	9.300E-17	-1.000E+00	1.330E-09	2.140E-09
LUNGS	4.710E-15	2.553E-12	4.750E-11	8.920E-17	-1.000E+00	3.300E-09	2.140E-09
RED MARR	4.640E-15	2.619E-12	4.873E-11	9.150E-17	-1.000E+00	2.320E-09	3.720E-09
BONE SUR	7.050E-15	3.635E-12	6.764E-11	1.270E-16	-1.000E+00	4.270E-09	6.860E-09
THYROID	4.840E-15	2.599E-12	4.836E-11	9.080E-17	-1.000E+00	1.330E-09	2.140E-09
REMAINDER	4.520E-15	2.542E-12	4.729E-11	8.880E-17	-1.000E+00	1.380E-09	2.330E-09
EFFECTIVE	4.810E-15	2.665E-12	4.958E-11	9.310E-17	-1.000E+00	1.790E-09	2.530E-09
SKIN(FGR)	4.850E-14	2.210E-10	4.111E-09	7.720E-15	-1.000E+00	0.000E+00	0.000E+00
Sr-89							
GONADS	7.730E-17	7.155E-14	1.436E-12	2.490E-18	-1.000E+00	7.950E-12	8.050E-12
BREAST	9.080E-17	7.212E-14	1.447E-12	2.510E-18	-1.000E+00	7.960E-12	7.980E-12
LUNGS	7.080E-17	5.689E-14	1.142E-12	1.980E-18	-1.000E+00	8.350E-08	7.970E-12
RED MARR	6.390E-17	5.345E-14	1.073E-12	1.860E-18	-1.000E+00	1.070E-10	1.080E-10
BONE SUR	1.940E-16	1.560E-13	3.131E-12	5.430E-18	-1.000E+00	1.590E-10	1.610E-10
THYROID	7.600E-17	6.063E-14	1.217E-12	2.110E-18	-1.000E+00	7.960E-12	7.970E-12
REMAINDER	6.710E-17	5.603E-14	1.124E-12	1.950E-18	-1.000E+00	3.970E-09	8.250E-09
EFFECTIVE	7.730E-17	6.523E-14	1.309E-12	2.270E-18	-1.000E+00	1.120E-08	2.500E-09
SKIN(FGR)	3.690E-14	1.914E-10	3.841E-09	6.660E-15	-1.000E+00	0.000E+00	0.000E+00
Sr-90							
GONADS	7.780E-18	9.590E-15	2.014E-13	3.330E-19	-1.000E+00	2.690E-10	5.040E-11
BREAST	9.490E-18	1.008E-14	2.116E-13	3.500E-19	-1.000E+00	2.690E-10	5.040E-11
LUNGS	6.440E-18	6.307E-15	1.324E-13	2.190E-19	-1.000E+00	2.860E-06	5.040E-11
RED MARR	5.440E-18	5.558E-15	1.167E-13	1.930E-19	-1.000E+00	3.280E-08	6.450E-09
BONE SUR	2.280E-17	2.393E-14	5.025E-13	8.310E-19	-1.000E+00	7.090E-08	1.390E-08
THYROID	7.330E-18	7.171E-15	1.506E-13	2.490E-19	-1.000E+00	2.690E-10	5.040E-11
REMAINDER	6.110E-18	6.422E-15	1.348E-13	2.230E-19	-1.000E+00	5.730E-09	6.700E-09
EFFECTIVE	7.530E-18	8.179E-15	1.717E-13	2.840E-19	-1.000E+00	3.510E-07	3.230E-09
SKIN(FGR)	9.200E-15	4.032E-12	8.465E-11	1.400E-16	-1.000E+00	0.000E+00	0.000E+00
Sr-91							
GONADS	4.819E-14	2.155E-11	5.062E-11	1.026E-15	-1.000E+00	5.669E-11	2.520E-10
BREAST	5.477E-14	2.059E-11	4.838E-11	9.806E-16	-1.000E+00	1.775E-11	3.676E-11
LUNGS	4.803E-14	1.970E-11	4.626E-11	9.376E-16	-1.000E+00	2.170E-09	1.055E-11
RED MARR	4.691E-14	2.011E-11	4.722E-11	9.570E-16	-1.000E+00	2.275E-11	5.659E-11
BONE SUR	7.674E-14	2.852E-11	6.709E-11	1.360E-15	-1.000E+00	1.306E-11	2.070E-11
THYROID	4.938E-14	2.035E-11	4.782E-11	9.693E-16	-1.000E+00	9.930E-12	1.968E-12
REMAINDER	4.610E-14	1.948E-11	4.573E-11	9.268E-16	-1.000E+00	5.802E-10	2.557E-09
EFFECTIVE	4.924E-14	2.057E-11	4.832E-11	9.793E-16	-1.000E+00	4.547E-10	8.455E-10
SKIN(FGR)	9.938E-14	1.748E-10	3.987E-10	8.080E-15	-1.000E+00	0.000E+00	0.000E+00
Sr-92							
GONADS	6.610E-14	1.593E-11	1.830E-11	1.300E-15	-1.000E+00	1.020E-11	8.180E-11
BREAST	7.480E-14	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	6.490E-12	1.700E-11
LUNGS	6.670E-14	1.483E-11	1.703E-11	1.210E-15	-1.000E+00	1.050E-09	7.220E-12
RED MARR	6.620E-14	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	6.980E-12	2.290E-11
BONE SUR	9.490E-14	2.010E-11	2.308E-11	1.640E-15	-1.000E+00	4.360E-12	8.490E-12
THYROID	6.820E-14	1.446E-11	1.661E-11	1.180E-15	-1.000E+00	3.920E-12	1.300E-12
BREAST	7.480E-14	1.520E-11	1.745E-11	1.240E-15	-1.000E+00	6.490E-12	1.700E-11
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

REMAINDER	6.450E-14	1.471E-11	1.689E-11	1.200E-15-1.000E+00	2.900E-10	1.720E-09
EFFECTIVE	6.790E-14	1.532E-11	1.759E-11	1.250E-15-1.000E+00	2.180E-10	5.430E-10
SKIN(FGR)	8.560E-14	2.280E-11	2.618E-11	1.860E-15-1.000E+00	0.000E+00	0.000E+00
Y-90						
GONADS	1.890E-16	1.586E-13	1.601E-12	5.750E-18-1.000E+00	5.170E-13	1.430E-14
BREAST	2.200E-16	1.578E-13	1.593E-12	5.720E-18-1.000E+00	5.170E-13	1.270E-14
LUNGS	1.770E-16	1.313E-13	1.326E-12	4.760E-18-1.000E+00	9.310E-09	1.260E-14
RED MARR	1.620E-16	1.261E-13	1.273E-12	4.570E-18-1.000E+00	1.520E-11	3.700E-13
BONE SUR	4.440E-16	3.228E-13	3.259E-12	1.170E-17-1.000E+00	1.510E-11	3.670E-13
THYROID	1.870E-16	1.385E-13	1.398E-12	5.020E-18-1.000E+00	5.170E-13	1.260E-14
REMAINDER	1.680E-16	1.291E-13	1.303E-12	4.680E-18-1.000E+00	3.870E-09	9.680E-09
EFFECTIVE	1.900E-16	1.468E-13	1.482E-12	5.320E-18-1.000E+00	2.280E-09	2.910E-09
SKIN(FGR)	6.240E-14	2.897E-10	2.924E-09	1.050E-14-1.000E+00	0.000E+00	0.000E+00
Y-91						
GONADS	2.560E-16	1.756E-13	3.546E-12	6.110E-18-1.000E+00	8.200E-12	3.540E-12
BREAST	2.930E-16	1.713E-13	3.459E-12	5.960E-18-1.000E+00	8.920E-12	5.540E-13
LUNGS	2.500E-16	1.526E-13	3.082E-12	5.310E-18-1.000E+00	9.870E-08	2.020E-13
RED MARR	2.410E-16	1.521E-13	3.070E-12	5.290E-18-1.000E+00	3.190E-10	6.590E-12
BONE SUR	4.560E-16	2.903E-13	5.862E-12	1.010E-17-1.000E+00	3.180E-10	6.130E-12
THYROID	2.600E-16	1.564E-13	3.157E-12	5.440E-18-1.000E+00	8.500E-12	1.290E-13
REMAINDER	2.390E-16	1.509E-13	3.047E-12	5.250E-18-1.000E+00	4.200E-09	8.570E-09
EFFECTIVE	2.600E-16	1.650E-13	3.332E-12	5.740E-18-1.000E+00	1.320E-08	2.570E-09
SKIN(FGR)	3.850E-14	1.989E-10	4.016E-09	6.920E-15-1.000E+00	0.000E+00	0.000E+00
Y-92						
GONADS	1.270E-14	3.855E-12	4.872E-12	2.650E-16-1.000E+00	2.610E-12	1.960E-11
BREAST	1.440E-14	3.680E-12	4.652E-12	2.530E-16-1.000E+00	1.500E-12	3.550E-12
LUNGS	1.270E-14	3.535E-12	4.468E-12	2.430E-16-1.000E+00	1.240E-09	1.390E-12
RED MARR	1.250E-14	3.608E-12	4.560E-12	2.480E-16-1.000E+00	2.070E-12	4.910E-12
BONE SUR	1.950E-14	5.091E-12	6.435E-12	3.500E-16-1.000E+00	1.510E-12	1.750E-12
THYROID	1.300E-14	3.579E-12	4.523E-12	2.460E-16-1.000E+00	1.050E-12	1.770E-13
REMAINDER	1.220E-14	3.506E-12	4.431E-12	2.410E-16-1.000E+00	2.030E-10	1.700E-09
EFFECTIVE	1.300E-14	3.680E-12	4.652E-12	2.530E-16-1.000E+00	2.110E-10	5.150E-10
SKIN(FGR)	1.140E-13	2.022E-10	2.556E-10	1.390E-14-1.000E+00	0.000E+00	0.000E+00
Y-93						
GONADS	4.670E-15	2.108E-12	4.989E-12	9.510E-17-1.000E+00	5.310E-12	2.200E-11
BREAST	5.300E-15	2.026E-12	4.794E-12	9.140E-17-1.000E+00	1.740E-12	3.130E-12
LUNGS	4.680E-15	1.937E-12	4.585E-12	8.740E-17-1.000E+00	2.520E-09	8.670E-13
RED MARR	4.580E-15	1.972E-12	4.669E-12	8.900E-17-1.000E+00	4.040E-12	4.930E-12
BONE SUR	7.580E-15	2.948E-12	6.977E-12	1.330E-16-1.000E+00	3.140E-12	1.730E-12
THYROID	4.790E-15	1.908E-12	4.516E-12	8.610E-17-1.000E+00	9.260E-13	1.260E-13
REMAINDER	4.510E-15	1.919E-12	4.543E-12	8.660E-17-1.000E+00	9.250E-10	4.090E-09
EFFECTIVE	4.800E-15	2.021E-12	4.784E-12	9.120E-17-1.000E+00	5.820E-10	1.230E-09
SKIN(FGR)	8.500E-14	2.726E-10	6.452E-10	1.230E-14-1.000E+00	0.000E+00	0.000E+00
Zr-95						
GONADS	3.530E-14	2.182E-11	4.421E-10	7.590E-16-1.000E+00	1.880E-09	8.160E-10
BREAST	4.010E-14	2.084E-11	4.223E-10	7.250E-16-1.000E+00	1.910E-09	1.050E-10
LUNGS	3.510E-14	1.989E-11	4.030E-10	6.920E-16-1.000E+00	2.170E-09	2.340E-11
RED MARR	3.430E-14	2.030E-11	4.112E-10	7.060E-16-1.000E+00	1.300E-08	2.140E-10
BONE SUR	5.620E-14	2.875E-11	5.824E-10	1.000E-15-1.000E+00	1.030E-07	4.860E-10
THYROID	3.610E-14	2.076E-11	4.205E-10	7.220E-16-1.000E+00	1.440E-09	8.270E-12
REMAINDER	3.360E-14	1.963E-11	3.978E-10	6.830E-16-1.000E+00	2.280E-09	2.530E-09
EFFECTIVE	3.600E-14	2.078E-11	4.211E-10	7.230E-16-1.000E+00	6.390E-09	1.020E-09
SKIN(FGR)	4.500E-14	2.561E-11	5.190E-10	8.910E-16-1.000E+00	0.000E+00	0.000E+00
Zr-97						
GONADS	4.331E-14	2.179E-11	7.799E-11	9.253E-16-1.000E+00	1.840E-10	6.228E-10
BREAST	4.928E-14	2.083E-11	7.455E-11	8.846E-16-1.000E+00	4.706E-11	8.137E-11
LUNGS	4.322E-14	1.992E-11	7.127E-11	8.456E-16-1.000E+00	4.108E-09	1.770E-11
RED MARR	4.224E-14	2.034E-11	7.279E-11	8.634E-16-1.000E+00	6.376E-11	1.302E-10
BONE SUR	6.897E-14	2.881E-11	1.031E-10	1.224E-15-1.000E+00	3.504E-11	4.558E-11
THYROID	4.443E-14	2.061E-11	7.377E-11	8.755E-16-1.000E+00	2.315E-11	2.671E-12
REMAINDER	4.139E-14	1.966E-11	7.035E-11	8.345E-16-1.000E+00	2.041E-09	6.990E-09
LUNGS	4.322E-14	1.992E-11	7.127E-11	8.456E-16-1.000E+00	4.108E-09	1.770E-11
RED MARR	4.224E-14	2.034E-11	7.279E-11	8.634E-16-1.000E+00	6.376E-11	1.302E-10

EFFECTIVE	4.432E-14	2.078E-11	7.438E-11	8.824E-16	1.000E+00	1.171E-09	2.283E-09
SKIN(FGR)	9.835E-14	2.281E-10	8.148E-10	9.587E-15	1.000E+00	0.000E+00	0.000E+00
Nb-95							
GONADS	3.660E-14	2.253E-11	4.435E-10	7.850E-16	1.000E+00	4.320E-10	8.050E-10
BREAST	4.160E-14	2.150E-11	4.231E-10	7.490E-16	1.000E+00	4.070E-10	1.070E-10
LUNGS	3.650E-14	2.055E-11	4.045E-10	7.160E-16	1.000E+00	8.320E-09	2.740E-11
RED MARR	3.560E-14	2.101E-11	4.135E-10	7.320E-16	1.000E+00	4.420E-10	1.990E-10
BONE SUR	5.790E-14	2.957E-11	5.819E-10	1.030E-15	1.000E+00	5.130E-10	2.940E-10
THYROID	3.750E-14	2.144E-11	4.220E-10	7.470E-16	1.000E+00	3.580E-10	1.180E-11
REMAINDER	3.490E-14	2.032E-11	4.000E-10	7.080E-16	1.000E+00	1.070E-09	1.470E-09
EFFECTIVE	3.740E-14	2.147E-11	4.226E-10	7.480E-16	1.000E+00	1.570E-09	6.950E-10
SKIN(FGR)	4.300E-14	2.598E-11	5.112E-10	9.050E-16	1.000E+00	0.000E+00	0.000E+00
Mo-99							
GONADS	7.130E-15	4.282E-12	4.403E-11	1.550E-16	1.000E+00	9.510E-11	2.180E-10
BREAST	8.130E-15	4.116E-12	4.233E-11	1.490E-16	1.000E+00	2.750E-11	3.430E-11
LUNGS	7.060E-15	3.867E-12	3.977E-11	1.400E-16	1.000E+00	4.290E-09	1.510E-11
RED MARR	6.820E-15	3.923E-12	4.034E-11	1.420E-16	1.000E+00	5.240E-11	8.320E-11
BONE SUR	1.240E-14	6.105E-12	6.278E-11	2.210E-16	1.000E+00	4.130E-11	6.320E-11
THYROID	7.270E-15	4.033E-12	4.147E-11	1.460E-16	1.000E+00	1.520E-11	1.030E-11
REMAINDER	6.740E-15	3.812E-12	3.920E-11	1.380E-16	1.000E+00	1.740E-09	4.280E-09
EFFECTIVE	7.280E-15	4.061E-12	4.176E-11	1.470E-16	1.000E+00	1.070E-09	1.360E-09
SKIN(FGR)	3.140E-14	1.039E-10	1.068E-09	3.760E-15	1.000E+00	0.000E+00	0.000E+00
Tc-99m							
GONADS	5.750E-15	2.334E-12	3.877E-12	1.240E-16	1.000E+00	2.770E-12	9.750E-12
BREAST	6.650E-15	2.258E-12	3.752E-12	1.200E-16	1.000E+00	2.150E-12	3.570E-12
LUNGS	5.490E-15	2.127E-12	3.533E-12	1.130E-16	1.000E+00	2.280E-11	3.140E-12
RED MARR	4.910E-15	2.070E-12	3.439E-12	1.100E-16	1.000E+00	3.360E-12	6.290E-12
BONE SUR	1.630E-14	5.383E-12	8.942E-12	2.860E-16	1.000E+00	2.620E-12	4.060E-12
THYROID	5.750E-15	2.145E-12	3.564E-12	1.140E-16	1.000E+00	5.010E-11	8.460E-11
REMAINDER	5.150E-15	2.070E-12	3.439E-12	1.100E-16	1.000E+00	1.020E-11	3.340E-11
EFFECTIVE	5.890E-15	2.277E-12	3.783E-12	1.210E-16	1.000E+00	8.800E-12	1.680E-11
SKIN(FGR)	7.140E-15	2.710E-12	4.502E-12	1.440E-16	1.000E+00	0.000E+00	0.000E+00
Ru-103							
GONADS	2.191E-14	1.404E-11	2.783E-10	4.892E-16	1.000E+00	3.070E-10	5.720E-10
BREAST	2.512E-14	1.350E-11	2.677E-10	4.705E-16	1.000E+00	3.110E-10	1.200E-10
LUNGS	2.180E-14	1.273E-11	2.522E-10	4.432E-16	1.000E+00	1.561E-08	7.310E-11
RED MARR	2.100E-14	1.287E-11	2.551E-10	4.483E-16	1.000E+00	3.190E-10	1.660E-10
BONE SUR	3.892E-14	1.958E-11	3.882E-10	6.823E-16	1.000E+00	2.370E-10	9.631E-11
THYROID	2.241E-14	1.331E-11	2.639E-10	4.638E-16	1.000E+00	2.570E-10	6.250E-11
REMAINDER	2.080E-14	1.248E-11	2.472E-10	4.346E-16	1.000E+00	1.250E-09	2.110E-09
EFFECTIVE	2.251E-14	1.332E-11	2.641E-10	4.642E-16	1.000E+00	2.421E-09	8.271E-10
SKIN(FGR)	2.774E-14	1.785E-11	3.543E-10	6.229E-16	1.000E+00	0.000E+00	0.000E+00
Ru-105							
GONADS	3.720E-14	1.327E-11	1.861E-11	8.070E-16	1.000E+00	1.590E-11	9.670E-11
BREAST	4.240E-14	1.271E-11	1.783E-11	7.730E-16	1.000E+00	6.610E-12	1.590E-11
LUNGS	3.700E-14	1.210E-11	1.697E-11	7.360E-16	1.000E+00	5.730E-10	6.210E-12
RED MARR	3.590E-14	1.230E-11	1.725E-11	7.480E-16	1.000E+00	7.700E-12	2.350E-11
BONE SUR	6.280E-14	1.809E-11	2.537E-11	1.100E-15	1.000E+00	4.620E-12	8.890E-12
THYROID	3.800E-14	1.260E-11	1.766E-11	7.660E-16	1.000E+00	4.150E-12	1.820E-12
REMAINDER	3.540E-14	1.189E-11	1.667E-11	7.230E-16	1.000E+00	1.610E-10	8.540E-10
EFFECTIVE	3.810E-14	1.265E-11	1.773E-11	7.690E-16	1.000E+00	1.230E-10	2.870E-10
SKIN(FGR)	6.730E-14	7.368E-11	1.033E-10	4.480E-15	1.000E+00	0.000E+00	0.000E+00
Ru-106							
GONADS	1.010E-14	6.411E-12	1.340E-10	2.230E-16	1.000E+00	1.300E-09	1.640E-09
BREAST	1.160E-14	6.152E-12	1.286E-10	2.140E-16	1.000E+00	1.780E-09	1.440E-09
LUNGS	1.010E-14	5.836E-12	1.220E-10	2.030E-16	1.000E+00	1.040E-06	1.420E-09
RED MARR	9.750E-15	5.893E-12	1.232E-10	2.050E-16	1.000E+00	1.760E-09	1.460E-09
BONE SUR	1.720E-14	8.883E-12	1.856E-10	3.090E-16	1.000E+00	1.610E-09	1.430E-09
THYROID	1.030E-14	6.066E-12	1.268E-10	2.110E-16	1.000E+00	1.720E-09	1.410E-09
REMAINDER	9.630E-15	5.721E-12	1.196E-10	1.990E-16	1.000E+00	1.200E-08	2.110E-08
EFFECTIVE	1.040E-14	6.095E-12	1.274E-10	2.120E-16	1.000E+00	1.290E-07	7.400E-09
RED MARR	9.750E-15	5.893E-12	1.232E-10	2.050E-16	1.000E+00	1.760E-09	1.460E-09
EFFECTIVE	1.040E-14	6.095E-12	1.274E-10	2.120E-16	1.000E+00	1.290E-07	7.400E-09

SKIN(FGR)	1.090E-13	4.082E-10	8.531E-09	1.420E-14	-1.000E+00	0.000E+00	0.000E+00
Rh-105							
GONADS	3.640E-15	2.127E-12	1.411E-11	7.980E-17	-1.000E+00	2.110E-11	5.800E-11
BREAST	4.160E-15	2.063E-12	1.369E-11	7.740E-17	-1.000E+00	5.610E-12	8.970E-12
LUNGS	3.570E-15	1.935E-12	1.284E-11	7.260E-17	-1.000E+00	9.580E-10	3.860E-12
RED MARR	3.380E-15	1.946E-12	1.291E-11	7.300E-17	-1.000E+00	7.770E-12	1.470E-11
BONE SUR	7.530E-15	3.332E-12	2.210E-11	1.250E-16	-1.000E+00	4.460E-12	6.750E-12
THYROID	3.680E-15	1.983E-12	1.316E-11	7.440E-17	-1.000E+00	2.880E-12	2.910E-12
REMAINDER	3.390E-15	1.885E-12	1.250E-11	7.070E-17	-1.000E+00	4.530E-10	1.270E-09
EFFECTIVE	3.720E-15	2.031E-12	1.347E-11	7.620E-17	-1.000E+00	2.580E-10	3.990E-10
SKIN(FGR)	1.070E-14	4.691E-12	3.112E-11	1.760E-16	-1.000E+00	0.000E+00	0.000E+00
Sb-127							
GONADS	3.260E-14	1.985E-11	2.441E-10	7.100E-16	-1.000E+00	2.520E-10	6.140E-10
BREAST	3.720E-14	1.904E-11	2.341E-10	6.810E-16	-1.000E+00	9.120E-11	7.600E-11
LUNGS	3.240E-14	1.809E-11	2.224E-10	6.470E-16	-1.000E+00	6.940E-09	1.570E-11
RED MARR	3.140E-14	1.834E-11	2.255E-10	6.560E-16	-1.000E+00	1.610E-10	1.330E-10
BONE SUR	5.520E-14	2.720E-11	3.345E-10	9.730E-16	-1.000E+00	1.340E-10	5.240E-11
THYROID	3.330E-14	1.884E-11	2.317E-10	6.740E-16	-1.000E+00	6.150E-11	4.640E-12
REMAINDER	3.090E-14	1.775E-11	2.183E-10	6.350E-16	-1.000E+00	2.330E-09	5.870E-09
EFFECTIVE	3.330E-14	1.890E-11	2.324E-10	6.760E-16	-1.000E+00	1.630E-09	1.950E-09
SKIN(FGR)	5.580E-14	7.967E-11	9.799E-10	2.850E-15	-1.000E+00	0.000E+00	0.000E+00
Sb-129							
GONADS	6.970E-14	2.336E-11	3.231E-11	1.440E-15	-1.000E+00	2.150E-11	1.510E-10
BREAST	7.910E-14	2.222E-11	3.074E-11	1.370E-15	-1.000E+00	1.280E-11	2.560E-11
LUNGS	6.980E-14	2.141E-11	2.962E-11	1.320E-15	-1.000E+00	8.980E-10	9.390E-12
RED MARR	6.860E-14	2.190E-11	3.029E-11	1.350E-15	-1.000E+00	1.700E-11	3.670E-11
BONE SUR	1.070E-13	3.033E-11	4.196E-11	1.870E-15	-1.000E+00	1.460E-11	1.340E-11
THYROID	7.160E-14	2.174E-11	3.007E-11	1.340E-15	-1.000E+00	9.720E-12	1.470E-12
REMAINDER	6.710E-14	2.125E-11	2.939E-11	1.310E-15	-1.000E+00	1.870E-10	1.450E-09
EFFECTIVE	7.140E-14	2.238E-11	3.096E-11	1.380E-15	-1.000E+00	1.740E-10	4.840E-10
SKIN(FGR)	1.050E-13	8.273E-11	1.144E-10	5.100E-15	-1.000E+00	0.000E+00	0.000E+00
Te-127							
GONADS	2.370E-16	1.191E-13	2.661E-13	5.480E-18	-1.000E+00	2.020E-12	4.020E-12
BREAST	2.730E-16	1.158E-13	2.588E-13	5.330E-18	-1.000E+00	1.880E-12	3.000E-12
LUNGS	2.320E-16	1.060E-13	2.370E-13	4.880E-18	-1.000E+00	4.270E-10	2.890E-12
RED MARR	2.210E-16	1.058E-13	2.365E-13	4.870E-18	-1.000E+00	4.090E-12	6.570E-12
BONE SUR	4.650E-16	1.862E-13	4.162E-13	8.570E-18	-1.000E+00	4.090E-12	6.460E-12
THYROID	2.400E-16	1.106E-13	2.472E-13	5.090E-18	-1.000E+00	1.840E-12	2.860E-12
REMAINDER	2.210E-16	1.036E-13	2.316E-13	4.770E-18	-1.000E+00	1.110E-10	6.130E-10
EFFECTIVE	2.420E-16	1.125E-13	2.515E-13	5.180E-18	-1.000E+00	8.600E-11	1.870E-10
SKIN(FGR)	1.140E-14	1.173E-11	2.622E-11	5.400E-16	-1.000E+00	0.000E+00	0.000E+00
Te-127m							
GONADS	1.900E-16	4.689E-13	9.642E-12	1.630E-17	-1.000E+00	1.100E-10	1.250E-10
BREAST	2.690E-16	5.150E-13	1.059E-11	1.790E-17	-1.000E+00	1.100E-10	9.740E-11
LUNGS	7.620E-17	1.602E-13	3.295E-12	5.570E-18	-1.000E+00	3.340E-08	9.620E-11
RED MARR	6.430E-17	1.249E-13	2.567E-12	4.340E-18	-1.000E+00	5.360E-09	5.430E-09
BONE SUR	3.940E-16	9.005E-13	1.852E-11	3.130E-17	-1.000E+00	2.040E-08	2.070E-08
THYROID	1.500E-16	2.779E-13	5.714E-12	9.660E-18	-1.000E+00	9.660E-11	9.430E-11
REMAINDER	8.640E-17	1.999E-13	4.111E-12	6.950E-18	-1.000E+00	1.660E-09	2.980E-09
EFFECTIVE	1.470E-16	3.251E-13	6.684E-12	1.130E-17	-1.000E+00	5.810E-09	2.230E-09
SKIN(FGR)	8.490E-16	1.496E-12	3.076E-11	5.200E-17	-1.000E+00	0.000E+00	0.000E+00
Te-129							
GONADS	2.710E-15	3.889E-13	3.922E-13	6.510E-17	-1.000E+00	5.050E-13	1.590E-12
BREAST	3.120E-15	3.800E-13	3.832E-13	6.360E-17	-1.000E+00	5.390E-13	6.050E-13
LUNGS	2.640E-15	3.298E-13	3.326E-13	5.520E-17	-1.000E+00	1.530E-10	4.910E-13
RED MARR	2.540E-15	3.298E-13	3.326E-13	5.520E-17	-1.000E+00	6.190E-13	7.640E-13
BONE SUR	4.880E-15	5.753E-13	5.802E-13	9.630E-17	-1.000E+00	6.220E-13	5.400E-13
THYROID	2.740E-15	3.525E-13	3.555E-13	5.900E-17	-1.000E+00	5.090E-13	3.360E-13
REMAINDER	2.520E-15	3.262E-13	3.289E-13	5.460E-17	-1.000E+00	7.280E-12	1.790E-10
EFFECTIVE	2.750E-15	3.590E-13	3.621E-13	6.010E-17	-1.000E+00	2.090E-11	5.450E-11
SKIN(FGR)	3.570E-14	3.429E-11	3.458E-11	5.740E-15	-1.000E+00	0.000E+00	0.000E+00
BONE SUR	4.880E-15	5.753E-13	5.802E-13	9.630E-17	-1.000E+00	6.220E-13	5.400E-13
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Te-129m							
GONADS	3.321E-15	2.206E-12	4.799E-11	8.561E-17	1.000E+00	1.783E-10	2.420E-10
BREAST	3.838E-15	2.181E-12	4.739E-11	8.454E-17	1.000E+00	1.694E-10	1.664E-10
LUNGS	3.176E-15	1.741E-12	3.815E-11	6.808E-17	1.000E+00	4.040E-08	1.593E-10
RED MARR	3.071E-15	1.729E-12	3.793E-11	6.768E-17	1.000E+00	3.100E-09	3.500E-09
BONE SUR	5.772E-15	3.287E-12	7.147E-11	1.275E-16	1.000E+00	7.050E-09	7.990E-09
THYROID	3.341E-15	1.923E-12	4.201E-11	7.495E-17	1.000E+00	1.563E-10	1.572E-10
REMAINDER	3.048E-15	1.746E-12	3.822E-11	6.819E-17	1.000E+00	3.275E-09	7.196E-09
EFFECTIVE	3.337E-15	1.974E-12	4.308E-11	7.686E-17	1.000E+00	6.484E-09	2.925E-09
SKIN(FGR)	3.811E-14	1.501E-10	3.360E-09	6.001E-15	1.000E+00	0.000E+00	0.000E+00
Te-131m							
GONADS	7.292E-14	4.020E-11	2.343E-10	1.535E-15	1.000E+00	2.345E-10	7.415E-10
BREAST	8.286E-14	3.853E-11	2.246E-10	1.472E-15	1.000E+00	9.309E-11	1.361E-10
LUNGS	7.265E-14	3.657E-11	2.131E-10	1.397E-15	1.000E+00	2.296E-09	6.335E-11
RED MARR	7.097E-14	3.736E-11	2.178E-10	1.427E-15	1.000E+00	1.417E-10	2.435E-10
BONE SUR	1.174E-13	5.467E-11	3.189E-10	2.090E-15	1.000E+00	2.276E-10	3.248E-10
THYROID	7.471E-14	3.741E-11	2.181E-10	1.429E-15	1.000E+00	3.669E-08	4.383E-08
REMAINDER	6.965E-14	3.626E-11	2.113E-10	1.385E-15	1.000E+00	9.509E-10	3.153E-09
EFFECTIVE	7.463E-14	3.825E-11	2.229E-10	1.461E-15	1.000E+00	1.758E-09	2.514E-09
SKIN(FGR)	1.038E-13	1.033E-10	6.188E-10	4.056E-15	1.000E+00	0.000E+00	0.000E+00
Te-132							
GONADS	1.020E-14	6.812E-12	7.706E-11	2.450E-16	1.000E+00	4.150E-10	5.410E-10
BREAST	1.180E-14	6.756E-12	7.643E-11	2.430E-16	1.000E+00	3.630E-10	3.500E-10
LUNGS	9.650E-15	5.727E-12	6.479E-11	2.060E-16	1.000E+00	1.670E-09	3.300E-10
RED MARR	8.950E-15	5.588E-12	6.322E-11	2.010E-16	1.000E+00	4.270E-10	4.440E-10
BONE SUR	2.420E-14	1.273E-11	1.441E-10	4.580E-16	1.000E+00	7.120E-10	8.300E-10
THYROID	1.020E-14	5.978E-12	6.762E-11	2.150E-16	1.000E+00	6.280E-08	5.950E-08
REMAINDER	9.160E-15	5.644E-12	6.385E-11	2.030E-16	1.000E+00	7.890E-10	1.490E-09
EFFECTIVE	1.030E-14	6.339E-12	7.171E-11	2.280E-16	1.000E+00	2.550E-09	2.540E-09
SKIN(FGR)	1.390E-14	8.313E-12	9.405E-11	2.990E-16	1.000E+00	0.000E+00	0.000E+00
I-131							
GONADS	1.780E-14	1.119E-11	1.789E-10	3.940E-16	1.000E+00	2.530E-11	4.070E-11
BREAST	2.040E-14	1.082E-11	1.730E-10	3.810E-16	1.000E+00	7.880E-11	1.210E-10
LUNGS	1.760E-14	1.016E-11	1.626E-10	3.580E-16	1.000E+00	6.570E-10	1.020E-10
RED MARR	1.680E-14	1.022E-11	1.635E-10	3.600E-16	1.000E+00	6.260E-11	9.440E-11
BONE SUR	3.450E-14	1.675E-11	2.679E-10	5.900E-16	1.000E+00	5.730E-11	8.720E-11
THYROID	1.810E-14	1.053E-11	1.685E-10	3.710E-16	1.000E+00	2.920E-07	4.760E-07
REMAINDER	1.670E-14	9.908E-12	1.585E-10	3.490E-16	1.000E+00	8.030E-11	1.570E-10
EFFECTIVE	1.820E-14	1.067E-11	1.707E-10	3.760E-16	1.000E+00	8.890E-09	1.440E-08
SKIN(FGR)	2.980E-14	1.825E-11	2.920E-10	6.430E-16	1.000E+00	0.000E+00	0.000E+00
I-132							
GONADS	1.090E-13	2.523E-11	2.771E-11	2.320E-15	1.000E+00	9.950E-12	2.330E-11
BREAST	1.240E-13	2.414E-11	2.652E-11	2.220E-15	1.000E+00	1.410E-11	2.520E-11
LUNGS	1.090E-13	2.305E-11	2.532E-11	2.120E-15	1.000E+00	2.710E-10	2.640E-11
RED MARR	1.070E-13	2.360E-11	2.592E-11	2.170E-15	1.000E+00	1.400E-11	2.460E-11
BONE SUR	1.730E-13	3.327E-11	3.655E-11	3.060E-15	1.000E+00	1.240E-11	2.190E-11
THYROID	1.120E-13	2.381E-11	2.616E-11	2.190E-15	1.000E+00	1.740E-09	3.870E-09
REMAINDER	1.050E-13	2.283E-11	2.509E-11	2.100E-15	1.000E+00	3.780E-11	1.650E-10
EFFECTIVE	1.120E-13	2.403E-11	2.640E-11	2.210E-15	1.000E+00	1.030E-10	1.820E-10
SKIN(FGR)	1.580E-13	8.199E-11	9.007E-11	7.540E-15	1.000E+00	0.000E+00	0.000E+00
I-133							
GONADS	2.870E-14	1.585E-11	6.748E-11	6.270E-16	1.000E+00	1.950E-11	3.630E-11
BREAST	3.280E-14	1.519E-11	6.468E-11	6.010E-16	1.000E+00	2.940E-11	4.680E-11
LUNGS	2.860E-14	1.446E-11	6.156E-11	5.720E-16	1.000E+00	8.200E-10	4.530E-11
RED MARR	2.770E-14	1.466E-11	6.242E-11	5.800E-16	1.000E+00	2.720E-11	4.300E-11
BONE SUR	4.870E-14	2.161E-11	9.202E-11	8.550E-16	1.000E+00	2.520E-11	4.070E-11
THYROID	2.930E-14	1.502E-11	6.393E-11	5.940E-16	1.000E+00	4.860E-08	9.100E-08
REMAINDER	2.730E-14	1.418E-11	6.038E-11	5.610E-16	1.000E+00	5.000E-11	1.550E-10
EFFECTIVE	2.940E-14	1.509E-11	6.425E-11	5.970E-16	1.000E+00	1.580E-09	2.800E-09
SKIN(FGR)	5.830E-14	1.150E-10	4.897E-10	4.550E-15	1.000E+00	0.000E+00	0.000E+00
I-134							
THYROID	2.930E-14	1.502E-11	6.393E-11	5.940E-16	1.000E+00	4.860E-08	9.100E-08
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

GONADS	1.270E-13	1.200E-11	1.202E-11	2.640E-15-1.000E+00	4.250E-12	1.100E-11
BREAST	1.440E-13	1.145E-11	1.147E-11	2.520E-15-1.000E+00	6.170E-12	1.170E-11
LUNGS	1.270E-13	1.100E-11	1.102E-11	2.420E-15-1.000E+00	1.430E-10	1.260E-11
RED MARR	1.250E-13	1.127E-11	1.129E-11	2.480E-15-1.000E+00	6.080E-12	1.090E-11
BONE SUR	1.960E-13	1.568E-11	1.571E-11	3.450E-15-1.000E+00	5.310E-12	9.320E-12
THYROID	1.300E-13	1.127E-11	1.129E-11	2.480E-15-1.000E+00	2.880E-10	6.210E-10
REMAINDER	1.220E-13	1.091E-11	1.093E-11	2.400E-15-1.000E+00	2.270E-11	1.340E-10
EFFECTIVE	1.300E-13	1.150E-11	1.152E-11	2.530E-15-1.000E+00	3.550E-11	6.660E-11
SKIN(FGR)	1.870E-13	4.477E-11	4.485E-11	9.850E-15-1.000E+00	0.000E+00	0.000E+00
I-135						
GONADS	8.078E-14	3.113E-11	5.489E-11	1.599E-15-1.000E+00	1.700E-11	3.610E-11
BREAST	9.143E-14	2.971E-11	5.240E-11	1.526E-15-1.000E+00	2.340E-11	3.850E-11
LUNGS	8.145E-14	2.886E-11	5.089E-11	1.482E-15-1.000E+00	4.410E-10	3.750E-11
RED MARR	8.054E-14	2.965E-11	5.228E-11	1.523E-15-1.000E+00	2.240E-11	3.650E-11
BONE SUR	1.184E-13	3.983E-11	7.024E-11	2.046E-15-1.000E+00	2.010E-11	3.360E-11
THYROID	8.324E-14	2.852E-11	5.030E-11	1.465E-15-1.000E+00	8.460E-09	1.790E-08
REMAINDER	7.861E-14	2.883E-11	5.084E-11	1.481E-15-1.000E+00	4.700E-11	1.540E-10
EFFECTIVE	8.294E-14	2.989E-11	5.271E-11	1.535E-15-1.000E+00	3.320E-10	6.080E-10
SKIN(FGR)	1.156E-13	9.826E-11	1.733E-10	5.047E-15-1.000E+00	0.000E+00	0.000E+00
Xe-133						
GONADS	1.610E-15	1.465E-12	2.052E-11	5.200E-17-1.000E+00	0.000E+00	0.000E+00
BREAST	1.960E-15	1.505E-12	2.107E-11	5.340E-17-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.320E-15	1.045E-12	1.464E-11	3.710E-17-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.070E-15	8.791E-13	1.231E-11	3.120E-17-1.000E+00	0.000E+00	0.000E+00
BONE SUR	5.130E-15	4.254E-12	5.958E-11	1.510E-16-1.000E+00	0.000E+00	0.000E+00
THYROID	1.510E-15	1.181E-12	1.653E-11	4.190E-17-1.000E+00	0.000E+00	0.000E+00
REMAINDER	1.240E-15	1.042E-12	1.460E-11	3.700E-17-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.560E-15	1.299E-12	1.819E-11	4.610E-17-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	4.970E-15	1.953E-12	2.734E-11	6.930E-17-1.000E+00	0.000E+00	0.000E+00
Xe-135						
GONADS	1.170E-14	5.455E-12	1.194E-11	2.530E-16-1.000E+00	0.000E+00	0.000E+00
BREAST	1.330E-14	5.325E-12	1.166E-11	2.470E-16-1.000E+00	0.000E+00	0.000E+00
LUNGS	1.130E-14	4.959E-12	1.086E-11	2.300E-16-1.000E+00	0.000E+00	0.000E+00
RED MARR	1.070E-14	4.959E-12	1.086E-11	2.300E-16-1.000E+00	0.000E+00	0.000E+00
BONE SUR	2.570E-14	9.120E-12	1.997E-11	4.230E-16-1.000E+00	0.000E+00	0.000E+00
THYROID	1.180E-14	5.023E-12	1.100E-11	2.330E-16-1.000E+00	0.000E+00	0.000E+00
REMAINDER	1.080E-14	4.829E-12	1.058E-11	2.240E-16-1.000E+00	0.000E+00	0.000E+00
EFFECTIVE	1.190E-14	5.217E-12	1.142E-11	2.420E-16-1.000E+00	0.000E+00	0.000E+00
SKIN(FGR)	3.120E-14	4.506E-11	9.867E-11	2.090E-15-1.000E+00	0.000E+00	0.000E+00
Cs-134						
GONADS	7.400E-14	4.607E-11	9.646E-10	1.600E-15-1.000E+00	1.300E-08	2.060E-08
BREAST	8.430E-14	4.406E-11	9.224E-10	1.530E-15-1.000E+00	1.080E-08	1.720E-08
LUNGS	7.370E-14	4.204E-11	8.802E-10	1.460E-15-1.000E+00	1.180E-08	1.760E-08
RED MARR	7.190E-14	4.262E-11	8.922E-10	1.480E-15-1.000E+00	1.180E-08	1.870E-08
BONE SUR	1.200E-13	6.105E-11	1.278E-09	2.120E-15-1.000E+00	1.100E-08	1.740E-08
THYROID	7.570E-14	4.377E-11	9.163E-10	1.520E-15-1.000E+00	1.110E-08	1.760E-08
REMAINDER	7.060E-14	4.147E-11	8.681E-10	1.440E-15-1.000E+00	1.390E-08	2.210E-08
EFFECTIVE	7.570E-14	4.377E-11	9.163E-10	1.520E-15-1.000E+00	1.250E-08	1.980E-08
SKIN(FGR)	9.450E-14	6.249E-11	1.308E-09	2.170E-15-1.000E+00	0.000E+00	0.000E+00
Cs-136						
GONADS	1.040E-13	6.223E-11	1.102E-09	2.180E-15-1.000E+00	1.880E-09	3.040E-09
BREAST	1.180E-13	5.966E-11	1.056E-09	2.090E-15-1.000E+00	1.670E-09	2.650E-09
LUNGS	1.040E-13	5.710E-11	1.011E-09	2.000E-15-1.000E+00	2.320E-09	2.620E-09
RED MARR	1.010E-13	5.824E-11	1.031E-09	2.040E-15-1.000E+00	1.860E-09	2.950E-09
BONE SUR	1.660E-13	8.422E-11	1.491E-09	2.950E-15-1.000E+00	1.700E-09	2.710E-09
THYROID	1.070E-13	5.852E-11	1.036E-09	2.050E-15-1.000E+00	1.730E-09	2.740E-09
REMAINDER	9.950E-14	5.652E-11	1.001E-09	1.980E-15-1.000E+00	2.190E-09	3.520E-09
EFFECTIVE	1.060E-13	5.966E-11	1.056E-09	2.090E-15-1.000E+00	1.980E-09	3.040E-09
SKIN(FGR)	1.250E-13	7.251E-11	1.284E-09	2.540E-15-1.000E+00	0.000E+00	0.000E+00
Cs-137						
GONADS	2.669E-14	1.669E-11	3.530E-10	5.840E-16-1.000E+00	8.760E-09	1.390E-08
REMAINDER	9.950E-14	5.652E-11	1.001E-09	1.980E-15-1.000E+00	2.190E-09	3.520E-09
[illegible]						

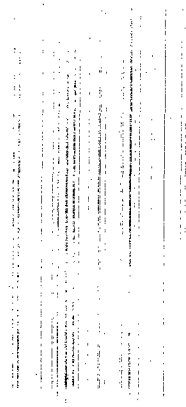
BREAST	3.047E-14	1.596E-11	3.376E-10	5.585E-16-1.000E+00	7.840E-09	1.240E-08
LUNGS	2.649E-14	1.517E-11	3.209E-10	5.309E-16-1.000E+00	8.820E-09	1.270E-08
RED MARR	2.583E-14	1.542E-11	3.260E-10	5.394E-16-1.000E+00	8.300E-09	1.320E-08
BONE SUR	4.382E-14	2.238E-11	4.734E-10	7.832E-16-1.000E+00	7.940E-09	1.260E-08
THYROID	2.725E-14	1.588E-11	3.358E-10	5.556E-16-1.000E+00	7.930E-09	1.260E-08
REMAINDER	2.536E-14	1.490E-11	3.152E-10	5.215E-16-1.000E+00	9.120E-09	1.450E-08
EFFECTIVE	2.725E-14	1.585E-11	3.353E-10	5.546E-16-1.000E+00	8.630E-09	1.350E-08
SKIN(FGR)	4.392E-14	5.253E-11	1.110E-09	1.836E-15-1.000E+00	0.000E+00	0.000E+00
Ba-139						
GONADS	2.130E-15	3.368E-13	3.429E-13	4.790E-17-1.000E+00	2.560E-12	1.560E-12
BREAST	2.450E-15	3.297E-13	3.357E-13	4.690E-17-1.000E+00	2.460E-12	5.170E-13
LUNGS	2.030E-15	3.002E-13	3.057E-13	4.270E-17-1.000E+00	2.530E-10	3.890E-13
RED MARR	1.870E-15	2.932E-13	2.985E-13	4.170E-17-1.000E+00	3.410E-12	8.590E-13
BONE SUR	5.290E-15	6.841E-13	6.965E-13	9.730E-17-1.000E+00	2.490E-12	4.380E-13
THYROID	2.130E-15	3.044E-13	3.100E-13	4.330E-17-1.000E+00	2.400E-12	2.660E-13
REMAINDER	1.920E-15	2.932E-13	2.985E-13	4.170E-17-1.000E+00	4.820E-11	3.570E-10
EFFECTIVE	2.170E-15	3.227E-13	3.286E-13	4.590E-17-1.000E+00	4.640E-11	1.080E-10
SKIN(FGR)	6.160E-14	7.241E-11	7.373E-11	1.030E-14-1.000E+00	0.000E+00	0.000E+00
Ba-140						
GONADS	8.410E-15	5.451E-12	9.607E-11	1.910E-16-1.000E+00	4.300E-10	9.960E-10
BREAST	9.640E-15	5.280E-12	9.305E-11	1.850E-16-1.000E+00	2.870E-10	1.590E-10
LUNGS	8.270E-15	4.852E-12	8.550E-11	1.700E-16-1.000E+00	1.660E-09	6.630E-11
RED MARR	7.930E-15	4.880E-12	8.601E-11	1.710E-16-1.000E+00	1.290E-09	4.390E-10
BONE SUR	1.550E-14	8.020E-12	1.413E-10	2.810E-16-1.000E+00	2.410E-09	5.530E-10
THYROID	8.530E-15	5.109E-12	9.003E-11	1.790E-16-1.000E+00	2.560E-10	5.250E-11
REMAINDER	7.890E-15	4.766E-12	8.399E-11	1.670E-16-1.000E+00	1.410E-09	7.370E-09
EFFECTIVE	8.580E-15	5.137E-12	9.053E-11	1.800E-16-1.000E+00	1.010E-09	2.560E-09
SKIN(FGR)	2.520E-14	5.565E-11	9.808E-10	1.950E-15-1.000E+00	0.000E+00	0.000E+00
La-140						
GONADS	1.140E-13	6.027E-11	4.425E-10	2.240E-15-1.000E+00	4.540E-10	1.340E-09
BREAST	1.290E-13	5.758E-11	4.228E-10	2.140E-15-1.000E+00	1.450E-10	1.800E-10
LUNGS	1.150E-13	5.596E-11	4.109E-10	2.080E-15-1.000E+00	4.210E-09	4.010E-11
RED MARR	1.140E-13	5.731E-11	4.208E-10	2.130E-15-1.000E+00	2.140E-10	2.810E-10
BONE SUR	1.690E-13	7.776E-11	5.709E-10	2.890E-15-1.000E+00	1.410E-10	9.770E-11
THYROID	1.180E-13	5.462E-11	4.010E-10	2.030E-15-1.000E+00	6.870E-11	6.400E-12
REMAINDER	1.110E-13	5.569E-11	4.089E-10	2.070E-15-1.000E+00	2.120E-09	6.260E-09
EFFECTIVE	1.170E-13	5.812E-11	4.267E-10	2.160E-15-1.000E+00	1.310E-09	2.280E-09
SKIN(FGR)	1.660E-13	2.217E-10	1.628E-09	8.240E-15-1.000E+00	0.000E+00	0.000E+00
La-141						
GONADS	2.330E-15	7.315E-13	9.675E-13	4.740E-17-1.000E+00	1.010E-11	3.770E-12
BREAST	2.640E-15	7.007E-13	9.267E-13	4.540E-17-1.000E+00	9.840E-12	7.070E-13
LUNGS	2.340E-15	6.713E-13	8.879E-13	4.350E-17-1.000E+00	6.460E-10	2.720E-13
RED MARR	2.310E-15	6.852E-13	9.063E-13	4.440E-17-1.000E+00	2.930E-11	1.070E-12
BONE SUR	3.490E-15	9.923E-13	1.312E-12	6.430E-17-1.000E+00	1.200E-10	6.060E-13
THYROID	2.390E-15	6.590E-13	8.716E-13	4.270E-17-1.000E+00	9.400E-12	5.290E-14
REMAINDER	2.260E-15	6.682E-13	8.838E-13	4.330E-17-1.000E+00	2.280E-10	1.240E-09
EFFECTIVE	2.390E-15	7.007E-13	9.267E-13	4.540E-17-1.000E+00	1.570E-10	3.740E-10
SKIN(FGR)	6.580E-14	1.667E-10	2.204E-10	1.080E-14-1.000E+00	0.000E+00	0.000E+00
La-142						
GONADS	1.400E-13	1.978E-11	2.034E-11	2.540E-15-1.000E+00	1.660E-11	6.990E-11
BREAST	1.570E-13	1.885E-11	1.938E-11	2.420E-15-1.000E+00	1.130E-11	1.540E-11
LUNGS	1.420E-13	1.846E-11	1.898E-11	2.370E-15-1.000E+00	3.010E-10	8.400E-12
RED MARR	1.420E-13	1.900E-11	1.954E-11	2.440E-15-1.000E+00	1.360E-11	1.930E-11
BONE SUR	1.950E-13	2.484E-11	2.554E-11	3.190E-15-1.000E+00	1.110E-11	7.400E-12
THYROID	1.450E-13	1.768E-11	1.818E-11	2.270E-15-1.000E+00	8.740E-12	1.160E-12
REMAINDER	1.380E-13	1.853E-11	1.906E-11	2.380E-15-1.000E+00	8.070E-11	5.200E-10
EFFECTIVE	1.440E-13	1.916E-11	1.970E-11	2.460E-15-1.000E+00	6.840E-11	1.790E-10
SKIN(FGR)	2.160E-13	9.111E-11	9.368E-11	1.170E-14-1.000E+00	0.000E+00	0.000E+00
Ce-141						
GONADS	3.380E-15	2.213E-12	4.332E-11	7.710E-17-1.000E+00	5.540E-11	1.080E-10
BREAST	3.930E-15	2.170E-12	4.247E-11	7.560E-17-1.000E+00	4.460E-11	1.110E-11
EFFECTIVE	1.440E-13	1.916E-11	1.970E-11	2.460E-15-1.000E+00	6.840E-11	1.790E-10
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

LUNGS	3.170E-15	1.951E-12	3.820E-11	6.800E-17-1.000E+00	1.670E-08	1.430E-12
RED MARR	2.830E-15	1.860E-12	3.641E-11	6.480E-17-1.000E+00	8.960E-11	3.390E-11
BONE SUR	9.410E-15	5.166E-12	1.011E-10	1.800E-16-1.000E+00	2.540E-10	2.300E-11
THYROID	3.350E-15	2.003E-12	3.922E-11	6.980E-17-1.000E+00	2.550E-11	1.800E-13
REMAINDER	2.980E-15	1.894E-12	3.708E-11	6.600E-17-1.000E+00	1.260E-09	2.500E-09
EFFECTIVE	3.430E-15	2.118E-12	4.146E-11	7.380E-17-1.000E+00	2.420E-09	7.830E-10
SKIN(FGR)	1.020E-14	3.788E-12	7.416E-11	1.320E-16-1.000E+00	0.000E+00	0.000E+00
Ce-143						
GONADS	1.280E-14	7.900E-12	4.958E-11	2.980E-16-1.000E+00	7.530E-11	2.120E-10
BREAST	1.470E-14	7.688E-12	4.825E-11	2.900E-16-1.000E+00	1.660E-11	2.320E-11
LUNGS	1.230E-14	6.893E-12	4.325E-11	2.600E-16-1.000E+00	3.880E-09	3.820E-12
RED MARR	1.170E-14	6.787E-12	4.259E-11	2.560E-16-1.000E+00	2.960E-11	5.070E-11
BONE SUR	2.520E-14	1.323E-11	8.302E-11	4.990E-16-1.000E+00	1.640E-11	1.610E-11
THYROID	1.280E-14	7.211E-12	4.525E-11	2.720E-16-1.000E+00	6.230E-12	4.350E-13
REMAINDER	1.170E-14	6.734E-12	4.226E-11	2.540E-16-1.000E+00	1.420E-09	3.890E-09
EFFECTIVE	1.290E-14	7.396E-12	4.642E-11	2.790E-16-1.000E+00	9.160E-10	1.230E-09
SKIN(FGR)	3.960E-14	1.058E-10	6.638E-10	3.990E-15-1.000E+00	0.000E+00	0.000E+00
Ce-144						
GONADS	2.725E-15	6.328E-13	1.319E-11	6.088E-17-1.000E+00	2.390E-10	6.987E-11
BREAST	3.129E-15	6.274E-13	1.307E-11	5.922E-17-1.000E+00	3.480E-10	1.223E-11
LUNGS	2.639E-15	5.228E-13	1.089E-11	5.362E-17-1.000E+00	7.911E-07	6.551E-12
RED MARR	2.507E-15	4.755E-13	9.907E-12	5.247E-17-1.000E+00	2.880E-09	8.923E-11
BONE SUR	5.441E-15	1.646E-12	3.429E-11	1.127E-16-1.000E+00	4.720E-09	1.280E-10
THYROID	2.753E-15	5.529E-13	1.152E-11	5.418E-17-1.000E+00	2.920E-10	5.154E-12
REMAINDER	2.534E-15	5.086E-13	1.060E-11	5.283E-17-1.000E+00	1.910E-08	1.890E-08
EFFECTIVE	2.773E-15	5.909E-13	1.231E-11	5.766E-17-1.000E+00	1.010E-07	5.711E-09
SKIN(FGR)	8.574E-14	7.648E-13	1.594E-11	1.250E-14-1.000E+00	0.000E+00	0.000E+00
Pr-143						
GONADS	2.130E-17	2.264E-14	4.032E-13	7.930E-19-1.000E+00	4.370E-18	8.990E-18
BREAST	2.550E-17	2.330E-14	4.149E-13	8.160E-19-1.000E+00	2.220E-18	1.090E-18
LUNGS	1.860E-17	1.642E-14	2.923E-13	5.750E-19-1.000E+00	1.330E-08	1.910E-19
RED MARR	1.620E-17	1.493E-14	2.659E-13	5.230E-19-1.000E+00	1.480E-11	1.030E-12
BONE SUR	5.930E-17	5.454E-14	9.711E-13	1.910E-18-1.000E+00	1.490E-11	1.030E-12
THYROID	2.050E-17	1.802E-14	3.208E-13	6.310E-19-1.000E+00	1.680E-18	2.660E-20
REMAINDER	1.760E-17	1.642E-14	2.923E-13	5.750E-19-1.000E+00	1.970E-09	4.220E-09
EFFECTIVE	2.100E-17	2.002E-14	3.564E-13	7.010E-19-1.000E+00	2.190E-09	1.270E-09
SKIN(FGR)	1.760E-14	5.711E-11	1.017E-09	2.000E-15-1.000E+00	0.000E+00	0.000E+00
Nd-147						
GONADS	6.130E-15	4.218E-12	7.235E-11	1.480E-16-1.000E+00	8.410E-11	1.790E-10
BREAST	7.120E-15	4.132E-12	7.088E-11	1.450E-16-1.000E+00	3.450E-11	1.870E-11
LUNGS	5.820E-15	3.648E-12	6.257E-11	1.280E-16-1.000E+00	1.060E-08	2.440E-12
RED MARR	5.400E-15	3.505E-12	6.013E-11	1.230E-16-1.000E+00	9.190E-11	5.050E-11
BONE SUR	1.320E-14	8.265E-12	1.418E-10	2.900E-16-1.000E+00	3.260E-10	2.220E-11
THYROID	6.120E-15	3.876E-12	6.648E-11	1.360E-16-1.000E+00	1.820E-11	2.640E-13
REMAINDER	5.530E-15	3.562E-12	6.111E-11	1.250E-16-1.000E+00	1.760E-09	3.760E-09
EFFECTIVE	6.190E-15	3.961E-12	6.795E-11	1.390E-16-1.000E+00	1.850E-09	1.180E-09
SKIN(FGR)	1.950E-14	3.135E-11	5.377E-10	1.100E-15-1.000E+00	0.000E+00	0.000E+00
Np-239						
GONADS	7.530E-15	4.691E-12	4.380E-11	1.710E-16-1.000E+00	7.450E-11	1.620E-10
BREAST	8.730E-15	4.636E-12	4.329E-11	1.690E-16-1.000E+00	1.630E-11	1.720E-11
LUNGS	7.180E-15	4.115E-12	3.842E-11	1.500E-16-1.000E+00	2.360E-09	2.400E-12
RED MARR	6.500E-15	4.005E-12	3.740E-11	1.460E-16-1.000E+00	2.080E-10	4.660E-11
BONE SUR	2.000E-14	1.001E-11	9.349E-11	3.650E-16-1.000E+00	2.030E-09	3.590E-11
THYROID	7.520E-15	4.197E-12	3.919E-11	1.530E-16-1.000E+00	7.620E-12	2.070E-13
REMAINDER	6.760E-15	4.005E-12	3.740E-11	1.460E-16-1.000E+00	9.590E-10	2.770E-09
EFFECTIVE	7.690E-15	4.471E-12	4.175E-11	1.630E-16-1.000E+00	6.780E-10	8.820E-10
SKIN(FGR)	1.600E-14	7.215E-12	6.737E-11	2.630E-16-1.000E+00	0.000E+00	0.000E+00
Pu-238						
GONADS	6.560E-18	4.291E-14	9.011E-13	1.490E-18-1.000E+00	1.040E-05	2.330E-09
BREAST	1.270E-17	5.558E-14	1.167E-12	1.930E-18-1.000E+00	4.400E-10	1.800E-13
LUNGS	1.060E-18	2.267E-15	4.759E-14	7.870E-20-1.000E+00	3.200E-04	8.640E-14
SKIN(FGR)	1.600E-14	7.215E-12	6.737E-11	2.630E-16-1.000E+00	0.000E+00	0.000E+00
Th-228						

RED MARR	1.680E-18	5.587E-15	1.173E-13	1.940E-19-1.000E+00	5.800E-05	1.270E-08
BONE SUR	9.300E-18	3.514E-14	7.378E-13	1.220E-18-1.000E+00	7.250E-04	1.580E-07
THYROID	4.010E-18	9.792E-15	2.056E-13	3.400E-19-1.000E+00	3.860E-10	7.990E-14
REMAINDER	1.990E-18	9.216E-15	1.935E-13	3.200E-19-1.000E+00	2.740E-05	2.180E-08
EFFECTIVE	4.880E-18	2.413E-14	5.068E-13	8.380E-19-1.000E+00	7.790E-05	1.340E-08
SKIN(FGR)	4.090E-17	2.776E-13	5.830E-12	9.640E-18-1.000E+00	0.000E+00	0.000E+00
Pu-239						
GONADS	4.840E-18	1.768E-14	3.713E-13	6.140E-19-1.000E+00	1.200E-05	2.640E-09
BREAST	7.550E-18	2.238E-14	4.699E-13	7.770E-19-1.000E+00	3.990E-10	1.210E-13
LUNGS	2.650E-18	2.267E-15	4.760E-14	7.870E-20-1.000E+00	3.230E-04	7.890E-14
RED MARR	2.670E-18	3.456E-15	7.258E-14	1.200E-19-1.000E+00	6.570E-05	1.410E-08
BONE SUR	9.470E-18	1.673E-14	3.514E-13	5.810E-19-1.000E+00	8.210E-04	1.760E-07
THYROID	3.880E-18	5.126E-15	1.077E-13	1.780E-19-1.000E+00	3.750E-10	7.500E-14
REMAINDER	2.860E-18	4.838E-15	1.016E-13	1.680E-19-1.000E+00	3.020E-05	2.120E-08
EFFECTIVE	4.240E-18	1.057E-14	2.220E-13	3.670E-19-1.000E+00	8.330E-05	1.400E-08
SKIN(FGR)	1.860E-17	1.057E-13	2.220E-12	3.670E-18-1.000E+00	0.000E+00	0.000E+00
Pu-240						
GONADS	6.360E-18	4.118E-14	8.649E-13	1.430E-18-1.000E+00	1.200E-05	2.640E-09
BREAST	1.230E-17	5.328E-14	1.119E-12	1.850E-18-1.000E+00	4.330E-10	1.730E-13
LUNGS	1.090E-18	2.249E-15	4.723E-14	7.810E-20-1.000E+00	3.230E-04	8.220E-14
RED MARR	1.650E-18	5.386E-15	1.131E-13	1.870E-19-1.000E+00	6.570E-05	1.410E-08
BONE SUR	9.260E-18	3.398E-14	7.137E-13	1.180E-18-1.000E+00	8.210E-04	1.760E-07
THYROID	3.920E-18	9.446E-15	1.984E-13	3.280E-19-1.000E+00	3.760E-10	7.510E-14
REMAINDER	1.960E-18	8.870E-15	1.863E-13	3.080E-19-1.000E+00	3.020E-05	2.130E-08
EFFECTIVE	4.750E-18	2.313E-14	4.857E-13	8.030E-19-1.000E+00	8.330E-05	1.400E-08
SKIN(FGR)	3.920E-17	2.644E-13	5.552E-12	9.180E-18-1.000E+00	0.000E+00	0.000E+00
Pu-241						
GONADS	7.190E-20	6.653E-17	1.396E-15	2.310E-21-1.000E+00	2.760E-07	5.660E-11
BREAST	8.670E-20	7.229E-17	1.517E-15	2.510E-21-1.000E+00	2.140E-11	2.790E-15
LUNGS	6.480E-20	4.090E-17	8.584E-16	1.420E-21-1.000E+00	3.180E-06	4.480E-15
RED MARR	5.630E-20	4.003E-17	8.403E-16	1.390E-21-1.000E+00	1.430E-06	2.780E-10
BONE SUR	2.190E-19	1.385E-16	2.908E-15	4.810E-21-1.000E+00	1.780E-05	3.480E-09
THYROID	6.980E-20	4.522E-17	9.491E-16	1.570E-21-1.000E+00	9.150E-12	1.010E-15
REMAINDER	6.090E-20	4.291E-17	9.007E-16	1.490E-21-1.000E+00	6.020E-07	1.850E-10
EFFECTIVE	7.250E-20	5.558E-17	1.167E-15	1.930E-21-1.000E+00	1.340E-06	2.070E-10
SKIN(FGR)	1.170E-19	2.033E-16	4.268E-15	7.060E-21-1.000E+00	0.000E+00	0.000E+00
Am-241						
GONADS	8.580E-16	9.360E-13	1.966E-11	3.250E-17-1.000E+00	3.250E-05	2.700E-07
BREAST	1.070E-15	1.014E-12	2.129E-11	3.520E-17-1.000E+00	2.670E-09	2.620E-11
LUNGS	6.740E-16	5.789E-13	1.216E-11	2.010E-17-1.000E+00	1.840E-05	3.360E-11
RED MARR	5.210E-16	4.838E-13	1.016E-11	1.680E-17-1.000E+00	1.740E-04	1.450E-06
BONE SUR	2.870E-15	2.678E-12	5.625E-11	9.300E-17-1.000E+00	2.170E-03	1.810E-05
THYROID	7.830E-16	6.365E-13	1.337E-11	2.210E-17-1.000E+00	1.600E-09	1.320E-11
REMAINDER	6.340E-16	5.933E-13	1.246E-11	2.060E-17-1.000E+00	7.820E-05	6.660E-07
EFFECTIVE	8.180E-16	7.920E-13	1.663E-11	2.750E-17-1.000E+00	1.200E-04	9.840E-07
SKIN(FGR)	1.280E-15	2.396E-12	5.032E-11	8.320E-17-1.000E+00	0.000E+00	0.000E+00
Cm-242						
GONADS	7.830E-18	4.893E-14	1.013E-12	1.700E-18-1.000E+00	5.700E-07	5.200E-09
BREAST	1.480E-17	6.159E-14	1.275E-12	2.140E-18-1.000E+00	9.440E-10	8.950E-12
LUNGS	1.130E-18	3.022E-15	6.257E-14	1.050E-19-1.000E+00	1.550E-05	8.840E-12
RED MARR	1.890E-18	6.562E-15	1.359E-13	2.280E-19-1.000E+00	3.900E-06	3.570E-08
BONE SUR	1.060E-17	4.231E-14	8.759E-13	1.470E-18-1.000E+00	4.870E-05	4.460E-07
THYROID	4.910E-18	1.261E-14	2.610E-13	4.380E-19-1.000E+00	9.410E-10	8.820E-12
REMAINDER	2.270E-18	1.079E-14	2.235E-13	3.750E-19-1.000E+00	2.450E-06	4.020E-08
EFFECTIVE	5.690E-18	2.751E-14	5.697E-13	9.560E-19-1.000E+00	4.670E-06	3.100E-08
SKIN(FGR)	4.290E-17	2.700E-13	5.589E-12	9.380E-18-1.000E+00	0.000E+00	0.000E+00
Cm-244						
GONADS	6.900E-18	4.522E-14	9.492E-13	1.570E-18-1.000E+00	1.590E-05	1.330E-07
BREAST	1.330E-17	5.702E-14	1.197E-12	1.980E-18-1.000E+00	1.040E-09	8.820E-12
LUNGS	7.080E-19	2.592E-15	5.441E-14	9.000E-20-1.000E+00	1.930E-05	8.810E-12
RED MARR	1.460E-18	5.875E-15	1.233E-13	2.040E-19-1.000E+00	9.380E-05	7.820E-07
Cm-244						
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BONE SUR	8.820E-18	3.859E-14	8.101E-13	1.340E-18-1.000E+00	1.170E-03	9.770E-06
THYROID	4.190E-18	1.146E-14	2.406E-13	3.980E-19-1.000E+00	1.010E-09	8.440E-12
REMAINDER	1.810E-18	9.821E-15	2.062E-13	3.410E-19-1.000E+00	4.780E-05	4.150E-07
EFFECTIVE	4.910E-18	2.529E-14	5.308E-13	8.780E-19-1.000E+00	6.700E-05	5.450E-07
SKIN(FGR)	3.910E-17	2.506E-13	5.260E-12	8.700E-18-1.000E+00	0.000E+00	0.000E+00

Attachment 5 RADTRAD Control File Inventory File SSES_AST-LOCA.nif



```
Nuclide Inventory Name: SSES_AST-LOCA.NIF
 BWR Core Inventory Reference: EC-FUEL-1615
 Power Level:
  0.1000E+01
 Nuclides:
  60
 Nuclide 001:
 Co-58
    7
  0.6117120000E+07
  0.5800E+02
  0.1470E+03
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 002:
 Co-60
    7
  0.1663401096E+09
  0.6000E+02
  0.7900E+02
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 003:
 Kr-85
    1
  0.3382974720E+09
  0.8500E+02
  0.3620E+03
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 004:
 Kr-85m
    1
  0.1612800000E+05
  0.8500E+02
  0.6940E+04
 Kr-85     0.2100E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 005:
 Kr-87
    1
  0.4578000000E+04
  0.8700E+02
  0.1390E+05
 Rb-87     0.1000E+01
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 006:
 Kr-88
    1
  0.1022400000E+05
  0.8800E+02
  0.1930E+05
 Rb-88     0.1000E+01
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 007:
  0.1930E+05
```

```
Rb-86
  3
 0.1612224000E+07
 0.8600E+02
 0.1400E+02
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 008:
Sr-89
  5
 0.4363200000E+07
 0.8900E+02
 0.2680E+05
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 009:
Sr-90
  5
 0.9189573120E+09
 0.9000E+02
 0.3180E+04
Y-90      0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 010:
Sr-91
  5
 0.3420000000E+05
 0.9100E+02
 0.3370E+05
Y-91m     0.5800E+00
Y-91      0.4200E+00
none      0.0000E+00
Nuclide 011:
Sr-92
  5
 0.9756000000E+04
 0.9200E+02
 0.3570E+05
Y-92      0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 012:
Y-90
  9
 0.2304000000E+06
 0.9000E+02
 0.3320E+04
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 013:
Y-91
  9
 0.5055264000E+07
 0.9100E+02
 0.3470E+05
none      0.0000E+00
none      0.0000E+00
 0.5055264000E+07
 0.9100E+02
```

```
 none      0.0000E+00
 Nuclide 014:
 Y-92
   9
  0.1274400000E+05
  0.9200E+02
  0.3600E+05
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 015:
 Y-93
   9
  0.3636000000E+05
  0.9300E+02
  0.2730E+05
 Zr-93     0.1000E+01
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 016:
 Zr-95
   9
  0.5527872000E+07
  0.9500E+02
  0.4840E+05
 Nb-95m    0.7000E-02
 Nb-95     0.9900E+00
 none      0.0000E+00
 Nuclide 017:
 Zr-97
   9
  0.6084000000E+05
  0.9700E+02
  0.4740E+05
 Nb-97m    0.9500E+00
 Nb-97     0.5300E-01
 none      0.0000E+00
 Nuclide 018:
 Nb-95
   9
  0.3036960000E+07
  0.9500E+02
  0.4840E+05
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 019:
 Mo-99
   7
  0.2376000000E+06
  0.9900E+02
  0.5030E+05
 Tc-99m    0.8800E+00
 Tc-99     0.1200E+00
 none      0.0000E+00
 Nuclide 020:
 Tc-99m
   7
  0.2167200000E+05
  0.9900E+02
  0.4460E+05
 Tc-99m
   7
```

```
Tc-99     0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 021:
Ru-103
  7
 0.3393792000E+07
 0.1030E+03
 0.4260E+05
Rh-103m   0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 022:
Ru-105
  7
 0.1598400000E+05
 0.1050E+03
 0.2960E+05
Rh-105    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 023:
Ru-106
  7
 0.3181248000E+08
 0.1060E+03
 0.1700E+05
Rh-106    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 024:
Rh-105
  7
 0.1272960000E+06
 0.1050E+03
 0.2750E+05
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 025:
Sb-127
  4
 0.3326400000E+06
 0.1270E+03
 0.2330E+04
Te-127m   0.1800E+00
Te-127    0.8200E+00
none      0.0000E+00
Nuclide 026:
Sb-129
  4
 0.1555200000E+05
 0.1290E+03
 0.8600E+04
Te-129m   0.2200E+00
Te-129    0.7700E+00
none      0.0000E+00
Nuclide 027:
Te-127
  4
 0.3366000000E+05
none      0.0000E+00
```

```
 0.1270E+03
 0.2310E+04
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 028:
Te-127m
  4
 0.9417600000E+07
 0.1270E+03
 0.3940E+03
Te-127    0.9800E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 029:
Te-129
  4
 0.4176000000E+04
 0.1290E+03
 0.8170E+04
I-129     0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 030:
Te-129m
  4
 0.2903040000E+07
 0.1290E+03
 0.1650E+04
Te-129    0.6500E+00
I-129     0.3500E+00
none      0.0000E+00
Nuclide 031:
Te-131m
  4
 0.1080000000E+06
 0.1310E+03
 0.5320E+04
Te-131    0.2200E+00
I-131     0.7800E+00
none      0.0000E+00
Nuclide 032:
Te-132
  4
 0.2815200000E+06
 0.1320E+03
 0.3830E+05
I-132     0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 033:
I-131
  2
 0.6946560000E+06
 0.1310E+03
 0.2650E+05
Xe-131m   0.1100E-01
none      0.0000E+00
none      0.0000E+00
Nuclide 034:
I-132
Xe-131m   0.1100E-01
```

```
  2
 0.8280000000E+04
 0.1320E+03
 0.3900E+05
none       0.0000E+00
none       0.0000E+00
none       0.0000E+00
Nuclide 035:
I-133
  2
 0.7488000000E+05
 0.1330E+03
 0.5530E+05
Xe-133m   0.2900E-01
Xe-133    0.9700E+00
none       0.0000E+00
Nuclide 036:
I-134
  2
 0.3156000000E+04
 0.1340E+03
 0.6150E+05
none       0.0000E+00
none       0.0000E+00
none       0.0000E+00
Nuclide 037:
I-135
  2
 0.2379600000E+05
 0.1350E+03
 0.5260E+05
Xe-135m   0.1500E+00
Xe-135    0.8500E+00
none       0.0000E+00
Nuclide 038:
Xe-133
  1
 0.4531680000E+06
 0.1330E+03
 0.5310E+05
none       0.0000E+00
none       0.0000E+00
none       0.0000E+00
Nuclide 039:
Xe-135
  1
 0.3272400000E+05
 0.1350E+03
 0.1780E+05
Cs-135    0.1000E+01
none       0.0000E+00
none       0.0000E+00
Nuclide 040:
Cs-134
  3
 0.6507177120E+08
 0.1340E+03
 0.5700E+04
none       0.0000E+00
none       0.0000E+00
none       0.0000E+00
 0.1340E+03
 0.5700E+04
```

```
Nuclide 041:
Cs-136
  3
 0.1131840000E+07
 0.1360E+03
 0.1820E+04
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 042:
Cs-137
  3
 0.9467280000E+09
 0.1370E+03
 0.4300E+04
Ba-137m   0.9500E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 043:
Ba-139
  6
 0.4962000000E+04
 0.1390E+03
 0.4890E+05
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 044:
Ba-140
  6
 0.1100736000E+07
 0.1400E+03
 0.4910E+05
La-140    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 045:
La-140
  9
 0.1449792000E+06
 0.1400E+03
 0.5230E+05
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 046:
La-141
  9
 0.1414800000E+05
 0.1410E+03
 0.4460E+05
Ce-141    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 047:
La-142
  9
 0.5550000000E+04
 0.1420E+03
 0.4370E+05
none      0.0000E+00
  9
 0.5550000000E+04
```

```
none      0.0000E+00
none      0.0000E+00
Nuclide 048:
Ce-141
  8
 0.2808086400E+07
 0.1410E+03
 0.4490E+05
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 049:
Ce-143
  8
 0.1188000000E+06
 0.1430E+03
 0.4220E+05
Pr-143    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 050:
Ce-144
  8
 0.2456352000E+08
 0.1440E+03
 0.3790E+05
Pr-144m   0.1800E-01
Pr-144    0.9800E+00
none      0.0000E+00
Nuclide 051:
Pr-143
  9
 0.1171584000E+07
 0.1430E+03
 0.4070E+05
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 052:
Nd-147
  9
 0.9486720000E+06
 0.1470E+03
 0.1910E+05
Pm-147    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 053:
Np-239
  8
 0.2034720000E+06
 0.2390E+03
 0.5270E+06
Pu-239    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 054:
Pu-238
  8
 0.2768863824E+10
 0.2380E+03
Nuclide 054:
Pu-238
```

```
  0.1130E+03
U-234     0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 055:
Pu-239
   8
 0.7594336440E+12
 0.2390E+03
 0.1170E+02
U-235     0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 056:
Pu-240
   8
 0.2062920312E+12
 0.2400E+03
 0.1930E+02
U-236     0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 057:
Pu-241
   8
 0.4544294400E+09
 0.2410E+03
 0.4760E+04
U-237     0.2400E-04
Am-241    0.1000E+01
none      0.0000E+00
Nuclide 058:
Am-241
   9
 0.1363919472E+11
 0.2410E+03
 0.6250E+01
Np-237    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 059:
Cm-242
   9
 0.1406592000E+08
 0.2420E+03
 0.1650E+04
Pu-238    0.1000E+01
none      0.0000E+00
none      0.0000E+00
Nuclide 060:
Cm-244
   9
 0.5715081360E+09
 0.2440E+03
 0..9660E+02
Pu-240    0.1000E+01
none      0.0000E+00
none      0.0000E+00
End of Nuclear Inventory File


none      0.0000E+00
```

Attachment 6 RADTRAD Control File Inventory File PPL-ESF.nif

```
Nuclide Inventory Name: SSES_ESF - (Iodines Only - PUP Source)
 Source Terms EC-FUEL-1615
 Power Level:
  0.1000E+01
 Nuclides:
  60
 Nuclide 001:
 Co-58
   7
  0.6117120000E+07
  0.5800E+02
  0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 002:
 Co-60
   7
  0.1663401096E+09
  0.6000E+02
  0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 003:
 Kr-85
   1
  0.3382974720E+09
  0.8500E+02
  0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 004:
 Kr-85m
   1
  0.1612800000E+09
  0.8500E+02
  0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 005:
 Kr-87
   1
  0.4578000000E+04
  0.8700E+02
  0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 006:
 Kr-88
   1
  0.1022400000E+05
  0.8800E+02
  0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 none      0.0000E+00
 Nuclide 007:
  0.0000E+00
 none      0.0000E+00
```

```
Rb-86
  3
 0.1612224000E+07
 0.8600E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 008:
Sr-89
  5
 0.4363200000E+07
 0.8900E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 009:
Sr-90
  5
 0.9189573120E+09
 0.9000E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 010:
Sr-91
  5
  .3420000000E+05
 0.9100E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 011:
Sr-92
  5
 0.9756000000E+04
 0.9200E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 012:
Y-90
  9
 0.2304000000E+06
 0.9000E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 013:
Y-91
  9
 0.5055264000E+07
 0.9100E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
 0.5055264000E+07
none      0.0000E+00
```

```
none      0.0000E+00
Nuclide 014:
Y-92
  9
 0.1274400000E+05
 0.9200E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 015:
Y-93
  9
 .3636000000E+05
 0.9300E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 016:
Zr-95
  9
 0.5527872000E+07
 0.9500E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 017:
Zr-97
  9
 0.6084000000E+05
 0.9700E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 018:
Nb-95
  9
 0.3036960000E+07
 0.9500E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 019:
Mo-99
  7
 0.2376000000E+06
 0.9900E+02
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 020:
Tc-99m
  7
 0.2167200000E+05
 0.9900E+02
 0.0000E+00
Tc-99m
  7
```

```
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 021:
Ru-103
  7
 0.3393792000E+07
 0.1030E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 022:
Ru-105
  7
 0.1598400000E+05
 0.1050E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 023:
Ru-106
  7
 0.3181248000E+08
 0.1060E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 024:
Rh-105
  7
 0.1272960000E+06
 0.1050E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 025:
Sb-127
  4
 0.3326400000E+06
 0.1270E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 026:
Sb-129
  4
 0.1555200000E+05
 0.1290E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 027:
Te-127
  4
 0.3366000000E+05
none      0.0000E+00
```

```
 0.1270E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 028:
Te-127m
  4
 0.9417600000E+07
 0.1270E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 029:
Te-129
  4
 0.4176000000E+04
 0.1290E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 030:
Te-129m
  4
 .2903040000E+07
 0.1290E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 031:
Te-131m
  4
 0.1080000000E+06
 0.1310E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 032:
Te-132
  4
 0.2815200000E+06
 0.1320E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 033:
I-131
  2
 0.6946560000E+06
 0.1310E+03
 0.2650E+05
Xe-131m   0.1100E-01
none      0.0000E+00
none      0.0000E+00
Nuclide 034:
I-132
Xe-131m   0.1100E-01
```

```
   2
  0.8280000000E+04
  0.1320E+03
  0.3900E+05
 none       0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 Nuclide 035:
 I-133
   2
  0.7488000000E+05
  0.1330E+03
  0.5530E+05
 Xe-133m  0.2900E-01
 Xe-133   0.9700E+00
 none       0.0000E+00
 Nuclide 036:
 I-134
   2
  0.3156000000E+04
  0.1340E+03
  0.6150E+05
 none       0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 Nuclide 037:
 I-135
   2
  0.2379600000E+05
  0.1350E+03
  0.5260E+05
 Xe-135m  0.1500E+00
 Xe-135   0.8500E+00
 none       0.0000E+00
 Nuclide 038:
 Xe-133
   1
  0.4531680000E+06
  0.1330E+03
  0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 Nuclide 039:
 Xe-135
   1
  0.3272400000E+05
  0.1350E+03
  0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 Nuclide 040:
 Cs-134
   3
  0.6507177120E+08
  0.1340E+03
  0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
 none       0.0000E+00
  0.1340E+03
  0.0000E+00
```

```
Nuclide 041:
Cs-136
  3
 0.1131840000E+07
 0.1360E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 042:
Cs-137
  3
 0.9467280000E+09
 0.1370E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 043:
Ba-139
  6
 0.4962000000E+04
 0.1390E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 044:
Ba-140
  6
 0.1100736000E+07
 0.1400E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 045:
La-140
  9
 0.1449792000E+06
 0.1400E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 046:
La-141
  9
 0.1414800000E+05
 0.1410E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 047:
La-142
  9
 0.5550000000E+04
 0.1420E+03
 0.0000E+00
none      0.0000E+00
  9
```

```
none      0.0000E+00
none      0.0000E+00
Nuclide 048:
Ce-141
   8
 0.2808086400E+07
 0.1410E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 049:
Ce-143
   8
 0.1188000000E+06
 0.1430E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 050:
Ce-144
   8
 0.2456352000E+08
 0.1440E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 051:
Pr-143
   9
 0.1171584000E+07
 0.1430E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 052:
Nd-147
   9
 0.9486720000E+06
 0.1470E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 053:
Np-239
   8
 0.2034720000E+06
 0.2390E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 054:
Pu-238
   8
 0.2768863824E+10
 0.2380E+03
Nuclide 054:
Pu-238
```

```
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 055:
Pu-239
  8
 0.7594336440E+12
 0.2390E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 056:
Pu-240
  8
 0.2062920312E+12
 0.2400E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 057:
Pu-241
  8
 0.4544294400E+09
 0.2410E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 058:
Am-241
  9
 0.1363919472E+11
 0.2410E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 059:
Cm-242
  9
 0.1406592000E+08
 0.2420E+03
 0.0000E+00
none      0.0000E+00
none      0.0000E+00
none      0.0000E+00
Nuclide 060:
Cm-244
  9
 0.5715081360E+09
 0.2440E+03
 0.0000E+00
Pu-240    0.1000E+01
none      0.0000E+00
none      0.0000E+00
End of Nuclear Inventory File


none      0.0000E+00
none      0.0000E+00
```

Attachment 7 GE MSIV Leakage Program Output
(c:\msivpgm\susqehna\case2\crella.out)
(c:\msivpgm\susqehna\case2\crellb.out

```
[illegible]                                                    Page:

 MSIV Leakage Program Version 1.1 execution on 11-30-1993 at 14:52:19.22
SUSQUEHANNA MSIV CASE2 CNTRL RM 12 VIA DRAIN LINES LEAK RATE @ 100CFM

Input file= crella.sms
CONTROL
    power = 3.616E+03
    mode  = Control Room

ISOTOPE
    I-131    9.977E-07 2.631E+04  .357      1.05     2.960E-02 1.080E+06
    I-132    8.426E-05 3.845E+04  .776      2.95     8.130E-02 5.440E+03
    I-133    9.257E-06 5.502E+04  .939      1.08     7.640E-02 1.800E+05
    I-134    2.195E-04 8.056E+04  .917      2.94      .117     1.070E+03
    I-135    2.924E-05 5.195E+04  1.13      1.23     9.370E-02 3.130E+04

RELEASE
    I-131   cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-132   cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-133   cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-134   cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-135   cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1

PLANT
    comp  1  at  0:00:00.00
             leak   rate   .680     leak   filtr  .000
             purge  rate  1.00      purge  filtr  100.
             recirc rate   .000     recirc filtr  .000
             pressure      3.26     temperature   211.
             volume      1.169E+04
      Pipe compartment # 2
             inside radius    30.0     outside radius  33.0
             insul thickness  11.4     pipe length     110.
             number of lines  4.00     initial temp    550.
             mass/unit length 312.     heat capacity   .117
             insul conducty  2.250E-02 split factor    .987
    Pipe compartment # 3
             inside radius    4.60     outside radius  5.72
             insul thickness  7.62     pipe length     346.
             number of lines  1.00     initial temp    550.
             mass/unit length 19.0     heat capacity   .117
             insul conducty  2.250E-02 split factor    1.00
    comp  4  at  0:00:00.00
  CONDENSER  leak   rate   6.80      leak   filtr  99.6  => DF = 250
             purge  rate   .000      purge  filtr  .000
             recirc rate   .000      recirc filtr  .000
             pressure      1.00      temperature   100.
             volume      2.792E+03
    comp  5  at  0:00:00.00
             leak   rate   .000      leak   filtr  .000
             purge  rate  1.000E+06  purge  filtr  .000
             recirc rate   .000      recirc filtr  .000
             pressure      1.00      temperature   63.0
             volume      1.730E+05

METEOROLOGY
      0:00:00.00  Chiov= 3.320E-04  brthr= 3.470E-04  occup= 1.
      0:08:00.00  Chiov= 1.950E-04  brthr= 3.470E-04  occup= 1.
      1:00:00.00  Chiov= 7.640E-05  brthr= 3.470E-04  occup= 1.
      4:00:00.00  Chiov= 2.190E-05  brthr= 3.470E-04  occup= 1.

OUTPUT TIMES

Tuesday  November 30, 1993  14:52   c:\esivpgo\susqehna\case2\crella.out      Page:
```

Flow to Condenser 0.987

Condenser DF

Condenser Pressure (1 atmosphere) and Temperature (100 ^{0}F)

Tuesday November 30, 1993 14:52 c:\mstvpgm\susqehna\case2\crella.out Page:

0:02:00.00
0:04:00.00
1:00:00.00
30:00:00.00

CONTROL ROOM
0:00:00.00
Vent filt. intake 2.74 Intake Filt Eff 99.0
Recirc Rate 9.45 Recirc Filt Eff .000
Vent Unfilt Intk 4.700E-03 Cont Room Volum 1.444E+04
CR Gamma Volum 3.115E+03

0:02:00.00	Whole Body	Thyroid	Beta
I-131	3.419E-10	6.254E-06	4.939E-10
I-132	1.747E-09	3.328E-08	1.211E-09
I-133	1.123E-09	2.075E-06	2.538E-09
I-134	1.433E-09	3.966E-09	1.251E-09
I-135	1.926E-09	3.025E-07	2.619E-09
total =	6.572E-09	9.658E-06	8.103E-09

0:04:00.00	Whole Body	Thyroid	Beta
I-131	5.786E-09	1.058E-04	8.360E-09
I-132	1.901E-08	3.623E-07	1.318E-08
I-133	1.817E-08	3.357E-05	4.106E-08
I-134	8.228E-09	2.279E-08	7.182E-09
I-135	2.799E-08	4.392E-06	3.799E-08
total =	7.919E-08	1.442E-04	1.077E-07

1:00:00.00	Whole Body	Thyroid	Beta
I-131	6.511E-07	1.191E-02	9.407E-07
I-132	1.517E-07	2.890E-06	1.051E-07
I-133	1.397E-06	2.581E-03	3.157E-06
I-134	1.649E-08	4.568E-08	1.440E-08
I-135	9.563E-07	1.503E-04	1.297E-06
total =	3.174E-06	1.464E-02	5.514E-06

30:00:00.00	Whole Body	Thyroid	Beta
I-131	4.903E-06	8.969E-02	7.083E-06
I-132	1.524E-07	2.904E-06	1.057E-07
I-133	3.252E-06	6.009E-03	7.350E-06
I-134	1.649E-08	4.568E-08	1.440E-08
I-135	1.153E-06	1.809E-04	1.560E-06
total =	9.477E-06	9.587E-02	1.611E-05

Tuesday November 30, 1993 14:52 c:\mstvpgm\susqehna\case2\crella.out Page:

```
 MSIV Leakage Program Version 1.1 execution on 11-30-1993 at 14:52:23.67
SUSQUEHANNA MSIV CASE2 CNTRL RM 12 VIA TUBINE LEAK RATE @ 100CFH
                                                              EC-RADN-1003
                                                              Page 108

Input file= crel1b.sus
CONTROL
    power =  3.616E+03
    mode  = Control Room
    tbvol =   12.7
    tbarea =   400.

ISOTOPE
    I-131   9.577E-07 2.631E-04  .357     1.06     2.960E-02 1.080E+06
    I-132   8.426E-06 3.845E+04  .776     2.95     8.130E-02 6.440E+03
    I-133   9.257E-06 5.502E+04  .589     1.08     7.640E-02 1.800E+05
    I-134   2.196E-04 6.056E+04  .917     2.94      .117     1.070E+03
    I-135   2.924E-05 5.195E+04  1.13     1.29     9.370E-02 3.130E+04

RELEASE
    I-131    cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-132    cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-133    cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-134    cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1
    I-135    cmp 1 at  0:00:00.00 inst  24.0    drbl  .000     ff 1 dfctr 1

PLANT
    comp  1  at  0:00:00.00
             leak  rate    .680      leak  filtr  .000
             purge rate    1.00      purge filtr  100.
             recirc rate   .000      recirc filtr .000
             pressure      3.26      temperature  211.
             volume         1.169E+04
    Pipe compartment # 2
             inside radius     30.0     outside radius  33.0
             insul thickness   11.4     pipe length     110.
             number of lines   4.00     inital temp     550.
             mass/unit length  312.     heat capacity   .117
             insul conducty   2.250E-02 split factor   1.300E-02
    Pipe compartment # 3
             inside radius     28.0     outside radius  30.5
             insul thickness   7.62     pipe length     242.
             number of lines   4.00     inital temp     550.
             mass/unit length  238.     heat capacity   .117
             insul conducty   2.250E-02 split factor    1.00
    Turbine compartment # 4
             split factor      1.00
    comp  5  at  0:00:00.00
             leak  rate    .000      leak  filtr  .000
             purge rate    1.000E+06 purge filtr  .000
             recirc rate   .000      recirc filtr .000
             pressure      1.00      temperature  68.0
             volume        1.730E+05

METEOROLOGY
        0:00:00.00  Chiqu= 3.320E-04  brthr= 3.470E-04  occup= 1.
        0:08:00.00  Chiqu= 1.960E-04  brthr= 3.470E-04  occup= 1.
        1:00:00.00  Chiqu= 2.640E-05  brthr= 3.470E-04  occup= 1.
        4:00:00.00  Chiqu= 2.190E-05  brthr= 3.470E-04  occup= 1.

OUTPUT TIMES
        0:02:00.00
        0:04:00.00
```

Flow to HP Turbine 0.013

1:00:00.00
30:00:00.00

EC-RADN-1005
Page 110

CONTROL ROOM
0:00:00.00
Vent Filt Intake 2.74 Intake Filt Eff 99.0
Recirc Rate 9.46 Recirc Filt Eff .000
Vent Unfilt Intk 4.700E+03 Cont Room Volum 1.444E+04
CR Gamma Volum 3.115E+03

0:02:00.00	Whole Body	Thyroid	Beta
I-131	0.000E+00	0.000E+00	0.000E+00
I-132	0.000E+00	0.000E+00	0.000E+00
I-133	0.000E+00	0.000E+00	0.000E+00
I-134	0.000E+00	0.000E+00	0.000E+00
I-135	0.000E+00	0.000E+00	0.000E+00
total =	0.000E+00	0.000E+00	0.000E+00

0:04:00.00	Whole Body	Thyroid	Beta
I-131	0.000E-00	0.000E+00	0.000E-00
I-132	0.000E-00	0.000E+00	0.000E-00
I-133	0.000E+00	0.000E+00	0.000E+00
I-134	0.000E-00	0.000E+00	0.000E+00
I-135	0.000E+00	0.000E-00	0.000E+00
total =	0.000E+00	0.000E-00	0.000E-00

1:00:00.00	Whole Body	Thyroid	Beta
I-131	0.000E+00	0.000E+00	0.000E+00
I-132	0.000E+00	0.000E+00	0.000E+00
I-133	0.000E+00	0.000E+00	0.000E+00
I-134	0.000E+00	0.000E+00	0.000E+00
I-135	0.000E+00	0.000E+00	0.000E+00
total =	0.000E+00	0.000E+00	0.000E+00

30:00:00.00	Whole Body	Thyroid	Beta
I-131	5.750E-16	1.052E-11	8.307E-16
I-132	1.484E-23	2.928E-22	1.029E-23
I-133	2.781E-16	5.139E-13	6.265E-16
I-134	0.000E+00	0.000E+00	0.000E+00
I-135	4.663E-18	7.347E-16	6.336E-18
total =	8.573E-16	1.103E-11	1.466E-15

Attachment 8 GE Letter OG94-574-09 (Reference 28)

GE Nuclear Energy

General Electric Company,
175 Curtner Avenue San Jose CA 95125

EC-RADN-1008
P300 103

OG94-574-09
July 26, 1994

Michael Caruthers
Pennsylvania Power and Light
Two North Ninth Street
Allentown, PA 18101-1179

SUBJECT: SUSQUEHANNA DOSE CALCULATIONS IN ACCORDANCCE WITH THE BWROG RADIOLOGICAL DOSE METHODOLOGY

Per your request I have corrected Attachment 3 of OG93-1021-09 which was transmitted to you on December 2, 1993. The radiological dose contributions from the MSIVs are for a leak rate of 75 scfh per steam line not 100 scfh per steam line.

You also asked how the distribution of leakage would effect the radiological dose assessments from MSIV leakage (e.g., assume 200 scfh through one line, 100 scfh through a second line, and zero leakage for the other two lines). We have performed similar calculations to determine this effect and have concluded that the calculated integrated dose will increase by an insignificant amount.

Very truly yours,

T. A. Green
Senior Technical Project Manager
BWR Owners' Group Project
Tel: (408) 925-1308
Fax: (408) 925-2476
Mail Code 482

TAG/jz

Attachment

ATTACHMENT 3

CONTRIBUTION TO THE SUSQUEHANNA LOCA DOSE EXPOSURES FOR A MSIV LEAK RATE OF 75 SCFH PER STEAM LINE

GENERATING STATION

		Whole Body (rem)	Thyroid (rem)	Beta (rem)
Exclusion Area Boundary (2-Hour)	A. 10CFR 100 Limit	25	300	*
	B. Previous Calculated Doses**	5.07	130	
	C. Previous Calculated Doses w/o MSIV Leakage	4.77	129	****
	D. Contribution from MSIVs at 75 scfh	0.007	0.11	
	E. New Calculated Doses	4.78	129.1	
Low Population Zone (30-Day)	A. 10CFR100 Limit	25	300	*
	B. Previous Calculated Doses**	3.5	123.4	
	C. Previous Calculated Doses w/o MSIV Leakage	3.5	122.5	****
	D. Contribution from MSIV at 75 scfh	0.04	12.14	
	E. New Calculated Doses	3.54	134.6	
Control Room (30-Day)	A. GDC-19	5	30	30/75***
	B. Previous Calculated Doses**	0.8	14.7	15.6
	C. Previous Calculated Doses w/o MSIV Leakage	0.8	14.7	15.6****
	D. Contribution from MSIVs at 75 scfh	0.41	4.95	1.17
	E. New Calculated Doses	1.21	19.7	16.8

* No limit specified.

** UFSAR Section 15; Tables 15.6-18, 19, and 21 (includes contributions from EOCS leakage and Containment Hydrogen Purge).

*** 75 if prior commitment has been made to use protective clothing

**** Where contribution of MSIV leakage to FSAR doses are unknown. MSIV contributions are conservatively assumed to be zero.

Attachment 9 GE Letter OG93-1021-09 (Reference 31)

GE Nuclear Energy

GE93-1021-09
December 2, 1993

Dave,
Here's a copy for your file.
Mike

Michael Caruthers
Pennsylvania Power and Light
Two North Ninth Street
Allentown, PA 18101-1179

Subject: SUSQUEHANNA DOSE CALCULATIONS IN ACCORDANCE WITH THE BWROG RADIOLOGICAL DOSE METHODOLOGY (REVISION 1)

Attachments:
1) Contribution of LOCA Dose Exposures for a Maximum MSIV Leak Rate of 100 scfh Per Steam Line With Total MSIV Leakage of 200 scfh
2) Dose Calculation Summary for 100 scfh Per Steam Line With Total MSIV Leakage of 200 scfh and Computer Code Output
3) Contribution of LOCA Dose Exposures for Maximum MSIV Leak Rate of 75 scfh Per Steam Line (300 scfh total)
4) Dose Calculation Summary for 75 scfh and Computer Code Output

Per your request dated November 18, 1993 the subject calculations for Susquehanna have been completed and verified. With these revisions the resulting off-site and control room integrated doses are well within the applicable guidelines:

MSIV LEAKAGE DOSE CONTRIBUTION (REMS)
(100 scfh/line; total = 200 scfh)

	CONTROL ROOM			OFF SITE	
	WB(5)	100(30)	BETA (30-75)	(WB(25)	100(300)
NOBLE GAS	0.20	0.00	0.58	0.02	0.00
ELEMEG. IODINE	0.00	0.03	0.00	0.00	0.05
ORGANIC IODINE (4%)	0.00	1.52	0.00	0.00	3.56
HP TURBINE	0.00	0.01	0.00	0.00	0.02
ORGANIC IODINE (CONVERSION FROM I-2)	0.00	0.97	0.00	0.00	2.68
TOTAL DOSE FROM MSIV LEAKAGE PATHWAY	0.20	2.53	0.5Z	0.02	6.31

HP Turbine Path Results in Negligible Dose

The two (2) hour exclusion area boundary dose is 0.006 rem whole body and 0.06 rem thyroid.

MSIV LEAKAGE DOSE CONTRIBUTION (REM)
[75 scfh/line: total = 300 scfh]

	CONTROL ROOM			OFF SITE	
	WB(33)	100(30)	BETA (30-72)	WB(25)	100(300)
NOBLE GAS	0.41	0.00	1.17	0.04	0.00
INORG. IODINE	0.00	0.10	0.00	0.00	0.16
ORGANIC IODINE (4%)	0.00	3.01	0.00	0.00	6.91
HP TURBINE	0.00	0.01	0.00	0.00	0.03
ORGANIC IODINE (CONVERSION FROM I-2)	0.00	1.83	0.00	0.00	5.04
TOTAL DOSE FROM MSIV LEAKAGE PATHWAY	0.41	4.95	1.17	0.04	12.14

HP Turbine Path Results in Negligible Dose

The two (2) hour exclusion area boundary dose is 0.007 rem whole body and 0.11 rem thyroid.

If you have any questions regarding these verified calculations or any other MSIV Leakage Closure Committee issues, please call the undersigned.

Very truly yours,

T. A. Green
Sr. Technical Program Manager
BWR Owners' Group
Tel: (405) 925-1308
FAX: (405) 925-2476
Mail Code 882

Attachments
TAG33/TAG/rc

cc: M Jones, MSIV Leakage Closure Committee Chairman
SJ Stark, GE

ATTACHMENT 1
CONTRIBUTION TO THE SUSQUEHANNA LOCA DOSE EXPOSURES FOR A MSIV LEAK RATE OF 100 SCFH PER STEAM LINE WITH THE TOTAL NOT TO EXCEED 200 SCFH

OPERATING STATION

			Whole Body (rem)	Thyroid (rem)	Beta (rad)
Exclusion Area Boundary (2-Hour)	A)	10CFR 100 Limit	25	300	*
	B)	Previous Calculated Doses**	5.07	130	
	C)	Previous Calculated Doses w/o MSIV Leakage	4.77	129	****
	D)	Contribution From MSIVs at 100 scfh	0.004	0.06	
	E)	New Calculated Doses	4.77	129.1	
Low Population Zone (30-Day)	A)	10CFR100 Limit	25	300	*
	B)	Previous Calculated Doses**	3.5	123.4	
	C)	Previous Calculated Doses w/o MSIV Leakage	3.5	122.5	****
	D)	Contribution From MSIV at 100 scfh	0.02	6.31	
	E)	New Calculated Doses	3.52	128.8	
Control Room (30-Day)	A)	GDC-19	5	30	30/75***
	B)	Previous Calculated Doses**	0.8	14.7	14.7
	C)	Previous Calculated Doses w/o MSIV Leakage	0.8	14.7	15.6****
	D)	Contribution From MSIVs at 100 scfh	0.20	2.53	0.32
	E)	New Calculated Doses	1.00	17.23	15.2

* No limit specified.
** UFSAR Section 15; Tables 15.6-12, 19, and 21 (includes contributions from ECCS leakage and Containment Hydrogen Purge).
*** 75 if prior commitment has been made to use protective clothing.
**** Where contribution of MSIV leakage to FSAR doses are unknown, these values are conservatively assumed to be zero.
TAC33/1021-09

ATTACHMENT 2

BWROG MSIV - SUSQUEHANNA DOSE CALCULATION
Contributions of MSIV Leakage to Offsite
and Control Room Radiological Doses
(100 SCFH/LINE; TOTAL = 200 SCFH)

MSIV Leakage at 100 scfh per line (Total of 200 scfh)	CONTROL ROOM Whole Body (5)	CONTROL ROOM Thyroid (30)	CONTROL ROOM BETA (30-75)	OFF-SITE (1MZ) Whole Body (25)	OFF-SITE (1MZ) Thyroid (300)
Noble Gas (DL)	0.20	0.00	0.58	0.02	0.00
Inorganic I (DL)	0.00	0.03	0.00	0.00	0.03
Organic I (DL)	0.00	1.52	0.00	0.00	3.56
Noble Gas (HPT)	0.00	0.00	0.00	0.00	0.00
Inorganic I (HPT)	0.00	0.00	0.00	0.00	0.00
Organic I (HPT)	0.00	0.01	0.00	0.00	0.02
Organic I via Re-suspension/ Conversion (DL)	0.00	0.97	0.00	0.00	2.68
TOTAL	0.20	2.51	0.58	0.02	6.31
EAB Doses are:				0.004	0.06

HP Turbine Path Results in Negligible Dose

I - Iodine, DL - Drain Line Path, HPT - High-Pressure Turbine Path

TAG31/L021-09

ATTACHMENT 3
CONTRIBUTION TO THE SUSQUEHANNA LOCA DOSE EXPOSURES FOR A MSIV LEAK RATE OF 75 SCFH PER STEAM LINE

SUSQUEHANNA STEAM ELECTRIC STATION

			Whole Body (rem)	Thyroid (rem)	Beta (rem)
Exclusion Area Boundary (2-Hour)	A)	10CFR 100 Limit	25	300	*
	B)	Previous Calculated Doses**	5.07	130	
	C)	Previous Calculated Doses w/o MSIV Leakage	4.77	129	***/****
	D)	Contribution From MSIVs at 100 scfh	0.007	0.11	
	E)	New Calculated Doses	4.78	129.1	
Low Population Zone (30-Day)	A)	10CFR100 Limit	25	300	*
	B)	Previous Calculated Doses**	3.5	123.4	
	C)	Previous Calculated Doses w/o MSIV Leakage	3.5	122.5	****
	D)	Contribution From MSIV at 100 scfh	0.04	12.14	
	E)	New Calculated Doses	3.54	134.6	
Control Room (30-Day)	A)	GDC-19	5	30	30/75***
	B)	Previous Calculated Doses**	0.8	14.7	14.7
	C)	Previous Calculated Doses w/o MSIV Leakage	0.8	14.7	15.6****
	D)	Contribution From MSIVs at 100 scfh	0.41	4.95	1.17
	E)	New Calculated Doses	1.21	19.7	16.8

* No limit specified.
** UFSAR Section 15: Tables 15.6-18, 19, and 21 (includes contributions from ECCS leakage and Containment Hydrogen Purge).
*** 75 if prior commitment has been made to use protective clothing.
**** Where contribution of MSIV leakage to FSAR doses are unknown, these values are conservatively assumed to be zero.

TAC33/1021-09

ATTACHMENT 4

BASLOG MSIV - SUBSEQUENTIA DOSE CALCULATION (FINAL)
Contributions of MSIV Leakage to Offsite
and Control Room Radiological Doses
[75 SCFH/LINE: TOTAL = 300 SCFH]

MSIV Leakage at 75 scfh per line (Total of 300 scfh)	CONTROL ROOM Whole Body (5)	Thyroid (10)	BETA (30-75)	OFF-SITE (LPZ) Whole Body (25)	Thyroid (300)	
Noble Gas (DL)	0.41	0.00	1.17	0.04	0.00	
Inorganic I (DL)	0.00	0.10	0.00	0.00	0.16	
Organic I (DL)	0.00	3.01	0.00	0.00	6.91	
Noble Gas (HPT)	0.00	0.00	0.00	0.00	0.00	← HP Turbine Path Results in Negligible Dose
Inorganic I (HPT)	0.00	0.00	0.00	0.00	0.00	
Organic I (HPT)	0.00	0.01	0.00	0.00	0.03	
Organic I via Re-suspension/ Conversion (DL)	0.00	1.83	0.00	0.00	5.04	
TOTAL	0.41	4.95	1.17	0.04	12.14	
			EAB Doses are:	0.007	0.11	

I - Iodine, DL - Drain Line Path, HPT - High-Pressure Turbine Path

TAG33/1021-09

Attachment 10 PPL Letter PLA-4274 (Reference 32)

For Information Only

PP&L Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

FEB 21 1995

Robert G. Byram
Senior Vice President—Nuclear
610/774-7502
Fax: 610/774-5019

TAS Scan
DAD008
DAD016

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
MAIN STEAM ISOLATION VALVE LEAKAGE
CONTROL SYSTEM : RESPONSE TO
REQUEST FOR ADDITIONAL INFORMATION
PLA-4274 FILES A17-2/R41-2**

Docket Nos. 50-387
and 50-388

Dear Sir:

The primary purpose of this letter is to provide the Pennsylvania Power & Light Company response to the NRC Request for Additional Information (RAI) of February 3, 1995. This RAI resulted from the NRC Staff's evaluation of the radiological analysis portion of the Susquehanna Steam Electric Station (SSES) proposed amendment (PLA 4228, dated November 21, 1994) to increase Main Steam Isolation Valve (MSIV) leakage rate and to delete the MSIV Leakage Control System (LCS). Enclosure 1 restates the Staff's five specific RAI questions followed by PP&L's response to each.

In addition, during the January 24, 1995 meeting regarding PP&L's proposed amendment, PP&L indicated it would be providing a supplemental submittal to address compliance to Appendix A of 10 CFR 100 and to request continued exemption from Appendix J to 10 CFR 50. Enclosure 2 highlights the MSIV Alternate Treatment System Seismic Margin Evaluation performed by PP&L. This analysis supports the conclusion that this alternate treatment method will remain functional following a Safe Shutdown Earthquake; thus meeting the seismic criteria of 10 CFR 100, Appendix A. Enclosure 3 provides the supporting information for the continued exemption to 10 CFR 50, Appendix J.

Questions regarding this supplemental information should be directed to Mr. J. M. Kenny at (610) 774-7904.

Very truly yours,

(Signed) R. G. BYRAM

R. G. Byram

Enclosures

ENCLOSURE 1
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

For Information Only

(2) Provide the following additional information and FSAR or other references where the information can be found as appropriate:

*Main Steam Line (MSIV to Main Steam Drain Line):

Inside Diameter[1]
Length[1]
Insulation Thickness[1]
Pipe Thickness[1]
Cooling Rate(or provide density, heat capacity, and thermal conductivity of steel pipe)[2]

*Drain Line (Drain line to Main Condenser):

Inside Diameter[1]
Length[1]
Insulation Thickness[1]
Pipe Thickness[1]
Cooling Rate(or provide density, heat capacity, and thermal conductivity of steel pipe)[2]

[1] See attached sketches "Outboard MSIV to Condenser (Drain Line Pathway)" Unit 1 & 2 from PP&L calculation EC-083-0512, "MSIVLCS Radiological Dose Calculation Data Sheet - Data Verification")

[2] See "Main Steam Line and Drain Temperature Profile" charts (sheets provided by GE/BWROG)

*Effective Condenser Volume (above drain line):

Effective condenser volume (above drain line) value used in the radiological calculation = 98601 ft[3]
This includes the free air space volume of the LP Turbine.

The actual condenser free volume (above drain line) including the free air space volume of the LP Turbine = 117371 ft[3].

Thus, the value used in the radiological calculation is conservative.

Effective Condenser Volume

Attachment 11 RADTRAD Output: SGTS_500cfm_11110cfm_2885cfm_5229 cfm.o0

```
 ##########################################################################
    RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:48:41
 ##########################################################################

 ##########################################################################
                      File information
 ##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\SGTS_500cfm_11110cfm_2885cfm_5229
cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #     #  #####
     #    #  #       #        #  ##    #  #    #  #     #     #
     #    #  #       #        #  # #   #  #    #  #     #     #
     #####    ####   ####     #  #  #  #  #####   #     #     #
     #            #  #        #  #   # #  #       #     #     #
     #            #  #        #  #    ##  #       #     #     #
     #        ####   #        #  #     #  #        ####      #

 Radtrad 3.03 4/15/2001
 LOCA PPL-SSES   Primary to Secondary Containment to Environ. w/ SGTS
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   4
 Compartment 1:
 Primary Containment
   3
  3.8819E-05
   0
   0
   0
   1
   0
 Compartment 2:
 Secondary Containment
   3
  2.0780E-06
   0
   0
   0
   0
   0
 Compartment 3:
 Environment
   2
  0.0000E+00
   0
   0
   0
   0
   0
 Compartment 4:
 Control Room
   1
  5.1800E+05
   0
   0
   0
   0
   0
 Pathways:
   7
 Pathway 1:
 Primary Containment to Secondary Containment - Primary Leakage
   1
   -
 Pathways:
   7
```

```
  2
  4
Pathway 2:
Secondary Containment to Environment - SGTS Leakage
  2
  3
  2
Pathway 3:
Environment to Control Room - Emergency Filtered Air Intake
  3
  4
  2
Pathway 4:
Environment to Control Room - Unfiltered Inleakage
  3
  4
  2
Pathway 5:
Control Room to Environment - CR Exhaust
  4
  3
  2
Pathway 6:
Environment to  Control Room ingress/egress
  3
  4
  2
Pathway 7:
Secondary Containment to  Environment
  2
  3
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E-00
  0
  0
  0
  0
Compartments:
  4
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  0
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  0
  0
```

```
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  7
Pathway 1:
  0
  0
  0
  0
  0
  0
  0
  0
  0
  0
  1
  4
  0.0000E+00   9.8660E-01
  1.6670E-01   9.8660E-01
  2.4000E+01   4.9330E-01
  7.2000E+02   0.0000E+00
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.1110E+04   0.0000E-00   0.0000E+00   0.0000E+00
  1.6670E-01   2.8850E+03   9.9000E-01   9.9000E+01   9.9000E+01
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   5.2290E+03   9.9000E+01   9.9000E-01   9.9000E-01
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
Pathway 4:
```

```
  0
  1
  2
  0.0000E+00   5.0000E+02   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   5.7390E+03   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 6:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   1.0000E+01   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 7:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   2.8850E+03   0.0000E+00   0.0000E+00   0.0000E+00
  1.6670E-01   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB with LOCA
  3
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
```

```
LOCA @ LPZ
  3
  1
  5
  0.0000E-00   4.9000E-05
  8.0000E-00   3.5000E-05
  2.4000E-01   1.7000E-05
  9.6000E-01   6.1000E-06
  7.2000E-02   0.0000E-00
  1
  4
  0.0000E-00   3.5000E-04
  8.0000E-00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Location 3:
LOCA @ CR
  4
  0
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E+00   1.0000E+00
  2.4000E+01   6.0000E-01
  9.6000E+01   4.0000E-01
  7.2000E+02   0.0000E-00
Location 4:
LOCA @ Unprotected CR
  3
  1
  6
  0.0000E+00   5.1500E-03
  2.0000E+00   4.2200E-03
  8.0000E+00   1.2300E-03
  2.4000E+01   1.1900E-03
  9.6000E-01   1.0400E-03
  7.2000E-02   0.0000E+00
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E-00   1.4500E-03
  2.0000E-00   1.1200E-03
  8.0000E+00   3.5500E-04
  2.4000E+01   2.2900E-04
  9.6000E-01   2.0100E-04
  7.2000E+02   0.0000E+00
Simulation Parameters:
  5
  0.0000E+00   0.0000E-00
  9.6000E-01   1.2000E-02
  2.4000E-02   2.4000E+02
  4.8000E-02   2.4000E+02
  7.2000E-02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  1
  -
End of Scenario File
```

```
**************************************************************************
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:48:41
**************************************************************************

**************************************************************************
                      Plant Description
**************************************************************************

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E-03 MWth

Number of compartments    =   4

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Primary Containment
Compartment volume =   3.8819E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Secondary Containment - Pri

Compartment number  2
Name: Secondary Containment
Compartment volume =   2.0780E-06 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Primary Containment to Secondary Containment - Pri
   Exit Pathway Number    2: Secondary Containment to Environment - SGTS Leakag
   Exit Pathway Number    7: Secondary Containment to  Environment

Compartment number  3
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Secondary Containment to Environment - SGTS Leakag
   Inlet Pathway Number   5: Control Room to Environment - CR Exhaust
   Inlet Pathway Number   7: Secondary Containment to  Environment
   Exit Pathway Number    3: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number    4: Environment to Control Room - Unfiltered Inleakage
   Exit Pathway Number    6: Environment to  Control Room ingress/egress

Compartment number  4
Name: Control Room
Compartment volume =   5.1800E+05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  4
   Inlet Pathway Number   3: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number   4: Environment to Control Room - Unfiltered Inleakage
   Inlet Pathway Number   6: Environment to  Control Room ingress/egress
   Exit Pathway Number    5: Control Room to Environment - CR Exhaust

Total number of pathways =   7
```

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##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:48:41
##########################################################################

##########################################################################
                      Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE     RELEASE MASS
              0.500000 hr      1.5000 hrs       0.0000 hrs          (gm)
NOBLES        5.0000E-02       9.5000E-01       0.0000E+00        4.943E+03
IODINE        5.0000E-02       2.5000E-01       0.0000E+00        3.427E-02
CESIUM        5.0000E-02       2.0000E-01       0.0000E+00        5.418E-04
TELLURIUM     0.0000E-00       5.0000E-02       0.0000E+00        4.850E-01
STRONTIUM     0.0000E-00       2.0000E-02       0.0000E-00        1.993E-03
BARIUM        0.0000E+00       2.0000E-02       0.0000E-00        5.377E-01
RUTHENIUM     0.0000E+00       2.5000E-03       0.0000E-00        6.682E-01
CERIUM        0.0000E+00       5.0000E-04       0.0000E-00        6.980E+02
LANTHANUM     0.0000E-00       2.0000E-04       0.0000E-00        7.481E+00

Inventory Power =      4032. MWt

Nuclide  Group  Specific     half        Whole Body   Inhaled      Inhaled
 Name           Inventory    life        DCF          Thyroid      Effective
                (Ci/MWt)     (s)         (Sv-m3/Bq-s) (Sv/Bq)      (Sv/Bq)
 Co-58     7   1.470E+02  6.117E+06   4.760E-14   8.720E-10   2.940E-09
 Co-60     7   7.910E+01  1.663E+08   1.260E-13   1.620E-08   5.910E-08
 Kr-85     1   3.670E-02  3.383E+08   1.190E-16   0.000E+00   0.000E-00
 Kr-85m    1   6.650E-03  1.613E+04   7.480E-15   0.000E+00   0.000E-00
 Kr-87     1   1.330E-04  4.578E+03   4.120E-14   0.000E+00   0.000E-00
 Kr-88     1   1.850E-04  1.022E+04   1.020E-13   0.000E+00   0.000E+00
 Rb-86     3   5.380E-01  1.612E+06   4.810E-15   1.330E-09   1.790E-09
 Sr-89     5   2.550E-04  4.363E+06   7.730E-17   7.960E-12   1.120E-08
 Sr-90     5   3.250E+03  9.190E+08   7.530E-18   2.690E-10   3.510E-07
 Sr-91     5   3.250E+04  3.420E-04   4.924E-14   9.930E-12   4.547E-10
 Sr-92     5   3.450E+04  9.756E-03   6.790E-14   3.920E-12   2.180E-10
 Y-90      9   3.370E+03  2.304E-05   1.900E-16   5.170E-13   2.280E-09
 Y-91      9   3.320E+04  5.055E+06   2.600E-16   8.500E-12   1.320E-08
 Y-92      9   3.470E+04  1.274E+04   1.300E-14   1.050E-12   2.110E-10
 Y-93      9   2.650E+04  3.636E+04   4.800E-15   9.260E-13   5.820E-10
 Zr-95     9   4.760E+04  5.528E+06   3.600E-14   1.440E-09   6.390E-09
 Zr-97     9   4.710E-04  6.084E+04   4.432E-14   2.315E-11   1.171E-09
 Nb-95     9   4.760E-04  3.037E+06   3.740E-14   3.580E-10   1.570E-09
 Mo-99     7   5.010E-04  2.376E+05   7.280E-15   1.520E-11   1.070E-09
 Tc-99m    7   4.440E-04  2.167E+04   5.890E-15   5.010E-11   8.800E-12
 Ru-103    7   4.270E-04  3.394E+06   2.251E-14   2.570E-10   2.421E-09
 Ru-105    7   2.950E-04  1.598E+04   3.810E-14   4.150E-12   1.230E-10
 Ru-106    7   1.700E+04  3.181E+07   1.040E-14   1.720E-09   1.290E-07
 Rh-105    7   2.750E+04  1.273E+05   3.720E-15   2.880E-12   2.580E-10
 Sb-127    4   2.330E+03  3.326E+05   3.330E-14   6.150E-11   1.630E-09
 Sb-129    4   8.610E+03  1.555E-04   7.140E-14   9.720E-12   1.740E-10
 Te-127    4   2.310E+03  3.366E-04   2.420E-16   1.840E-12   8.600E-11
 Te-127m   4   3.940E+02  9.418E-06   1.470E-16   9.660E-11   5.810E-09
 Te-129    4   8.160E+03  4.176E+03   2.750E-15   5.090E-13   2.090E-11
 Te-129m   4   1.650E+03  2.903E+06   3.337E-15   1.563E-10   6.484E-09
 Te-131m   4   5.330E+03  1.080E+05   7.463E-14   3.669E-08   1.758E-09
 Te-132    4   3.820E+04  2.815E+05   1.030E-14   6.280E-08   2.550E-09
 I-131     2   2.650E-04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E-04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E-04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E-04  3.156E+03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E-04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E-04  4.532E-05   1.560E-15   0.000E-00   0.000E-00
 Xe-135    1   1.740E+04  3.272E-04   1.190E-14   0.000E-00   0.000E-00
 Cs-134    3   5.700E+03  6.507E-07   7.570E-14   1.110E-08   1.250E-08
 Cs-136    3   1.820E+03  1.132E-06   1.060E-13   1.730E-09   1.980E-09
 Cs-137    3   4.290E+03  9.467E-08   2.725E-14   7.930E-09   8.630E-09
 Ba-139    6   4.840E+04  4.962E+03   2.170E-15   2.400E-12   4.640E-11
 Ba-140    6   4.860E+04  1.101E+06   8.580E-15   2.560E-10   1.010E-09
 La-140    9   5.180E+04  1.450E+05   1.170E-13   6.870E-11   1.310E-09
 La-141    9   4.410E+04  1.415E+04   2.390E-15   9.400E-12   1.570E-10
 La-142    9   4.320E+04  5.550E+03   1.440E-13   8.740E-12   6.840E-11
 Cs-137    3   4.290E+03  9.467E-08   2.725E-14   7.930E-09   8.630E-09
 Ba-139    6   4.840E+04  4.962E+03   2.170E-15   2.400E-12   4.640E-11
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Ce-141	8	4.460E-04	2.808E-06	3.430E-15	2.550E-11	2.420E-09
Ce-143	8	4.140E+04	1.188E-05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E+04	2.456E+07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E-04	1.172E+06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E-04	9.487E+05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E+05	2.035E-05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E+02	2.769E-09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E+01	7.594E+11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E-01	2.063E+11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E-03	4.544E-08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E-00	1.364E-10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E+03	1.407E+07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E+01	5.715E+08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Compartment number 2: Secondary Containment

Compartment number 3: Environment

Compartment number 4: Control Room

PATHWAY DATA

Pathway number 1: Primary Containment to Secondary Containment - Pri

Compartment number 4: Control Room

Convection Data

Time (hr)	Flow Rate (% / day)
0.0000E-00	9.8660E-01
1.6670E-01	9.8660E-01
2.4000E+01	4.9330E-01
7.2000E+02	0.0000E+00

Pathway number 2: Secondary Containment to Environment - SGTS Leakag

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.2110E+04	0.0000E-00	0.0000E+00	0.0000E-00
1.6670E-01	2.8850E-03	9.9000E-01	9.9000E+01	9.9000E-01
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 3: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.2290E-03	9.9000E-01	9.9000E+01	9.9000E+01
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 4: Environment to Control Room - Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.0000E-02	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.7390E+03	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 6: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E+01	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 7: Secondary Containment to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	2.8850E+03	0.0000E+00	0.0000E-00	0.0000E+00
1.6670E-01	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

LOCATION DATA

Location EAB with LOCA is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)

Location LOCA @ LPZ is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	4.9000E-05
8.0000E+00	3.5000E-05
2.4000E+01	1.7000E-05
9.6000E+01	6.1000E-06
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
8.0000E-00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E-02	0.0000E+00

Location LOCA @ CR is in compartment 4

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	1.4500E-03
2.0000E-00	1.1200E-03
8.0000E-00	3.5500E-04
2.4000E-01	2.2900E-04
9.6000E+01	2.0100E-04
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
7.2000E-02	0.0000E+00

Location Occupancy Factor Data

Time (hr)	Occupancy Factor
0.0000E-00	1.0000E-00
2.4000E-01	6.0000E-01
9.6000E-01	4.0000E-01
7.2000E-02	0.0000E-00

Location LOCA @ Unprotected CR is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	5.1500E-03
2.0000E+00	4.2200E-03
8.0000E+00	1.2300E-03
2.4000E+01	1.1900E-03
9.6000E+01	1.0400E-03
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
7.2000E+02	0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E-00	0.0000E+00
9.6000E-01	1.2000E+02
2.4000E-02	2.4000E+02
4.8000E-02	2.4000E+02
7.2000E-02	0.0000E+00

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##################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:48:41
##################################################################

 ####   #    #  #####  #####   #    #  #####
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #####   #    #    #
#    #  #    #    #    #       #    #    #
#    #  #    #    #    #       #    #    #
 ####    ####     #    #        ####     #

##################################################################
         Dose, Detailed model and Detailed Inventory Output
##################################################################

Detailed model information at time (H) =    0.1667

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble      Elemental  Organic    Aerosol
     0.0000E-00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble      Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.0647E+00

EAB with LOCA Doses:

Time (h) =   0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)        3.2795E-03  5.8506E-01  2.7540E-02
Accumulated dose (rem)  3.2795E-03  5.8506E-01  2.7540E-02

LOCA @ LPZ Doses:

Time (h) =   0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.9361E-04  3.4539E-02  1.6258E-03
Accumulated dose (rem)  1.9361E-04  3.4539E-02  1.6258E-03

LOCA @ CR Doses:

Time (h) =   0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)        2.9907E-06  3.3550E-03  1.4212E-04
Accumulated dose (rem)  2.9907E-06  3.3550E-03  1.4212E-04

LOCA @ Unprotected CR Doses:

Time (h) =   0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)        2.0349E-02  3.6302E-00  1.7088E-01
Accumulated dose (rem)  2.0349E-02  3.6302E+00  1.7088E-01

Environment Integral Nuclide Release:

Time (h) =   0.1667       Ci          kg          Atoms         Bq
Kr-85                  1.8662E-02  4.7568E-08  3.3701E+17  6.9051E-08
Kr-85m                 3.3030E-01  4.0136E-11  2.8436E+14  1.2221E-10
Kr-87                  6.2263E-01  2.1981E-11  1.5215E+14  2.3037E+10
Kr-88                  9.0651E-01  7.2294E-11  4.9473E+14  3.3541E+10
Rb-86                  2.6504E-03  3.2573E-11  2.2809E+14  9.8065E+07
I-131                  1.3072E+00  1.0544E-08  4.8471E+16  4.8366E+10
I-132                  1.8382E+00  1.7808E-10  8.1245E+14  6.8013E+10
I-133                  2.7057E+00  2.3885E-09  1.0815E+16  1.0011E+11
I-134                  2.6620E-00  9.9788E-11  4.4846E+14  9.8495E+10
I-135                  2.5405E-00  7.2340E-10  3.2270E+15  9.3998E+10
Xe-133                 2.6747E-00  1.4290E-08  6.4702E+16  9.8965E+10
Xe-135                 8.9983E-01  3.5236E-10  1.5718E+15  3.3294E+10
Cs-134                 2.8087E-01  2.1708E-07  9.7561E+17  1.0392E+10
Cs-136                 8.9652E-02  1.2232E-09  5.4165E+15  3.3171E+09
Cs-137                 2.1139E-01  2.4303E-06  1.0683E+19  7.8215E-09

Environment Transport Group Inventory:

Cs-134                 2.8087E-01  2.1708E-07  9.7561E+17  1.0392E+10
Cs-136                 8.9652E-02  1.2232E-09  5.4165E+15  3.3171E+09
```

Time (h) = 0.1667	Total Release	Release Rate/s	
Noble gases (atoms)	4.0421E+17	6.7356E+14	
Elemental I (atoms)	3.1868E+15	5.3103E+12	
Organic I (atoms)	9.8561E+13	1.6424E-11	
Aerosols (kg)	2.6619E-06	4.4356E-09	
Dose Effective (Ci) I-131 (Thyroid)			1.8447E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.3535E-00
Total I (Ci)			1.1054E-01

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.2062E+17
Elemental I (atoms)	0.0000E+00	2.5320E+15
Organic I (atoms)	0.0000E+00	7.8310E+13
Aerosols (kg)	0.0000E+00	2.1079E-06

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.4464E-15
Elemental I (atoms)	1.1309E+13	1.1423E+11
Organic I (atoms)	3.4976E+11	3.5329E+09
Aerosols (kg)	9.4299E-09	9.5251E-11

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3831E-14
Elemental I (atoms)	0.0000E-00	1.0923E+12
Organic I (atoms)	0.0000E+00	3.3782E+10
Aerosols (kg)	0.0000E+00	9.1080E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	4.5321E-13	0.0000E-00
Elemental I (atoms)	3.5064E-10	0.0000E-00
Organic I (atoms)	1.0845E+09	0.0000E+00
Aerosols (kg)	2.9402E-11	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.7662E+12
Elemental I (atoms)	0.0000E-00	2.1845E-10
Organic I (atoms)	0.0000E+00	6.7563E+08
Aerosols (kg)	0.0000E+00	1.8216E-11

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E+16
Elemental I (atoms)	0.0000E-00	6.5751E-14
Organic I (atoms)	0.0000E-00	2.0335E+13
Aerosols (kg)	0.0000E+00	5.4738E-07

Detailed model information at time (H) = 0.5000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	7.5973E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	1.2019E+00

EAB with LOCA Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E-00	1.2019E+00

Delta dose (rem)	2.2591E-03	2.9434E-02	3.4786E-03
Accumulated dose (rem)	5.5386E-03	6.1449E-01	3.1018E-02

LOCA @ LPZ Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.3337E-04	1.7377E-03	2.0537E-04
Accumulated dose (rem)	3.2698E-04	3.6277E-02	1.8312E-03

LOCA @ CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.6431E-05	1.9676E-02	8.5227E-04
Accumulated dose (rem)	3.9421E-05	2.3031E-02	9.9439E-04

LOCA @ Unprotected CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.4017E-02	1.8263E-01	2.1584E-02
Accumulated dose (rem)	3.4366E-02	3.8128E+00	1.9246E-01

Environment Integral Nuclide Release:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Kr-85	1.1883E-01	3.0288E-07	2.1459E+18	4.3968E+09
Kr-85m	2.0302E+00	2.4669E-10	1.7478E+15	7.5116E+10
Kr-87	3.5059E-00	1.2377E-10	8.5674E+14	1.2972E+11
Kr-88	5.4601E-00	4.3544E-10	2.9799E+15	2.0202E+11
Rb-86	2.7838E-03	3.4213E-11	2.3958E-14	1.0300E+08
I-131	1.3732E+00	1.1076E-08	5.0918E-16	5.0808E+10
I-132	1.9260E+00	1.8659E-10	8.5124E-14	7.1260E+10
I-133	2.8412E+00	2.5081E-09	1.1357E-16	1.0512E-11
I-134	2.7708E+00	1.0386E-10	4.6678E+14	1.0252E-11
I-135	2.6653E+00	7.5894E-10	3.3855E+15	9.8615E-10
Xe-133	1.7023E+01	9.0946E-08	4.1179E+17	6.2986E-11
Xe-135	5.7841E+00	2.2649E-09	1.0104E+16	2.1401E+11
Cs-134	2.9501E-01	2.2802E-07	1.0247E+18	1.0916E+10
Cs-136	9.4164E-02	1.2848E-09	5.6891E+15	3.4841E+09
Cs-137	2.2204E-01	2.5527E-06	1.1221E+19	8.2154E+09

Environment Transport Group Inventory:

Time (h) = 0.5000	Total Release	Release Rate/s	
Noble gases (atoms)	2.5734E+18	1.4296E-15	
Elemental I (atoms)	3.3569E+15	1.8649E+12	
Organic I (atoms)	1.0382E+14	5.7678E+10	
Aerosols (kg)	2.7959E-06	1.5533E-09	
Dose Effective (Ci) I-131 (Thyroid)			1.9375E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.4711E+00
Total I (Ci)			1.1576E+01

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4901E+18
Elemental I (atoms)	1.6869E+16	2.7024E+15
Organic I (atoms)	5.2172E+14	8.3580E+13
Aerosols (kg)	1.3269E-05	2.2419E-06

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.2095E+15
Elemental I (atoms)	1.1912E+13	1.2033E-11
Organic I (atoms)	3.6843E+11	3.7215E-09
Aerosols (kg)	9.9048E-09	1.0005E-10

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.8062E+14
Elemental I (atoms)	0.0000E+00	1.1506E+12
Organic I (atoms)	0.0000E+00	3.5585E+10

Pathway

Aerosols (kg)	0.0000E-00	9.5666E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	9.6962E-14	0.0000E-00
Elemental I (atoms)	2.7620E+11	0.0000E-00
Organic I (atoms)	8.5422E+09	0.0000E-00
Aerosols (kg)	2.3117E-10	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7612E-13
Elemental I (atoms)	0.0000E+00	2.3012E-10
Organic I (atoms)	0.0000E+00	7.1170E+08
Aerosols (kg)	0.0000E+00	1.9133E-11

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E+16
Elemental I (atoms)	0.0000E+00	6.5751E+14
Organic I (atoms)	0.0000E+00	2.0335E+13
Aerosols (kg)	0.0000E+00	5.4738E-07

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	3.2982E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.3923E+00

EAB with LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.3972E-01	2.1750E-00	4.5112E-01
Accumulated dose (rem)	3.4525E-01	2.7895E-00	4.8214E-01

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0055E-02	1.2840E-01	2.6632E-02
Accumulated dose (rem)	2.0382E-02	1.6468E-01	2.8464E-02

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	9.4313E-03	1.4375E-01	1.6167E-02
Accumulated dose (rem)	9.4707E-03	1.6678E-01	1.7161E-02

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1079E-00	1.3495E+01	2.7991E+00
Accumulated dose (rem)	2.1422E-00	1.7308E-01	2.9916E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Co-58	1.6013E-04	5.0360E-12	5.2288E+13	5.9249E+06
Co-60	8.6223E-05	7.6278E-11	7.6559E+14	3.1903E+06
Kr-85	2.1232E+01	5.4117E-05	3.8341E+20	7.8558E+11
Kr-85m	2.9929E+02	3.6368E-08	2.5766E+17	1.1074E+13
Kr-87	3.2174E+02	1.1359E-08	7.8626E+16	1.1905E+13
Kr-88	7.2114E+02	5.7511E-08	3.9357E+17	2.6682E+13
Rb-86	1.1298E-02	1.3885E-10	9.7228E+14	4.1802E+08
Sr-89	2.2217E-01	7.6471E-09	5.1744E-16	8.2201E+09
Sr-90	2.8342E-02	2.0778E-07	1.3903E+18	1.0487E+09
Sr-91	2.5111E-01	6.9273E-11	4.5843E-14	9.2912E+09
Sr-92	1.9725E-01	1.5693E-11	1.0272E-14	7.2983E+09
Kr-88	7.2114E+02	5.7511E-08	3.9357E+17	2.6682E+13
Rb-86	1.1298E-02	1.3885E-10	9.7228E+14	4.1802E+08

Y-90	5.4179E-04	9.9583E-13	6.6633E+12	2.0046E+07
Y-91	2.9374E-03	1.1978E-10	7.9264E-14	1.0868E+08
Y-92	3.4861E-02	3.6230E-12	2.3715E-13	1.2899E+09
Y-93	2.0623E-03	6.1814E-13	4.0027E-12	7.6305E+07
Zr-95	4.1479E-03	1.9308E-10	1.2240E-15	1.5347E+08
Zr-97	3.8371E-03	2.0072E-12	1.2461E-13	1.4197E+08
Nb-95	4.1510E-03	1.0615E-10	6.7292E-14	1.5359E+08
Mo-99	5.3668E-02	1.1190E-10	6.8068E-14	1.9857E+09
Tc-99m	4.8310E-02	9.1875E-12	5.5887E-13	1.7875E+09
Ru-103	4.6490E-02	1.4405E-09	8.4221E+15	1.7201E+09
Ru-105	2.4835E-02	3.6946E-12	2.1190E+13	9.1891E+08
Ru-106	1.8529E-02	5.5384E-09	3.1465E+16	6.8557E+08
Rh-105	2.9921E-02	3.5449E-11	2.0332E+14	1.1071E-09
Sb-127	5.0169E-02	1.8786E-10	8.9081E+14	1.8562E-09
Sb-129	1.4394E-01	2.5596E-11	1.1949E+14	5.3257E-09
Te-127	5.0318E-02	1.9066E-11	9.0409E+13	1.8618E-09
Te-127m	8.5901E-03	9.1068E-10	4.3183E+15	3.1783E-08
Te-129	1.6139E-01	7.7066E-12	3.5977E+13	5.9716E-09
Te-129m	3.5973E-02	1.1941E-09	5.5745E+15	1.3310E-09
Te-131m	1.1183E-01	1.4024E-10	6.4469E-14	4.1376E-09
Te-132	8.2065E-01	2.7031E-09	1.2332E-16	3.0364E+10
I-131	6.1868E-00	4.9904E-08	2.2941E-17	2.2891E+11
I-132	7.4044E-00	7.1734E-10	3.2726E-15	2.7396E+11
I-133	1.2388E-01	1.0936E-08	4.9516E-16	4.5836E+11
I-134	6.0949E+00	2.2847E-10	1.0268E+15	2.2551E+11
I-135	1.0765E+01	3.0652E-09	1.3673E-16	3.9829E+11
Xe-133	3.0327E+03	1.6202E-05	7.3361E-19	1.1221E+14
Xe-135	1.0628E+03	4.1619E-07	1.8566E+18	3.9325E+13
Cs-134	1.1992E+00	9.2684E-07	4.1654E+18	4.4370E+10
Cs-136	3.8188E-01	5.2105E-09	2.3072E+16	1.4130E+10
Cs-137	9.0258E-01	1.0377E-05	4.5613E+19	3.3395E+10
Ba-139	1.8510E-01	1.1316E-11	4.9027E+13	6.8486E+09
Ba-140	4.2223E-01	5.7675E-09	2.4809E+16	1.5623E-10
La-140	1.0372E-02	1.8661E-11	8.0271E+13	3.8378E+08
La-141	2.8727E-03	5.0795E-13	2.1695E+12	1.0629E-08
La-142	1.8009E-03	1.2580E-13	5.3352E+11	6.6632E-07
Ce-141	9.7181E-03	3.4106E-10	1.4567E+15	3.5957E-08
Ce-143	8.7164E-03	1.3126E-11	5.5275E-13	3.2251E-08
Ce-144	8.1742E-03	2.5629E-09	1.0718E-16	3.0245E-08
Pr-143	3.4890E-03	5.1813E-11	2.1820E-14	1.2909E+08
Nd-147	1.5629E-03	1.9319E-11	7.9144E-13	5.7826E+07
Np-239	1.1236E-01	4.8435E-10	1.2204E-15	4.1575E+09
Pu-238	2.4636E-05	1.4391E-09	3.6413E-15	9.1154E+05
Pu-239	2.6168E-06	4.2100E-08	1.0608E-17	9.6822E+04
Pu-240	4.2077E-06	1.8466E-08	4.6335E+16	1.5569E+05
Pu-241	1.0377E-03	1.0074E-08	2.5173E+16	3.8397E+07
Am-241	5.4962E-07	1.6014E-10	4.0016E+14	2.0336E+04
Cm-242	1.4385E-04	4.3403E-11	1.0801E+14	5.3224E+06
Cm-244	8.4328E-06	1.0423E-10	2.5726E+14	3.1201E+05

Environment Transport Group Inventory:

Time (h) = 2.0000	Total Release	Release Rate/s	
Noble gases (atoms)	4.5936E+20	6.3800E-16	
Elemental I (atoms)	1.7028E+16	2.3649E-12	
Organic I (atoms)	5.2663E+14	7.3143E-10	
Aerosols (kg)	1.1680E-05	1.6222E-09	
Dose Effective (Ci) I-131 (Thyroid)			8.6107E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.0765E+01
Total I (Ci)			4.2839E-01

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5935E+20
Elemental I (atoms)	1.3727E+18	1.6397E+16
Organic I (atoms)	4.2453E+16	5.0713E+14
Aerosols (kg)	8.9278E-04	1.1126E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.6440E+18
Elemental I (atoms)	6.0427E-13	6.1038E-11

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Organic I (atoms)	1.8689E+12	1.8878E-10
Aerosols (kg)	4.1377E-08	4.1795E-10

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5720E+17
Elemental I (atoms)	0.0000E+00	5.8365E-12
Organic I (atoms)	0.0000E+00	1.8051E-11
Aerosols (kg)	0.0000E+00	3.9964E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	4.0556E+17	0.0000E+00
Elemental I (atoms)	2.1944E+12	0.0000E+00
Organic I (atoms)	6.7868E+10	0.0000E+00
Aerosols (kg)	1.6293E-09	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.1440E+15
Elemental I (atoms)	0.0000E+00	1.1673E+11
Organic I (atoms)	0.0000E+00	3.6102E+09
Aerosols (kg)	0.0000E+00	7.9929E-11

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.3257E+16
Elemental I (atoms)	0.0000E-00	6.5751E+14
Organic I (atoms)	0.0000E+00	2.0335E+13
Aerosols (kg)	0.0000E+00	5.4738E-07

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	2.3700E+02

EAB with LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.7428E-00	3.1532E+01	8.4228E+00
Accumulated dose (rem)	7.0881E-00	3.4321E+01	8.9050E+00

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.9807E-01	1.8615E+00	4.9725E-01
Accumulated dose (rem)	4.1845E-01	2.0262E-00	5.2572E-01

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.2512E-01	3.4070E+00	6.0754E-01
Accumulated dose (rem)	4.3460E-01	3.5738E+00	6.2470E-01

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.4283E+01	1.6032E+02	4.2825E+01
Accumulated dose (rem)	3.6425E+01	1.7763E+02	4.5816E+01

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	Kg	Atoms	Bq
Co-58	3.1201E-03	9.8122E-11	1.0188E+15	1.1544E+08
Accumulated dose (rem)	3.6425E+01	1.7763E+02	4.5816E+01	

Co-60	1.6821E-03	1.4881E-09	1.4936E+16	6.2238E+07
Kr-85	9.8077E-02	2.4998E-03	1.7711E+22	3.6289E-13
Kr-85m	7.6646E+03	9.3135E-07	6.5985E-18	2.8359E-14
Kr-87	2.5507E+03	9.0049E-08	6.2332E-17	9.4375E-13
Kr-88	1.3559E-04	1.0813E-06	7.3999E+18	5.0168E+14
Rb-86	1.2255E-01	1.5061E-09	1.0546E+16	4.5342E+09
Sr-89	4.3265E-00	1.4892E-07	1.0077E+18	1.6008E+11
Sr-90	5.5294E-01	4.0536E-06	2.7124E+19	2.0459E-10
Sr-91	3.9101E+00	1.0785E-09	7.1382E-15	1.4467E-11
Sr-92	1.8740E-00	1.4909E-10	9.7591E-14	6.9336E+10
Y-90	2.7427E-02	5.0412E-11	3.3732E+14	1.0148E+09
Y-91	5.9739E-02	2.4360E-09	1.6121E+16	2.2104E+09
Y-92	1.2788E+00	1.3290E-10	8.6996E+14	4.7317E+10
Y-93	3.2530E-02	9.7503E-12	6.3137E-13	1.2036E-09
Zr-95	8.0808E-02	3.7615E-09	2.3845E-16	2.9899E-09
Zr-97	6.5814E-02	3.4427E-11	2.1374E-14	2.4351E+09
Nb-95	8.0982E-02	2.0710E-09	1.3128E+16	2.9963E+09
Mo-99	1.0126E+00	2.1113E-09	1.2843E+16	3.7466E+10
Tc-99m	9.3166E-01	1.7718E-10	1.0778E+15	3.4472E-10
Ru-103	9.0487E-01	2.8037E-08	1.6393E-17	3.3480E-10
Ru-105	3.0509E-01	4.5386E-11	2.6031E-14	1.1288E+10
Ru-106	3.6140E-01	1.0802E-07	6.1372E+17	1.3372E+10
Rh-105	5.7014E-01	6.7548E-10	3.8741E+15	2.1095E+10
Sb-127	9.5562E-01	3.5784E-09	1.6968E-16	3.5358E-10
Sb-129	1.7475E+00	3.1075E-10	1.4507E-15	6.4657E-10
Te-127	9.7674E-01	3.7010E-10	1.7550E-15	3.6139E+10
Te-127m	1.6760E-01	1.7768E-08	8.4251E+16	6.2010E+09
Te-129	2.2748E+00	1.0862E-10	5.0708E+14	8.4167E+10
Te-129m	7.0114E-01	2.3274E-08	1.0865E+17	2.5942E+10
Te-131m	2.0278E+00	2.5429E-09	1.1690E-16	7.5027E-10
Te-132	1.5564E-01	5.1267E-08	2.3389E-17	5.7588E-11
I-131	7.8200E-01	6.3077E-07	2.8997E+18	2.8934E+12
I-132	5.2616E+01	5.0973E-09	2.3255E+16	1.9468E+12
I-133	1.4107E+02	1.2453E-07	5.6385E+17	5.2195E+12
I-134	1.2426E+01	4.6580E-10	2.0934E+15	4.5976E+11
I-135	9.6627E-01	2.7515E-08	1.2274E-17	3.5752E-12
Xe-133	1.3752E-05	7.3471E-04	3.3267E-21	5.0884E-15
Xe-135	4.0258E+04	1.5764E-05	7.0322E+19	1.4895E-15
Cs-134	1.3075E+01	1.0106E-05	4.5417E+19	4.8378E+11
Cs-136	4.1330E+00	5.6391E-08	2.4970E+17	1.5292E+11
Cs-137	9.8425E+00	1.1316E-04	4.9740E+20	3.6417E+11
Ba-139	1.0434E-00	6.3788E-11	2.7636E-14	3.8605E-10
Ba-140	8.1781E-00	1.1171E-07	4.8052E-17	3.0259E-11
La-140	5.9229E-01	1.0656E-09	4.5837E+15	2.1915E+10
La-141	3.3414E-02	5.9084E-12	2.5235E+13	1.2363E+09
La-142	1.1218E-02	7.8363E-13	3.3233E+12	4.1506E+08
Ce-141	1.8919E-01	6.6399E-09	2.8359E+16	7.0002E+09
Ce-143	1.5910E-01	2.3957E-10	1.0089E-15	5.8866E-09
Ce-144	1.5943E-01	4.9985E-08	2.0904E+17	5.8987E-09
Pr-143	6.8654E-02	1.0195E-09	4.2935E+15	2.5402E+09
Nd-147	3.0236E-02	3.7375E-10	1.5311E+15	1.1187E+09
Np-239	2.1082E+00	9.0875E-09	2.2898E+16	7.8004E+10
Pu-238	4.8065E-04	2.8076E-08	7.1041E+16	1.7784E+07
Pu-239	5.1076E-05	8.2173E-07	2.0705E-18	1.8898E-06
Pu-240	8.2092E-05	3.6026E-07	9.0398E+17	3.0374E-06
Pu-241	2.0246E-02	1.9654E-07	4.9111E+17	7.4910E+08
Am-241	1.0734E-05	3.1275E-09	7.8151E+15	3.9717E+05
Cm-242	2.8049E-03	8.4629E-10	2.1060E+15	1.0378E+08
Cm-244	1.6452E-04	2.0336E-09	5.0190E+15	6.0872E+06

Environment Transport Group Inventory:

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1123E-22	7.3343E+17	
Elemental I (atoms)	4.8127E-17	1.6711E+13	
Organic I (atoms)	1.4885E+16	5.1682E+11	
Aerosols (kg)	1.3004E-04	4.5154E-09	
Dose Effective (Ci) I-131 (Thyroid)			1.0480E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.2605E+02
Total I (Ci)			3.8094E+02

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1125E+22

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Elemental I (atoms)	4.7390E-19	4.8121E-17
Organic I (atoms)	1.4657E-18	1.4883E+16
Aerosols (kg)	1.2611E-02	1.2949E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8764E+19
Elemental I (atoms)	1.3323E+15	1.3458E+13
Organic I (atoms)	4.1206E-13	4.1622E-11
Aerosols (kg)	3.6526E-07	3.6895E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.6190E+18
Elemental I (atoms)	0.0000E-00	1.2868E-14
Organic I (atoms)	0.0000E+00	3.9799E+12
Aerosols (kg)	0.0000E+00	3.5279E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	4.3429E+19	0.0000E+00
Elemental I (atoms)	9.8197E+13	0.0000E+00
Organic I (atoms)	3.0370E-12	0.0000E-00
Aerosols (kg)	3.1375E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1238E+17
Elemental I (atoms)	0.0000E-00	2.5737E-12
Organic I (atoms)	0.0000E+00	7.9598E+10
Aerosols (kg)	0.0000E+00	7.0559E-10

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E+16
Elemental I (atoms)	0.0000E+00	6.5751E+14
Organic I (atoms)	0.0000E+00	2.0335E+13
Aerosols (kg)	0.0000E-00	5.4738E-07

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E-00	1.2367E+06

EAB with LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2597E+01	2.9791E-01	1.3981E-01
Accumulated dose (rem)	1.9685E+01	6.4112E+01	2.2886E+01

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.3121E-01	1.2562E+00	5.8958E-01
Accumulated dose (rem)	9.4966E-01	3.2824E-00	1.1153E+00

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.3629E-01	3.2041E+00	5.9305E-01
Accumulated dose (rem)	8.7089E-01	6.7779E+00	1.2177E+00

LOCA @ CR Doses:

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8668E+01	8.5843E-01	2.2657E+01
Accumulated dose (rem)	5.5093E-01	2.6347E+02	6.8473E+01

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Co-58	6.9611E-03	2.1892E-10	2.2730E+15	2.5756E+08
Co-60	3.7608E-03	3.3270E-09	3.3393E+16	1.3915E+08
Kr-85	7.6338E-03	1.9457E-02	1.3785E+23	2.8245E+14
Kr-85m	1.8619E+04	2.2625E-06	1.6029E-19	6.8891E-14
Kr-87	2.7997E+03	9.8839E-08	6.8416E-17	1.0359E-14
Kr-88	2.2999E+04	1.8342E-05	1.2552E-19	8.5098E-14
Rb-86	2.6335E-01	3.2365E-09	2.2664E+16	9.7439E-09
Sr-89	9.6441E-00	3.3196E-07	2.2462E+18	3.5683E-11
Sr-90	1.2363E-00	9.0635E-06	6.0646E+19	4.5744E-10
Sr-91	6.3976E-00	1.7649E-09	1.1679E+16	2.3671E+11
Sr-92	2.1741E-00	1.7297E-10	1.1322E+15	8.0443E+10
Y-90	1.2552E-01	2.3072E-10	1.5438E+15	4.6444E+09
Y-91	1.3982E-01	5.7015E-09	3.7731E-16	5.1734E+09
Y-92	2.1068E+00	2.1895E-10	1.4332E-15	7.7951E-10
Y-93	5.4008E-02	1.6188E-11	1.0482E-14	1.9983E-09
Zr-95	1.8025E-01	8.3902E-09	5.3186E-16	6.6691E-09
Zr-97	1.2122E-01	6.3412E-11	3.9368E+14	4.4852E-09
Nb-95	1.8106E-01	4.6303E-09	2.9352E+16	6.6992E-09
Mo-99	2.1438E-00	4.4698E-09	2.7190E+16	7.9320E+10
Tc-99m	2.0206E+00	3.8428E-10	2.3376E+15	7.4763E+10
Ru-103	2.0153E+00	6.2443E-08	3.6509E+17	7.4565E+10
Ru-105	4.0483E-01	6.0225E-11	3.4541E-14	1.4979E+10
Ru-106	8.0774E-01	2.4144E-07	1.3717E-18	2.9886E+10
Rh-105	1.1852E+00	1.4042E-09	8.0536E-15	4.3853E+10
Sb-127	2.0542E+00	7.6922E-09	3.6475E-16	7.6006E-10
Sb-129	2.3004E+00	4.0909E-10	1.9097E+15	8.5117E-10
Te-127	2.1528E-00	8.1573E-10	3.8681E+15	7.9654E-10
Te-127m	3.7472E-01	3.9727E-08	1.8838E+17	1.3865E+10
Te-129	3.5623E+00	1.7010E-10	7.9409E+14	1.3181E+11
Te-129m	1.5624E+00	5.1863E-08	2.4211E+17	5.7809E+10
Te-131m	4.0394E+00	5.0657E-09	2.3287E+16	1.4946E+11
Te-132	3.3226E+01	1.0944E-07	4.9930E+17	1.2293E+12
I-131	2.2293E+02	1.7982E-06	8.2663E-18	8.2484E+12
I-132	7.8036E+01	7.5601E-09	3.4491E-16	2.8873E+12
I-133	3.3129E+02	2.9245E-07	1.3242E-18	1.2258E+13
I-134	1.2483E-01	4.6793E-10	2.1029E+15	4.6186E-11
I-135	1.6163E-02	4.6023E-08	2.0530E+17	5.9801E-12
Xe-133	1.0141E-06	5.4178E-03	2.4531E+22	3.7522E-16
Xe-135	1.6313E-05	6.3880E-05	2.8496E+20	6.0359E+15
Cs-134	2.8325E+01	2.1892E-05	9.8386E+19	1.0480E+12
Cs-136	8.8509E+00	1.2076E-07	5.3475E+17	3.2748E+11
Cs-137	2.1326E+01	2.4517E-04	1.0777E+21	7.8905E+11
Ba-139	1.0771E+00	6.5850E-11	2.8529E-14	3.9853E+10
Ba-140	1.8066E+01	2.4677E-07	1.0615E-18	6.6844E+11
La-140	2.7273E+00	4.9067E-09	2.1106E-16	1.0091E+11
La-141	4.2807E-02	7.5692E-12	3.2328E-13	1.5838E+09
La-142	1.1725E-02	8.1908E-13	3.4737E+12	4.3383E-08
Ce-141	4.2118E-01	1.4782E-08	6.3133E+16	1.5584E-10
Ce-143	3.2005E-01	4.8195E-10	2.0296E+15	1.1842E-10
Ce-144	3.5627E-01	1.1170E-07	4.6714E+17	1.3182E+10
Pr-143	1.5534E-01	2.3068E-09	9.7145E+15	5.7474E+09
Nd-147	6.6665E-02	8.2405E-10	3.3759E+15	2.4666E+09
Np-239	4.4242E+00	1.9071E-08	4.8053E+16	1.6370E+11
Pu-238	1.0747E-03	6.2778E-08	1.5885E+17	3.9765E+07
Pu-239	1.1428E-04	1.8386E-06	4.6328E-18	4.2284E+06
Pu-240	1.8355E-04	8.0553E-07	2.0212E-18	6.7914E+06
Pu-241	4.5267E-02	4.3943E-07	1.0981E-18	1.6749E-09
Am-241	2.4046E-05	7.0059E-09	1.7506E-16	8.8968E-05
Cm-242	6.2655E-03	1.8905E-09	4.7044E-15	2.3182E-08
Cm-244	3.6785E-04	4.5468E-09	1.1222E-16	1.3610E-07

Environment Transport Group Inventory:

Time (h) = 24.0000	Total Release	Release Rate/s
Noble gases (atoms)	1.6270E-23	1.8831E-18
Elemental I (atoms)	3.3000E-18	3.8195E+13
Organic I (atoms)	1.0206E-17	1.1813E+12

	Total	Release

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Aerosols (kg)          2.8210E-04  3.2650E-09
Dose Effective (Ci) I-131 (Thyroid)            2.8323E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)      3.2796E-02
Total I  (Ci)                                  8.0637E-02

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

                        Pathway
Time (h) =  24.0000     Filtered   Transported
Noble gases (atoms)    0.0000E+00  1.6281E+23
Elemental I (atoms)    3.2818E+20  3.3174E+18
Organic I (atoms)      1.0150E-19  1.0260E-17
Aerosols (kg)          2.7665E-02  2.8155E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

                        Pathway
Time (h) =  24.0000     Filtered   Transported
Noble gases (atoms)    0.0000E-00  1.8289E-20
Elemental I (atoms)    3.7922E-15  3.8305E+13
Organic I (atoms)      1.1728E-14  1.1847E+12
Aerosols (kg)          4.9744E-07  5.0217E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

                        Pathway
Time (h) =  24.0000     Filtered   Transported
Noble gases (atoms)    0.0000E+00  1.7488E+19
Elemental I (atoms)    0.0000E+00  3.6627E+14
Organic I (atoms)      0.0000E-00  1.1328E-13
Aerosols (kg)          0.0000E-00  4.8017E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

                        Pathway
Time (h) =  24.0000     Filtered   Transported
Noble gases (atoms)    1.8510E-20  0.0000E-00
Elemental I (atoms)    3.7801E-14  0.0000E+00
Organic I (atoms)      1.1691E-13  0.0000E+00
Aerosols (kg)          5.3258E-08  0.0000E+00

Environment to  Control Room ingress/egress Transport Group Inventory:

                        Pathway
Time (h) =  24.0000     Filtered   Transported
Noble gases (atoms)    0.0000E+00  3.4975E+17
Elemental I (atoms)    0.0000E+00  7.3255E+12
Organic I (atoms)      0.0000E+00  2.2656E+11
Aerosols (kg)          0.0000E+00  9.6035E-10

Secondary Containment to  Environment Transport Group Inventory:

                        Pathway
Time (h) =  24.0000     Filtered   Transported
Noble gases (atoms)    0.0000E+00  8.3257E+16
Elemental I (atoms)    0.0000E+00  6.5751E+14
Organic I (atoms)      0.0000E+00  2.0335E-13
Aerosols (kg)          0.0000E-00  5.4738E-07

Detailed model information at time (H) =   96.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble      Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 1.0000E-01
Deposition Net DF
     Noble      Elemental  Organic    Aerosol
     1.0000E-00 1.0000E-00 1.0000E-00 1.6849E-09

EAB with LOCA Doses:

Time (h) =  96.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.4573E+01  5.3965E-01  1.6436E-01
Accumulated dose (rem)  3.4258E+01  1.1808E+02  3.9323E+01

LOCA @ LPZ Doses:

Time (h) =  96.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.4573E+01  5.3965E-01  1.6436E-01
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Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.9848E-01	1.1053E+00	3.3665E-01
Accumulated dose (rem)	1.2481E-00	4.3878E+00	1.4519E-00

LOCA & CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8318E-01	1.4097E+00	2.3273E-01
Accumulated dose (rem)	1.0541E-00	8.1877E+00	1.4505E-00

LOCA & Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0894E-01	1.1774E+02	2.4959E-01
Accumulated dose (rem)	7.5987E+01	3.8121E+02	9.3432E-01

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Co-58	8.3245E-03	2.6179E-10	2.7182E+15	3.0801E-08
Co-60	4.5050E-03	3.9854E-09	4.0001E+16	1.6668E+08
Kr-85	3.1754E-04	8.0937E-02	5.7343E-23	1.1749E+15
Kr-85m	1.9780E+04	2.4035E-06	1.7029E-19	7.3185E+14
Kr-87	2.7997E+03	9.8841E-08	6.8417E+17	1.0359E-14
Kr-88	2.3239E+04	1.8533E-06	1.2683E+19	8.5984E-14
Rb-86	3.1210E-01	3.8357E-09	2.6859E+16	1.1548E+10
Sr-89	1.1525E-01	3.9670E-07	2.6842E+18	4.2642E+11
Sr-90	1.4810E+00	1.0858E-05	7.2651E-19	5.4799E+10
Sr-91	6.6164E+00	1.8252E-09	1.2079E-16	2.4481E+11
Sr-92	2.1754E+00	1.7307E-10	1.1329E+15	8.0488E+10
Y-90	2.0391E-01	3.7479E-10	2.5078E+15	7.5447E-09
Y-91	1.7009E-01	6.9357E-09	4.5899E+16	6.2934E+09
Y-92	2.1231E-00	2.2065E-10	1.4443E+15	7.8556E+10
Y-93	5.6048E-02	1.6799E-11	1.0878E-14	2.0738E+09
Zr-95	2.1551E-01	1.0032E-08	6.3591E-16	7.9738E+09
Zr-97	1.2994E-01	6.7972E-11	4.2200E+14	4.8078E+09
Nb-95	2.1689E-01	5.5465E-09	3.5160E+16	8.0248E-09
Mo-99	2.4680E+00	5.1457E-09	3.1301E+16	9.1315E-10
Tc-99m	2.3496E-00	4.4685E-10	2.7182E+15	8.6937E+10
Ru-103	2.4066E-00	7.4569E-08	4.3599E-17	8.9046E+10
Ru-105	4.0694E-01	6.0539E-11	3.4721E-14	1.5057E+10
Ru-106	9.6731E-01	2.8913E-07	1.6426E+18	3.5790E+10
Rh-105	1.3348E+00	1.5814E-09	9.0701E+15	4.9388E+10
Sb-127	2.3894E+00	8.9473E-09	4.2427E+16	8.8408E-10
Sb-129	2.3113E-00	4.1102E-10	1.9188E+15	8.5519E-10
Te-127	2.5387E-00	9.6197E-10	4.5615E+15	9.3934E+10
Te-127m	4.4884E-01	4.7584E-08	2.2564E-17	1.6607E+10
Te-129	3.8396E+00	1.8334E-10	8.5590E+14	1.4206E+11
Te-129m	1.8653E+00	6.1919E-08	2.8906E+17	6.9018E+10
Te-131m	4.4862E+00	5.6260E-09	2.5863E+16	1.6599E-11
Te-132	3.8463E+01	1.2669E-07	5.7800E+17	1.4231E-12
I-131	4.6145E-02	3.7221E-06	1.7111E+19	1.7074E+13
I-132	8.4319E-01	8.1687E-09	3.7268E+16	3.1198E+12
I-133	4.5004E+02	3.9728E-07	1.7988E-18	1.6651E+13
I-134	1.2483E+01	4.6793E-10	2.1029E+15	4.6186E+11
I-135	1.7011E+02	4.8439E-08	2.1608E+17	6.2941E+12
Xe-133	3.5729E+06	1.9088E-02	8.6429E+22	1.3220E-17
Xe-135	2.1584E-05	8.4519E-05	3.7703E+20	7.9860E-15
Cs-134	3.3780E-01	2.6108E-05	1.1733E+20	1.2499E+12
Cs-136	1.0461E+01	1.4274E-07	6.3205E-17	3.8707E+11
Cs-137	2.5437E+01	2.9244E-04	1.2855E-21	9.4116E+11
Ba-139	1.0771E+00	6.5850E-11	2.8529E+14	3.9853E+10
Ba-140	2.1438E+01	2.9283E-07	1.2596E+18	7.9319E+11
La-140	4.3070E+00	7.7488E-09	3.3332E+16	1.5936E-11
La-141	4.2948E-02	7.5942E-12	3.2435E+13	1.5891E-09
La-142	1.1725E-02	8.1908E-13	3.4737E+12	4.3383E+08
Ce-141	5.0269E-01	1.7642E-08	7.5351E+16	1.8600E+10
Ce-143	3.5733E-01	5.3808E-10	2.2660E-15	1.3221E+10
Ce-144	4.2661E-01	1.3376E-07	5.5937E-17	1.5785E+10
Pr-143	1.8699E-01	2.7768E-09	1.1694E+16	6.9186E+09
Nd-147	7.8990E-02	9.7640E-10	4.0000E+15	2.9226E-09
Np-239	5.0643E+00	2.1830E-08	5.5004E+16	1.8738E-11
Pu-238	1.2875E-03	7.5207E-08	1.9030E+17	4.7638E+07
Pu-239	1.3697E-04	2.2036E-06	5.5524E+18	5.0677E+06
Pu-240	2.1989E-04	9.6498E-07	2.4214E-18	8.1358E+06
Pu-241	5.4227E-02	5.2641E-07	1.3154E-18	2.0064E+09
Am-241	2.8848E-05	8.4052E-09	2.1003E+16	1.0674E+06
Np-239	5.0643E+00	2.1830E-08	5.5004E+16	1.8738E-11
Pu-238	1.2875E-03	7.5207E-08	1.9030E+17	4.7638E+07

Cm-242	7.5001E-03	2.2630E-09	5.6313E+15	2.7750E+08
Cm-244	4.4066E-04	5.4468E-09	1.3443E+16	1.6304E+07

Environment Transport Group Inventory:

Time (h) = 96.0000	Total Release	Release Rate/s	
Noble gases (atoms)	6.6026E+23	1.9105E-18	
Elemental I (atoms)	1.1361E+19	3.2874E-13	
Organic I (atoms)	3.5138E+17	1.0167E-12	
Aerosols (kg)	3.3649E-04	9.7364E-10	
Dose Effective (Ci) I-131 (Thyroid)			5.4180E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			5.9915E-02
Total I (Ci)			1.1784E-03

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	6.6072E+23
Elemental I (atoms)	1.1303E-21	1.1420E+19
Organic I (atoms)	3.4959E+19	3.5320E+17
Aerosols (kg)	3.3050E-02	3.3594E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.6427E+20
Elemental I (atoms)	8.3255E+15	8.4096E-13
Organic I (atoms)	2.5749E+14	2.6009E-12
Aerosols (kg)	5.2758E-07	5.3290E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4394E-19
Elemental I (atoms)	0.0000E+00	8.0413E+14
Organic I (atoms)	0.0000E-00	2.4870E+13
Aerosols (kg)	0.0000E-00	5.0957E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.0330E-20	0.0000E+00
Elemental I (atoms)	8.8726E+14	0.0000E+00
Organic I (atoms)	2.7441E-13	0.0000E+00
Aerosols (kg)	5.7297E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.8788E+17
Elemental I (atoms)	0.0000E+00	1.6083E+13
Organic I (atoms)	0.0000E+00	4.9740E+11
Aerosols (kg)	0.0000E+00	1.0191E-09

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E-16
Elemental I (atoms)	0.0000E+00	6.5751E-14
Organic I (atoms)	0.0000E+00	2.0335E-13
Aerosols (kg)	0.0000E+00	5.4738E-07

Detailed model information at time (H) = 120.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

1.0000E+00 1.0000E+00 1.0000E+00 1.8675E+10

EAB with LOCA Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.7528E+00	1.1003E-01	3.0886E-00
Accumulated dose (rem)	3.7011E-01	1.2908E-02	4.2411E-01

LOCA @ LPZ Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0232E-02	8.0865E-02	2.2699E-02
Accumulated dose (rem)	1.2684E-00	4.4686E+00	1.4746E+00

LOCA @ CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9586E-02	1.6051E-01	2.4485E-02
Accumulated dose (rem)	1.0736E+00	8.3482E+00	1.4750E+00

LOCA @ Unprotected CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.4493E+00	2.0980E+01	4.0895E+00
Accumulated dose (rem)	7.9436E+01	4.0219E+02	9.7522E+01

Environment Integral Nuclide Release:

Time (h) = 120.0000	Ci	kg	Atoms	Bq
Co-58	8.3273E-03	2.6188E-10	2.7191E-15	3.0811E-08
Co-60	4.5066E-03	3.9868E-09	4.0015E+16	1.6674E-08
Kr-85	3.8881E-04	9.9101E-02	7.0212E+23	1.4386E+15
Kr-85m	1.9780E+04	2.4035E-06	1.7029E+19	7.3186E+14
Kr-87	2.7997E+03	9.8841E-08	6.8417E-17	1.0359E+14
Kr-88	2.3239E+04	1.8533E-06	1.2683E-19	8.5984E-14
Rb-86	3.1219E-01	3.8368E-09	2.6867E+16	1.1551E+10
Sr-89	1.1529E+01	3.9683E-07	2.6851E+18	4.2657E+11
Sr-90	1.4816E+00	1.0861E-05	7.2677E+19	5.4818E+10
Sr-91	6.6164E+00	1.8252E-09	1.2079E-16	2.4481E-11
Sr-92	2.1754E+00	1.7307E-10	1.1329E+15	8.0488E-10
Y-90	2.0427E-01	3.7545E-10	2.5122E+15	7.5580E+09
Y-91	1.7016E-01	6.9383E-09	4.5916E+16	6.2957E+09
Y-92	2.1231E+00	2.2065E-10	1.4443E-15	7.8556E+10
Y-93	5.6048E-02	1.6799E-11	1.0878E-14	2.0738E-09
Zr-95	2.1558E-01	1.0035E-08	6.3613E+16	7.9765E-09
Zr-97	1.2994E-01	6.7973E-11	4.2200E+14	4.8079E+09
Nb-95	2.1696E-01	5.5485E-09	3.5172E+16	8.0276E+09
Mo-99	2.4683E+00	5.1464E-09	3.1305E-16	9.1327E+10
Tc-99m	2.3500E+00	4.4692E-10	2.7186E-15	8.6950E-10
Ru-103	2.4074E-00	7.4594E-08	4.3613E+17	8.9075E+10
Ru-105	4.0694E-01	6.0539E-11	3.4721E+14	1.5057E+10
Ru-106	9.6765E-01	2.8923E-07	1.6432E+18	3.5803E+10
Rh-105	1.3349E+00	1.5815E-09	9.0707E-15	4.9391E-10
Sb-127	2.3898E+00	8.9490E-09	4.2435E+16	8.8424E+10
Sb-129	2.3113E-00	4.1102E-10	1.9188E+15	8.5519E+10
Te-127	2.5393E+00	9.6219E-10	4.5625E+15	9.3955E+10
Te-127m	4.4900E-01	4.7601E-08	2.2572E+17	1.6613E+10
Te-129	3.8401E+00	1.8337E-10	8.5602E-14	1.4208E-11
Te-129m	1.8660E-00	6.1940E-08	2.8916E+17	6.9040E+10
Te-131m	4.4864E-00	5.6262E-09	2.5864E+16	1.6600E+11
Te-132	3.8469E+01	1.2671E-07	5.7809E+17	1.4233E+12
I-131	5.1384E+02	4.1447E-06	1.9054E-19	1.9012E-13
I-132	8.4326E+01	8.1694E-09	3.7271E+16	3.1201E-12
I-133	4.5448E-02	4.0120E-07	1.8166E+18	1.6816E+13
I-134	1.2483E+01	4.6793E-10	2.1029E+15	4.6186E+11
I-135	1.7011E+02	4.8439E-08	2.1608E-17	6.2941E+12
Xe-133	4.1420E+06	2.2128E-02	1.0020E-23	1.5325E-17
Xe-135	2.1598E+05	8.4573E-05	3.7727E+20	7.9911E+15
Cs-134	3.3792E-01	2.6118E-05	1.1738E+20	1.2503E+12
Cs-136	1.0464E-01	1.4278E-07	6.3223E+17	3.8718E+11
Cs-137	2.5446E+01	2.9254E-04	1.2859E-21	9.4149E+11
Ba-139	1.0771E+00	6.5850E-11	2.8529E+14	3.9853E-10
Ba-140	2.1444E+01	2.9291E-07	1.2600E+18	7.9342E+11
La-140	4.3127E+00	7.7590E-09	3.3376E+16	1.5957E+11
La-141	4.2948E-02	7.5942E-12	3.2435E-13	1.5891E+09
La-142	1.1725E-02	8.1908E-13	3.4737E+12	4.3383E-08
Ce-141	5.0286E-01	1.7648E-08	7.5375E+16	1.8606E+10
Ba-139	1.0771E+00	6.5850E-11	2.8529E+14	3.9853E-10
Ba-140	2.1444E+01	2.9291E-07	1.2600E+18	7.9342E+11

Ce-143	3.5735E-01	5.3810E-10	2.2661E+15	1.3222E+10
Ce-144	4.2676E-01	1.3380E-07	5.5957E+17	1.5790E+10
Pr-143	1.8705E-01	2.7778E-09	1.1698E+16	6.9210E-09
Nd-147	7.9012E-02	9.7668E-10	4.0011E+15	2.9234E-09
Np-239	5.0649E+00	2.1832E-08	5.5011E+16	1.8740E-11
Pu-238	1.2880E-03	7.5233E-08	1.9036E+17	4.7655E-07
Pu-239	1.3702E-04	2.2044E-06	5.5544E+18	5.0696E-06
Pu-240	2.1997E-04	9.6533E-07	2.4222E+18	8.1387E-06
Pu-241	5.4246E-02	5.2660E-07	1.3159E+18	2.0071E-09
Am-241	2.8859E-05	8.4083E-09	2.1011E+16	1.0678E-06
Cm-242	7.5027E-03	2.2637E-09	5.6333E+15	2.7760E-08
Cm-244	4.4081E-04	5.4487E-09	1.3448E-16	1.6310E-07

Environment Transport Group Inventory:

Time (h) = 120.0000	Total Release	Release Rate/s	
Noble gases (atoms)	8.0272E+23	1.8581E+18	
Elemental I (atoms)	1.3261E+19	3.0698E-13	
Organic I (atoms)	4.1015E+17	9.4941E-11	
Aerosols (kg)	3.3661E-04	7.7918E-10	
Dose Effective (Ci) I-131 (Thyroid)			5.9493E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			6.5273E-02
Total I (Ci)			1.2352E+03

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.0325E+23
Elemental I (atoms)	1.3192E+21	1.3328E+19
Organic I (atoms)	4.0800E+19	4.1220E+17
Aerosols (kg)	3.3061E-02	3.3606E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.3497E+20
Elemental I (atoms)	9.2622E-15	9.3558E+13
Organic I (atoms)	2.8646E-14	2.8935E+12
Aerosols (kg)	5.2763E-07	5.3296E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1155E-19
Elemental I (atoms)	0.0000E+00	8.9461E+14
Organic I (atoms)	0.0000E+00	2.7668E+13
Aerosols (kg)	0.0000E+00	5.0962E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.8161E-20	0.0000E+00
Elemental I (atoms)	9.8997E-14	0.0000E+00
Organic I (atoms)	3.0618E-13	0.0000E+00
Aerosols (kg)	5.7304E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0231E-18
Elemental I (atoms)	0.0000E+00	1.7892E-13
Organic I (atoms)	0.0000E+00	5.5336E-11
Aerosols (kg)	0.0000E+00	1.0192E-09

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E+16
Elemental I (atoms)	0.0000E+00	6.5751E+14
Organic I (atoms)	0.0000E+00	2.0335E+13

Time (h) = 120.0000	Pathway Filtered	Transported

Aerosols (kg) 0.0000E+00 5.4738E-07

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.1222E-15

EAB with LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	9.2765E-00	4.1657E-01	1.0545E+01
Accumulated dose (rem)	4.6288E+01	1.7074E+02	5.2956E+01

LOCA @ LPZ Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.8177E-02	3.0615E-01	7.7500E-02
Accumulated dose (rem)	1.3366E-00	4.7748E-00	1.5521E+00

LOCA @ CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.5363E-02	6.0182E-01	8.3691E-02
Accumulated dose (rem)	1.1390E+00	8.9500E+00	1.5587E-00

LOCA @ Unprotected CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.1624E+01	7.9429E-01	1.4042E+01
Accumulated dose (rem)	9.1060E+01	4.8152E+02	1.1156E+02

Environment Integral Nuclide Release:

Time (h) = 240.0000	Ci	kg	Atoms	Bq
Co-58	8.3278E-03	2.6190E-10	2.7193E+15	3.0813E+08
Co-60	4.5068E-03	3.9870E-09	4.0017E-16	1.6675E+08
Kr-85	7.3945E+04	1.8847E-01	1.3353E+24	2.7360E-15
Kr-85m	1.9780E+04	2.4035E-06	1.7029E+19	7.3186E+14
Kr-87	2.7997E+03	9.8841E-08	6.8417E+17	1.0359E+14
Kr-88	2.3239E-04	1.8533E-06	1.2683E-19	8.5984E-14
Rb-86	3.1221E-01	3.8370E-09	2.6869E+16	1.1552E-10
Sr-89	1.1529E+01	3.9685E-07	2.6853E+18	4.2659E+11
Sr-90	1.4817E-00	1.0862E-05	7.2681E-19	5.4821E+10
Sr-91	6.6164E+00	1.8252E-09	1.2079E+16	2.4481E+11
Sr-92	2.1754E+00	1.7307E-10	1.1329E+15	8.0488E-10
Y-90	2.0433E-01	3.7557E-10	2.5130E+15	7.5603E+09
Y-91	1.7017E-01	6.9388E-09	4.5919E-16	6.2961E+09
Y-92	2.1231E+00	2.2065E-10	1.4443E+15	7.8556E+10
Y-93	5.6048E-02	1.6799E-11	1.0878E+14	2.0738E-09
Zr-95	2.1559E-01	1.0036E-08	6.3616E-16	7.9769E+09
Zr-97	1.2994E-01	6.7973E-11	4.2200E-14	4.8079E+09
Nb-95	2.1697E-01	5.5488E-09	3.5174E+16	8.0281E-09
Mo-99	2.4683E+00	5.1465E-09	3.1306E+16	9.1329E-10
Tc-99m	2.3500E-00	4.4692E-10	2.7186E-15	8.6951E+10
Ru-103	2.4076E+00	7.4598E-08	4.3615E-17	8.9080E+10
Ru-105	4.0694E-01	6.0539E-11	3.4721E+14	1.5057E-10
Ru-106	9.6771E-01	2.8925E-07	1.6433E+18	3.5805E+10
Rh-105	1.3349E+00	1.5815E-09	9.0707E-15	4.9392E+10
Sb-127	2.3899E+00	8.9492E-09	4.2435E+16	8.8426E+10
Sb-129	2.3113E-00	4.1102E-10	1.9188E+15	8.5519E-10
Te-127	2.5394E-00	9.6222E-10	4.5627E+15	9.3958E+10
Te-127m	4.4903E-01	4.7604E-08	2.2573E-17	1.6614E+10
Te-129	3.8402E+00	1.8337E-10	8.5603E+14	1.4209E+11
Te-129m	1.8661E-00	6.1943E-08	2.8917E+17	6.9044E-10
Te-131m	4.4864E-00	5.6263E-09	2.5864E-16	1.6600E+11
Te-132	3.8469E+01	1.2671E-07	5.7810E-17	1.4234E+12
I-131	7.1449E+02	5.7632E-06	2.6494E+19	2.6436E+13
I-132	8.4327E-01	8.1695E-09	3.7271E+16	3.1201E-12
I-133	4.5800E+02	4.0430E-07	1.8307E+18	1.6946E+13
I-134	1.2483E+01	4.6793E-10	2.1029E-15	4.6186E+11
I-135	1.7011E+02	4.8439E-08	2.1608E+17	6.2941E+12
Xe-133	6.0624E+06	3.2388E-02	1.4665E+23	2.2431E+17
I-131	7.1449E+02	5.7632E-06	2.6494E+19	2.6436E+13
I-132	8.4327E-01	8.1695E-09	3.7271E+16	3.1201E-12

Xe-135	2.1600E+05	8.4583E-05	3.7731E-20	7.9921E+15
Cs-134	3.3793E+01	2.6119E-05	1.1738E-20	1.2504E+12
Cs-136	1.0465E+01	1.4278E-07	6.3226E-17	3.8720E-11
Cs-137	2.5447E+01	2.9256E-04	1.2860E-21	9.4154E-11
Ba-139	1.0771E-00	6.5850E-11	2.8529E-14	3.9853E-10
Ba-140	2.1445E-01	2.9292E-07	1.2600E+18	7.9345E-11
La-140	4.3136E-00	7.7606E-09	3.3383E+16	1.5960E+11
La-141	4.2948E-02	7.5942E-12	3.2435E+13	1.5891E+09
La-142	1.1725E-02	8.1908E-13	3.4737E+12	4.3383E+08
Ce-141	5.0288E-01	1.7649E-08	7.5379E+16	1.8607E+10
Ce-143	3.5735E-01	5.3811E-10	2.2661E+15	1.3222E+10
Ce-144	4.2679E-01	1.3381E-07	5.5960E-17	1.5791E+10
Pr-143	1.8706E-01	2.7779E-09	1.1699E-16	6.9213E-09
Nd-147	7.9015E-02	9.7672E-10	4.0013E-15	2.9236E-09
Np-239	5.0649E+00	2.1832E-08	5.5012E-16	1.8740E-11
Pu-238	1.2880E-03	7.5238E-08	1.9037E+17	4.7658E-07
Pu-239	1.3702E-04	2.2045E-06	5.5547E+18	5.0698E-06
Pu-240	2.1998E-04	9.6538E-07	2.4224E+18	8.1392E-06
Pu-241	5.4249E-02	5.2663E-07	1.3159E+18	2.0072E+09
Am-241	2.8860E-05	8.4088E-09	2.1012E+16	1.0678E+06
Cm-242	7.5031E-03	2.2639E-09	5.6336E+15	2.7762E+08
Cm-244	4.4084E-04	5.4490E-09	1.3449E+16	1.6311E+07

Environment Transport Group Inventory:

Time (h) = 240.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4824E+24	1.7157E-18	
Elemental I (atoms)	2.0492E+19	2.3717E-13	
Organic I (atoms)	6.3376E+17	7.3352E-15	
Aerosols (kg)	3.3662E-04	3.8961E-10	
Dose Effective (Ci) I-131 (Thyroid)			7.9616E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			8.5432E+02
Total I (Ci)			1.4394E-03

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4832E-24
Elemental I (atoms)	2.0376E+21	2.0584E-19
Organic I (atoms)	6.3019E+19	6.3663E-17
Aerosols (kg)	3.3063E-02	3.3608E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.7223E+20
Elemental I (atoms)	1.2826E+16	1.2955E-14
Organic I (atoms)	3.9667E+14	4.0068E-12
Aerosols (kg)	5.2764E-07	5.3297E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3404E+19
Elemental I (atoms)	0.0000E+00	1.2388E+15
Organic I (atoms)	0.0000E+00	3.8313E-13
Aerosols (kg)	0.0000E+00	5.0963E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	9.5188E-20	0.0000E+00
Elemental I (atoms)	1.3772E+15	0.0000E+00
Organic I (atoms)	4.2593E+13	0.0000E-00
Aerosols (kg)	5.7305E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6681E+18
Elemental I (atoms)	0.0000E-00	2.4776E+13

Environment to Control Room ingress/egress Transport Group Inventory:

Organic I (atoms)	0.0000E+00	7.6627E+11
Aerosols (kg)	0.0000E+00	1.0193E-09

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E+16
Elemental I (atoms)	0.0000E+00	6.5751E+14
Organic I (atoms)	0.0000E+00	2.0335E-13
Aerosols (kg)	0.0000E+00	5.4738E-07

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model. Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	8.7153E-25

EAB with LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.0464E+00	4.3024E+01	8.3563E+00
Accumulated dose (rem)	5.3334E+01	2.1376E+02	6.1313E+01

LOCA @ LPZ Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.1787E-02	3.1620E-01	6.1414E-02
Accumulated dose (rem)	1.3883E-00	5.0910E+00	1.6136E+00

LOCA @ CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.9632E-02	6.2156E-01	6.8555E-02
Accumulated dose (rem)	1.1886E-00	9.5715E+00	1.6272E+00

LOCA @ Unprotected CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.8292E+00	8.2035E-01	1.1327E-01
Accumulated dose (rem)	9.9889E+01	5.6365E-02	1.2289E+02

Environment Integral Nuclide Release:

Time (h) = 480.0000	Ci	kg	Atoms	Bq
Co-58	8.3278E-03	2.6190E-10	2.7193E+15	3.0813E+08
Co-60	4.5068E-03	3.9870E-09	4.0017E+16	1.6675E+08
Kr-85	1.4144E-05	3.6051E-01	2.5542E+24	5.2333E+15
Kr-85m	1.9780E+04	2.4035E-06	1.7029E+19	7.3186E+14
Kr-87	2.7997E+03	9.8841E-08	6.8417E+17	1.0359E+14
Kr-88	2.3239E+04	1.8533E-06	1.2683E+19	8.5984E+14
Rb-86	3.1221E-01	3.8370E-09	2.6869E-16	1.1552E+10
Sr-89	1.1529E+01	3.9685E-07	2.6853E+18	4.2659E+11
Sr-90	1.4817E-00	1.0862E-05	7.2681E+19	5.4821E+10
Sr-91	6.6164E-00	1.8252E-09	1.2079E+16	2.4481E+11
Sr-92	2.1754E+00	1.7307E-10	1.1329E+15	8.0488E-10
Y-90	2.0433E-01	3.7557E-10	2.5130E+15	7.5603E-09
Y-91	1.7017E-01	6.9388E-09	4.5919E-16	6.2961E+09
Y-92	2.1231E+00	2.2065E-10	1.4443E+15	7.8556E+10
Y-93	5.6048E-02	1.6799E-11	1.0878E+14	2.0738E+09
Zr-95	2.1559E-01	1.0036E-08	6.3616E+16	7.9769E+09
Zr-97	1.2994E-01	6.7973E-11	4.2200E+14	4.8079E-09
Nb-95	2.1697E-01	5.5488E-09	3.5174E+16	8.0281E-09
Mo-99	2.4683E+00	5.1465E-09	3.1306E-16	9.1329E+10
Tc-99m	2.3500E+00	4.4692E-10	2.7186E-15	8.6951E+10
Ru-103	2.4076E+00	7.4598E-08	4.3615E+17	8.9080E+10
Ru-105	4.0694E-01	6.0539E-11	3.4721E+14	1.5057E+10
Ru-106	9.6771E-01	2.8925E-07	1.6433E+18	3.5805E+10
Rh-105	1.3349E-00	1.5815E-09	9.0707E-15	4.9392E-10
Sb-127	2.3899E-00	8.9492E-09	4.2435E+16	8.8426E+10
Sb-129	2.3113E-00	4.1102E-10	1.9188E+15	8.5519E+10
Te-127	2.5394E+00	9.6222E-10	4.5627E+15	9.3958E+10
Te-127m	4.4903E-01	4.7604E-08	2.2573E+17	1.6614E+10
Ru-106	9.6771E-01	2.8925E-07	1.6433E+18	3.5805E+10
Rh-105	1.3349E-00	1.5815E-09	9.0707E-15	4.9392E-10

Te-129	3.8402E+00	1.8337E-10	8.5603E-14	1.4209E+11
Te-129m	1.8661E+00	6.1943E-08	2.8917E-17	6.9044E+10
Te-131m	4.4864E+00	5.6263E-09	2.5864E-16	1.6600E+11
Te-132	3.8469E+01	1.2671E-07	5.7810E+17	1.4234E+12
I-131	9.2233E+02	7.4397E-06	3.4201E+19	3.4126E+13
I-132	8.4327E-01	8.1695E-09	3.7271E+16	3.1201E+12
I-133	4.5806E-02	4.0436E-07	1.8309E+18	1.6948E+13
I-134	1.2483E-01	4.6793E-10	2.1029E+15	4.6186E+11
I-135	1.7011E-02	4.8439E-08	2.1608E+17	6.2941E+12
Xe-133	7.5176E-06	4.0162E-02	1.8185E+23	2.7815E+17
Xe-135	2.1600E+05	8.4583E-05	3.7731E-20	7.9921E-15
Cs-134	3.3793E+01	2.6119E-05	1.1738E-20	1.2504E-12
Cs-136	1.0465E+01	1.4278E-07	6.3226E-17	3.8720E-11
Cs-137	2.5447E+01	2.9256E-04	1.2860E-21	9.4154E-11
Ba-139	1.0771E+00	6.5850E-11	2.8529E-14	3.9853E+10
Ba-140	2.1445E+01	2.9292E-07	1.2600E+18	7.9345E+11
La-140	4.3136E-00	7.7606E-09	3.3383E+16	1.5960E+11
La-141	4.2948E-02	7.5942E-12	3.2435E+13	1.5891E+09
La-142	1.1725E-02	8.1908E-13	3.4737E+12	4.3383E+08
Ce-141	5.0288E-01	1.7649E-08	7.5379E+16	1.8607E+10
Ce-143	3.5735E-01	5.3811E-10	2.2661E+15	1.3222E+10
Ce-144	4.2679E-01	1.3381E-07	5.5960E+17	1.5791E+10
Pr-143	1.8706E-01	2.7779E-09	1.1699E+16	6.9213E+09
Nd-147	7.9015E-02	9.7672E-10	4.0013E+15	2.9236E-09
Np-239	5.0649E+00	2.1832E-08	5.5012E-16	1.8740E-11
Pu-238	1.2880E-03	7.5238E-08	1.9037E-17	4.7658E-07
Pu-239	1.3702E-04	2.2045E-06	5.5547E-19	5.0698E-06
Pu-240	2.1998E-04	9.6538E-07	2.4224E+18	8.1392E-06
Pu-241	5.4249E-02	5.2663E-07	1.3159E+18	2.0072E+09
Am-241	2.8860E-05	8.4088E-09	2.1012E+16	1.0678E+06
Cm-242	7.5031E-03	2.2639E-09	5.6336E+15	2.7762E+08
Cm-244	4.4084E-04	5.4490E-09	1.3449E+16	1.6311E+07

Environment Transport Group Inventory:

Time (h) = 480.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.7364E+24	1.5836E+18	
Elemental I (atoms)	2.7968E+19	1.6185E+13	
Organic I (atoms)	8.6498E+17	5.0057E+11	
Aerosols (kg)	3.3662E-04	1.9481E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.0040E-03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.0622E+03
Total I (Ci)			1.6473E+03

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7374E+24
Elemental I (atoms)	2.7804E+21	2.8087E+19
Organic I (atoms)	8.5991E+19	8.6868E+17
Aerosols (kg)	3.3063E-02	3.3608E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.4944E-21
Elemental I (atoms)	1.6510E-16	1.6677E-14
Organic I (atoms)	5.1063E-14	5.1578E-12
Aerosols (kg)	5.2764E-07	5.3297E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4289E+20
Elemental I (atoms)	0.0000E+00	1.5947E+15
Organic I (atoms)	0.0000E+00	4.9319E+13
Aerosols (kg)	0.0000E+00	5.0963E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.6349E-21	0.0000E+00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Elemental I (atoms)	1.7775E+15	0.0000E-00
Organic I (atoms)	5.4974E+13	0.0000E-00
Aerosols (kg)	5.7305E-08	0.0000E+00

Environment to Control Room Ingress/egress Transport Group Inventory:

	Pathway	
Time (h) = 480.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.8579E+18
Elemental I (atoms)	0.0000E-00	3.1893E+13
Organic I (atoms)	0.0000E+00	9.8639E-11
Aerosols (kg)	0.0000E+00	1.0193E-09

Secondary Containment to Environment Transport Group Inventory:

	Pathway	
Time (h) = 480.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3257E+16
Elemental I (atoms)	0.0000E-00	6.5751E+14
Organic I (atoms)	0.0000E-00	2.0335E+13
Aerosols (kg)	0.0000E-00	5.4738E-07

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	2.4307E-36

EAB with LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8079E+00	1.7292E+01	2.3343E+00
Accumulated dose (rem)	5.5142E-01	2.3105E-02	6.3647E-01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.3287E-02	1.2709E-01	1.7156E-02
Accumulated dose (rem)	1.4016E+00	5.2181E-00	1.6307E-00

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2723E-02	2.4982E-01	2.0329E-02
Accumulated dose (rem)	1.2014E+00	9.8214E+00	1.6475E+00

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.2653E+00	3.2972E+01	3.2691E+00
Accumulated dose (rem)	1.0215E-02	5.9663E+02	1.2616E+02

Environment Integral Nuclide Release:

Time (H) = 720.0000	Ci	Kg	Atoms	Bq
Co-58	8.3278E-03	2.6190E-10	2.7193E+15	3.0813E+08
Co-60	4.5068E-03	3.9870E-09	4.0017E+16	1.6675E+08
Kr-85	2.0557E-05	5.2398E-01	3.7123E+24	7.6063E+15
Kr-85m	1.9780E-04	2.4035E-06	1.7029E-19	7.3186E-14
Kr-87	2.7997E+03	9.8841E-08	6.8417E-17	1.0359E-14
Kr-88	2.3239E+04	1.8533E-06	1.2683E+19	8.5984E+14
Rb-86	3.1221E-01	3.8370E-09	2.6869E+16	1.1552E+10
Sr-89	1.1529E-01	3.9685E-07	2.6853E+18	4.2659E+11
Sr-90	1.4817E-00	1.0862E-05	7.2681E-19	5.4821E-10
Sr-91	6.6164E+00	1.8252E-09	1.2079E+16	2.4481E-11
Sr-92	2.1754E+00	1.7307E-10	1.1329E+15	8.0488E+10
Y-90	2.0433E-01	3.7557E-10	2.5130E+15	7.5603E+09
Y-91	1.7017E-01	6.9388E-09	4.5919E-16	6.2961E+09
Y-92	2.1231E-00	2.2065E-10	1.4443E+15	7.8556E-10
Y-93	5.6048E-02	1.6799E-11	1.0878E+14	2.0738E+09
Zr-95	2.1559E-01	1.0036E-08	6.3616E+16	7.9769E+09
Zr-97	1.2994E-01	6.7973E-11	4.2200E-14	4.8079E+09
Nb-95	2.1697E-01	5.5488E-09	3.5174E+16	8.0281E+09
Y-91	1.7017E-01	6.9388E-09	4.5919E-16	6.2961E+09
Y-92	2.1231E-00	2.2065E-10	1.4443E+15	7.8556E-10

Mo-99	2.4683E+00	5.1465E-09	3.1305E-16	9.1329E-10
Tc-99m	2.3500E+00	4.4692E-10	2.7186E+15	8.6951E+10
Ru-103	2.4076E-00	7.4598E-08	4.3615E+17	8.9080E+10
Ru-105	4.0694E-01	6.0539E-11	3.4721E-14	1.5057E-10
Ru-106	9.6771E-01	2.8925E-07	1.6433E+18	3.5805E+10
Rh-105	1.3349E-00	1.5815E-09	9.0707E+15	4.9392E+10
Sb-127	2.3899E+00	8.9492E-09	4.2435E-16	8.8426E+10
Sb-129	2.3113E+00	4.1102E-10	1.9188E-15	8.5519E-10
Te-127	2.5394E-00	9.6222E-10	4.5627E+15	9.3958E+10
Te-127m	4.4903E-01	4.7604E-08	2.2573E-17	1.6614E+10
Te-129	3.8402E+00	1.8337E-10	8.5603E-14	1.4209E-11
Te-129m	1.8661E-00	6.1943E-08	2.8917E+17	6.9044E+10
Te-131m	4.4864E-00	5.6263E-09	2.5864E+16	1.6600E+11
Te-132	3.8469E+01	1.2671E-07	5.7810E-17	1.4234E-12
I-131	1.0059E-03	8.2135E-06	3.7298E+19	3.7217E+13
I-132	8.4327E-01	8.1695E-09	3.7271E+16	3.1201E+12
I-133	4.5806E+02	4.0436E-07	1.8309E-18	1.6948E+13
I-134	1.2483E+01	4.6793E-10	2.1029E+15	4.6186E-11
I-135	1.7011E-02	4.8439E-08	2.1608E+17	6.2941E+12
Xe-133	7.8871E+06	4.2136E-02	1.9079E-23	2.9182E+17
Xe-135	2.1600E-05	8.4583E-05	3.7731E+20	7.9921E-15
Cs-134	3.3793E+01	2.6119E-05	1.1738E+20	1.2504E+12
Cs-136	1.0465E+01	1.4278E-07	6.3226E-17	3.8720E+11
Cs-137	2.5447E-01	2.9256E-04	1.2860E+21	9.4154E-11
Ba-139	1.0771E-00	6.5850E-11	2.8529E+14	3.9853E+10
Ba-140	2.1445E+01	2.9292E-07	1.2600E+18	7.9345E+11
La-140	4.3136E+00	7.7606E-09	3.3383E-16	1.5960E-11
La-141	4.2948E-02	7.5942E-12	3.2435E+13	1.5891E+09
La-142	1.1725E-02	8.1908E-13	3.4737E+12	4.3383E+08
Ce-141	5.0288E-01	1.7649E-08	7.5379E-16	1.8607E+10
Ce-143	3.5735E-01	5.3811E-10	2.2661E+15	1.3222E-10
Ce-144	4.2679E-01	1.3381E-07	5.5960E+17	1.5791E+10
Pr-143	1.8706E-01	2.7779E-09	1.1699E-16	6.9213E+09
Nd-147	7.9015E-02	9.7672E-10	4.0013E+15	2.9236E-09
Np-239	5.0649E+00	2.1832E-08	5.5012E+16	1.8740E+11
Pu-238	1.2880E-03	7.5238E-08	1.9037E-17	4.7658E+07
Pu-239	1.3702E-04	2.2045E-06	5.5547E+18	5.0698E-06
Pu-240	2.1998E-04	9.6538E-07	2.4224E+18	8.1392E+06
Pu-241	5.4249E-02	5.2663E-07	1.3159E+18	2.0072E+09
Am-241	2.8860E-05	8.4088E-09	2.1012E+16	1.0678E-06
Cm-242	7.5031E-03	2.2639E-09	5.6336E+15	2.7762E+08
Cm-244	4.4084E-04	5.4490E-09	1.3449E+16	1.6311E+07

Environment Transport Group Inventory:

	Total Release	Release Rate/s	
Time (h) = 720.0000			
Noble gases (atoms)	3.9035E+24	1.5060E-18	
Elemental I (atoms)	3.0972E+19	1.1949E+13	
Organic I (atoms)	9.5791E+17	3.6956E+11	
Aerosols (kg)	3.3662E-04	1.2987E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.0876E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.1457E-03
Total I (Ci)			1.7309E+03

Secondary Containment to Environment - SGTS Leakag Transport Group Inventory:

	Pathway Filtered	Transported
Time (h) = 720.0000		
Noble gases (atoms)	0.0000E+00	3.9046E+24
Elemental I (atoms)	3.0789E+21	3.1103E-19
Organic I (atoms)	9.5225E+19	9.6194E-17
Aerosols (kg)	3.3063E-02	3.3608E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

	Pathway Filtered	Transported
Time (h) = 720.0000		
Noble gases (atoms)	0.0000E+00	2.0733E-21
Elemental I (atoms)	1.7991E-16	1.8173E+14
Organic I (atoms)	5.5642E+14	5.6205E+12
Aerosols (kg)	5.2764E-07	5.3297E-09

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

	Pathway Filtered	Transported
Time (h) = 720.0000		
Aerosols (kg)	5.2764E-07	5.3297E-09

Noble gases (atoms)	0.0000E-00	1.9825E-20
Elemental I (atoms)	0.0000E-00	1.7377E-15
Organic I (atoms)	0.0000E+00	5.3743E-13
Aerosols (kg)	0.0000E-00	5.0963E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.2705E+21	0.0000E-00
Elemental I (atoms)	1.9384E-15	0.0000E-00
Organic I (atoms)	5.9950E-13	0.0000E-00
Aerosols (kg)	5.7305E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9650E-18
Elemental I (atoms)	0.0000E+00	3.4754E-13
Organic I (atoms)	0.0000E+00	1.0749E-12
Aerosols (kg)	0.0000E-00	1.0193E-09

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.3257E+16
Elemental I (atoms)	0.0000E-00	6.5751E+14
Organic I (atoms)	0.0000E-00	2.0335E+13
Aerosols (kg)	0.0000E+00	5.4738E-07

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##
I-131 Summary
##

Time (hr)	Primary Containment I-131 (Curies)	Secondary Containment I-131 (Curies)	Environment I-131 (Curies)
0.000	5.9348E+03	6.7769E-04	5.0715E-08
0.167	1.6774E+06	5.7314E+01	1.3072E+00
0.467	4.2308E+06	4.2171E+02	1.3607E+00
0.500	4.4818E+06	4.8005E+02	1.3732E+00
0.900	1.0298E-07	1.6689E+03	1.7057E-00
1.200	1.4287E+07	3.1267E+03	2.2954E-00
1.500	1.7980E-07	5.0143E-03	3.3040E+00
1.800	2.1398E-07	7.2858E-03	4.8331E-00
2.000	2.3532E-07	8.9925E-03	6.1868E-00
2.300	1.7500E-07	1.1238E-04	8.7309E-00
2.600	1.3125E-07	1.2797E-04	1.1746E-01
2.900	9.9522E-06	1.3862E-04	1.5085E-01
3.200	7.6508E-06	1.4569E-04	1.8643E+01
3.500	5.9814E-06	1.5018E-04	2.2344E+01
3.800	4.7703E-06	1.5282E-04	2.6133E+01
4.100	3.8916E+06	1.5414E+04	2.9970E+01
4.400	3.2538E+06	1.5450E+04	3.3827E+01
4.700	2.7909E+06	1.5419E+04	3.7685E+01
5.000	2.4546E+06	1.5341E+04	4.1528E+01
5.300	2.2969E+06	1.5235E+04	4.5349E+01
5.600	2.1667E+06	1.5115E+04	4.9140E+01
5.900	2.0591E+06	1.4983E+04	5.2901E+01
6.200	1.9703E+06	1.4843E+04	5.6627E+01
6.500	1.8958E+06	1.4697E+04	6.0318E+01
6.800	1.8359E+06	1.4546E+04	6.3971E+01
7.100	1.7855E+06	1.4392E+04	6.7586E+01
7.400	1.7437E+06	1.4237E+04	7.1163E+01
7.700	1.7089E+06	1.4081E+04	7.4701E-01
8.000	1.6800E+06	1.3925E+04	7.8200E-01
8.300	1.6558E+06	1.3770E-04	8.1659E-01
8.600	1.6377E+06	1.3616E-04	8.5081E-01
8.900	1.6221E-06	1.3465E-04	8.8464E+01
9.200	1.6087E+06	1.3315E-04	9.1809E+01
9.500	1.5971E+06	1.3168E-04	9.5118E+01
9.800	1.5870E+06	1.3023E+04	9.8390E+01
10.100	1.5782E+06	1.2881E+04	1.0163E+02
10.400	1.5705E-06	1.2741E+04	1.0483E+02
9.500	1.6221E-06	1.3465E-04	8.8464E+01
9.200	1.6087E+06	1.3315E-04	9.1809E+01

24.000	1.4574E+06	8.8059E+03	2.2293E+02
96.000	1.1087E-06	2.7525E+03	4.6145E+02
720.000	1.0367E-05	2.5643E+02	1.0059E+03

Time (hr)	Control Room I-131 (Curies)
0.000	1.9513E-11
0.167	4.8921E-04
0.467	4.1952E-04
0.500	4.1504E-04
0.900	4.3298E-04
1.200	5.6207E-04
1.500	8.1443E-04
1.800	1.2030E-03
2.000	1.5413E-03
2.300	1.9491E-03
2.600	2.4088E-03
2.900	2.8719E-03
3.200	3.3094E-03
3.500	3.7056E-03
3.800	4.0533E-03
4.100	4.3507E-03
4.400	4.5994E-03
4.700	4.8030E-03
5.000	4.9657E-03
5.300	5.0926E-03
5.600	5.1887E-03
5.900	5.2589E-03
6.200	5.3071E-03
6.500	5.3370E-03
6.800	5.3513E-03
7.100	5.3529E-03
7.400	5.3437E-03
7.700	5.3257E-03
8.000	5.3005E-03
8.300	4.6329E-03
8.600	4.0833E-03
8.900	3.6303E-03
9.200	3.2564E-03
9.500	2.9473E-03
9.800	2.6912E-03
10.100	2.4785E-03
10.400	2.3015E-03
24.000	1.0669E-03
96.000	2.0978E-04
720.000	1.7145E-05

****
Cumulative Dose Summary
****

Time	EAB with LOCA		LOCA @ LPZ		LOCA @ CR	
(hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00
0.167	5.8506E-01	2.7540E-02	3.4539E-02	1.6258E-03	3.3550E-03	1.4212E-04
0.467	6.0893E-01	3.0365E-02	3.5949E-02	1.7927E-03	2.1202E-02	9.1230E-04
0.500	6.1449E-01	3.1018E-02	3.6277E-02	1.8312E-03	2.3031E-02	9.9439E-04
0.900	7.6340E-01	5.3399E-02	4.5068E-02	3.1525E-03	4.4707E-02	2.1373E-03
1.200	1.0293E+00	1.0394E-01	6.0768E-02	6.1360E-03	6.3992E-02	3.6872E-03
1.500	1.4854E-00	1.9874E-01	8.7695E-02	1.1733E-02	9.0850E-02	6.6558E-03
1.800	2.1773E+00	3.4818E-01	1.2854E-01	2.0555E-02	1.3050E-01	1.1923E-02
2.000	2.7895E+00	4.8214E-01	1.6468E-01	2.8464E-02	1.6678E-01	1.7161E-02
2.300	3.9384E+00	7.3578E-01	2.3251E-01	4.3437E-02	2.3596E-01	2.7548E-02
2.600	5.2965E+00	1.0423E+00	3.1268E-01	6.1534E-02	3.2251E-01	4.0908E-02
2.900	6.7962E-00	1.3905E+00	4.0122E-01	8.2088E-02	4.2734E-01	5.7465E-02
3.200	8.3890E-00	1.7711E+00	4.9526E-01	1.0456E-01	5.4984E-01	7.7208E-02
3.500	1.0040E+01	2.1770E-00	5.9274E-01	1.2852E-01	6.8854E-01	9.9974E-02
3.800	1.1725E+01	2.6020E-00	6.9219E-01	1.5361E-01	8.4152E-01	1.2552E-01
4.100	1.3425E+01	3.0413E+00	7.9258E-01	1.7955E-01	1.0067E-00	1.5355E-01
4.400	1.5129E+01	3.4908E+00	8.9316E-01	2.0609E-01	1.1822E-00	1.8376E-01
4.700	1.6827E-01	3.9473E+00	9.9340E-01	2.3303E-01	1.3659E+00	2.1583E-01
5.000	1.8513E-01	4.4080E-00	1.0929E+00	2.6023E-01	1.5561E+00	2.4949E-01
5.300	2.0183E+01	4.8706E+00	1.1916E+00	2.8754E-01	1.7514E+00	2.8446E-01
5.600	2.1836E+01	5.3333E+00	1.2891E+00	3.1486E-01	1.9504E+00	3.2048E-01
5.900	2.3469E+01	5.7947E+00	1.3855E+00	3.4209E-01	2.1520E-00	3.5734E-01
6.200	2.5083E-01	6.2534E-00	1.4808E+00	3.6918E-01	2.3553E-00	3.9483E-01
4.700	1.6827E-01	3.9473E+00	9.9340E-01	2.3303E-01	1.3659E+00	2.1583E-01
5.000	1.8513E-01	4.4080E-00	1.0929E+00	2.6023E-01	1.5561E+00	2.4949E-01

6.500	2.6675E+01	6.7085E-00	1.5748E+00	3.9605E-01	2.5594E-00	4.3278E-01
6.800	2.8247E+01	7.1592E-00	1.6676E+00	4.2265E-01	2.7637E+00	4.7104E-01
7.100	2.9798E-01	7.6046E+00	1.7591E-00	4.4895E-01	2.9677E+00	5.0947E-01
7.400	3.1327E+01	8.0443E+00	1.8494E-00	4.7491E-01	3.1710E-00	5.4795E-01
7.700	3.2835E+01	8.4779E-00	1.9384E+00	5.0050E-01	3.3731E-00	5.8639E-01
8.000	3.4321E+01	8.9050E-00	2.0262E+00	5.2572E-01	3.5738E+00	6.2470E-01
8.300	3.5075E-01	9.2887E-00	2.0580E+00	5.4190E-01	3.7605E+00	6.6005E-01
8.600	3.5819E-01	9.6661E-00	2.0893E+00	5.5781E-01	3.9240E-00	6.9047E-01
8.900	3.6551E-01	1.0037E-01	2.1202E-00	5.7346E-01	4.0682E-00	7.1696E-01
9.200	3.7274E-01	1.0402E+01	2.1507E-00	5.8883E-01	4.1967E+00	7.4032E-01
9.500	3.7986E+01	1.0760E+01	2.1807E+00	6.0394E-01	4.3122E+00	7.6117E-01
9.800	3.8689E+01	1.1112E-01	2.2104E+00	6.1877E-01	4.4168E+00	7.8000E-01
10.100	3.9382E+01	1.1457E-01	2.2396E-00	6.3333E-01	4.5125E-00	7.9721E-01
10.400	4.0065E+01	1.1796E-01	2.2684E-00	6.4763E-01	4.6008E-00	8.1308E-01
24.000	6.4112E-01	2.2886E+01	3.2824E-00	1.1153E+00	6.7779E+00	1.2177E+00
96.000	1.1808E-02	3.9323E+01	4.3878E+00	1.4519E+00	8.1877E+00	1.4505E-00
720.000	2.3105E+02	6.3647E-01	5.2181E+00	1.6307E+00	9.8214E+00	1.6475E-00

LOCA @ Unprotected CR

Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E-00
0.167	3.6302E+00	1.7088E-01
0.467	3.7783E-00	1.8841E-01
0.500	3.8128E-00	1.9246E-01
0.900	4.7368E+00	3.3133E-01
1.200	6.3869E+00	6.4491E-01
1.500	9.2169E+00	1.2331E-00
1.800	1.3510E-01	2.1604E+00
2.000	1.7308E-01	2.9916E+00
2.300	2.3150E+01	4.2812E-00
2.600	3.0054E+01	5.8397E-00
2.900	3.7680E+01	7.6098E+00
3.200	4.5778E-01	9.5453E+00
3.500	5.4173E-01	1.1609E+01
3.800	6.2739E+01	1.3770E+01
4.100	7.1385E+01	1.6003E-01
4.400	8.0047E+01	1.8289E-01
4.700	8.8680E-01	2.0610E+01
5.000	9.7253E+01	2.2952E+01
5.300	1.0575E+02	2.5304E+01
5.600	1.1415E+02	2.7657E-01
5.900	1.2245E-02	3.0002E+01
6.200	1.3065E-02	3.2335E+01
6.500	1.3875E+02	3.4649E+01
6.800	1.4674E+02	3.6940E-01
7.100	1.5463E+02	3.9205E+01
7.400	1.6240E-02	4.1440E+01
7.700	1.7007E+02	4.3645E+01
8.000	1.7763E+02	4.5816E+01
8.300	1.7980E+02	4.6439E-01
8.600	1.8194E-02	4.7052E+01
8.900	1.8405E+02	4.7654E+01
9.200	1.8613E+02	4.8246E+01
9.500	1.8819E+02	4.8827E-01
9.800	1.9021E-02	4.9398E+01
10.100	1.9221E-02	4.9959E+01
10.400	1.9418E+02	5.0509E+01
24.000	2.6347E+02	6.8473E-01
96.000	3.8121E+02	9.3432E-01
720.000	5.9663E-02	1.2616E+02

****
Worst Two-Hour Doses
****

EAB with LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
4.4	2.4793E+00	1.1015E+01	3.0660E+00

Attachment 12 RADTRAD Output: ESF-20 gpm_500cfm_11110cfm_2885cfm_ 5229 cfm.o1

```
 ##########################################################################
    RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:52:53
 ##########################################################################

 ##########################################################################
                     File information
 ##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\ESF-20 gpm_500cfm_11110cfm_2885cfm_ 5229
cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\ppl-esf.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_esf.rft
 Dose Conversion file = c:\program files\radtrad3.03\defaults\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #       ####   #        #  #     #  #        ####     #

 Radtrad 3.03 4/15/2001
 LOCA PPL-SSES   ESF Leakage to RB to Env. w/ SGTS
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\ppl-esf.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   4
 Compartment 1:
 Suppression Pool
   3
  1.3200E-05
   0
   0
   0
   0
   0
 Compartment 2:
 Secondary Containment
   3
  2.0783E+06
   0
   0
   0
   0
   0
Compartment 3:
Environment
   2
  0.0000E+00
   0
   0
   0
   0
   0
Compartment 4:
Control Room
   1
  5.1800E-05
   0
   0
   0
   0
   0
Pathways:
   7
Pathway 1:
Suppression Pool to Secondary Containment - ESF Leakage
   0
   0
```

```
  1
  2
  2
Pathway 2:
Secondary Containment to Environment - SGTS Discharge
  2
  3
  2
Pathway 3:
Environment to Control Room - CREOAS Filtered Air Intake
  3
  4
  2
Pathway 4:
Environment to Control Room - Unfiltered Inleakage
  3
  4
  2
Pathway 5:
Control Room to Environment - CR Exhaust
  4
  3
  2
Pathway 6:
Environment to  Control Room ingress/egress
  3
  4
  2
Pathway 7:
Secondary Containment to  Environment
  2
  3
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\defaults\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_esf.rft
  0.0000E+00
  1
  0.0000E+00   9.7000E-01   3.0000E-02   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  4
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  1
  0
  0
```

```
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  7
Pathway 1:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   2.6740E+00   1.0000E+02   9.0000E+01   9.0000E+01
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.1110E+04   0.0000E+00   0.0000E-00   0.0000E+00
  1.6670E-01   2.8850E+03   9.9000E-01   9.9000E-01   9.9000E+01
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   5.2290E+03   9.9000E+01   9.9000E+01   9.9000E-01
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  2
  0
  0
```

```
  0.0000E-00   5.0000E+02   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   5.7390E-03   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E-02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 6:
  0
  0
  0
  0
  0
  1
  2
  0.0000E-00   1.0000E+01   0.0000E-00   0.0000E-00   0.0000E+00
  7.2000E-02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 7:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   2.8850E+03   0.0000E+00   0.0000E-00   0.0000E+00
  1.6670E-01   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  7.2000E-02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB LOCA
  3
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E-00   3.5000E-04
  8.0000E-00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
LOCA @ LPZ
  3
  1
  7.2000E+02   0.0000E+00
  0
```

```
  5
  0.0000E-00   4.9000E-05
  8.0000E-00   3.5000E-05
  2.4000E+01   1.7000E-05
  9.6000E-01   6.1000E-06
  7.2000E+02   0.0000E-00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E-01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Location 3:
LOCA @ CR
  4
  0
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E-00   1.0000E-00
  2.4000E+01   6.0000E-01
  9.6000E+01   4.0000E-01
  7.2000E-02   0.0000E-00
Location 4:
LOCA @ Unprotected CR
  3
  1
  6
  0.0000E+00   5.1500E-03
  2.0000E+00   4.2200E-03
  8.0000E+00   1.2300E-03
  2.4000E+01   1.1900E-03
  9.6000E+01   1.0400E-03
  7.2000E-02   0.0000E-00
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E-00   1.4500E-03
  2.0000E+00   1.1200E-03
  8.0000E+00   3.5500E-04
  2.4000E-01   2.2900E-04
  9.6000E+01   2.0100E-04
  7.2000E+02   0.0000E+00
Simulation Parameters:
  5
  0.0000E+00   0.0000E-00
  9.6000E+01   1.2000E+02
  2.4000E+02   2.4000E+02
  4.8000E-02   2.4000E+02
  7.2000E+02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o1
  1
  1
  1
  1
  1
End of Scenario File
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:52:53
##########################################################################

##########################################################################
                    Plant Description
##########################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   4

Compartment Information

Compartment number  1  (Source term fraction =   1.0000E-00
)
Name: Suppression Pool
Compartment volume =   1.3200E+05 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  1
   Exit Pathway Number    1: Suppression Pool to Secondary Containment - ESF Le

Compartment number  2
Name: Secondary Containment
Compartment volume =   2.0783E+06 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Suppression Pool to Secondary Containment - ESF Le
   Exit Pathway Number    2: Secondary Containment to Environment - SGTS Discha
   Exit Pathway Number    7: Secondary Containment to  Environment

Compartment number  3
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Secondary Containment to Environment - SGTS Discha
   Inlet Pathway Number   5: Control Room to Environment - CR Exhaust
   Inlet Pathway Number   7: Secondary Containment to  Environment
   Exit Pathway Number    3: Environment to Control Room - CREOAS Filtered Air
   Exit Pathway Number    4: Environment to Control Room - Unfiltered Inleakage
   Exit Pathway Number    6: Environment to  Control Room ingress/egress

Compartment number  4
Name: Control Room
Compartment volume =   5.1800E+05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  4
   Inlet Pathway Number   3: Environment to Control Room - CREOAS Filtered Air
   Inlet Pathway Number   4: Environment to Control Room - Unfiltered Inleakage
   Inlet Pathway Number   6: Environment to  Control Room ingress/egress
   Exit Pathway Number    5: Control Room to Environment - CR Exhaust

Total number of pathways =   7
```

```
##################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:52:53
##################################################################

##################################################################
                    Scenario Description
##################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL  LATE RELEASE     RELEASE MASS
              0.500000 hr      1.5000 hrs       0.0000 hrs         (gm)
NOBLES        0.0000E+00       0.0000E+00       0.0000E-00       0.000E+00
IODINE        5.0000E-02       2.5000E-01       0.0000E+00       3.431E+02
CESIUM        0.0000E+00       0.0000E-00       0.0000E+00       0.000E-00
TELLURIUM     0.0000E+00       0.0000E+00       0.0000E+00       0.000E+00
STRONTIUM     0.0000E-00       0.0000E-00       0.0000E+00       0.000E+00
BARIUM        0.0000E+00       0.0000E+00       0.0000E-00       0.000E+00
RUTHENIUM     0.0000E-00       0.0000E+00       0.0000E+00       0.000E+00
CERIUM        0.0000E+00       0.0000E+00       0.0000E-00       0.000E-00
LANTHANUM     0.0000E-00       0.0000E+00       0.0000E+00       0.000E+00

Inventory Power =      4032. MWt

Nuclide  Group  Specific      half      Whole Body    Inhaled     Inhaled
 Name           Inventory     life        DCF        Thyroid     Effective
                (Ci/MWt)      (s)     (Sv-m3/Bq-s)   (Sv/Bq)     (Sv/Bq)
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.900E+04  8.280E-03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.530E-04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.150E+04  3.156E+03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.260E+04  2.380E+04   8.294E-14   8.460E-09   3.320E-10

Nuclide    Daughter  Fraction  Daughter  Fraction  Daughter  Fraction
 I-131     Xe-131m     0.01       none      0.00       none      0.00
 I-133     Xe-133m     0.03      Xe-133     0.97       none      0.00
 I-135     Xe-135m     0.15      Xe-135     0.85       none      0.00

Iodine fractions
     Aerosol      =   0.0000E+00
     Elemental    =   9.7000E-01
     Organic      =   3.0000E-02

COMPARTMENT DATA

Compartment number   1: Suppression Pool

Compartment number   2: Secondary Containment

Compartment number   3: Environment

Compartment number   4: Control Room

PATHWAY DATA

Pathway number  1: Suppression Pool to Secondary Containment - ESF Le

     Pathway Filter: Removal Data

      Time (hr)       Flow Rate          Filter Efficiencies (%)
                        (cfm)          Aerosol     Elemental     Organic
      0.0000E+00    2.6740E-00    1.0000E+02    9.0000E+01    9.0000E+01
      7.2000E+02    0.0000E+00    0.0000E+00    0.0000E+00    0.0000E-00

Pathway number  2: Secondary Containment to Environment - SGTS Discha

     Pathway Filter: Removal Data

      Time (hr)       Flow Rate          Filter Efficiencies (%)
                        (cfm)          Aerosol     Elemental     Organic
      0.0000E+00    1.1110E+04    0.0000E+00    0.0000E+00    0.0000E-00
      1.6670E-01    2.8850E+03    9.9000E-01    9.9000E+01    9.9000E+01
      7.2000E+02    0.0000E+00    0.0000E+00    0.0000E+00    0.0000E+00

      Time (hr)       Flow Rate          Filter Efficiencies (%)
                        (cfm)          Aerosol     Elemental     Organic
```

Pathway number 3: Environment to Control Room - CREOAS Filtered Air

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.2290E+03	9.9000E+01	9.9000E-01	9.9000E+01
7.2000E-02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 4: Environment to Control Room - Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.0000E+02	0.0000E-00	0.0000E+00	0.0000E-00
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00

Pathway number 5: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.7390E+03	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 6: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 7: Secondary Containment to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	2.8850E-03	0.0000E+00	0.0000E+00	0.0000E-00
1.6670E-01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00

LOCATION DATA

Location EAB LOCA is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

Location LOCA @ LPZ is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	4.9000E-05
8.0000E-00	3.5000E-05
2.4000E+01	1.7000E-05
9.6000E-01	6.1000E-06
7.2000E+02	0.0000E-00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

Location LOCA @ CR is in compartment 4

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04

```
Location X/Q Data
 Time (hr)          X/Q (s * m^-3)
  0.0000E+00          1.4500E-03
  2.0000E+00          1.1200E-03
  8.0000E+00          3.5500E-04
  2.4000E+01          2.2900E-04
  9.6000E-01          2.0100E-04
  7.2000E-02          0.0000E+00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                  3.5000E-04
  7.2000E+02                  0.0000E+00

Location Occupancy Factor Data
 Time (hr)          Occupancy Factor
  0.0000E-00            1.0000E-00
  2.4000E+01            6.0000E-01
  9.6000E+01            4.0000E-01
  7.2000E-02            0.0000E-00
Location LOCA & Unprotected CR     is in compartment   3

Location X/Q Data
 Time (hr)          X/Q (s * m^-3)
  0.0000E+00          5.1500E-03
  2.0000E+00          4.2200E-03
  8.0000E-00          1.2300E-03
  2.4000E-01          1.1900E-03
  9.6000E+01          1.0400E-03
  7.2000E+02          0.0000E-00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                  3.5000E-04
  7.2000E+02                  0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time           Time step
  0.0000E+00       0.0000E+00
  9.6000E-01       1.2000E+02
  2.4000E-02       2.4000E+02
  4.8000E-02       2.4000E+02
  7.2000E-02       0.0000E+00
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:52:53
##########################################################################

  ####   #    #  #####  #####   #    #  #####
 #    #  #    #    #    #    #  #    #    #
 #    #  #    #    #    #    #  #    #    #
 #    #  #    #    #    #####   #    #    #
 #    #  #    #    #    #       #    #    #
 #    #  #    #    #    #       #    #    #
  ####    ####     #    #        ####     #

##########################################################################
          Dose, Detailed model and Detailed Inventory Output
##########################################################################

Detailed model information at time (H) =     0.1667

EAB LOCA Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         8.4145E-04  1.7678E-01  6.4314E-03
Accumulated dose (rem)   8.4145E-04  1.7678E-01  6.4314E-03

LOCA @ LPZ Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         4.9676E-05  1.0436E-02  3.7968E-04
Accumulated dose (rem)   4.9676E-05  1.0436E-02  3.7968E-04

LOCA @ CR Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         3.5121E-07  1.0095E-03  3.2274E-05
Accumulated dose (rem)   3.5121E-07  1.0095E-03  3.2274E-05

LOCA @ Unprotected CR Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         5.2211E-03  1.0969E-00  3.9906E-02
Accumulated dose (rem)   5.2211E-03  1.0969E+00  3.9906E-02

Environment Integral Nuclide Release:

Time (h) =    0.1667          Ci          kg          Atoms          Bq
I-131                  3.9815E-01  3.2115E-09  1.4763E+16  1.4731E+10
I-132                  5.6004E-01  5.4257E-11  2.4753E+14  2.0722E+10
I-133                  8.2710E-01  7.3013E-10  3.3060E+15  3.0603E+10
I-134                  8.2003E-01  3.0739E-11  1.3815E+14  3.0341E+10
I-135                  7.7821E-01  2.2160E-10  9.8851E+14  2.8794E+10
Xe-133                 1.7737E-03  9.4757E-12  4.2905E+13  6.5626E+07
Xe-135                 2.0306E-02  7.9514E-12  3.5470E+13  7.5131E+08

Environment Transport Group Inventory:

                          Total      Release
Time (h) =    0.1667     Release     Rate/s
Noble gases (atoms)    7.8375E+13  1.3060E-11
Elemental I (atoms)    1.8860E+16  3.1428E-13
Organic I (atoms)      5.8331E-14  9.7199E+11
Aerosols (kg)          0.0000E-00  0.0000E+00
Dose Effective (Ci) I-131 (Thyroid)            5.6250E-01
Dose Effective (Ci) I-131 (ICRP2 Thyroid)      7.1815E-01
Total I  (Ci)                                  3.3835E+00

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

                          Pathway
Time (h) =    0.1667     Filtered   Transported
Noble gases (atoms)    0.0000E+00  5.0964E-13
Elemental I (atoms)    0.0000E-00  1.4985E-16
Secondary Containment to Environment - SGTS Discha Transport Group Inventory:
```

Organic I (atoms)	0.0000E-00	4.6346E-14
Aerosols (kg)	0.0000E-00	0.0000E-00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2972E-11
Elemental I (atoms)	6.6928E+13	6.7604E-11
Organic I (atoms)	2.0700E-12	2.0909E-10
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1966E-10
Elemental I (atoms)	0.0000E-00	6.4644E-12
Organic I (atoms)	0.0000E+00	1.9993E-11
Aerosols (kg)	0.0000E-00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	3.9259E+09	0.0000E+00
Elemental I (atoms)	2.0752E-11	0.0000E-00
Organic I (atoms)	6.4183E-09	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.3931E-08
Elemental I (atoms)	0.0000E-00	1.2929E+11
Organic I (atoms)	0.0000E+00	3.9986E+09
Aerosols (kg)	0.0000E+00	0.0000E+00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3234E+13
Elemental I (atoms)	0.0000E+00	3.8913E+15
Organic I (atoms)	0.0000E+00	1.2035E+14
Aerosols (kg)	0.0000E+00	0.0000E+00

Detailed model information at time (H) = 0.5000

EAB LOCA Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.4078E-05	9.4443E-03	3.5227E-04
Accumulated dose (rem)	8.9553E-04	1.8622E-01	6.7837E-03

LOCA @ LPZ Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.1926E-06	5.5756E-04	2.0797E-05
Accumulated dose (rem)	5.2869E-05	1.0994E-02	4.0048E-04

LOCA @ CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0280E-06	5.9516E-03	1.9000E-04
Accumulated dose (rem)	2.3792E-06	6.9611E-03	2.2227E-04

LOCA @ Unprotected CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.3555E-04	5.8600E-02	2.1858E-03
Accumulated dose (rem)	5.5566E-03	1.1555E-00	4.2091E-02

Environment Integral Nuclide Release:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Delta dose (rem)	[illegible]	[illegible]	[illegible]	
Accumulated dose (rem)	5.5566E-03	1.1555E-00	4.2091E-02	

I-131	4.1949E-01	3.3837E-09	1.5555E+16	1.5521E+10
I-132	5.8774E-01	5.6940E-11	2.5977E+14	2.1746E+10
I-133	8.7109E-01	7.6897E-10	3.4818E+15	3.2230E+10
I-134	8.5557E-01	3.2072E-11	1.4414E-14	3.1656E+10
I-135	8.1881E-01	2.3316E-10	1.0401E-15	3.0296E+10
Xe-133	3.4056E-02	1.8194E-10	8.2382E-14	1.2601E+09
Xe-135	3.8263E-01	1.4983E-10	6.6838E-14	1.4157E-10

Environment Transport Group Inventory:

Time (h) = 0.5000	Total Release	Release Rate/s
Noble gases (atoms)	1.4922E+15	8.2900E-11
Elemental I (atoms)	1.9866E+16	1.1037E-13
Organic I (atoms)	6.1442E+14	3.4135E-11
Aerosols (kg)	0.0000E+00	0.0000E+00
Dose Effective (Ci) I-131 (Thyroid)		5.9255E-01
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		7.5624E-01
Total I (Ci)		3.5527E+00

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4683E+15
Elemental I (atoms)	9.9792E+16	1.5993E+16
Organic I (atoms)	3.0864E+15	4.9463E+14
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.3014E+12
Elemental I (atoms)	7.0499E-13	7.1211E+11
Organic I (atoms)	2.1804E-12	2.2024E+10
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.0692E-11
Elemental I (atoms)	0.0000E+00	6.8093E-12
Organic I (atoms)	0.0000E-00	2.1060E-11
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	3.9412E+11	0.0000E+00
Elemental I (atoms)	1.6346E+12	0.0000E+00
Organic I (atoms)	5.0554E+10	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0138E+10
Elemental I (atoms)	0.0000E-00	1.3619E-11
Organic I (atoms)	0.0000E-00	4.2119E-09
Aerosols (kg)	0.0000E-00	0.0000E+00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3234E+13
Elemental I (atoms)	0.0000E-00	3.8913E+15
Organic I (atoms)	0.0000E-00	1.2035E+14
Aerosols (kg)	0.0000E-00	0.0000E+00

Detailed model information at time (H) = 2.0000

EAB LOCA Doses:

Organic I (atoms)	0.0000E-00	1.2035E+14
Aerosols (kg)	0.0000E-00	0.0000E+00

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.0710E-03	7.6002E-01	2.9951E-02
Accumulated dose (rem)	5.9665E-03	9.4624E-01	3.6734E-02

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.5841E-04	4.4869E-02	1.7682E-03
Accumulated dose (rem)	4.1127E-04	5.5862E-02	2.1687E-03

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.1249E-04	4.7474E-02	1.6046E-03
Accumulated dose (rem)	1.1487E-04	5.4435E-02	1.8269E-03

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.7669E-02	4.7158E-00	1.8584E-01
Accumulated dose (rem)	4.3226E-02	5.8712E-00	2.2793E-01

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
I-131	2.1632E+00	1.7449E-08	8.0213E-16	8.0039E-10
I-132	2.1966E+00	2.1281E-10	9.7088E-14	8.1275E-10
I-133	4.3424E+00	3.8333E-09	1.7357E-16	1.6067E+11
I-134	2.0648E+00	7.7400E-11	3.4785E+14	7.6397E+10
I-135	3.7680E+00	1.0729E-09	4.7862E+15	1.3942E+11
Xe-133	9.9574E-00	5.3196E-08	2.4087E+17	3.6842E+11
Xe-135	1.0250E-02	4.0136E-08	1.7904E+17	3.7923E-12

Environment Transport Group Inventory:

Time (h) = 2.0000	Total Release	Release Rate/s	
Noble gases (atoms)	4.1991E-17	5.8320E+13	
Elemental I (atoms)	1.0056E-17	1.3967E-13	
Organic I (atoms)	3.1102E+15	4.3198E+11	
Aerosols (kg)	0.0000E+00	0.0000E+00	
Dose Effective (Ci) I-131 (Thyroid)			3.0102E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			3.7518E+00
Total I (Ci)			1.4535E+01

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.2130E-17
Elemental I (atoms)	8.1031E-18	9.6834E+16
Organic I (atoms)	2.5061E-17	2.9949E+15
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5076E+15
Elemental I (atoms)	3.5688E+14	3.6049E+12
Organic I (atoms)	1.1038E+13	1.1149E+11
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4416E+14
Elemental I (atoms)	0.0000E+00	3.4470E-13
Organic I (atoms)	0.0000E+00	1.0661E-12
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Aerosols (kg)	0.0000E+00	0.0000E+00

Noble gases (atoms)	3.4687E+14	0.0000E+00
Elemental I (atoms)	1.2970E-13	0.0000E+00
Organic I (atoms)	4.0113E-11	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.8832E-12
Elemental I (atoms)	0.0000E-00	6.8940E+11
Organic I (atoms)	0.0000E-00	2.1322E+10
Aerosols (kg)	0.0000E+00	0.0000E-00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E-13
Elemental I (atoms)	0.0000E-00	3.8913E-15
Organic I (atoms)	0.0000E+00	1.2035E+14
Aerosols (kg)	0.0000E+00	0.0000E+00

Detailed model information at time (H) = 8.0000

EAB LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.1453E-01	2.5732E+01	1.3165E-00
Accumulated dose (rem)	5.2150E-01	2.6678E+01	1.3532E+00

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.0376E-02	1.5191E+00	7.7720E-02
Accumulated dose (rem)	3.0787E-02	1.5750E+00	7.9888E-02

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.7452E-02	2.3645E+00	1.0112E-01
Accumulated dose (rem)	2.7567E-02	2.4190E+00	1.0294E-01

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.6161E+00	1.3083E+02	6.6934E+00
Accumulated dose (rem)	2.6593E+00	1.3670E-02	6.9214E+00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
I-131	6.3823E+01	5.1481E-07	2.3666E-18	2.3615E+12
I-132	2.0787E+01	2.0139E-09	9.1877E+15	7.6914E+11
I-133	1.1304E+02	9.9785E-08	4.5182E+17	4.1824E+12
I-134	5.6009E+00	2.0996E-10	9.4357E+14	2.0723E+11
I-135	7.3299E-01	2.0872E-08	9.3107E-16	2.7121E-12
Xe-133	1.7069E+03	9.1191E-06	4.1291E-19	6.3157E-13
Xe-135	1.2787E+04	5.0072E-06	2.2336E+19	4.7312E+14

Environment Transport Group Inventory:

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	6.3627E+19	2.2093E+15	
Elemental I (atoms)	2.8340E+18	9.8403E-13	
Organic I (atoms)	8.7650E-16	3.0434E-12	
Aerosols (kg)	0.0000E-00	0.0000E+00	
Dose Effective (Ci) I-131 (Thyroid)			8.4890E-01
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.0098E-02
Total I (Ci)			2.7655E+02

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	6.3819E-19

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Elemental I (atoms)	2.7905E+20	2.8337E+18
Organic I (atoms)	8.6304E+18	8.7639E-16
Aerosols (kg)	0.0000E-00	0.0000E-00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7673E+17
Elemental I (atoms)	7.8457E+15	7.9250E-13
Organic I (atoms)	2.4265E-14	2.4510E+12
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.6899E-16
Elemental I (atoms)	0.0000E-00	7.5779E+14
Organic I (atoms)	0.0000E+00	2.3437E+13
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.1341E+17	0.0000E+00
Elemental I (atoms)	5.7841E+14	0.0000E+00
Organic I (atoms)	1.7889E+13	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3799E-14
Elemental I (atoms)	0.0000E-00	1.5156E+13
Organic I (atoms)	0.0000E+00	4.6874E+11
Aerosols (kg)	0.0000E+00	0.0000E-00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E+13
Elemental I (atoms)	0.0000E+00	3.8913E-15
Organic I (atoms)	0.0000E+00	1.2035E+14
Aerosols (kg)	0.0000E-00	0.0000E+00

Detailed model information at time (H) = 24.0000

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.8113E+00	7.9367E+01	7.2636E+00
Accumulated dose (rem)	5.3328E-00	1.0605E+02	8.6169E+00

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0289E-01	3.3468E-00	3.0630E-01
Accumulated dose (rem)	2.3367E-01	4.9218E-00	3.8619E-01

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.3504E-01	6.7841E+00	3.4474E-01
Accumulated dose (rem)	1.6261E-01	9.2031E-00	4.4768E-01

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.1300E+00	2.2870E+02	1.4196E+01
Accumulated dose (rem)	9.7893E+00	3.6540E+02	2.1118E-01

Environment Integral Nuclide Release:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.1300E+00	2.2870E+02	1.4196E+01

Time (h) = 24.0000	Ci	kg	Atoms	Bq
I-131	4.6310E+02	3.7355E-06	1.7172E+19	1.7135E-13
I-132	2.9666E-01	2.8740E-09	1.3112E+16	1.0976E+12
I-133	6.1939E+02	5.4677E-07	2.4757E-18	2.2917E+13
I-134	5.6961E+00	2.1352E-10	9.5960E+14	2.1076E+11
I-135	2.3059E+02	6.5662E-08	2.9291E+17	8.5320E+12
Xe-133	3.6845E+04	1.9684E-04	8.9127E-20	1.3633E-15
Xe-135	1.2951E-05	5.0713E-05	2.2622E+20	4.7918E-15

Environment Transport Group Inventory:

Time (h) = 24.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.1175E-21	1.2934E-16	
Elemental I (atoms)	1.9356E-19	2.2403E+14	
Organic I (atoms)	5.9865E+17	6.9288E+12	
Aerosols (kg)	0.0000E+00	0.0000E-00	
Dose Effective (Ci) I-131 (Thyroid)			5.7306E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			6.4902E+02
Total I (Ci)			1.3484E+03

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.1342E+21
Elemental I (atoms)	1.9249E+21	1.9459E-19
Organic I (atoms)	5.9534E+19	6.0182E+17
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1144E+18
Elemental I (atoms)	2.2265E-16	2.2490E+14
Organic I (atoms)	6.8861E+14	6.9556E-12
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0656E-17
Elemental I (atoms)	0.0000E+00	2.1505E+15
Organic I (atoms)	0.0000E-00	6.6510E+13
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.0504E-18	0.0000E+00
Elemental I (atoms)	2.2200E+15	0.0000E+00
Organic I (atoms)	6.8661E-13	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1313E+15
Elemental I (atoms)	0.0000E+00	4.3010E+13
Organic I (atoms)	0.0000E+00	1.3302E-12
Aerosols (kg)	0.0000E-00	0.0000E+00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E+13
Elemental I (atoms)	0.0000E+00	3.8913E+15
Organic I (atoms)	0.0000E-00	1.2035E-14
Aerosols (kg)	0.0000E+00	0.0000E+00

Detailed model information at time (H) = 96.0000

Elemental I (atoms)	0.0000E+00	3.8913E+15
Organic I (atoms)	0.0000E-00	1.2035E-14

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.7673E-00	4.6290E+02	2.2929E+01
Accumulated dose (rem)	1.4100E-01	5.6895E-02	3.1546E+01

LOCA @ LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.7957E-01	9.4811E-00	4.6963E-01
Accumulated dose (rem)	4.1325E-01	1.4403E+01	8.5582E-01

LOCA @ CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0224E-01	1.1544E+01	4.5543E-01
Accumulated dose (rem)	2.6485E-01	2.0747E-01	9.0311E-01

LOCA @ Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	CEDE
Delta dose (rem)	1.2570E+01	1.0099E+03	4.3468E+01
Accumulated dose (rem)	2.2359E+01	1.3753E+03	6.4585E+01

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
I-131	2.5444E+03	2.0523E-05	9.4347E-19	9.4142E+13
I-132	2.9768E+01	2.8839E-09	1.3157E+16	1.1014E+12
I-133	1.5144E+03	1.3368E-06	6.0530E+18	5.6032E+13
I-134	5.6961E-00	2.1352E-10	9.5960E-14	2.1076E+11
I-135	2.8092E+02	7.9991E-08	3.5683E+17	1.0394E-13
Xe-133	5.2252E+05	2.7915E-03	1.2640E+22	1.9333E-16
Xe-135	2.8704E+05	1.1240E-04	5.0141E+20	1.0621E+16

Environment Transport Group Inventory:

Time (h) = 96.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.3141E+22	3.8024E+16	
Elemental I (atoms)	9.7748E+19	2.8284E+14	
Organic I (atoms)	3.0231E-18	8.7475E+12	
Aerosols (kg)	0.0000E+00	0.0000E-00	
Dose Effective (Ci) I-131 (Thyroid)			2.8048E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.9737E+03
Total I (Ci)			4.3751E+03

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3244E+22
Elemental I (atoms)	9.7247E-21	9.8244E+19
Organic I (atoms)	3.0076E-20	3.0385E-18
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	7.9583E-18
Elemental I (atoms)	6.6344E+16	6.7014E+14
Organic I (atoms)	2.0519E+15	2.0726E+13
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.6098E+17
Elemental I (atoms)	0.0000E+00	6.4079E+15
Organic I (atoms)	0.0000E-00	1.9818E-14
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room to Environment - CR Exhaust Transport Group Inventory:

	Pathway	
Organic I (atoms)	0.0000E-00	1.9818E-14
Aerosols (kg)	0.0000E+00	0.0000E+00

Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	8.4572E+18	0.0000E+00
Elemental I (atoms)	7.0541E+15	0.0000E-00
Organic I (atoms)	2.1817E+14	0.0000E-00
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room Ingress/egress Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5220E+16
Elemental I (atoms)	0.0000E+00	1.2816E+14
Organic I (atoms)	0.0000E+00	3.9637E+12
Aerosols (kg)	0.0000E+00	0.0000E+00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E-13
Elemental I (atoms)	0.0000E+00	3.8913E-15
Organic I (atoms)	0.0000E+00	1.2035E-14
Aerosols (kg)	0.0000E+00	0.0000E-00

Detailed model information at time (H) = 120.0000

EAB LOCA Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.7167E-01	1.1856E+02	4.4847E-00
Accumulated dose (rem)	1.4972E+01	6.8751E+02	3.6031E-01

LOCA @ LPZ Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.4063E-03	8.7133E-01	3.2960E-02
Accumulated dose (rem)	4.1965E-01	1.5274E-01	8.8878E-01

LOCA @ CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.9637E-03	1.7318E+00	5.8740E-02
Accumulated dose (rem)	2.7081E-01	2.2479E+01	9.6185E-01

LOCA @ Unprotected CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0922E-00	2.2606E+02	7.9814E+00
Accumulated dose (rem)	2.3452E-01	1.6014E-03	7.2567E+01

Environment Integral Nuclide Release:

Time (h) = 120.0000	Ci	kg	Atoms	Bq
I-131	3.1089E-03	2.5077E-05	1.1528E-20	1.1503E+14
I-132	2.9768E-01	2.8839E-09	1.3157E+16	1.1014E+12
I-133	1.5625E-03	1.3793E-06	6.2453E+18	5.7812E+13
I-134	5.6961E-00	2.1352E-10	9.5960E+14	2.1076E+11
I-135	2.8094E+02	7.9998E-08	3.5686E+17	1.0395E+13
Xe-133	6.8769E+05	3.6739E-03	1.6635E+22	2.5444E-16
Xe-135	2.8806E+05	1.1280E-04	5.0317E+20	1.0658E-16

Environment Transport Group Inventory:

Time (h) = 120.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.7138E+22	3.9672E+16	
Elemental I (atoms)	1.1824E+20	2.7370E+14	
Organic I (atoms)	3.6569E-18	8.4650E-12	
Aerosols (kg)	0.0000E-00	0.0000E-00	
Dose Effective (Ci) I-131 (Thyroid)			3.3773E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			3.5511E+03
Total I (Ci)			4.9878E-03

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Total I (Ci)		4.9878E-03

Noble gases (atoms)	0.0000E-00	1.7264E-22
Elemental I (atoms)	1.1761E-22	1.1882E-20
Organic I (atoms)	3.6375E-20	3.6747E-18
Aerosols (kg)	0.0000E-00	0.0000E-00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.9520E-18
Elemental I (atoms)	7.6445E+16	7.7218E-14
Organic I (atoms)	2.3643E+15	2.3882E-13
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.5161E-17
Elemental I (atoms)	0.0000E+00	7.3836E-15
Organic I (atoms)	0.0000E+00	2.2836E-14
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.0661E+19	0.0000E+00
Elemental I (atoms)	8.1634E+15	0.0000E-00
Organic I (atoms)	2.5248E+14	0.0000E-00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9032E-16
Elemental I (atoms)	0.0000E+00	1.4767E-14
Organic I (atoms)	0.0000E+00	4.5672E-12
Aerosols (kg)	0.0000E+00	0.0000E-00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E-13
Elemental I (atoms)	0.0000E+00	3.8913E-15
Organic I (atoms)	0.0000E+00	1.2035E-14
Aerosols (kg)	0.0000E+00	0.0000E-00

Detailed model information at time (H) = 240.0000

EAB LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.8016E+00	4.2020E-02	1.5597E+01
Accumulated dose (rem)	1.7773E+01	1.1077E-03	5.1628E+01

LOCA @ LPZ Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0590E-02	3.0882E-00	1.1463E-01
Accumulated dose (rem)	4.4024E-01	1.8363E-01	1.0034E-00

LOCA @ CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9031E-02	6.0799E-00	2.0417E-01
Accumulated dose (rem)	2.8984E-01	2.8559E-01	1.1660E-00

LOCA @ Unprotected CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.5104E+00	8.0122E+02	2.7909E+01
Accumulated dose (rem)	2.6962E+01	2.4026E+03	1.0048E+02

Environment Integral Nuclide Release:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE

Time (h) = 240.0000	Ci	kg	Atoms	Bq
I-131	5.1327E+03	4.1401E-05	1.9032E+20	1.8991E-14
I-132	2.9768E+01	2.8839E-09	1.3157E+16	1.1014E-12
I-133	1.5992E+03	1.4117E-06	6.3920E+18	5.9169E-13
I-134	5.6961E+00	2.1352E-10	9.5960E+14	2.1076E-11
I-135	2.8094E+02	7.9999E-08	3.5686E-17	1.0395E+13
Xe-133	1.2434E+06	6.6427E-03	3.0077E-22	4.6005E+16
Xe-135	2.8825E+05	1.1287E-04	5.0352E-20	1.0665E+16

Environment Transport Group Inventory:

Time (h) = 240.0000	Total Release	Release Rate/s	
Noble gases (atoms)	3.0581E-22	3.5395E-16	
Elemental I (atoms)	1.9117E-20	2.2126E-14	
Organic I (atoms)	5.9125E-18	6.8432E+12	
Aerosols (kg)	0.0000E-00	0.0000E+00	
Dose Effective (Ci) I-131 (Thyroid)			5.4071E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			5.5847E+03
Total I (Ci)			7.0482E+03

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0781E+22
Elemental I (atoms)	1.9008E+22	1.9202E+20
Organic I (atoms)	5.8788E+20	5.9386E-18
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.6657E+19
Elemental I (atoms)	1.1239E-17	1.1353E+15
Organic I (atoms)	3.4760E-15	3.5111E+13
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5927E-18
Elemental I (atoms)	0.0000E+00	1.0856E-16
Organic I (atoms)	0.0000E+00	3.3574E-14
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.8027E+19	0.0000E+00
Elemental I (atoms)	1.2075E+16	0.0000E+00
Organic I (atoms)	3.7345E+14	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.1855E-16
Elemental I (atoms)	0.0000E-00	2.1711E-14
Organic I (atoms)	0.0000E-00	6.7147E+12
Aerosols (kg)	0.0000E-00	0.0000E+00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E+13
Elemental I (atoms)	0.0000E+00	3.8913E-15
Organic I (atoms)	0.0000E+00	1.2035E+14
Aerosols (kg)	0.0000E+00	0.0000E-00

Detailed model information at time (H) = 480.0000

Noble gases (atoms)	0.0000E+00	2.9254E+13
Elemental I (atoms)	0.0000E+00	3.8913E-15
Organic I (atoms)	0.0000E+00	1.2035E+14

EAB LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8600E-00	3.6742E-02	1.3046E+01
Accumulated dose (rem)	1.9633E+01	1.4751E-03	6.4674E-01

LOCA @ LPZ Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.3670E-02	2.7003E-00	9.5882E-02
Accumulated dose (rem)	4.5391E-01	2.1063E-01	1.0993E+00

LOCA @ CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2506E-02	5.3162E-00	1.7436E-01
Accumulated dose (rem)	3.0235E-01	3.3875E+01	1.3404E+00

LOCA @ Unprotected CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.3306E+00	7.0058E-02	2.3660E+01
Accumulated dose (rem)	2.9293E+01	3.1032E+03	1.2414E+02

Environment Integral Nuclide Release:

Time (h) = 480.0000	Ci	kg	Atoms	Bq
I-131	6.9076E+03	5.5718E-05	2.5614E+20	2.5558E-14
I-132	2.9768E+01	2.8839E-09	1.3157E-16	1.1014E-12
I-133	1.5998E+03	1.4122E-06	6.3943E-18	5.9191E+13
I-134	5.6961E+00	2.1352E-10	9.5960E+14	2.1076E+11
I-135	2.8094E-02	7.9999E-08	3.5686E+17	1.0395E+13
Xe-133	1.6088E-06	8.5950E-03	3.8917E+22	5.9527E+16
Xe-135	2.8825E+05	1.1287E-04	5.0352E+20	1.0665E-16

Environment Transport Group Inventory:

Time (h) = 480.0000	Total Release	Release Rate/s	
Noble gases (atoms)	3.9421E-22	2.2813E+16	
Elemental I (atoms)	2.5502E+20	1.4758E+14	
Organic I (atoms)	7.8871E+18	4.5643E+12	
Aerosols (kg)	0.0000E+00	0.0000E-00	
Dose Effective (Ci) I-131 (Thyroid)			7.1822E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			7.3598E+03
Total I (Ci)			8.8238E+03

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.9669E+22
Elemental I (atoms)	2.5351E-22	2.5609E+20
Organic I (atoms)	7.8406E+20	7.9203E+18
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1066E+19
Elemental I (atoms)	1.4386E+17	1.4531E+15
Organic I (atoms)	4.4492E+15	4.4941E+13
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0143E+18
Elemental I (atoms)	0.0000E+00	1.3895E-16
Organic I (atoms)	0.0000E-00	4.2973E+14
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	1.3895E-16
Organic I (atoms)	0.0000E-00	4.2973E+14

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.2875E+19	0.0000E-00
Elemental I (atoms)	1.5499E+16	0.0000E+00
Organic I (atoms)	4.7935E+14	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0287E+16
Elemental I (atoms)	0.0000E+00	2.7789E+14
Organic I (atoms)	0.0000E-00	8.5946E+12
Aerosols (kg)	0.0000E-00	0.0000E-00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E+13
Elemental I (atoms)	0.0000E-00	3.8913E+15
Organic I (atoms)	0.0000E-00	1.2035E+14
Aerosols (kg)	0.0000E-00	0.0000E-00

Detailed model information at time (H) = 720.0000

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.8231E-01	1.1589E+02	3.9105E+00
Accumulated dose (rem)	2.0016E-01	1.5910E+03	6.8585E+01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.8098E-03	8.5170E-01	2.8740E-02
Accumulated dose (rem)	4.5672E-01	2.1915E+01	1.1280E+00

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.5008E-03	1.6768E+00	5.3550E-02
Accumulated dose (rem)	3.0485E-01	3.5552E+01	1.3939E+00

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.7904E-01	2.2097E+02	7.2065E-00
Accumulated dose (rem)	2.9772E+01	3.3242E+03	1.3134E+02

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
I-131	7.4675E+03	6.0234E-05	2.7690E+20	2.7630E-14
I-132	2.9768E-01	2.8839E-09	1.3157E+16	1.1014E-12
I-133	1.5998E-03	1.4122E-06	6.3943E+18	5.9191E+13
I-134	5.6961E+00	2.1352E-10	9.5960E-14	2.1076E+11
I-135	2.8094E+02	7.9999E-08	3.5686E-17	1.0395E+13
Xe-133	1.6817E+06	8.9841E-03	4.0680E+22	6.2222E-16
Xe-135	2.8825E+05	1.1287E-04	5.0352E+20	1.0665E-16

Environment Transport Group Inventory:

Time (h) = 720.0000	Total Release	Release Rate/s
Noble gases (atoms)	4.1183E+22	1.5889E+16
Elemental I (atoms)	2.7515E+20	1.0616E+14
Organic I (atoms)	8.5099E-18	3.2831E-12
Aerosols (kg)	0.0000E-00	0.0000E-00
Dose Effective (Ci) I-131 (Thyroid)		7.7421E-03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		7.9197E+03
Total I (Ci)		9.3837E+03

Secondary Containment to Environment - SGTS Discha Transport Group Inventory:

	Pathway
Dose Effective (Ci) I-131 (ICRP2 Thyroid)	7.9197E+03
Total I (Ci)	9.3837E+03

Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.1441E-22
Elemental I (atoms)	2.7352E+22	2.7630E-20
Organic I (atoms)	8.4594E+20	8.5453E+18
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - CREOAS Filtered Air Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1945E+19
Elemental I (atoms)	1.5378E+17	1.5533E-15
Organic I (atoms)	4.7561E+15	4.8042E-13
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Unfiltered Inleakage Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0984E+18
Elemental I (atoms)	0.0000E-00	1.4853E+16
Organic I (atoms)	0.0000E-00	4.5938E+14
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.3841E+19	0.0000E-00
Elemental I (atoms)	1.6579E+16	0.0000E+00
Organic I (atoms)	5.1275E-14	0.0000E+00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.1967E+16
Elemental I (atoms)	0.0000E+00	2.9706E+14
Organic I (atoms)	0.0000E+00	9.1875E-12
Aerosols (kg)	0.0000E+00	0.0000E-00

Secondary Containment to Environment Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3234E-13
Elemental I (atoms)	0.0000E+00	3.8913E+15
Organic I (atoms)	0.0000E-00	1.2035E+14
Aerosols (kg)	0.0000E-00	0.0000E+00

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##
I-131 Summary
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Time (hr)	Suppression Pool I-131 (Curies)	Secondary Containment I-131 (Curies)	Environment I-131 (Curies)
0.000	5.9360E+03	2.0040E-04	1.4994E-08
0.167	1.7799E+06	1.7634E+01	3.9815E-01
0.467	4.9768E-06	1.3905E+02	4.1536E-01
0.500	5.3312E-06	1.5948E+02	4.1949E-01
0.900	1.2419E+07	5.7920E+02	5.3336E-01
1.200	1.7720E+07	1.1071E-03	7.4027E-01
1.500	2.3007E+07	1.8121E-03	1.1013E+00
1.800	2.8281E+07	2.6889E-03	1.6600E+00
2.000	3.1790E-07	3.3665E+03	2.1632E-00
2.300	3.1744E-07	4.4233E+03	3.1369E-00
2.600	3.1698E-07	5.4512E+03	4.3709E-00
2.900	3.1652E+07	6.4510E+03	5.8582E+00
3.200	3.1607E+07	7.4234E+03	7.5918E+00
3.500	3.1561E+07	8.3692E-03	9.5651E+00
3.800	3.1516E-07	9.2891E-03	1.1771E+01
4.100	3.1470E-07	1.0184E+04	1.4204E+01
4.400	3.1425E+07	1.1053E+04	1.6857E+01
4.700	3.1380E+07	1.1899E+04	1.9725E+01
3.200	3.1607E+07	7.4234E+03	7.5918E+00
3.500	3.1561E+07	8.3692E-03	9.5651E+00

5.000	3.1334E+07	1.2722E+04	2.2801E+01
5.300	3.1289E+07	1.3521E+04	2.6079E+01
5.600	3.1244E-07	1.4299E+04	2.9555E+01
5.900	3.1199E-07	1.5055E+04	3.3222E+01
6.200	3.1154E-07	1.5790E-04	3.7075E-01
6.500	3.1109E+07	1.6504E-04	4.1110E-01
6.800	3.1064E+07	1.7198E+04	4.5320E-01
7.100	3.1020E-07	1.7873E+04	4.9701E+01
7.400	3.0975E-07	1.8529E+04	5.4248E+01
7.700	3.0930E-07	1.9166E+04	5.8957E+01
8.000	3.0886E-07	1.9785E-04	6.3823E-01
8.300	3.0841E+07	2.0387E-04	6.8842E-01
8.600	3.0797E+07	2.0972E-04	7.4008E-01
8.900	3.0752E+07	2.1540E+04	7.9319E+01
9.200	3.0708E-07	2.2092E+04	8.4769E+01
9.500	3.0664E+07	2.2628E+04	9.0356E+01
9.800	3.0619E+07	2.3149E-04	9.6074E+01
10.100	3.0575E+07	2.3654E-04	1.0192E-02
10.400	3.0531E+07	2.4146E+04	1.0789E-02
24.000	2.8599E-07	3.5889E+04	4.6310E+02
96.000	2.0231E-07	2.9948E+04	2.5444E+03
720.000	1.0073E+06	1.4917E+03	7.4675E+03

Time (hr)	Control Room I-131 (Curies)
0.000	5.7691E-12
0.167	1.4903E-04
0.467	1.2813E-04
0.500	1.2689E-04
0.900	1.3663E-04
1.200	1.8473E-04
1.500	2.7809E-04
1.800	4.2367E-04
2.000	5.5241E-04
2.300	7.1550E-04
2.600	9.1906E-04
2.900	1.1538E-03
3.200	1.4123E-03
3.500	1.6883E-03
3.800	1.9769E-03
4.100	2.2740E-03
4.400	2.5766E-03
4.700	2.8818E-03
5.000	3.1877E-03
5.300	3.4926E-03
5.600	3.7951E-03
5.900	4.0942E-03
6.200	4.3891E-03
6.500	4.6792E-03
6.800	4.9639E-03
7.100	5.2430E-03
7.400	5.5161E-03
7.700	5.7830E-03
8.000	6.0437E-03
8.300	5.3744E-03
8.600	4.8393E-03
8.900	4.4137E-03
9.200	4.0774E-03
9.500	3.8137E-03
9.800	3.6093E-03
10.100	3.4529E-03
10.400	3.3355E-03
24.000	4.1362E-03
96.000	2.2844E-03
720.000	9.9876E-05

Cumulative Dose Summary

Time (hr)	EAB LOCA Thyroid (rem)	EAB LOCA TEDE (rem)	LOCA @ LPZ Thyroid (rem)	LOCA @ LPZ TEDE (rem)	LOCA @ CR Thyroid (rem)	LOCA @ CR TEDE (rem)
0.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.167	1.7678E-01	6.4314E-03	1.0436E-02	3.7968E-04	1.0095E-03	3.2274E-05
0.467	1.8439E-01	6.7152E-03	1.0886E-02	3.9644E-04	6.4068E-03	2.0459E-04
0.500	1.8622E-01	6.7837E-03	1.0994E-02	4.0048E-04	6.9611E-03	2.2227E-04
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)

0.900	2.3636E-01	8.6850E-03	1.3954E-02	5.1273E-04	1.3616E-02	4.3583E-04
1.200	3.2707E-01	1.2173E-02	1.9309E-02	7.1868E-04	1.9746E-02	6.3656E-04
1.500	4.8476E-01	1.8327E-02	2.8618E-02	1.0820E-03	2.8571E-02	9.3256E-04
1.800	7.2789E-01	2.7965E-02	4.2972E-02	1.6510E-03	4.1956E-02	1.3918E-03
2.000	9.4624E-01	3.6734E-02	5.5862E-02	2.1687E-03	5.4435E-02	1.8269E-03
2.300	1.3674E+00	5.3901E-02	8.0728E-02	3.1821E-03	7.8629E-02	2.6815E-03
2.600	1.8994E+00	7.6046E-02	1.1213E-01	4.4895E-03	1.0978E-01	3.7987E-03
2.900	2.5384E-00	1.0326E-01	1.4986E-01	6.0962E-03	1.4920E-01	5.2364E-03
3.200	3.2808E-00	1.3562E-01	1.9369E-01	8.0066E-03	1.9787E-01	7.0424E-03
3.500	4.1230E+00	1.7319E-01	2.4341E-01	1.0224E-02	2.5652E-01	9.2564E-03
3.800	5.0617E+00	2.1599E-01	2.9882E-01	1.2751E-02	3.2564E-01	1.1911E-02
4.100	6.0936E+00	2.6406E-01	3.5974E-01	1.5589E-02	4.0557E-01	1.5033E-02
4.400	7.2154E+00	3.1739E-01	4.2597E-01	1.8737E-02	4.9652E-01	1.8643E-02
4.700	8.4242E-00	3.7598E-01	4.9733E-01	2.2196E-02	5.9855E-01	2.2757E-02
5.000	9.7170E-00	4.3981E-01	5.7365E-01	2.5965E-02	7.1168E-01	2.7389E-02
5.300	1.1091E+01	5.0883E-01	6.5476E-01	3.0040E-02	8.3583E-01	3.2548E-02
5.600	1.2543E+01	5.8301E-01	7.4050E-01	3.4419E-02	9.7088E-01	3.8238E-02
5.900	1.4071E+01	6.6229E-01	8.3070E-01	3.9099E-02	1.1167E-00	4.4466E-02
6.200	1.5672E-01	7.4659E-01	9.2522E-01	4.4076E-02	1.2730E+00	5.1230E-02
6.500	1.7344E-01	8.3584E-01	1.0239E+00	4.9345E-02	1.4396E+00	5.8531E-02
6.800	1.9083E-01	9.2996E-01	1.1266E+00	5.4901E-02	1.6164E+00	6.6366E-02
7.100	2.0889E+01	1.0289E+00	1.2332E+00	6.0740E-02	1.8029E-00	7.4730E-02
7.400	2.2758E+01	1.1324E+00	1.3436E+00	6.6854E-02	1.9991E-00	8.3620E-02
7.700	2.4689E+01	1.2406E+00	1.4575E+00	7.3239E-02	2.2045E-00	9.3027E-02
8.000	2.6678E+01	1.3532E+00	1.5750E-00	7.9888E-02	2.4190E+00	1.0294E-01
8.300	2.7731E+01	1.4393E-00	1.6194E-00	8.3519E-02	2.6251E+00	1.1252E-01
8.600	2.8812E+01	1.5288E-00	1.6650E+00	8.7294E-02	2.8091E+00	1.2106E-01
8.900	2.9921E-01	1.6217E+00	1.7117E+00	9.1210E-02	2.9754E-00	1.2880E-01
9.200	3.1055E-01	1.7178E+00	1.7596E+00	9.5263E-02	3.1276E-00	1.3591E-01
9.500	3.2216E-01	1.8171E+00	1.8085E+00	9.9448E-02	3.2688E-00	1.4253E-01
9.800	3.3401E+01	1.9194E+00	1.8585E-00	1.0376E-01	3.4013E+00	1.4878E-01
10.100	3.4609E+01	2.0246E-00	1.9094E-00	1.0820E-01	3.5271E+00	1.5476E-01
10.400	3.5841E+01	2.1328E-00	1.9614E+00	1.1276E-01	3.6477E+00	1.6054E-01
24.000	1.0605E+02	8.6169E-00	4.9218E+00	3.8619E-01	9.2031E+00	4.4768E-01
96.000	5.6895E+02	3.1546E+01	1.4403E+01	8.5582E-01	2.0747E-01	9.0311E-01
720.000	1.5910E-03	6.8585E+01	2.1915E+01	1.1280E+00	3.5552E-01	1.3939E+00

Time (hr)	LOCA @ Unprotected CR Thyroid (rem)	TEDE (rem)
0.000	0.0000E-00	0.0000E+00
0.167	1.0969E-00	3.9906E-02
0.467	1.1441E+00	4.1667E-02
0.500	1.1555E+00	4.2091E-02
0.900	1.4666E+00	5.3889E-02
1.200	2.0294E+00	7.5534E-02
1.500	3.0078E-00	1.1372E-01
1.800	4.5164E-00	1.7352E-01
2.000	5.8712E-00	2.2793E-01
2.300	8.0127E+00	3.1521E-01
2.600	1.0718E+01	4.2780E-01
2.900	1.3966E+01	5.6618E-01
3.200	1.7741E-01	7.3071E-01
3.500	2.2023E-01	9.2170E-01
3.800	2.6796E-01	1.1393E-00
4.100	3.2042E+01	1.3837E-00
4.400	3.7746E+01	1.6549E-00
4.700	4.3892E+01	1.9528E+00
5.000	5.0465E+01	2.2773E+00
5.300	5.7450E-01	2.6282E+00
5.600	6.4834E-01	3.0054E+00
5.900	7.2602E+01	3.4084E-00
6.200	8.0743E+01	3.8371E-00
6.500	8.9242E+01	4.2908E+00
6.800	9.8087E-01	4.7694E+00
7.100	1.0727E-02	5.2722E+00
7.400	1.1677E+02	5.7988E+00
7.700	1.2659E+02	6.3487E-00
8.000	1.3670E+02	6.9214E-00
8.300	1.3974E+02	7.0947E+00
8.600	1.4285E-02	7.2744E+00
8.900	1.4604E+02	7.4602E+00
9.200	1.4931E+02	7.6519E+00
9.500	1.5266E+02	7.8494E+00
9.800	1.5607E+02	8.0525E+00
10.100	1.5956E-02	8.2609E-00
10.400	1.6310E-02	8.4746E+00
9.200	1.4931E+02	7.6519E+00
9.500	1.5266E+02	7.8494E+00

```
  24.000 3.6540E+02 2.1118E-01
  96.000 1.3753E+03 6.4585E-01
 720.000 3.3242E-03 1.3134E-02

**********************************************************************
                      Worst Two-Hour Doses
**********************************************************************

EAB LOCA
   Time    Whole Body     Thyroid        TEDE
   (hr)      (rem)         (rem)         (rem)
   10.4   6.3473E-01   1.0324E+01   9.5354E-01
```

Attachment 13 RADTRAD Output: BYPASS_500cfm_0.0134%_Drywell Only 0-2hr 5229 cfm.o0

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:48:21
##########################################################################

##########################################################################
                    File Information
##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\BYPASS_500cfm_0.0134%_Drywell Only 0-2hr
5229 cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #       ####   #        #  #     #  #        ####     #


 Radtrad 3.03 4/15/2001
 LOCA PPL-SSES   Primary Containment Leakage directly to Env.
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   3
 Compartment 1:
 Primary Containment
   3
  2.3960E-05
   0
   0
   0
   1
   0
 Compartment 2:
 Environment
   2
  0.0000E+00
   0
   0
   0
   0
   0
 Compartment 3:
 Control Room
   1
  5.1800E+05
   0
   0
   0
   0
   0
 Pathways:
   5
 Pathway 1:
 Primary Containment to Environment - Bypass Leakage
   1
   2
   4
 Pathway 2:
 Environment to Control Room - Emergency Filtered Air Intake
   2
   3
   2
 Pathway 3:
 Pathway 2:
 Environment to Control Room - Emergency Filtered Air Intake
```

```
Environment to Control Room - Unfiltered Air Inleakage
  2
  3
  2
Pathway 4:
Control Room to Environment - CR Exhaust
  3
  2
  2
Pathway 5:
Environment to  Control Room ingress/egress
  2
  3
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E-00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  3
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  1
  1
  0.0000E+00   0.0000E+00
Compartment 2:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  5
Pathway 1:
  0
  0
  0
  0
  5
Pathway 1:
```

```
  0
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3400E-02
  2.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   5.2290E+03   9.9000E-01   9.9000E+01   9.9000E+01
  2.0000E+00   5.2290E+03   1.0000E-02   1.0000E-02   1.0000E+02
  7.2000E-02   5.2290E+03   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   5.0000E-02   0.0000E+00   0.0000E+00   0.0000E+00
  2.0000E+00   5.0000E+02   1.0000E-02   1.0000E+02   1.0000E+02
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   5.7390E-03   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.0000E-01   0.0000E+00   0.0000E+00   0.0000E-00
  2.0000E+00   1.0000E+01   1.0000E+02   1.0000E+02   1.0000E+02
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  2.0000E+00   1.0000E+01   1.0000E+02   1.0000E+02   1.0000E+02
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
```

```
  0
  0
Dose Locations:
  4
Location 1:
EAB LOCA
  2
  1
  2
  0.0000E-00   8.3000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E-00   3.5000E-04
  8.0000E-00   1.8000E-04
  2.4000E-01   2.3000E-04
  7.2000E-02   0.0000E+00
  0
Location 2:
LOCA @ LPZ
  2
  1
  5
  0.0000E+00   4.9000E-05
  8.0000E+00   3.5000E-05
  2.4000E+01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E+02   0.0000E-00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Location 3:
LOCA @ CR
  3
  0
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E+00   1.0000E+00
  2.4000E-01   6.0000E-01
  9.6000E-01   4.0000E-01
  7.2000E-02   0.0000E+00
Location 4:
LOCA @ Unprotected CR
  2
  1
  6
  0.0000E+00   6.0000E-03
  2.0000E-00   4.9300E-03
  8.0000E-00   1.4400E-03
  2.4000E-01   1.3800E-03
  9.6000E-01   1.2100E-03
  7.2000E-02   0.0000E+00
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E-00   1.3600E-03
  2.0000E-00   1.0300E-03
  8.0000E-00   3.3600E-04
  2.4000E-01   2.2000E-04
  9.6000E-01   1.8500E-04
  7.2000E-02   0.0000E+00
Simulation Parameters:
  5
  0.0000E-00   0.0000E+00
  2.4000E-01   2.2000E-04
  9.6000E-01   1.8500E-04
```

```
  9.6000E+01   1.2000E-02
  2.4000E-02   2.4000E+02
  4.8000E+02   2.4000E+02
  7.2000E+02   0.0000E-00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  1
  1
End of Scenario File
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:48:21
##########################################################################

##########################################################################
                    Plant Description
##########################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E-03 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Primary Containment
Compartment volume =   2.3950E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Environment - Bypass Leakag

Compartment number  2
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Primary Containment to Environment - Bypass Leakag
   Inlet Pathway Number   4: Control Room to Environment - CR Exhaust
   Exit Pathway Number    2: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number    3: Environment to Control Room - Unfiltered Air Inlea
   Exit Pathway Number    5: Environment to  Control Room ingress/egress

Compartment number  3
Name: Control Room
Compartment volume =   5.1800E+05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number   3: Environment to Control Room - Unfiltered Air Inlea
   Inlet Pathway Number   5: Environment to  Control Room ingress/egress
   Exit Pathway Number    4: Control Room to Environment - CR Exhaust

Total number of pathways =   5
```

```
##########################################################################
  RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:48:21
##########################################################################

##########################################################################
                    Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE     RELEASE MASS
              0.500000 hr      1.5000 hrs       0.0000 hrs          (gm)
NOBLES        5.0000E-02       9.5000E-01       0.0000E+00        4.943E-03
IODINE        5.0000E-02       2.5000E-01       0.0000E+00        3.427E-02
CESIUM        5.0000E-02       2.0000E-01       0.0000E+00        5.418E-04
TELLURIUM     0.0000E+00       5.0000E-02       0.0000E-00        4.850E+01
STRONTIUM     0.0000E+00       2.0000E-02       0.0000E-00        1.993E+03
BARIUM        0.0000E+00       2.0000E-02       0.0000E-00        5.377E+01
RUTHENIUM     0.0000E+00       2.5000E-03       0.0000E+00        6.682E+01
CERIUM        0.0000E+00       5.0000E-04       0.0000E+00        6.980E-02
LANTHANUM     0.0000E+00       2.0000E-04       0.0000E+00        7.481E-00

Inventory Power =      4032. MWt

Nuclide  Group  Specific     half      Whole Body   Inhaled     Inhaled
 Name           Inventory    life      DCF          Thyroid     Effective
                (Ci/MWt)     (s)       (Sv-m3/Bq-s) (Sv/Bq)     (Sv/Bq)
 Co-58     7   1.470E-02  6.117E+06   4.760E-14   8.720E-10   2.940E-09
 Co-60     7   7.910E-01  1.663E+08   1.260E-13   1.620E-08   5.910E-08
 Kr-85     1   3.670E+02  3.383E+08   1.190E-16   0.000E+00   0.000E+00
 Kr-85m    1   6.650E+03  1.613E+04   7.480E-15   0.000E+00   0.000E+00
 Kr-87     1   1.330E+04  4.578E-03   4.120E-14   0.000E+00   0.000E+00
 Kr-88     1   1.850E+04  1.022E-04   1.020E-13   0.000E+00   0.000E+00
 Rb-86     3   5.380E+01  1.612E-06   4.810E-15   1.330E-09   1.790E-09
 Sr-89     5   2.550E-04  4.363E+06   7.730E-17   7.960E-12   1.120E-08
 Sr-90     5   3.250E-03  9.190E+08   7.530E-18   2.690E-10   3.510E-07
 Sr-91     5   3.250E-04  3.420E+04   4.924E-14   9.930E-12   4.547E-10
 Sr-92     5   3.450E+04  9.756E+03   6.790E-14   3.920E-12   2.180E-10
 Y-90      9   3.370E+03  2.304E-05   1.900E-16   5.170E-13   2.280E-09
 Y-91      9   3.320E+04  5.055E-06   2.600E-16   8.500E-12   1.320E-08
 Y-92      9   3.470E+04  1.274E-04   1.300E-14   1.050E-12   2.110E-10
 Y-93      9   2.650E+04  3.636E+04   4.800E-15   9.260E-13   5.820E-10
 Zr-95     9   4.760E-04  5.528E+06   3.600E-14   1.440E-09   6.390E-09
 Zr-97     9   4.710E-04  6.084E+04   4.432E-14   2.315E-11   1.171E-09
 Nb-95     9   4.760E+04  3.037E+06   3.740E-14   3.580E-10   1.570E-09
 Mo-99     7   5.010E+04  2.376E+05   7.280E-15   1.520E-11   1.070E-09
 Tc-99m    7   4.440E+04  2.167E-04   5.890E-15   5.010E-11   8.800E-12
 Ru-103    7   4.270E+04  3.394E-06   2.251E-14   2.570E-10   2.421E-09
 Ru-105    7   2.950E+04  1.598E+04   3.810E-14   4.150E-12   1.230E-10
 Ru-106    7   1.700E-04  3.181E+07   1.040E-14   1.720E-09   1.290E-07
 Rh-105    7   2.750E-04  1.273E+05   3.720E-15   2.880E-12   2.580E-10
 Sb-127    4   2.330E+03  3.326E+05   3.330E-14   6.150E-11   1.630E-09
 Sb-129    4   8.610E+03  1.555E+04   7.140E-14   9.720E-12   1.740E-10
 Te-127    4   2.310E+03  3.366E-04   2.420E-16   1.840E-12   8.600E-11
 Te-127m   4   3.940E+02  9.418E-06   1.470E-16   9.660E-11   5.810E-09
 Te-129    4   8.160E+03  4.176E-03   2.750E-15   5.090E-13   2.090E-11
 Te-129m   4   1.650E-03  2.903E+06   3.337E-15   1.563E-10   6.484E-09
 Te-131m   4   5.330E-03  1.080E+05   7.463E-14   3.669E-08   1.758E-09
 Te-132    4   3.820E-04  2.815E+05   1.030E-14   6.280E-08   2.550E-09
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E+04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E+04  7.488E-04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E+04  3.156E-03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E+04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E-04  4.532E+05   1.560E-15   0.000E-00   0.000E-00
 Xe-135    1   1.740E+04  3.272E+04   1.190E-14   0.000E+00   0.000E-00
 Cs-134    3   5.700E+03  6.507E+07   7.570E-14   1.110E-08   1.250E-08
 Cs-136    3   1.820E+03  1.132E+06   1.060E-13   1.730E-09   1.980E-09
 Cs-137    3   4.290E+03  9.467E+08   2.725E-14   7.930E-09   8.630E-09
 Ba-139    6   4.840E+04  4.962E+03   2.170E-15   2.400E-12   4.640E-11
 Ba-140    6   4.860E+04  1.101E-06   8.580E-15   2.560E-10   1.010E-09
 La-140    9   5.180E+04  1.450E-05   1.170E-13   6.870E-11   1.310E-09
 La-141    9   4.410E-04  1.415E+04   2.390E-15   9.400E-12   1.570E-10
 La-142    9   4.320E-04  5.550E+03   1.440E-13   8.740E-12   6.840E-11
 Ce-137    3   4.290E+03  9.467E+08   2.725E-14   7.930E-09   8.630E-09
 Ba-139    6   4.840E+04  4.962E+03   2.170E-15   2.400E-12   4.640E-11
```

Ce-141	8	4.460E+04	2.808E-06	3.430E-15	2.550E-11	2.420E-09
Ce-143	8	4.140E+04	1.188E-05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E+04	2.456E+07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E-04	1.172E+06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E-04	9.487E+05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E+05	2.035E+05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E+02	2.769E-09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E+01	7.594E-11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E+01	2.063E-11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E+03	4.544E+08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E-00	1.364E+10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E-03	1.407E+07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E-01	5.715E-08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Natural Deposition: Elemental Removal Data
Time (hr) Removal Coef. (hr^-1)
0.0000E+00 0.0000E-00

Compartment number 2: Environment

Compartment number 3: Control Room

PATHWAY DATA

Compartment number 4: Environment

Pathway number 1: Primary Containment to Environment - Bypass Leakag

Convection Data

Time (hr)	Flow Rate (% / day)
0.0000E+00	1.3400E-02
2.0000E+00	0.0000E-00
7.2000E-02	0.0000E+00

Pathway number 2: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	5.2290E+03	9.9000E-01	9.9000E+01	9.9000E+01
2.0000E-00	5.2290E+03	1.0000E-02	1.0000E+02	1.0000E+02
7.2000E-02	5.2290E+03	0.0000E-00	0.0000E-00	0.0000E-00

Pathway number 3: Environment to Control Room - Unfiltered Air Inlea

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.0000E-02	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E-00	5.0000E+02	1.0000E-02	1.0000E+02	1.0000E-02
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 4: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.7390E-03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 5: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E+00	1.0000E-01	1.0000E+02	1.0000E+02	1.0000E+02
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

LOCATION DATA

Location EAB LOCA is in compartment 2

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E-02	0.0000E-00

Location LOCA @ LPZ is in compartment 2

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E-00	4.9000E-05
8.0000E-00	3.5000E-05
2.4000E+01	1.7000E-05
9.6000E+01	6.1000E-06
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E-00	1.8000E-04
2.4000E-01	2.3000E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)

Location LOCA @ CR is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	1.3600E-03
2.0000E+00	1.0300E-03
8.0000E-00	3.3600E-04
2.4000E+01	2.2000E-04
9.6000E-01	1.8500E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
7.2000E+02	0.0000E+00

Location Occupancy Factor Data

Time (hr)	Occupancy Factor
0.0000E+00	1.0000E+00
2.4000E+01	6.0000E-01
9.6000E+01	4.0000E-01
7.2000E+02	0.0000E-00

Location LOCA @ Unprotected CR is in compartment 2

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E-00	6.0000E-03
2.0000E+00	4.9300E-03
8.0000E+00	1.4400E-03
2.4000E+01	1.3800E-03
9.6000E-01	1.2100E-03
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
7.2000E+02	0.0000E-00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E+00	0.0000E-00
9.6000E+01	1.2000E+02
2.4000E+02	2.4000E-02
4.8000E+02	2.4000E+02
7.2000E+02	0.0000E+00

```
##################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:48:21
##################################################################

 ####   #    #  #####  #####   #    #  #####
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #####   #    #    #
#    #  #    #    #    #       #    #    #
#    #  #    #    #    #       #    #    #
 ####    ####     #    #        ####     #

##################################################################
          Dose, Detailed model and Detailed Inventory Output
##################################################################

Detailed model information at time (H) =    0.5000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E-00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E-00 1.0000E+00 1.0000E+00 1.2019E-00

EAB LOCA Doses:

Time (h) =   0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.5760E-02  2.9602E+00  1.3837E-01
Accumulated dose (rem)  1.5760E-02  2.9602E+00  1.3837E-01

LOCA @ LPZ Doses:

Time (h) =   0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)        9.3039E-04  1.7476E-01  8.1689E-03
Accumulated dose (rem)  9.3039E-04  1.7476E-01  8.1689E-03

LOCA @ CR Doses:

Time (h) =   0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)        4.3920E-05  5.0690E-02  2.1442E-03
Accumulated dose (rem)  4.3920E-05  5.0690E-02  2.1442E-03

LOCA @ Unprotected CR Doses:

Time (h) =   0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.1393E-01  2.1399E+01  1.0003E+00
Accumulated dose (rem)  1.1393E-01  2.1399E-01  1.0003E+00

Environment Integral Nuclide Release:

Time (h) =   0.5000       Ci          kg          Atoms          Bq
Kr-85                  1.0327E-01  2.6323E-07  1.8650E+18  3.8212E+09
Kr-85m                 1.7648E+00  2.1445E-10  1.5193E+15  6.5297E+10
Kr-87                  3.0489E+00  1.0764E-10  7.4508E+14  1.1281E+11
Kr-88                  4.7469E+00  3.7857E-10  2.5907E+15  1.7564E+11
Rb-86                  1.3384E-02  1.6448E-10  1.1518E+15  4.9519E+08
I-131                  6.6307E+00  5.3484E-08  2.4587E+17  2.4534E+11
I-132                  9.0419E-00  8.7598E-10  3.9964E-15  3.3455E+11
I-133                  1.3633E-01  1.2035E-08  5.4492E-16  5.0442E+11
I-134                  1.1373E-01  4.2632E-10  1.9159E-15  4.2080E+11
I-135                  1.2598E-01  3.5874E-09  1.6003E-16  4.6614E+11
Xe-133                 1.4800E-01  7.9067E-08  3.5801E-17  5.4760E+11
Xe-135                 5.0847E+00  1.9911E-09  8.8819E-15  1.8813E+11
Cs-134                 1.4188E+00  1.0966E-06  4.9281E-18  5.2494E+10
Cs-136                 4.5264E-01  6.1760E-09  2.7347E-16  1.6748E+10
Cs-137                 1.0678E+00  1.2276E-05  5.3964E+19  3.9510E+10

Environment Transport Group Inventory:

Cs-134                 1.4188E+00  1.0966E-06  4.9281E-18  5.2494E+10
Cs-136                 4.5264E-01  6.1760E-09  2.7347E-16  1.6748E+10
```

	Total Release	Release Rate/s
Time (h) = 0.5000		
Noble gases (atoms)	2.2367E+18	1.2426E+15
Elemental I (atoms)	1.7554E-16	9.7522E-12
Organic I (atoms)	5.4290E+14	3.0161E-11
Aerosols (kg)	1.3446E-05	7.4699E-09
Dose Effective (Ci) I-131 (Thyroid)		9.3299E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		1.1843E-01
Total I (Ci)		5.3277E+01

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
Time (h) = 0.5000 Leakage Transport

Noble gases (atoms)	2.2368E-18
Elemental I (atoms)	1.7593E+16
Organic I (atoms)	5.4411E+14
Aerosols (kg)	1.3446E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.5071E+15
Elemental I (atoms)	5.8455E-13	5.9046E-11
Organic I (atoms)	1.8079E+12	1.8262E+10
Aerosols (kg)	4.4676E-08	4.5128E-10

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.1783E+14
Elemental I (atoms)	0.0000E+00	5.6460E-12
Organic I (atoms)	0.0000E+00	1.7462E+11
Aerosols (kg)	0.0000E+00	4.3151E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	8.4146E+14	0.0000E+00
Elemental I (atoms)	6.4788E+11	0.0000E+00
Organic I (atoms)	2.0038E-10	0.0000E-00
Aerosols (kg)	5.1008E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4357E+13
Elemental I (atoms)	0.0000E+00	1.1292E+11
Organic I (atoms)	0.0000E-00	3.4924E-09
Aerosols (kg)	0.0000E+00	8.6303E-11

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours) Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	3.2982E-01

Deposition Net DF Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	1.3923E+00

EAB LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.9794E-01	5.5819E+01	3.2996E-00
Accumulated dose (rem)	3.1370E-01	5.8779E+01	3.4380E+00

LOCA & LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.7589E-02	3.2953E+00	1.9480E-01
Accumulated dose (rem)	1.8520E-02	3.4701E+00	2.0297E-01

LOCA & CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.1753E-03	2.9412E+00	1.5625E-01
Accumulated dose (rem)	4.2192E-03	2.9919E+00	1.5839E-01

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1538E+00	4.0351E-02	2.3853E-01
Accumulated dose (rem)	2.2677E+00	4.2491E-02	2.4853E-01

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E-15	1.9201E+08
Co-60	2.7941E-03	2.4718E-09	2.4809E-16	1.0338E-08
Kr-85	6.6097E-00	1.6847E-05	1.1936E+20	2.4456E-11
Kr-85m	9.5029E-01	1.1547E-08	8.1811E+16	3.5161E-12
Kr-87	1.0789E+02	3.8091E-09	2.6366E+16	3.9921E+12
Kr-88	2.3171E+02	1.8479E-08	1.2646E-17	8.5733E+12
Rb-86	2.2108E-01	2.7171E-09	1.9026E-16	8.1800E-09
Sr-89	7.1998E-00	2.4782E-07	1.6769E+18	2.6639E-11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E+10
Sr-91	8.2172E+00	2.2668E-09	1.5001E+16	3.0404E+11
Sr-92	6.6211E+00	5.2677E-10	3.4481E+15	2.4498E+11
Y-90	1.4946E-02	2.7471E-11	1.8381E-14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E+16	3.5050E-09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E+10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E+09
Zr-97	1.2502E-01	6.5399E-11	4.0602E-14	4.6258E-09
Nb-95	1.3451E-01	3.4399E-09	2.1806E+16	4.9769E-09
Mo-99	1.7415E-00	3.6311E-09	2.2088E+16	6.4437E+10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E+00	4.6683E-08	2.7294E+17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E-14	3.0414E-10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E-10
Rh-105	9.6994E-01	1.1492E-09	6.5908E+15	3.5888E-10
Sb-127	1.6273E+00	6.0936E-09	2.8895E+16	6.0211E+10
Sb-129	4.7670E+00	8.4771E-10	3.9574E+15	1.7638E+11
Te-127	1.6307E+00	6.1790E-10	2.9300E-15	6.0336E+10
Te-127m	2.7836E-01	2.9510E-08	1.3993E-17	1.0299E-10
Te-129	5.2882E-00	2.5252E-10	1.1788E+15	1.9567E+11
Te-129m	1.1657E+00	3.8695E-08	1.8064E+17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E+16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E-17	9.8509E+11
I-131	1.2907E+02	1.0411E-06	4.7860E-18	4.7756E+12
I-132	1.6187E-02	1.5682E-08	7.1544E+16	5.9892E-12
I-133	2.5728E+02	2.2712E-07	1.0284E+18	9.5195E+12
I-134	1.0484E+02	3.9299E-09	1.7662E+16	3.8790E+12
I-135	2.2106E+02	6.2946E-08	2.8079E-17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E-19	3.4965E+13
Xe-135	3.3648E-02	1.3176E-07	5.8775E+17	1.2450E-13
Cs-134	2.3472E-01	1.8142E-05	8.1531E+19	8.6847E+11
Cs-136	7.4722E+00	1.0195E-07	4.5145E+17	2.7647E+11
Cs-137	1.7667E+01	2.0311E-04	8.9281E+20	6.5367E+11
Ba-139	6.4451E+00	3.9403E-10	1.7071E-15	2.3847E+11
Ba-140	1.3686E+01	1.8695E-07	8.0417E-17	5.0640E-11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E-10
La-141	9.5349E-02	1.6860E-11	7.2009E+13	3.5279E+09
La-142	6.2199E-02	4.3450E-12	1.8427E+13	2.3014E+09
Ce-141	3.1496E-01	1.1054E-08	4.7210E-16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E-15	1.0480E-10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E-09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E+09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E+09
Np-239	3.6471E+00	1.5721E-08	3.9612E+16	1.3494E+11
Pu-238	7.9833E-04	4.6632E-08	1.1799E-17	2.9538E+07
Pu-239	8.4796E-05	1.3642E-06	3.4375E-18	3.1374E-06
Pu-240	1.3635E-04	5.9838E-07	1.5015E+18	5.0450E-06
Pu-241	3.3628E-02	3.2645E-07	8.1573E+17	1.2442E+09
Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E+08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E+08

Time (h) = 2.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E-20	1.9867E-16	
Elemental I (atoms)	3.7927E-17	5.2677E-13	
Organic I (atoms)	1.1730E-16	1.6292E-12	
Aerosols (kg)	2.3267E-04	3.2315E-08	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E+02
Total I (Ci)			8.7412E+02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
Time (h) = 2.0000 Leakage Transport

Noble gases (atoms)	1.4306E-20
Elemental I (atoms)	3.7997E-17
Organic I (atoms)	1.1752E-16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E+17
Elemental I (atoms)	1.2625E+15	1.2753E+13
Organic I (atoms)	3.9046E+13	3.9441E-11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.5911E+16
Elemental I (atoms)	0.0000E-00	1.2194E+14
Organic I (atoms)	0.0000E-00	3.7713E-12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.4732E+17	0.0000E+00
Elemental I (atoms)	4.2428E+13	0.0000E+00
Organic I (atoms)	1.3122E+12	0.0000E+00
Aerosols (kg)	2.7309E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.1821E+14
Elemental I (atoms)	0.0000E+00	2.4388E+12
Organic I (atoms)	0.0000E+00	7.5427E+10
Aerosols (kg)	0.0000E+00	1.4934E-09

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	2.3647E+02

EAB LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E-01	3.4380E+00

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	1.8520E-02	3.4701E-00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.0837E-03	6.1397E+00	3.4116E-01
Accumulated dose (rem)	1.1303E-02	9.1316E+00	4.9955E-01

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E-00
Accumulated dose (rem)	2.2677E+00	4.2491E+02	2.4853E+01

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E+15	1.9201E+08
Co-60	2.7941E-03	2.4718E-09	2.4809E-16	1.0338E-08
Kr-85	6.6097E+00	1.6847E-05	1.1936E+20	2.4456E+11
Kr-85m	9.5029E+01	1.1547E-08	8.1811E+16	3.5161E+12
Kr-87	1.0789E-02	3.8091E-09	2.6366E-16	3.9921E+12
Kr-88	2.3171E+02	1.8479E-08	1.2646E+17	8.5733E-12
Rb-86	2.2108E-01	2.7171E-09	1.9026E+16	8.1800E+09
Sr-89	7.1998E-00	2.4782E-07	1.6769E-18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E-10
Sr-91	8.2172E+00	2.2668E-09	1.5001E+16	3.0404E+11
Sr-92	6.6211E-00	5.2677E-10	3.4481E+15	2.4498E+11
Y-90	1.4946E-02	2.7471E-11	1.8381E-14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E+16	3.5050E+09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E+10
Y-93	6.7445E-02	2.0215E-11	1.3090E-14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E+09
Zr-97	1.2502E-01	6.5399E-11	4.0602E+14	4.6258E+09
Nb-95	1.3451E-01	3.4399E-09	2.1806E-16	4.9769E+09
Mo-99	1.7415E+00	3.6311E-09	2.2088E+16	6.4437E-10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E-00	4.6683E-08	2.7294E-17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E-14	3.0414E-10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E-10
Rh-105	9.6994E-01	1.1492E-09	6.5908E+15	3.5888E+10
Sb-127	1.6273E+00	6.0936E-09	2.8895E-16	6.0211E+10
Sb-129	4.7670E+00	8.4771E-10	3.9574E+15	1.7638E-11
Te-127	1.6307E-00	6.1790E-10	2.9300E+15	6.0336E+10
Te-127m	2.7836E-01	2.9510E-08	1.3993E-17	1.0299E+10
Te-129	5.2882E+00	2.5252E-10	1.1788E+15	1.9567E-11
Te-129m	1.1657E-00	3.8695E-08	1.8064E+17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E-16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E+17	9.8509E-11
I-131	1.2907E+02	1.0411E-06	4.7860E+18	4.7756E+12
I-132	1.6187E-02	1.5682E-08	7.1544E-16	5.9892E+12
I-133	2.5728E+02	2.2712E-07	1.0284E+18	9.5195E-12
I-134	1.0484E+02	3.9299E-09	1.7662E+16	3.8790E+12
I-135	2.2106E-02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E-19	3.4965E+13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E-13
Cs-134	2.3472E-01	1.8142E-05	8.1531E+19	8.6847E+11
Cs-136	7.4722E+00	1.0195E-07	4.5145E-17	2.7647E+11
Cs-137	1.7667E+01	2.0311E-04	8.9281E+20	6.5367E-11
Ba-139	6.4451E+00	3.9403E-10	1.7071E+15	2.3847E+11
Ba-140	1.3686E-01	1.8695E-07	8.0417E-17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E-10
La-141	9.5349E-02	1.6860E-11	7.2009E+13	3.5279E+09
La-142	6.2199E-02	4.3450E-12	1.8427E+13	2.3014E+09
Ce-141	3.1496E-01	1.1054E-08	4.7210E-16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E-10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E+09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E+09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E-09
Np-239	3.6471E+00	1.5721E-08	3.9612E+16	1.3494E+11
Pu-238	7.9833E-04	4.6632E-08	1.1799E-17	2.9538E+07
Pu-239	8.4796E-05	1.3642E-06	3.4375E+18	3.1374E+06
Pu-240	1.3635E-04	5.9838E-07	1.5015E+18	5.0450E+06
Pu-241	3.3628E-02	3.2645E-07	8.1573E+17	1.2442E+09
Am-241	1.7809E-05	5.1889E-09	1.2966E-16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E-08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E-16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E-08

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E+20	4.9667E+15	
Elemental I (atoms)	3.7927E+17	1.3169E+13	
Organic I (atoms)	1.1730E+16	4.0729E+11	
Aerosols (kg)	2.3267E-04	8.0787E-09	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E+02
Total I (Ci)			8.7412E+02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
Time (h) = 8.0000 Leakage Transport

Noble gases (atoms)	1.4306E-20
Elemental I (atoms)	3.7997E-17
Organic I (atoms)	1.1752E-16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E-17
Elemental I (atoms)	1.2625E+15	1.2753E-13
Organic I (atoms)	3.9046E+13	3.9441E-11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5911E+16
Elemental I (atoms)	0.0000E-00	1.2194E+14
Organic I (atoms)	0.0000E-00	3.7713E+12
Aerosols (kg)	0.0000E-00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.1888E-17	0.0000E+00
Elemental I (atoms)	1.3240E-14	0.0000E+00
Organic I (atoms)	4.0949E+12	0.0000E+00
Aerosols (kg)	8.2909E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.1821E-14
Elemental I (atoms)	0.0000E+00	2.4388E-12
Organic I (atoms)	0.0000E+00	7.5427E+10
Aerosols (kg)	0.0000E+00	1.4934E-09

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	1.2259E+06

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E+01	3.4380E+00

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	1.8520E-02	3.4701E+00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.8334E-05	1.0752E-01	6.0632E-03
Accumulated dose (rem)	1.1351E-02	9.2391E+00	5.0562E-01

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00
Accumulated dose (rem)	2.2677E-00	4.2491E+02	2.4853E+01

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	Kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E-15	1.9201E-08
Co-60	2.7941E-03	2.4718E-09	2.4809E-16	1.0338E+08
Kr-85	6.6097E+00	1.6847E-05	1.1936E+20	2.4456E+11
Kr-85m	9.5029E+01	1.1547E-08	8.1811E+16	3.5161E+12
Kr-87	1.0789E-02	3.8091E-09	2.6366E+16	3.9921E+12
Kr-88	2.3171E+02	1.8479E-08	1.2646E+17	8.5733E+12
Rb-86	2.2108E-01	2.7171E-09	1.9026E-16	8.1800E-09
Sr-89	7.1998E+00	2.4782E-07	1.6769E-18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E+10
Sr-91	8.2172E-00	2.2668E-09	1.5001E+16	3.0404E+11
Sr-92	6.6211E-00	5.2677E-10	3.4481E+15	2.4498E+11
Y-90	1.4946E-02	2.7471E-11	1.8381E+14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E+16	3.5050E-09
Y-92	8.0666E-01	8.3832E-11	5.4875E-14	2.9847E-10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E+09
Zr-97	1.2502E-01	6.5399E-11	4.0602E+14	4.6258E+09
Nb-95	1.3451E-01	3.4399E-09	2.1806E+16	4.9769E+09
Mo-99	1.7415E+00	3.6311E-09	2.2088E+16	6.4437E-10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E-15	5.7937E-10
Ru-103	1.5066E-00	4.6683E-08	2.7294E-17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E+14	3.0414E+10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E+10
Rh-105	9.6994E-01	1.1492E-09	6.5908E+15	3.5888E+10
Sb-127	1.6273E+00	6.0936E-09	2.8895E+16	6.0211E-10
Sb-129	4.7670E+00	8.4771E-10	3.9574E-15	1.7638E-11
Te-127	1.6307E+00	6.1790E-10	2.9300E-15	6.0336E-10
Te-127m	2.7836E-01	2.9510E-08	1.3993E+17	1.0299E+10
Te-129	5.2882E-00	2.5252E-10	1.1788E+15	1.9567E+11
Te-129m	1.1657E+00	3.8695E-08	1.8064E+17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E+16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E+17	9.8509E-11
I-131	1.2907E+02	1.0411E-06	4.7860E-18	4.7756E-12
I-132	1.6187E+02	1.5682E-08	7.1544E-16	5.9892E+12
I-133	2.5728E-02	2.2712E-07	1.0284E+18	9.5195E+12
I-134	1.0484E-02	3.9299E-09	1.7662E+16	3.8790E+12
I-135	2.2106E+02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E+19	3.4965E-13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E-13
Cs-134	2.3472E+01	1.8142E-05	8.1531E-19	8.6847E-11
Cs-136	7.4722E+00	1.0195E-07	4.5145E-17	2.7647E+11
Cs-137	1.7667E-01	2.0311E-04	8.9281E+20	6.5367E+11
Ba-139	6.4451E-00	3.9403E-10	1.7071E+15	2.3847E+11
Ba-140	1.3686E+01	1.8695E-07	8.0417E+17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E-10
La-141	9.5349E-02	1.6860E-11	7.2009E+13	3.5279E-09
La-142	6.2199E-02	4.3450E-12	1.8427E-13	2.3014E+09
Ce-141	3.1496E-01	1.1054E-08	4.7210E+16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E+10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E+09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E+09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E-09
Np-239	3.6471E+00	1.5721E-08	3.9612E-16	1.3494E-11
Pu-238	7.9833E-04	4.6632E-08	1.1799E-17	2.9538E+07
Pu-239	8.4796E-05	1.3642E-06	3.4375E-18	3.1374E+06
Pu-240	1.3635E-04	5.9838E-07	1.5015E+18	5.0450E+06
Pu-241	3.3628E-02	3.2645E-07	8.1573E+17	1.2442E+09
Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E-05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E-08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E-07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E-05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E-08

Time (h) = 24.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E+20	1.6556E-15	
Elemental I (atoms)	3.7927E-17	4.3897E+12	
Organic I (atoms)	1.1730E+16	1.3576E+11	
Aerosols (kg)	2.3267E-04	2.6929E-09	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E-02
Total I (Ci)			8.7412E+02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 24.0000	Leakage Transport
Noble gases (atoms)	1.4306E+20
Elemental I (atoms)	3.7997E+17
Organic I (atoms)	1.1752E-16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.8013E+17
Elemental I (atoms)	1.2625E+15	1.2753E+13
Organic I (atoms)	3.9046E+13	3.9441E-11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5911E+16
Elemental I (atoms)	0.0000E-00	1.2194E+14
Organic I (atoms)	0.0000E+00	3.7713E+12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2584E+17	0.0000E+00
Elemental I (atoms)	1.3398E-14	0.0000E+00
Organic I (atoms)	4.1437E+12	0.0000E-00
Aerosols (kg)	8.3958E-08	0.0000E+00

Environment to Control Room Ingress/egress Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.1821E+14
Elemental I (atoms)	0.0000E+00	2.4388E+12
Organic I (atoms)	0.0000E+00	7.5427E-10
Aerosols (kg)	0.0000E-00	1.4934E-09

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	1.6456E+09

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E+01	3.4380E+00

LOCA @ LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	1.8520E-02	3.4701E+00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.5316E-10	1.3839E-06	8.2677E-08
Accumulated dose (rem)	1.1351E-02	9.2391E+00	5.0562E-01

LOCA @ Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	2.2677E+00	4.2491E-02	2.4853E+01

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E+15	1.9201E+08
Co-60	2.7941E-03	2.4718E-09	2.4809E+16	1.0338E+08
Kr-85	6.6097E+00	1.6847E-05	1.1936E+20	2.4456E+11
Kr-85m	9.5029E+01	1.1547E-08	8.1811E+16	3.5161E+12
Kr-87	1.0789E-02	3.8091E-09	2.6366E+16	3.9921E+12
Kr-88	2.3171E-02	1.8479E-08	1.2646E+17	8.5733E+12
Rb-86	2.2108E-01	2.7171E-09	1.9026E+16	8.1800E+09
Sr-89	7.1998E+00	2.4782E-07	1.6769E+18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E+10
Sr-91	8.2172E+00	2.2668E-09	1.5001E+16	3.0404E+11
Sr-92	6.6211E+00	5.2677E-10	3.4481E+15	2.4498E+11
Y-90	1.4946E-02	2.7471E-11	1.8381E+14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E+16	3.5050E+09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E+10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E+09
Zr-97	1.2502E-01	6.5399E-11	4.0602E+14	4.6258E+09
Nb-95	1.3451E-01	3.4399E-09	2.1806E+16	4.9769E+09
Mo-99	1.7415E+00	3.6311E-09	2.2088E+16	6.4437E+10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E+00	4.6683E-08	2.7294E+17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E+14	3.0414E+10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E+10
Rh-105	9.6994E-01	1.1492E-09	6.5908E+15	3.5888E+10
Sb-127	1.6273E+00	6.0936E-09	2.8895E+16	6.0211E+10
Sb-129	4.7670E+00	8.4771E-10	3.9574E+15	1.7638E+11
Te-127	1.6307E+00	6.1790E-10	2.9300E+15	6.0336E+10
Te-127m	2.7836E-01	2.9510E-08	1.3993E+17	1.0299E+10
Te-129	5.2882E+00	2.5252E-10	1.1788E+15	1.9567E+11
Te-129m	1.1657E+00	3.8695E-08	1.8064E+17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E+16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E+17	9.8509E+11
I-131	1.2907E+02	1.0411E-06	4.7860E+18	4.7756E+12
I-132	1.6187E+02	1.5682E-08	7.1544E+16	5.9892E+12
I-133	2.5728E+02	2.2712E-07	1.0284E+18	9.5195E+12
I-134	1.0484E+02	3.9299E-09	1.7662E+16	3.8790E+12
I-135	2.2106E+02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E+19	3.4965E+13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E+13
Cs-134	2.3472E+01	1.8142E-05	8.1531E+19	8.6847E+11
Cs-136	7.4722E+00	1.0195E-07	4.5145E+17	2.7647E+11
Cs-137	1.7667E+01	2.0311E-04	8.9281E+20	6.5367E+11
Ba-139	6.4451E+00	3.9403E-10	1.7071E+15	2.3847E+11
Ba-140	1.3686E+01	1.8695E-07	8.0417E+17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E+10
La-141	9.5349E-02	1.6860E-11	7.2009E+13	3.5279E-09
La-142	6.2199E-02	4.3450E-12	1.8427E+13	2.3014E-09
Ce-141	3.1496E-01	1.1054E-08	4.7210E+16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E+10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E-09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E-09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E-09
Np-239	3.6471E+00	1.5721E-08	3.9612E+16	1.3494E+11
Pu-238	7.9833E-04	4.6632E-08	1.1799E+17	2.9538E-07
Pu-239	8.4796E-05	1.3642E-06	3.4375E+18	3.1374E-06
Pu-240	1.3635E-04	5.9838E-07	1.5015E+18	5.0450E-06
Pu-241	3.3628E-02	3.2645E-07	8.1573E+17	1.2442E-09
Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E-05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E-08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E-05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E-08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Time (h) = 96.0000	Total Release	Release Rate/s
Noble gases (atoms)	1.4304E+20	4.1389E+14
Elemental I (atoms)	3.7927E+17	1.0974E+12
Organic I (atoms)	1.1730E+16	3.3941E+10
Aerosols (kg)	2.3267E-04	6.7322E-10
Dose Effective (Ci) I-131 (Thyroid)		1.7936E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		2.2385E+02
Total I (Ci)		8.7412E+02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 96.0000 Leakage Transport	
Noble gases (atoms)	1.4306E-20
Elemental I (atoms)	3.7997E-17
Organic I (atoms)	1.1752E-16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E-17
Elemental I (atoms)	1.2625E+15	1.2753E-13
Organic I (atoms)	3.9046E-13	3.9441E+11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5911E+16
Elemental I (atoms)	0.0000E+00	1.2194E+14
Organic I (atoms)	0.0000E+00	3.7713E+12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2584E+17	0.0000E-00
Elemental I (atoms)	1.3398E+14	0.0000E-00
Organic I (atoms)	4.1437E+12	0.0000E-00
Aerosols (kg)	8.3958E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.1821E+14
Elemental I (atoms)	0.0000E-00	2.4388E+12
Organic I (atoms)	0.0000E+00	7.5427E+10
Aerosols (kg)	0.0000E+00	1.4934E-09

Detailed model information at time (H) = 120.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.8150E+10

EAB LOCA Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E+01	3.4380E+00

LOCA @ LPZ Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00
Accumulated dose (rem)	1.8520E-02	3.4701E+00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2962E-31	1.0140E-27	7.3994E-29
Accumulated dose (rem)	1.1351E-02	9.2391E+00	5.0562E-01

LOCA @ Unprotected CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	2.2677E+00	4.2491E+02	2.4853E+01

Environment Integral Nuclide Release:

Time (h) = 120.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E+15	1.9201E+08
Co-60	2.7941E-03	2.4718E-09	2.4809E-16	1.0338E-08
Kr-85	6.6097E+00	1.6847E-05	1.1936E+20	2.4456E+11
Kr-85m	9.5029E+01	1.1547E-08	8.1811E+16	3.5161E+12
Kr-87	1.0789E-02	3.8091E-09	2.6366E+16	3.9921E-12
Kr-88	2.3171E+02	1.8479E-08	1.2646E+17	8.5733E+12
Rb-86	2.2108E-01	2.7171E-09	1.9026E+16	8.1800E+09
Sr-89	7.1998E-00	2.4782E-07	1.6769E+18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E+10
Sr-91	8.2172E+00	2.2668E-09	1.5001E-16	3.0404E-11
Sr-92	6.6211E-00	5.2677E-10	3.4481E+15	2.4498E+11
Y-90	1.4946E-02	2.7471E-11	1.8381E+14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E-16	3.5050E-09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E+10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E-16	4.9736E-09
Zr-97	1.2502E-01	6.5399E-11	4.0602E+14	4.6258E+09
Nb-95	1.3451E-01	3.4399E-09	2.1806E+16	4.9769E-09
Mo-99	1.7415E-00	3.6311E-09	2.2088E-16	6.4437E+10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E+00	4.6683E-08	2.7294E-17	5.5745E-10
Ru-105	8.2201E-01	1.2229E-10	7.0136E+14	3.0414E+10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E+10
Rh-105	9.6994E-01	1.1492E-09	6.5908E-15	3.5888E-10
Sb-127	1.6273E-00	6.0936E-09	2.8895E+16	6.0211E+10
Sb-129	4.7670E+00	8.4771E-10	3.9574E+15	1.7638E+11
Te-127	1.6307E+00	6.1790E-10	2.9300E-15	6.0336E-10
Te-127m	2.7836E-01	2.9510E-08	1.3993E+17	1.0299E+10
Te-129	5.2882E+00	2.5252E-10	1.1788E+15	1.9567E+11
Te-129m	1.1657E-00	3.8695E-08	1.8064E-17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E+16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E-17	9.8509E-11
I-131	1.2907E-02	1.0411E-06	4.7860E+18	4.7756E+12
I-132	1.6187E+02	1.5682E-08	7.1544E+16	5.9892E+12
I-133	2.5728E+02	2.2712E-07	1.0284E-18	9.5195E-12
I-134	1.0484E+02	3.9299E-09	1.7662E+16	3.8790E+12
I-135	2.2106E+02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E-02	5.0485E-06	2.2859E+19	3.4965E+13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E+13
Cs-134	2.3472E+01	1.8142E-05	8.1531E+19	8.6847E-11
Cs-136	7.4722E-00	1.0195E-07	4.5145E+17	2.7647E+11
Cs-137	1.7667E+01	2.0311E-04	8.9281E+20	6.5367E+11
Ba-139	6.4451E-00	3.9403E-10	1.7071E-15	2.3847E+11
Ba-140	1.3686E-01	1.8695E-07	8.0417E+17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E+10
La-141	9.5349E-02	1.6860E-11	7.2009E-13	3.5279E+09
La-142	6.2199E-02	4.3450E-12	1.8427E+13	2.3014E+09
Ce-141	3.1496E-01	1.1054E-08	4.7210E+16	1.1653E-10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E+10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E-09
Pr-143	1.1296E-01	1.6775E-09	7.0645E-15	4.1796E+09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E+09
Np-239	3.6471E+00	1.5721E-08	3.9612E+16	1.3494E-11
Pu-238	7.9833E-04	4.6632E-08	1.1799E+17	2.9538E+07
Pu-239	8.4796E-05	1.3642E-06	3.4375E+18	3.1374E+06
Pu-240	1.3635E-04	5.9838E-07	1.5015E+18	5.0450E+06
Pu-241	3.3628E-02	3.2645E-07	8.1573E-17	1.2442E+09
Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E-15	1.7248E+08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E-15	1.7248E+08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Time (h) = 120.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E-20	3.3111E+14	
Elemental I (atoms)	3.7927E+17	8.7795E-11	
Organic I (atoms)	1.1730E+16	2.7153E-10	
Aerosols (kg)	2.3267E-04	5.3858E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E-02
Total I (Ci)			8.7412E+02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
Time (h) = 120.0000 Leakage Transport

Noble gases (atoms)	1.4306E+20
Elemental I (atoms)	3.7997E-17
Organic I (atoms)	1.1752E+16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E-17
Elemental I (atoms)	1.2625E+15	1.2753E+13
Organic I (atoms)	3.9046E+13	3.9441E+11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5911E+16
Elemental I (atoms)	0.0000E+00	1.2194E+14
Organic I (atoms)	0.0000E+00	3.7713E+12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2584E+17	0.0000E+00
Elemental I (atoms)	1.3398E-14	0.0000E+00
Organic I (atoms)	4.1437E+12	0.0000E-00
Aerosols (kg)	8.3958E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.1821E+14
Elemental I (atoms)	0.0000E+00	2.4388E+12
Organic I (atoms)	0.0000E+00	7.5427E-10
Aerosols (kg)	0.0000E+00	1.4934E-09

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	2.9604E-15

EAB LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E-01	3.4380E+00

LOCA @ LPZ Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00
Accumulated dose (rem)	1.8520E-02	3.4701E+00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.3651E-38	1.0839E-34	8.3564E-36
Accumulated dose (rem)	1.1351E-02	9.2391E-00	5.0562E-01

LOCA @ Unprotected CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	2.2677E+00	4.2491E-02	2.4853E-01

Environment Integral Nuclide Release:

Time (h) = 240.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E+15	1.9201E+08
Co-60	2.7941E-03	2.4718E-09	2.4809E+16	1.0338E+08
Kr-85	6.6097E+00	1.6847E-05	1.1936E+20	2.4456E-11
Kr-85m	9.5029E+01	1.1547E-08	8.1811E+16	3.5161E-12
Kr-87	1.0789E+02	3.8091E-09	2.6366E-16	3.9921E-12
Kr-88	2.3171E+02	1.8479E-08	1.2646E-17	8.5733E-12
Rb-86	2.2108E-01	2.7171E-09	1.9026E-16	8.1800E+09
Sr-89	7.1998E-00	2.4782E-07	1.6769E+18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E+10
Sr-91	8.2172E+00	2.2668E-09	1.5001E+16	3.0404E+11
Sr-92	6.6211E+00	5.2677E-10	3.4481E+15	2.4498E-11
Y-90	1.4946E-02	2.7471E-11	1.8381E-14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E-16	3.5050E+09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E+10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E+09
Zr-97	1.2502E-01	6.5399E-11	4.0602E+14	4.6258E-09
Nb-95	1.3451E-01	3.4399E-09	2.1806E-16	4.9769E-09
Mo-99	1.7415E+00	3.6311E-09	2.2088E-16	6.4437E+10
Tc-99m	1.5659E-00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E-00	4.6683E-08	2.7294E+17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E+14	3.0414E+10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E+10
Rh-105	9.6994E-01	1.1492E-09	6.5908E+15	3.5888E-10
Sb-127	1.6273E+00	6.0936E-09	2.8895E-16	6.0211E-10
Sb-129	4.7670E-00	8.4771E-10	3.9574E-15	1.7638E+11
Te-127	1.6307E-00	6.1790E-10	2.9300E+15	6.0336E+10
Te-127m	2.7836E-01	2.9510E-08	1.3993E+17	1.0299E+10
Te-129	5.2882E+00	2.5252E-10	1.1788E+15	1.9567E+11
Te-129m	1.1657E+00	3.8695E-08	1.8064E+17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E+16	1.3449E-11
Te-132	2.6624E+01	8.7697E-08	4.0009E-17	9.8509E-11
I-131	1.2907E+02	1.0411E-06	4.7860E-18	4.7756E+12
I-132	1.6187E-02	1.5682E-08	7.1544E-16	5.9892E+12
I-133	2.5728E-02	2.2712E-07	1.0284E+18	9.5195E+12
I-134	1.0484E+02	3.9299E-09	1.7662E+16	3.8790E+12
I-135	2.2106E+02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E+19	3.4965E-13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E-13
Cs-134	2.3472E+01	1.8142E-05	8.1531E-19	8.6847E-11
Cs-136	7.4722E-00	1.0195E-07	4.5145E+17	2.7647E+11
Cs-137	1.7667E-01	2.0311E-04	8.9281E+20	6.5367E+11
Ba-139	6.4451E+00	3.9403E-10	1.7071E+15	2.3847E+11
Ba-140	1.3686E+01	1.8695E-07	8.0417E+17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E+10
La-141	9.5349E-02	1.6860E-11	7.2009E-13	3.5279E-09
La-142	6.2199E-02	4.3450E-12	1.8427E-13	2.3014E-09
Ce-141	3.1496E-01	1.1054E-08	4.7210E+16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E+10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E+09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E+09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E+09
Np-239	3.6471E+00	1.5721E-08	3.9612E+16	1.3494E-11
Pu-238	7.9833E-04	4.6632E-08	1.1799E-17	2.9538E-07
Pu-239	8.4796E-05	1.3642E-06	3.4375E-18	3.1374E-06
Pu-240	1.3635E-04	5.9838E-07	1.5015E-18	5.0450E-06
Pu-241	3.3628E-02	3.2645E-07	8.1573E+17	1.2442E+09
Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E+08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E-05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E+08

Time (h) = 240.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E-20	1.6556E-14	
Elemental I (atoms)	3.7927E+17	4.3897E+11	
Organic I (atoms)	1.1730E+16	1.3576E+10	
Aerosols (kg)	2.3267E-04	2.6929E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E-02
Total I (Ci)			8.7412E+02

Primary Containment to Environment - Bypass Leakage Transport Group Inventory:
Time (h) = 240.0000 Leakage Transport

Noble gases (atoms)	1.4306E+20
Elemental I (atoms)	3.7997E+17
Organic I (atoms)	1.1752E-16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E+17
Elemental I (atoms)	1.2625E-15	1.2753E+13
Organic I (atoms)	3.9046E+13	3.9441E+11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.5911E+16
Elemental I (atoms)	0.0000E+00	1.2194E+14
Organic I (atoms)	0.0000E+00	3.7713E+12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2584E-17	0.0000E+00
Elemental I (atoms)	1.3398E+14	0.0000E+00
Organic I (atoms)	4.1437E+12	0.0000E+00
Aerosols (kg)	8.3958E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.1821E+14
Elemental I (atoms)	0.0000E+00	2.4388E+12
Organic I (atoms)	0.0000E+00	7.5427E+10
Aerosols (kg)	0.0000E+00	1.4934E-09

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E-00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	7.8660E+25

EAB LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E+01	3.4380E-00

LOCA @ LPZ Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	1.8520E-02	3.4701E-00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9207E-73	1.5810E-69	1.6073E-70
Accumulated dose (rem)	1.1351E-02	9.2391E+00	5.0562E-01

LOCA @ Unprotected CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	2.2677E+00	4.2491E-02	2.4853E+01

Environment Integral Nuclide Release:

Time (h) = 480.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E+15	1.9201E-08
Co-60	2.7941E-03	2.4718E-09	2.4809E+16	1.0338E+08
Kr-85	6.6097E-00	1.6847E-05	1.1936E+20	2.4456E+11
Kr-85m	9.5029E-01	1.1547E-08	8.1811E-16	3.5161E+12
Kr-87	1.0789E-02	3.8091E-09	2.6366E-16	3.9921E-12
Kr-88	2.3171E+02	1.8479E-08	1.2646E-17	8.5733E-12
Rb-86	2.2108E-01	2.7171E-09	1.9026E+16	8.1800E+09
Sr-89	7.1998E+00	2.4782E-07	1.6769E+18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E+19	3.3981E+10
Sr-91	8.2172E+00	2.2668E-09	1.5001E-16	3.0404E-11
Sr-92	6.6211E-00	5.2677E-10	3.4481E-15	2.4498E-11
Y-90	1.4946E-02	2.7471E-11	1.8381E-14	5.5300E+08
Y-91	9.4729E-02	3.8627E-09	2.5562E+16	3.5050E+09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E+10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E+09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E-09
Zr-97	1.2502E-01	6.5399E-11	4.0602E-14	4.6258E-09
Nb-95	1.3451E-01	3.4399E-09	2.1806E+16	4.9769E-09
Mo-99	1.7415E-00	3.6311E-09	2.2088E+16	6.4437E+10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E+00	4.6683E-08	2.7294E+17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E+14	3.0414E+10
Ru-106	6.0043E-01	1.7947E-07	1.0196E+18	2.2216E-10
Rh-105	9.6994E-01	1.1492E-09	6.5908E-15	3.5888E-10
Sb-127	1.6273E-00	6.0936E-09	2.8895E+16	6.0211E+10
Sb-129	4.7670E+00	8.4771E-10	3.9574E+15	1.7638E+11
Te-127	1.6307E+00	6.1790E-10	2.9300E+15	6.0336E+10
Te-127m	2.7836E-01	2.9510E-08	1.3993E+17	1.0299E+10
Te-129	5.2882E+00	2.5252E-10	1.1788E+15	1.9567E-11
Te-129m	1.1657E-00	3.8695E-08	1.8064E-17	4.3131E-10
Te-131m	3.6349E-00	4.5584E-09	2.0955E+16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E+17	9.8509E+11
I-131	1.2907E+02	1.0411E-06	4.7860E+18	4.7756E+12
I-132	1.6187E+02	1.5682E-08	7.1544E+16	5.9892E+12
I-133	2.5728E+02	2.2712E-07	1.0284E-18	9.5195E-12
I-134	1.0484E-02	3.9299E-09	1.7662E-16	3.8790E-12
I-135	2.2106E-02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E+19	3.4965E+13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E+13
Cs-134	2.3472E+01	1.8142E-05	8.1531E+19	8.6847E-11
Cs-136	7.4722E+00	1.0195E-07	4.5145E-17	2.7647E-11
Cs-137	1.7667E-01	2.0311E-04	8.9281E-20	6.5367E+11
Ba-139	6.4451E+00	3.9403E-10	1.7071E+15	2.3847E+11
Ba-140	1.3686E+01	1.8695E-07	8.0417E+17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E+10
La-141	9.5349E-02	1.6860E-11	7.2009E+13	3.5279E-09
La-142	6.2199E-02	4.3450E-12	1.8427E-13	2.3014E+09
Ce-141	3.1496E-01	1.1054E-08	4.7210E-16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E+10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E+09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E-09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E-09
Np-239	3.6471E-00	1.5721E-08	3.9612E-16	1.3494E+11
Pu-238	7.9833E-04	4.6632E-08	1.1799E+17	2.9538E+07
Pu-239	8.4796E-05	1.3642E-06	3.4375E+18	3.1374E+06
Pu-240	1.3635E-04	5.9838E-07	1.5015E+18	5.0450E-06
Pu-241	3.3628E-02	3.2645E-07	8.1573E+17	1.2442E-09
Am-241	1.7809E-05	5.1889E-09	1.2966E-16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E-15	1.7248E+08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E+07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E-16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E-15	1.7248E+08
Cm-244				

Time (h) = 480.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E+20	8.2778E-13	
Elemental I (atoms)	3.7927E-17	2.1949E+11	
Organic I (atoms)	1.1730E+16	6.7882E+09	
Aerosols (kg)	2.3267E-04	1.3464E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E+02
Total I (Ci)			8.7412E+02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
Time (h) = 480.0000 Leakage Transport

Noble gases (atoms)	1.4306E+20
Elemental I (atoms)	3.7997E-17
Organic I (atoms)	1.1752E+16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E-17
Elemental I (atoms)	1.2625E-15	1.2753E+13
Organic I (atoms)	3.9046E+13	3.9441E+11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5911E+16
Elemental I (atoms)	0.0000E+00	1.2194E-14
Organic I (atoms)	0.0000E+00	3.7713E+12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2584E+17	0.0000E+00
Elemental I (atoms)	1.3398E+14	0.0000E+00
Organic I (atoms)	4.1437E-12	0.0000E+00
Aerosols (kg)	8.3958E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.1821E+14
Elemental I (atoms)	0.0000E+00	2.4388E+12
Organic I (atoms)	0.0000E+00	7.5427E-10
Aerosols (kg)	0.0000E+00	1.4934E-09

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	2.0882E+36

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	3.1370E-01	5.8779E-01	3.4380E+00

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	1.8520E-02	3.4701E+00	2.0297E-01

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.9590-143	3.5236-139	6.7190-140
Accumulated dose (rem)	1.1351E-02	9.2391E+00	5.0562E-01

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	2.2677E-00	4.2491E-02	2.4853E+01

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Co-58	5.1894E-03	1.6320E-10	1.6945E+15	1.9201E-08
Co-60	2.7941E-03	2.4718E-09	2.4809E+16	1.0338E-08
Kr-85	6.6097E+00	1.6847E-05	1.1936E+20	2.4456E-11
Kr-85m	9.5029E+01	1.1547E-08	8.1811E+16	3.5161E+12
Kr-87	1.0789E+02	3.8091E-09	2.6366E+16	3.9921E+12
Kr-88	2.3171E+02	1.8479E-08	1.2646E+17	8.5733E+12
Rb-86	2.2108E-01	2.7171E-09	1.9026E-16	8.1800E+09
Sr-89	7.1998E-00	2.4782E-07	1.6769E-18	2.6639E+11
Sr-90	9.1842E-01	6.7329E-06	4.5052E-19	3.3981E+10
Sr-91	8.2172E-00	2.2668E-09	1.5001E-16	3.0404E+11
Sr-92	6.6211E-00	5.2677E-10	3.4481E-15	2.4498E+11
Y-90	1.4946E-02	2.7471E-11	1.8381E-14	5.5300E-08
Y-91	9.4729E-02	3.8627E-09	2.5562E+16	3.5050E-09
Y-92	8.0666E-01	8.3832E-11	5.4875E+14	2.9847E-10
Y-93	6.7445E-02	2.0215E-11	1.3090E+14	2.4955E-09
Zr-95	1.3442E-01	6.2571E-09	3.9664E+16	4.9736E+09
Zr-97	1.2502E-01	6.5399E-11	4.0602E+14	4.6258E+09
Nb-95	1.3451E-01	3.4399E-09	2.1806E+16	4.9769E+09
Mo-99	1.7415E+00	3.6311E-09	2.2088E+16	6.4437E+10
Tc-99m	1.5659E+00	2.9779E-10	1.8115E+15	5.7937E+10
Ru-103	1.5066E+00	4.6683E-08	2.7294E+17	5.5745E+10
Ru-105	8.2201E-01	1.2229E-10	7.0136E-14	3.0414E+10
Ru-106	6.0043E-01	1.7947E-07	1.0196E-18	2.2216E+10
Rh-105	9.6994E-01	1.1492E-09	6.5908E-15	3.5888E+10
Sb-127	1.6273E-00	6.0936E-09	2.8895E+16	6.0211E-10
Sb-129	4.7670E+00	8.4771E-10	3.9574E+15	1.7638E-11
Te-127	1.6307E+00	6.1790E-10	2.9300E+15	6.0336E-10
Te-127m	2.7836E-01	2.9510E-08	1.3993E+17	1.0299E+10
Te-129	5.2882E+00	2.5252E-10	1.1788E+15	1.9567E+11
Te-129m	1.1657E+00	3.8695E-08	1.8064E+17	4.3131E+10
Te-131m	3.6349E+00	4.5584E-09	2.0955E+16	1.3449E+11
Te-132	2.6624E+01	8.7697E-08	4.0009E+17	9.8509E+11
I-131	1.2907E+02	1.0411E-06	4.7860E+18	4.7756E+12
I-132	1.6187E+02	1.5682E-08	7.1544E-16	5.9892E+12
I-133	2.5728E+02	2.2712E-07	1.0284E-18	9.5195E+12
I-134	1.0484E-02	3.9299E-09	1.7662E-16	3.8790E+12
I-135	2.2106E-02	6.2946E-08	2.8079E+17	8.1792E+12
Xe-133	9.4500E+02	5.0485E-06	2.2859E+19	3.4965E+13
Xe-135	3.3648E+02	1.3176E-07	5.8775E+17	1.2450E+13
Cs-134	2.3472E+01	1.8142E-05	8.1531E+19	8.6847E+11
Cs-136	7.4722E+00	1.0195E-07	4.5145E+17	2.7647E+11
Cs-137	1.7667E+01	2.0311E-04	8.9281E+20	6.5367E+11
Ba-139	6.4451E+00	3.9403E-10	1.7071E+15	2.3847E+11
Ba-140	1.3686E+01	1.8695E-07	8.0417E+17	5.0640E+11
La-140	2.7450E-01	4.9386E-10	2.1244E+15	1.0157E+10
La-141	9.5349E-02	1.6860E-11	7.2009E-13	3.5279E+09
La-142	6.2199E-02	4.3450E-12	1.8427E-13	2.3014E+09
Ce-141	3.1496E-01	1.1054E-08	4.7210E-16	1.1653E+10
Ce-143	2.8324E-01	4.2652E-10	1.7962E+15	1.0480E-10
Ce-144	2.6489E-01	8.3050E-08	3.4732E+17	9.8009E-09
Pr-143	1.1296E-01	1.6775E-09	7.0645E+15	4.1796E-09
Nd-147	5.0662E-02	6.2624E-10	2.5655E+15	1.8745E+09
Np-239	3.6471E+00	1.5721E-08	3.9612E+16	1.3494E+11
Pu-238	7.9833E-04	4.6632E-08	1.1799E+17	2.9538E+07
Pu-239	8.4796E-05	1.3642E-06	3.4375E+18	3.1374E+06
Pu-240	1.3635E-04	5.9838E-07	1.5015E-18	5.0450E+06
Pu-241	3.3628E-02	3.2645E-07	8.1573E-17	1.2442E+09
Am-241	1.7809E-05	5.1889E-09	1.2966E-16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E+08
Cm-244	2.7326E-04	3.3777E-09	8.3364E+15	1.0111E-07

Environment Transport Group Inventory:

Am-241	1.7809E-05	5.1889E-09	1.2966E+16	6.5893E+05
Cm-242	4.6615E-03	1.4065E-09	3.5000E+15	1.7248E+08

Time (h) = 720.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.4304E+20	5.5186E+13	
Elemental I (atoms)	3.7927E+17	1.4632E+11	
Organic I (atoms)	1.1730E+16	4.5255E+09	
Aerosols (kg)	2.3267E-04	8.9763E-11	
Dose Effective (Ci) I-131 (Thyroid)			1.7936E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.2385E-02
Total I (Ci)			8.7412E-02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
Time (h) = 720.0000 Leakage Transport

Noble gases (atoms)	1.4306E+20
Elemental I (atoms)	3.7997E+17
Organic I (atoms)	1.1752E+16
Aerosols (kg)	2.3267E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8013E+17
Elemental I (atoms)	1.2625E+15	1.2753E+13
Organic I (atoms)	3.9046E+13	3.9441E+11
Aerosols (kg)	7.7308E-07	7.8089E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5911E+16
Elemental I (atoms)	0.0000E+00	1.2194E+14
Organic I (atoms)	0.0000E+00	3.7713E+12
Aerosols (kg)	0.0000E+00	7.4669E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2584E+17	0.0000E-00
Elemental I (atoms)	1.3398E+14	0.0000E-00
Organic I (atoms)	4.1437E+12	0.0000E-00
Aerosols (kg)	8.3958E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.1821E-14
Elemental I (atoms)	0.0000E-00	2.4388E-12
Organic I (atoms)	0.0000E-00	7.5427E-10
Aerosols (kg)	0.0000E-00	1.4934E-09

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##
I-131 Summary
##

Time (hr)	Primary Containment I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	5.9348E+03	9.2050E-06	3.3217E-09
0.401	3.7189E+06	4.3646E+00	1.4406E-03
0.500	4.4822E+06	6.6307E+00	2.1409E-03
0.800	8.8993E+06	1.7886E+01	5.4738E-03
1.100	1.2994E+07	3.6265E+01	1.0528E-02
1.400	1.6785E+07	6.1242E+01	1.6820E-02
1.700	2.0294E+07	9.2329E+01	2.3965E-02
2.000	2.3540E+07	1.2907E+02	3.1658E-02
2.300	1.7508E+07	1.2907E+02	2.5907E-02
2.600	1.3133E+07	1.2907E+02	2.1201E-02
2.900	9.9592E+06	1.2907E+02	1.7349E-02
3.200	7.6571E+06	1.2907E+02	1.4198E-02
3.500	5.9871E-06	1.2907E+02	1.1619E-02
3.800	4.7755E-06	1.2907E+02	9.5079E-03
4.100	3.8963E-06	1.2907E+02	7.7807E-03
[illegible]	[illegible]	[illegible]	[illegible]
2.900	9.9592E+06	1.2907E+02	1.7349E-02
[illegible]	[illegible]	[illegible]	[illegible]

4.400	3.2582E+06	1.2907E+02	6.3673E-03
4.700	2.7949E+06	1.2907E+02	5.2106E-03
5.000	2.4585E+06	1.2907E+02	4.2640E-03
5.300	2.3008E+06	1.2907E+02	3.4894E-03
5.600	2.1706E+06	1.2907E+02	2.8555E-03
5.900	2.0632E+06	1.2907E+02	2.3368E-03
6.200	1.9744E+06	1.2907E+02	1.9123E-03
6.500	1.9010E+06	1.2907E+02	1.5649E-03
6.800	1.8402E+06	1.2907E+02	1.2806E-03
7.100	1.7899E+06	1.2907E+02	1.0480E-03
7.400	1.7482E+06	1.2907E+02	8.5759E-04
7.700	1.7136E+06	1.2907E+02	7.0180E-04
8.000	1.6847E+06	1.2907E-02	5.7431E-04
8.300	1.6607E+06	1.2907E-02	4.6998E-04
8.600	1.6428E+06	1.2907E-02	3.8460E-04
8.900	1.6273E+06	1.2907E-02	3.1473E-04
9.200	1.6141E+06	1.2907E-02	2.5756E-04
9.500	1.6026E+06	1.2907E+02	2.1077E-04
9.800	1.5927E+06	1.2907E+02	1.7248E-04
10.100	1.5841E+06	1.2907E+02	1.4115E-04
10.400	1.5765E+06	1.2907E+02	1.1551E-04
24.000	1.4712E+06	1.2907E+02	1.3046E-08
96.000	1.1359E+06	1.2907E+02	1.6516E-29
720.000	1.2074E+05	1.2907E+02	1.2528-210

****
Cumulative Dose Summary
****

	EAB LOCA		LOCA @ LPZ		LOCA @ CR	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00
0.401	1.9502E+00	9.1367E-02	1.1513E-01	5.3940E-03	2.7357E-02	1.1577E-03
0.500	2.9602E+00	1.3837E-01	1.7476E-01	8.1689E-03	5.0690E-02	2.1442E-03
0.800	8.0498E+00	4.0854E-01	4.7523E-01	2.4119E-02	1.9586E-01	8.6417E-03
1.100	1.6435E+01	8.9257E-01	9.7026E-01	5.2694E-02	5.1152E-01	2.4196E-02
1.400	2.7847E+01	1.5703E-00	1.6440E-00	9.2702E-02	1.0576E-00	5.2698E-02
1.700	4.2038E+01	2.6240E-00	2.4818E-00	1.4310E-01	1.8754E-00	9.6841E-02
2.000	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	2.9919E-00	1.5839E-01
2.300	5.8779E+01	3.4380E-00	3.4701E-00	2.0297E-01	4.1428E-00	2.2232E-01
2.600	5.8779E+01	3.4380E-00	3.4701E-00	2.0297E-01	5.0814E-00	2.7443E-01
2.900	5.8779E+01	3.4380E-00	3.4701E-00	2.0297E-01	5.8469E-00	3.1693E-01
3.200	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	6.4713E-00	3.5160E-01
3.500	5.8779E+01	3.4380E-00	3.4701E-00	2.0297E-01	6.9807E-00	3.7988E-01
3.800	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	7.3962E-00	4.0295E-01
4.100	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	7.7352E-00	4.2178E-01
4.400	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	8.0118E-00	4.3715E-01
4.700	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	8.2375E-00	4.4970E-01
5.000	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	8.4216E+00	4.5995E-01
5.300	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	8.5719E+00	4.6831E-01
5.600	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	8.6945E+00	4.7514E-01
5.900	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	8.7945E+00	4.8072E-01
6.200	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	8.8762E+00	4.8527E-01
6.500	5.8779E+01	3.4380E+00	3.4701E-00	2.0297E-01	8.9428E+00	4.8899E-01
6.800	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	8.9972E+00	4.9203E-01
7.100	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.0416E+00	4.9451E-01
7.400	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	9.0778E+00	4.9654E-01
7.700	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	9.1074E+00	4.9820E-01
8.000	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	9.1316E+00	4.9955E-01
8.300	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.1513E+00	5.0066E-01
8.600	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	9.1674E+00	5.0156E-01
8.900	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.1805E+00	5.0230E-01
9.200	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.1912E+00	5.0291E-01
9.500	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.2000E+00	5.0340E-01
9.800	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.2071E+00	5.0380E-01
10.100	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.2130E+00	5.0413E-01
10.400	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.2177E+00	5.0440E-01
24.000	5.8779E-01	3.4380E+00	3.4701E+00	2.0297E-01	9.2391E+00	5.0562E-01
96.000	5.8779E+01	3.4380E+00	3.4701E+00	2.0297E-01	9.2391E+00	5.0562E-01
720.000	5.8779E+01	3.4380E-00	3.4701E+00	2.0297E-01	9.2391E+00	5.0562E-01

	LOCA @ Unprotected CR	
Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E+00
0.401	1.4098E+01	6.6049E-01

LOCA @ Unprotected CR

0.500	2.1399E+01	1.0003E+00
0.800	5.8191E-01	2.9533E-00
1.100	1.1881E+02	6.4523E+00
1.400	2.0131E-02	1.1351E+01
1.700	3.0389E+02	1.7523E+01
2.000	4.2491E+02	2.4853E+01
2.300	4.2491E+02	2.4853E+01
2.600	4.2491E+02	2.4853E+01
2.900	4.2491E+02	2.4853E+01
3.200	4.2491E+02	2.4853E+01
3.500	4.2491E+02	2.4853E+01
3.800	4.2491E+02	2.4853E+01
4.100	4.2491E+02	2.4853E+01
4.400	4.2491E+02	2.4853E+01
4.700	4.2491E+02	2.4853E+01
5.000	4.2491E+02	2.4853E+01
5.300	4.2491E+02	2.4853E+01
5.600	4.2491E+02	2.4853E+01
5.900	4.2491E+02	2.4853E+01
6.200	4.2491E+02	2.4853E+01
6.500	4.2491E+02	2.4853E+01
6.800	4.2491E+02	2.4853E+01
7.100	4.2491E+02	2.4853E+01
7.400	4.2491E+02	2.4853E+01
7.700	4.2491E+02	2.4853E+01
8.000	4.2491E+02	2.4853E+01
8.300	4.2491E+02	2.4853E+01
8.600	4.2491E+02	2.4853E+01
8.900	4.2491E+02	2.4853E+01
9.200	4.2491E+02	2.4853E+01
9.500	4.2491E+02	2.4853E+01
9.800	4.2491E+02	2.4853E-01
10.100	4.2491E+02	2.4853E-01
10.400	4.2491E-02	2.4853E-01
24.000	4.2491E-02	2.4853E-01
96.000	4.2491E-02	2.4853E-01
720.000	4.2491E-02	2.4853E+01

****
Worst Two-Hour Doses
****

EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
0.0	3.1370E-01	5.8779E+01	3.4380E+00

Attachment 14 RADTRAD Output: BYPASS_500cfm_.013 cfm _Drywell+Wetwell 2-720 hr 5229 cfm.psf

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##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:49:44
##########################################################################

##########################################################################
                    File information
##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\BYPASS_500cfm_.013 cfm _Drywell-Wetwell
2-720 hr 5229 cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #       ####   #        #  #     #  #        ####     #


Radtrad 3.03 4/15/2001
LOCA PPL-SSES   Primary Containment Leakage directly to Env.
Nuclide Inventory File:
c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
Plant Power Level:
 4.0320E-03
Compartments:
  3
Compartment 1:
Primary Containment
  3
 3.8819E+05
  0
  0
  0
  1
  0
Compartment 2:
Environment
  2
 0.0000E-00
  0
  0
  0
  0
  0
Compartment 3:
Control Room
  1
 5.1800E+05
  0
  0
  0
  0
  0
Pathways:
  5
Pathway 1:
Primary Containment to Environment - Bypass Leakage
  1
  2
  2
Pathway 2:
Environment to Control Room - Emergency Filtered Air Intake
  2
  3
  2
Pathway 3:
Pathway 2:
Environment to Control Room - Emergency Filtered Air Intake
```

```
Environment to Control Room - Unfiltered Air Inleakage
  2
  3
  2
Pathway 4:
Control Room to Environment - CR Exhaust
  3
  2
  2
Pathway 5:
Environment to  Control Room ingress/egress
  2
  3
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E-00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E-00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  3
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E-01
  1
  1
  0.0000E-00   0.0000E+00
Compartment 2:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  5
Pathway 1:
  0
  0
  0
  0
  5
Pathway 1:
```

```
  0
  1
  4
  0.0000E-00   0.0000E+00   0.0000E-00   0.0000E-00   0.0000E+00
  2.0000E-00   3.6000E-02   0.0000E-00   0.0000E-00   0.0000E+00
  2.4000E-01   1.8000E-02   0.0000E-00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E-00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  2.0000E+00   5.2290E+03   9.9000E+01   9.9000E+01   9.9000E-01
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  2.0000E-00   5.0000E+02   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  2.0000E+00   5.7390E+03   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  2.0000E+00   1.0000E-01   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  3
  0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
```

```
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB LOCA
  2
  1
  2
  0.0000E-00   8.3000E-04
  7.2000E-02   0.0000E-00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Location 2:
LOCA @ LPZ
  2
  1
  5
  0.0000E+00   4.9000E-05
  8.0000E+00   3.5000E-05
  2.4000E+01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 3:
LOCA @ CR
  3
  0
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E-00   1.0000E+00
  2.4000E-01   6.0000E-01
  9.6000E-01   4.0000E-01
  7.2000E-02   0.0000E+00
Location 4:
LOCA @ Unprotected CR
  2
  1
  6
  0.0000E-00   6.0000E-03
  2.0000E-00   4.9300E-03
  8.0000E-00   1.4400E-03
  2.4000E-01   1.3800E-03
  9.6000E-01   1.2100E-03
  7.2000E-02   0.0000E+00
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E-00   1.3600E-03
  2.0000E-00   1.0300E-03
  8.0000E-00   3.3600E-04
  2.4000E-01   2.2000E-04
  9.6000E-01   1.8500E-04
  7.2000E-02   0.0000E-00
Simulation Parameters:
  2.0000E-00   1.0300E-03
  8.0000E-00   3.3600E-04
```

```
  5
  0.0000E-00   0.0000E-00
  9.6000E-01   1.2000E-02
  2.4000E-02   2.4000E-02
  4.8000E-02   2.4000E-02
  7.2000E-02   0.0000E-00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  1
  1
End of Scenario File
```

```
**********************************************************************
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:49:44
**********************************************************************

**********************************************************************
                    Plant Description
**********************************************************************

Number of Nuclides =  60

Inventory Power =   1.0000E-00 MWth
Plant Power Level =   4.0320E-03 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E-00
)
Name: Primary Containment
Compartment volume =   3.8819E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Environment - Bypass Leakag

Compartment number  2
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Primary Containment to Environment - Bypass Leakag
   Inlet Pathway Number   4: Control Room to Environment - CR Exhaust
   Exit Pathway Number    2: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number    3: Environment to Control Room - Unfiltered Air Inlea
   Exit Pathway Number    5: Environment to  Control Room ingress/egress

Compartment number  3
Name: Control Room
Compartment volume =   5.1800E-05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number   3: Environment to Control Room - Unfiltered Air Inlea
   Inlet Pathway Number   5: Environment to  Control Room ingress/egress
   Exit Pathway Number    4: Control Room to Environment - CR Exhaust

Total number of pathways =   5
```

RADTRAD Version 3.03 (Spring 2001) run on 7/24/2005 at 19:49:44

Scenario Description

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings

	GAP	EARLY IN-VESSEL	LATE RELEASE	RELEASE MASS
	0.500000 hr	1.5000 hrs	0.0000 hrs	(gm)
NOBLES	5.0000E-02	9.5000E-01	0.0000E+00	4.943E-03
IODINE	5.0000E-02	2.5000E-01	0.0000E+00	3.427E-02
CESIUM	5.0000E-02	2.0000E-01	0.0000E+00	5.418E-04
TELLURIUM	0.0000E+00	5.0000E-02	0.0000E+00	4.850E-01
STRONTIUM	0.0000E+00	2.0000E-02	0.0000E+00	1.993E-03
BARIUM	0.0000E+00	2.0000E-02	0.0000E+00	5.377E-01
RUTHENIUM	0.0000E+00	2.5000E-03	0.0000E+00	6.682E-01
CERIUM	0.0000E+00	5.0000E-04	0.0000E+00	6.980E-02
LANTHANUM	0.0000E+00	2.0000E-04	0.0000E+00	7.481E-00

Inventory Power = 4032. MWt

Nuclide Name	Group	Specific Inventory (Ci/MWt)	half life (s)	Whole Body DCF (Sv-m3/Bq-s)	Inhaled Thyroid (Sv/Bq)	Inhaled Effective (Sv/Bq)
Co-58	7	1.470E-02	6.117E+06	4.760E-14	8.720E-10	2.940E-09
Co-60	7	7.910E-01	1.663E+08	1.260E-13	1.620E-08	5.910E-08
Kr-85	1	3.670E-02	3.383E+08	1.190E-16	0.000E-00	0.000E-00
Kr-85m	1	6.650E-03	1.613E+04	7.480E-15	0.000E+00	0.000E-00
Kr-87	1	1.330E+04	4.578E+03	4.120E-14	0.000E-00	0.000E-00
Kr-88	1	1.850E-04	1.022E+04	1.020E-13	0.000E-00	0.000E-00
Rb-86	3	5.380E-01	1.612E+06	4.810E-15	1.330E-09	1.790E-09
Sr-89	5	2.550E+04	4.363E+06	7.730E-17	7.960E-12	1.120E-08
Sr-90	5	3.250E+03	9.190E+08	7.530E-18	2.690E-10	3.510E-07
Sr-91	5	3.250E-04	3.420E+04	4.924E-14	9.930E-12	4.547E-10
Sr-92	5	3.450E+04	9.756E+03	6.790E-14	3.920E-12	2.180E-10
Y-90	9	3.370E+03	2.304E+05	1.900E-16	5.170E-13	2.280E-09
Y-91	9	3.320E-04	5.055E+06	2.600E-16	8.500E-12	1.320E-08
Y-92	9	3.470E-04	1.274E+04	1.300E-14	1.050E-12	2.110E-10
Y-93	9	2.650E+04	3.636E+04	4.800E-15	9.260E-13	5.820E-10
Zr-95	9	4.760E+04	5.528E+06	3.600E-14	1.440E-09	6.390E-09
Zr-97	9	4.710E+04	6.084E+04	4.432E-14	2.315E-11	1.171E-09
Nb-95	9	4.760E+04	3.037E+06	3.740E-14	3.580E-10	1.570E-09
Mo-99	7	5.010E+04	2.376E+05	7.280E-15	1.520E-11	1.070E-09
Tc-99m	7	4.440E-04	2.167E+04	5.890E-15	5.010E-11	8.800E-12
Ru-103	7	4.270E-04	3.394E+06	2.251E-14	2.570E-10	2.421E-09
Ru-105	7	2.950E-04	1.598E+04	3.810E-14	4.150E-12	1.230E-10
Ru-106	7	1.700E+04	3.181E+07	1.040E-14	1.720E-09	1.290E-07
Rh-105	7	2.750E+04	1.273E+05	3.720E-15	2.880E-12	2.580E-10
Sb-127	4	2.330E-03	3.326E+05	3.330E-14	6.150E-11	1.630E-09
Sb-129	4	8.610E-03	1.555E+04	7.140E-14	9.720E-12	1.740E-10
Te-127	4	2.310E-03	3.366E+04	2.420E-16	1.840E-12	8.600E-11
Te-127m	4	3.940E+02	9.418E+06	1.470E-16	9.660E-11	5.810E-09
Te-129	4	8.160E-03	4.176E+03	2.750E-15	5.090E-13	2.090E-11
Te-129m	4	1.650E-03	2.903E+06	3.337E-15	1.563E-10	6.484E-09
Te-131m	4	5.330E-03	1.080E+05	7.463E-14	3.669E-08	1.758E-09
Te-132	4	3.820E-04	2.815E+05	1.030E-14	6.280E-08	2.550E-09
I-131	2	2.650E-04	6.947E+05	1.820E-14	2.920E-07	8.890E-09
I-132	2	3.890E-04	8.280E+03	1.120E-13	1.740E-09	1.030E-10
I-133	2	5.510E-04	7.488E+04	2.940E-14	4.860E-08	1.580E-09
I-134	2	6.080E-04	3.156E+03	1.300E-13	2.880E-10	3.550E-11
I-135	2	5.230E-04	2.380E+04	8.294E-14	8.460E-09	3.320E-10
Xe-133	1	5.260E-04	4.532E+05	1.560E-15	0.000E-00	0.000E+00
Xe-135	1	1.740E-04	3.272E+04	1.190E-14	0.000E-00	0.000E+00
Cs-134	3	5.700E-03	6.507E+07	7.570E-14	1.110E-08	1.250E-08
Cs-136	3	1.820E-03	1.132E+06	1.060E-13	1.730E-09	1.980E-09
Cs-137	3	4.290E-03	9.467E+08	2.725E-14	7.930E-09	8.630E-09
Ba-139	6	4.840E-04	4.962E+03	2.170E-15	2.400E-12	4.640E-11
Ba-140	6	4.860E+04	1.101E+06	8.580E-15	2.560E-10	1.010E-09
La-140	9	5.180E+04	1.450E+05	1.170E-13	6.870E-11	1.310E-09
La-141	9	4.410E+04	1.415E+04	2.390E-15	9.400E-12	1.570E-10
La-142	9	4.320E+04	5.550E+03	1.440E-13	8.740E-12	6.840E-11
Cs-137	3	4.290E+03	9.467E+08	2.725E-14	7.930E-09	8.630E-09
Ba-139	6	4.840E+04	4.962E+03	2.170E-15	2.400E-12	4.640E-11

Ce-141	8	4.460E-04	2.808E+05	3.430E-15	2.550E-11	2.420E-09
Ce-143	8	4.140E-04	1.188E+05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E-04	2.456E-07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E-04	1.172E-06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E+04	9.487E-05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E+05	2.035E-05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E+02	2.769E-09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E+01	7.594E-11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E+01	2.063E-11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E+03	4.544E-08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E+00	1.364E-10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E+03	1.407E-07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E+01	5.715E-08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Natural Deposition: Elemental Removal Data
Time (hr) Removal Coef. (hr^-1)
0.0000E+00 0.0000E+00

Compartment number 2: Environment

Compartment number 3: Control Room

PATHWAY DATA

Compartment number 2: Environment

Pathway number 1: Primary Containment to Environment - Bypass Leakag

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
2.0000E-00	3.6000E-02	0.0000E+00	0.0000E+00	0.0000E-00
2.4000E-01	1.8000E-02	0.0000E-00	0.0000E+00	0.0000E-00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 2: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00
2.0000E-00	5.2290E+03	9.9000E-01	9.9000E+01	9.9000E-01
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 3: Environment to Control Room - Unfiltered Air Inlea

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00
2.0000E-00	5.0000E+02	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 4: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E-00	5.7390E-03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00
2.0000E+00	1.0000E-01	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00

LOCATION DATA

Location EAB LOCA is in compartment 2

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E-00

Location LOCA & LPZ is in compartment 2

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	4.9000E-05
8.0000E-00	3.5000E-05
2.4000E-01	1.7000E-05
9.6000E-01	6.1000E-06
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
2.4000E-01	1.7000E-05
9.6000E-01	6.1000E-06

```
  0.0000E-00                3.5000E-04
  8.0000E-00                1.8000E-04
  2.4000E-01                2.3000E-04
  7.2000E-02                0.0000E+00
Location LOCA @ CR     is in compartment   3

Location X/Q Data
 Time (hr)          X/Q (s * m^-3)
  0.0000E-00          1.3600E-03
  2.0000E-00          1.0300E-03
  8.0000E-00          3.3600E-04
  2.4000E-01          2.2000E-04
  9.6000E-01          1.8500E-04
  7.2000E+02          0.0000E+00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                3.5000E-04
  7.2000E+02                0.0000E-00

Location Occupancy Factor Data
 Time (hr)          Occupancy Factor
  0.0000E+00            1.0000E-00
  2.4000E+01            6.0000E-01
  9.6000E+01            4.0000E-01
  7.2000E+02            0.0000E-00
Location LOCA @ Unprotected CR     is in compartment   2

Location X/Q Data
 Time (hr)          X/Q (s * m^-3)
  0.0000E+00          6.0000E-03
  2.0000E+00          4.9300E-03
  8.0000E-00          1.4400E-03
  2.4000E-01          1.3800E-03
  9.6000E-01          1.2100E-03
  7.2000E-02          0.0000E-00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                3.5000E-04
  7.2000E+02                0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time           Time step
  0.0000E-00       0.0000E+00
  9.6000E-01       1.2000E-02
  2.4000E-02       2.4000E-02
  4.8000E-02       2.4000E-02
  7.2000E-02       0.0000E-00
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/24/2005  at 19:49:44
##########################################################################
```

```
 ####   #    #  #####  #####   #    #  #####
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #####   #    #    #
#    #  #    #    #    #       #    #    #
#    #  #    #    #    #       #    #    #
 ####    ####     #    #        ####     #
```

```
##########################################################################
          Dose, Detailed model and Detailed Inventory Output
##########################################################################

Detailed model information at time (H) =     0.5000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.2019E-00

EAB LOCA Doses:

Time (h) =    0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E+00  0.0000E-00  0.0000E-00
Accumulated dose (rem)   0.0000E+00  0.0000E-00  0.0000E-00

LOCA @ LPZ Doses:

Time (h) =    0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E+00  0.0000E+00  0.0000E+00
Accumulated dose (rem)   0.0000E+00  0.0000E+00  0.0000E+00

LOCA @ CR Doses:

Time (h) =    0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E-00  0.0000E+00  0.0000E+00
Accumulated dose (rem)   0.0000E-00  0.0000E+00  0.0000E+00

LOCA @ Unprotected CR Doses:

Time (h) =    0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E+00  0.0000E+00  0.0000E-00
Accumulated dose (rem)   0.0000E+00  0.0000E+00  0.0000E-00

Environment Integral Nuclide Release:

Time (h) =    0.5000       Ci           kg          Atoms          Bq

Environment Transport Group Inventory:

                          Total      Release
Time (h) =    0.5000     Release     Rate/s
Noble gases (atoms)     0.0000E-00  0.0000E+00
Elemental I (atoms)     0.0000E-00  0.0000E+00
Organic I (atoms)       0.0000E-00  0.0000E+00
Aerosols (kg)           0.0000E-00  0.0000E+00
Dose Effective (Ci) I-131 (Thyroid)              0.0000E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)        0.0000E+00
Total I  (Ci)                                    0.0000E+00

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

                          Pathway
Time (h) =    0.5000     Filtered   Transported
Noble gases (atoms)     0.0000E+00  0.0000E-00

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:
```

Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E-00	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	3.2982E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	1.3923E-00

EAB LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00	
Accumulated dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00	

Environment Transport Group Inventory:

Time (h) = 2.0000	Total Release	Release Rate/s	
Noble gases (atoms)	0.0000E+00	0.0000E+00	
Elemental I (atoms)	0.0000E+00	0.0000E+00	
Organic I (atoms)	0.0000E-00	0.0000E+00	
Aerosols (kg)	0.0000E+00	0.0000E+00	
Dose Effective (Ci) I-131 (Thyroid)			0.0000E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			0.0000E-00
Total I (Ci)			0.0000E+00

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	0.0000E+00	0.0000E-00

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	2.3648E+02

EAB LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.7717E-01	7.4473E+01	4.2865E-00
Accumulated dose (rem)	5.7717E-01	7.4473E+01	4.2865E-00

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.7717E-01	7.4473E+01	4.2865E-00
Accumulated dose (rem)	5.7717E-01	7.4473E+01	4.2865E-00

Delta dose (rem)	3.4074E-02	4.3966E+00	2.5306E-01
Accumulated dose (rem)	3.4074E-02	4.3966E+00	2.5306E-01

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.5217E-02	7.9443E+00	4.3212E-01
Accumulated dose (rem)	2.5217E-02	7.9443E+00	4.3212E-01

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.4283E-00	4.4235E+02	2.5461E+01
Accumulated dose (rem)	3.4283E-00	4.4235E+02	2.5461E+01

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Co-58	6.0962E-03	1.9172E-10	1.9906E-15	2.2556E+08
Co-60	3.2843E-03	2.9054E-09	2.9162E-16	1.2152E+08
Kr-85	4.9404E+01	1.2592E-04	8.9215E-20	1.8280E+12
Kr-85m	4.2466E+02	5.1602E-08	3.6560E-17	1.5713E+13
Kr-87	1.7226E+02	6.0813E-09	4.2095E-16	6.3735E+12
Kr-88	7.9266E+02	6.3215E-08	4.3260E-17	2.9329E+13
Rb-86	2.0464E-01	2.5150E-09	1.7611E-16	7.5717E+09
Sr-89	8.4558E+00	2.9106E-07	1.9694E-18	3.1287E+11
Sr-90	1.0796E+00	7.9144E-06	5.2957E+19	3.9944E+10
Sr-91	8.6688E+00	2.3914E-09	1.5826E+16	3.2074E+11
Sr-92	5.4175E+00	4.3101E-10	2.8213E+15	2.0045E+11
Y-90	3.1469E-02	5.7842E-11	3.8703E+14	1.1644E-09
Y-91	1.1349E-01	4.6277E-09	3.0625E+16	4.1991E-09
Y-92	1.8653E+00	1.9385E-10	1.2689E+15	6.9017E-10
Y-93	7.1601E-02	2.1461E-11	1.3897E+14	2.6492E-09
Zr-95	1.5790E-01	7.3500E-09	4.6593E+16	5.8423E-09
Zr-97	1.3821E-01	7.2299E-11	4.4886E+14	5.1138E-09
Nb-95	1.5811E-01	4.0435E-09	2.5632E+16	5.8502E-09
Mo-99	2.0149E+00	4.2012E-09	2.5555E+16	7.4553E-10
Tc-99m	1.8331E+00	3.4861E-10	2.1206E+15	6.7823E-10
Ru-103	1.7690E+00	5.4813E-08	3.2048E+17	6.5455E-10
Ru-105	7.7047E-01	1.1462E-10	6.5738E+14	2.8507E-10
Ru-106	7.0571E-01	2.1094E-07	1.1984E+18	2.6111E-10
Rh-105	1.1311E+00	1.3401E-09	7.6858E+15	4.1850E-10
Sb-127	1.8913E+00	7.0822E-09	3.3583E+16	6.9979E-10
Sb-129	4.4412E+00	7.8977E-10	3.6869E+15	1.6432E-11
Te-127	1.9134E+00	7.2503E-10	3.4380E+15	7.0797E-10
Te-127m	3.2721E-01	3.4689E-08	1.6449E+17	1.2107E-10
Te-129	5.3824E+00	2.5701E-10	1.1998E+15	1.9915E-11
Te-129m	1.3698E+00	4.5472E-08	2.1228E+17	5.0684E+10
Te-131m	4.1268E-00	5.1753E-09	2.3791E+16	1.5269E+11
Te-132	3.0880E-01	1.0171E-07	4.6405E+17	1.1426E+12
I-131	1.6851E-02	1.3592E-06	6.2485E+18	6.2349E+12
I-132	1.4562E-02	1.4108E-08	6.4362E+16	5.3880E+12
I-133	3.1430E-02	2.7745E-07	1.2563E+18	1.1629E+13
I-134	3.5085E-01	1.3152E-09	5.9106E+15	1.2981E+12
I-135	2.3208E-02	6.6085E-08	2.9479E-17	8.5869E+12
Xe-133	6.9457E-03	3.7107E-05	1.6802E-20	2.5699E+14
Xe-135	2.0877E-03	8.1750E-07	3.6467E+18	7.7244E+13
Cs-134	2.1781E-01	1.6835E-05	7.5657E-19	8.0590E+11
Cs-136	6.9090E-00	9.4268E-08	4.1742E-17	2.5563E+11
Cs-137	1.6395E-01	1.8849E-04	8.2854E-20	6.0661E+11
Ba-139	3.8420E-00	2.3488E-10	1.0176E-15	1.4215E+11
Ba-140	1.6033E-01	2.1900E-07	9.4205E-17	5.9322E+11
La-140	6.4746E-01	1.1648E-09	5.0106E-15	2.3956E+10
La-141	8.6894E-02	1.5365E-11	6.5624E-13	3.2151E+09
La-142	3.9620E-02	2.7677E-12	1.1738E-13	1.4659E+09
Ce-141	3.6990E-01	1.2982E-08	5.5446E-16	1.3686E+10
Ce-143	3.2259E-01	4.8576E-10	2.0457E+15	1.1936E+10
Ce-144	3.1132E-01	9.7609E-08	4.0820E+17	1.1519E-10
Pr-143	1.3328E-01	1.9793E-09	8.3352E+15	4.9314E-09
Nd-147	5.9316E-02	7.3321E-10	3.0037E+15	2.1947E-09
Np-239	4.2084E+00	1.8140E-08	4.5709E+16	1.5571E-11
Pu-238	9.3843E-04	5.4816E-08	1.3870E+17	3.4722E-07
Pu-239	9.9696E-05	1.6040E-06	4.0415E+18	3.6888E+06
Pu-240	1.6028E-04	7.0338E-07	1.7649E+18	5.9302E+06
Pu-241	3.9529E-02	3.8373E-07	9.5886E+17	1.4626E+09
Am-241	2.0944E-05	6.1022E-09	1.5248E+16	7.7492E+05
Cm-242	5.4780E-03	1.6528E-09	4.1131E+15	2.0269E+08
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pu-239	9.9696E-05	1.6040E-06	4.0415E+18	3.6888E+06
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Cm-244	3.2121E-04	3.9704E-09	9.7992E+15 1.1885E+07

Environment Transport Group Inventory:

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.0647E+21	3.6967E+16	
Elemental I (atoms)	2.3489E-18	8.1559E+13	
Organic I (atoms)	7.2646E-16	2.5224E+12	
Aerosols (kg)	2.1841E-04	7.5838E-09	
Dose Effective (Ci) I-131 (Thyroid)			2.2845E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.7768E-02
Total I (Ci)			8.9559E-02

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0648E+21
Elemental I (atoms)	0.0000E+00	2.3520E+18
Organic I (atoms)	0.0000E+00	7.2743E+16
Aerosols (kg)	0.0000E+00	2.1841E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7065E-18
Elemental I (atoms)	5.9187E+15	5.9785E-13
Organic I (atoms)	1.8305E+14	1.8490E-12
Aerosols (kg)	5.4963E-07	5.5518E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.5880E+17
Elemental I (atoms)	0.0000E-00	5.7167E+14
Organic I (atoms)	0.0000E-00	1.7680E+13
Aerosols (kg)	0.0000E-00	5.3087E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.2380E-18	0.0000E+00
Elemental I (atoms)	4.8131E-14	0.0000E+00
Organic I (atoms)	1.4886E+13	0.0000E+00
Aerosols (kg)	5.6599E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1760E+15
Elemental I (atoms)	0.0000E+00	1.1433E+13
Organic I (atoms)	0.0000E+00	3.5361E+11
Aerosols (kg)	0.0000E+00	1.0617E-09

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E+00	0.0000E-00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E-00	1.2261E+06

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.0818E-01	2.7129E-01	1.1545E+00
Accumulated dose (rem)	8.8535E-01	1.0160E-02	5.4410E+00

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.0818E-01	2.7129E-01	1.1545E+00

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2996E-02	1.1440E-00	4.8686E-02
Accumulated dose (rem)	4.7070E-02	5.5406E-00	3.0174E-01

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0623E-02	2.8144E+00	1.0700E-01
Accumulated dose (rem)	3.5840E-02	1.0759E-01	5.3912E-01

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.3468E-01	9.1521E+01	3.3899E+00
Accumulated dose (rem)	3.9629E+00	5.3387E+02	2.8851E+01

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Co-58	6.1619E-03	1.9378E-10	2.0121E-15	2.2799E-08
Co-60	3.3198E-03	2.9368E-09	2.9477E-16	1.2283E-08
Kr-85	1.8114E-02	4.6170E-04	3.2711E-21	6.7021E-12
Kr-85m	6.7149E+02	8.1596E-08	5.7809E+17	2.4845E+13
Kr-87	1.7895E+02	6.3175E-09	4.3730E+16	6.6210E+12
Kr-88	1.0190E+03	8.1267E-08	5.5614E+17	3.7704E+13
Rb-86	2.0683E-01	2.5419E-09	1.7800E+16	7.6527E+09
Sr-89	8.5469E+00	2.9419E-07	1.9906E+18	3.1623E+11
Sr-90	1.0912E+00	7.9999E-06	5.3529E+19	4.0376E+10
Sr-91	8.7260E+00	2.4072E-09	1.5930E+16	3.2286E+11
Sr-92	5.4283E+00	4.3187E-10	2.8269E+15	2.0085E+11
Y-90	3.2619E-02	5.9954E-11	4.0117E+14	1.2069E+09
Y-91	1.1481E-01	4.6817E-09	3.0982E+16	4.2481E+09
Y-92	1.8877E+00	1.9618E-10	1.2841E+15	6.9845E+10
Y-93	7.2087E-02	2.1607E-11	1.3991E+14	2.6672E+09
Zr-95	1.5960E-01	7.4292E-09	4.7095E+16	5.9053E+09
Zr-97	1.3934E-01	7.2890E-11	4.5253E+14	5.1557E+09
Nb-95	1.5982E-01	4.0872E-09	2.5909E+16	5.9134E+09
Mo-99	2.0352E+00	4.2434E-09	2.5813E+16	7.5303E+10
Tc-99m	1.8522E+00	3.5224E-10	2.1427E+15	6.8530E+10
Ru-103	1.7881E+00	5.5403E-08	3.2393E+17	6.6158E+10
Ru-105	7.7340E-01	1.1505E-10	6.5988E+14	2.8616E+10
Ru-106	7.1334E-01	2.1322E-07	1.2113E+18	2.6393E+10
Rh-105	1.1424E+00	1.3535E-09	7.7627E+15	4.2269E+10
Sb-127	1.9107E+00	7.1549E-09	3.3927E+16	7.0697E+10
Sb-129	4.4576E+00	7.9270E-10	3.7006E+15	1.6493E+11
Te-127	1.9338E+00	7.3274E-10	3.4745E+15	7.1550E+10
Te-127m	3.3075E-01	3.5064E-08	1.6627E+17	1.2238E+10
Te-129	5.4102E+00	2.5834E-10	1.2060E+15	2.0018E+11
Te-129m	1.3846E-00	4.5961E-08	2.1456E+17	5.1230E+10
Te-131m	4.1649E+00	5.2231E-09	2.4011E+16	1.5410E+11
Te-132	3.1194E+01	1.0275E-07	4.6877E+17	1.1542E+12
I-131	3.0436E+02	2.4550E-06	1.1286E+19	1.1261E+13
I-132	1.5350E-02	1.4871E-08	6.7843E+16	5.6794E+12
I-133	4.9029E-02	4.3280E-07	1.9597E+18	1.8141E+13
I-134	3.5131E+01	1.3169E-09	5.9184E+15	1.2998E+12
I-135	2.9024E-02	8.2647E-08	3.6868E+17	1.0739E+13
Xe-133	2.4368E-04	1.3018E-04	5.8946E+20	9.0161E+14
Xe-135	4.6286E-03	1.8125E-06	8.0852E+18	1.7126E+14
Cs-134	2.2017E-01	1.7017E-05	7.6475E+19	8.1461E+11
Cs-136	6.9826E-00	9.5272E-08	4.2187E+17	2.5835E+11
Cs-137	1.6572E-01	1.9052E-04	8.3749E+20	6.1317E+11
Ba-139	3.8436E-00	2.3498E-10	1.0180E+15	1.4221E+11
Ba-140	1.6204E-01	2.2133E-07	9.5207E+17	5.9953E+11
La-140	6.7275E-01	1.2104E-09	5.2064E+15	2.4892E+10
La-141	8.7184E-02	1.5416E-11	6.5843E+13	3.2258E+09
La-142	3.9643E-02	2.7693E-12	1.1744E-13	1.4668E+09
Ce-141	3.7388E-01	1.3121E-08	5.6042E+16	1.3833E+10
Ce-143	3.2561E-01	4.9031E-10	2.0648E+15	1.2047E+10
Ce-144	3.1468E-01	9.8663E-08	4.1261E-17	1.1643E+10
Pr-143	1.3475E-01	2.0010E-09	8.4269E-15	4.9857E+09
Nd-147	5.9945E-02	7.4099E-10	3.0356E+15	2.2180E+09
Np-239	4.2503E+00	1.8321E-08	4.6163E+16	1.5726E+11
Pu-238	9.4857E-04	5.5408E-08	1.4020E+17	3.5097E+07
Pu-239	1.0078E-04	1.6213E-06	4.0853E+18	3.7287E+06
Pu-240	1.6201E-04	7.1098E-07	1.7840E+18	5.9943E+06
Pu-241	3.9956E-02	3.8787E-07	9.6922E+17	1.4784E+09
Am-241	2.1171E-05	6.1683E-09	1.5413E-16	7.8332E+05
Np-239	4.2503E+00	1.8321E-08	4.6163E+16	1.5726E+11
Pu-238	9.4857E-04	5.5408E-08	1.4020E+17	3.5097E+07

Cm-242	5.5371E-03	1.6707E-09	4.1575E-15	2.0487E+08
Cm-244	3.2468E-04	4.0133E-09	9.9051E-15	1.2013E+07

Environment Transport Group Inventory:

Time (h) = 24.0000	Total Release	Release Rate/s	
Noble gases (atoms)	3.8698E+21	4.4789E+16	
Elemental I (atoms)	7.9401E+18	9.1899E+13	
Organic I (atoms)	2.4557E+17	2.8422E+12	
Aerosols (kg)	2.2077E-04	2.5552E-09	
Dose Effective (Ci) I-131 (Thyroid)			3.9532E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			4.6569E-02
Total I (Ci)			1.2735E-03

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8718E+21
Elemental I (atoms)	0.0000E+00	7.9756E+18
Organic I (atoms)	0.0000E+00	2.4667E+17
Aerosols (kg)	0.0000E+00	2.2077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.0341E+18
Elemental I (atoms)	1.0535E+16	1.0642E+14
Organic I (atoms)	3.2583E+14	3.2912E+12
Aerosols (kg)	5.5156E-07	5.5714E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8136E+17
Elemental I (atoms)	0.0000E+00	1.0175E+15
Organic I (atoms)	0.0000E+00	3.1471E+13
Aerosols (kg)	0.0000E+00	5.3274E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.2778E+18	0.0000E+00
Elemental I (atoms)	1.0829E+15	0.0000E+00
Organic I (atoms)	3.3492E+13	0.0000E+00
Aerosols (kg)	5.9903E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.6272E+15
Elemental I (atoms)	0.0000E+00	2.0351E+13
Organic I (atoms)	0.0000E+00	6.2941E+11
Aerosols (kg)	0.0000E+00	1.0655E-09

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	1.6461E+09

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9828E-01	5.7650E+01	1.9620E-00
Accumulated dose (rem)	1.0836E+00	1.5925E+02	7.4030E+00

LOCA @ LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.0613E-03	1.1808E+00	4.0186E-02
Accumulated dose (rem)	5.1131E-02	6.7214E+00	3.4193E-01

LOCA @ CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1703E-03	1.4417E-00	4.6290E-02
Accumulated dose (rem)	3.8010E-02	1.2200E-01	5.8541E-01

LOCA @ Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.2968E-01	1.4586E+02	4.7921E+00
Accumulated dose (rem)	4.2926E-00	6.7973E+02	3.3643E+01

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Co-58	5.1620E-03	1.9378E-10	2.0121E+15	2.2799E+08
Co-60	3.3198E-03	2.9369E-09	2.9477E-16	1.2283E+08
Kr-85	4.7741E+02	1.2168E-03	8.6211E-21	1.7664E-13
Kr-85m	6.8237E+02	8.2917E-08	5.8746E-17	2.5248E-13
Kr-87	1.7895E+02	6.3175E-09	4.3730E-16	6.6211E-12
Kr-88	1.0212E+03	8.1438E-08	5.5731E-17	3.7783E-13
Rb-86	2.0683E-01	2.5419E-09	1.7800E-16	7.6528E-09
Sr-89	8.5469E+00	2.9419E-07	1.9906E+18	3.1624E-11
Sr-90	1.0912E-00	7.9999E-06	5.3530E+19	4.0376E-10
Sr-91	8.7260E+00	2.4072E-09	1.5930E+16	3.2286E-11
Sr-92	5.4283E-00	4.3187E-10	2.8269E+15	2.0085E+11
Y-90	3.2621E-02	5.9957E-11	4.0119E+14	1.2070E+09
Y-91	1.1481E-01	4.6818E-09	3.0983E+16	4.2482E+09
Y-92	1.8877E-00	1.9618E-10	1.2841E+15	6.9845E+10
Y-93	7.2087E-02	2.1607E-11	1.3991E+14	2.6672E+09
Zr-95	1.5960E-01	7.4293E-09	4.7095E+16	5.9053E+09
Zr-97	1.3934E-01	7.2890E-11	4.5253E+14	5.1557E+09
Nb-95	1.5982E-01	4.0872E-09	2.5909E+16	5.9134E+09
Mo-99	2.0352E+00	4.2434E-09	2.5813E+16	7.5303E+10
Tc-99m	1.8522E+00	3.5224E-10	2.1427E+15	6.8531E+10
Ru-103	1.7881E+00	5.5403E-08	3.2393E-17	6.6159E+10
Ru-105	7.7340E-01	1.1505E-10	6.5988E-14	2.8616E+10
Ru-106	7.1334E-01	2.1322E-07	1.2114E-18	2.6394E-10
Rh-105	1.1424E+00	1.3535E-09	7.7628E-15	4.2269E-10
Sb-127	1.9107E+00	7.1549E-09	3.3928E-16	7.0698E-10
Sb-129	4.4576E+00	7.9270E-10	3.7006E-15	1.6493E-11
Te-127	1.9338E-00	7.3274E-10	3.4745E+15	7.1550E-10
Te-127m	3.3075E-01	3.5064E-08	1.6627E+17	1.2238E+10
Te-129	5.4102E-00	2.5834E-10	1.2060E+15	2.0018E+11
Te-129m	1.3846E-00	4.5962E-08	2.1456E+17	5.1231E+10
Te-131m	4.1649E-00	5.2231E-09	2.4011E+16	1.5410E+11
Te-132	3.1194E+01	1.0275E-07	4.6877E+17	1.1542E+12
I-131	5.6351E+02	4.5454E-06	2.0895E+19	2.0850E+13
I-132	1.5353E+02	1.4873E-08	6.7856E+16	5.6804E+12
I-133	6.0202E+02	5.3144E-07	2.4063E+18	2.2275E+13
I-134	3.5131E+01	1.3169E-09	5.9184E+15	1.2998E+12
I-135	2.9666E+02	8.4475E-08	3.7683E+17	1.0977E+13
Xe-133	5.5335E+04	2.9562E-04	1.3385E-21	2.0474E-15
Xe-135	5.1630E+03	2.0218E-06	9.0187E-18	1.9103E-14
Cs-134	2.2017E+01	1.7017E-05	7.6475E-19	8.1462E-11
Cs-136	6.9826E+00	9.5272E-08	4.2187E-17	2.5836E-11
Cs-137	1.6572E+01	1.9053E-04	8.3750E-20	6.1317E-11
Ba-139	3.8436E+00	2.3498E-10	1.0180E+15	1.4221E-11
Ba-140	1.6204E+01	2.2133E-07	9.5208E+17	5.9953E-11
La-140	6.7279E-01	1.2104E-09	5.2067E+15	2.4893E+10
La-141	8.7184E-02	1.5416E-11	6.5843E+13	3.2258E+09
La-142	3.9643E-02	2.7693E-12	1.1744E+13	1.4668E+09
Ce-141	3.7388E-01	1.3122E-08	5.6042E+16	1.3833E+10
Ce-143	3.2561E-01	4.9031E-10	2.0648E+15	1.2047E+10
Ce-144	3.1469E-01	9.8663E-08	4.1261E+17	1.1643E+10
Pr-143	1.3475E-01	2.0011E-09	8.4270E-15	4.9857E+09
Nd-147	5.9946E-02	7.4100E-10	3.0356E-15	2.2180E+09
Np-239	4.2503E+00	1.8321E-08	4.6163E-16	1.5726E+11
Pu-238	9.4858E-04	5.5409E-08	1.4020E-17	3.5097E-07
Pu-239	1.0078E-04	1.6213E-06	4.0853E+18	3.7287E-06
Pu-240	1.6201E-04	7.1099E-07	1.7840E+18	5.9944E-06
Pu-241	3.9956E-02	3.8788E-07	9.6923E+17	1.4784E+09
Nd-147	5.9946E-02	7.4100E-10	3.0356E-15	2.2180E+09
Np-239	4.2503E+00	1.8321E-08	4.6163E-16	1.5726E+11

Am-241	2.1171E-05	6.1683E-09	1.5414E+16	7.8332E-05
Cm-242	5.5372E-03	1.6707E-09	4.1575E+15	2.0488E+08
Cm-244	3.2469E-04	4.0133E-09	9.9052E+15	1.2013E+07

Environment Transport Group Inventory:

Time (h) = 96.0000	Total Release	Release Rate/s	
Noble gases (atoms)	9.9699E+21	2.8848E-16	
Elemental I (atoms)	1.7702E+19	5.1222E-13	
Organic I (atoms)	5.4749E+17	1.5842E-12	
Aerosols (kg)	2.2077E-04	6.3881E-10	
Dose Effective (Ci) I-131 (Thyroid)			6.7326E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			7.5525E-02
Total I (Ci)			1.6509E-03

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.9762E-21
Elemental I (atoms)	0.0000E-00	1.7787E-19
Organic I (atoms)	0.0000E-00	5.5011E-17
Aerosols (kg)	0.0000E-00	2.2077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.3482E+18
Elemental I (atoms)	1.5809E+16	1.5968E+14
Organic I (atoms)	4.8893E+14	4.9386E+12
Aerosols (kg)	5.5157E-07	5.5714E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.9826E+17
Elemental I (atoms)	0.0000E+00	1.5269E+15
Organic I (atoms)	0.0000E+00	4.7224E+13
Aerosols (kg)	0.0000E+00	5.3274E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	9.0747E+18	0.0000E+00
Elemental I (atoms)	1.6850E+15	0.0000E+00
Organic I (atoms)	5.2114E+13	0.0000E+00
Aerosols (kg)	5.9903E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5965E+16
Elemental I (atoms)	0.0000E+00	3.0538E+13
Organic I (atoms)	0.0000E+00	9.4447E+11
Aerosols (kg)	0.0000E+00	1.0655E-09

Detailed model information at time (H) = 120.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.8157E-10

EAB LOCA Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.2722E-02	1.5227E+01	5.0677E-01
Accumulated dose (rem)	1.1264E+00	1.7448E+02	7.9098E+00

EAB LOCA Doses:

LOCA @ LPZ Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.1398E-04	1.1191E-01	3.7244E-03
Accumulated dose (rem)	5.1445E-02	6.8333E+00	3.4565E-01

LOCA @ CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.5337E-04	2.0501E-01	6.5010E-03
Accumulated dose (rem)	3.8263E-02	1.2405E+01	5.9191E-01

LOCA @ Unprotected CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.2282E-02	3.3781E-01	1.0917E-00
Accumulated dose (rem)	4.3549E-00	7.1351E-02	3.4734E-01

Environment Integral Nuclide Release:

Time (h) = 120.0000	Ci	kg	Atoms	Bq
Co-58	6.1620E-03	1.9378E-10	2.0121E+15	2.2799E+08
Co-60	3.3198E-03	2.9369E-09	2.9477E+16	1.2283E+08
Kr-85	5.7612E-02	1.4684E-03	1.0404E-22	2.1316E-13
Kr-85m	6.8237E+02	8.2917E-08	5.8746E+17	2.5248E-13
Kr-87	1.7895E+02	6.3175E-09	4.3730E-16	6.6211E-12
Kr-88	1.0212E+03	8.1438E-08	5.5731E-17	3.7783E-13
Rb-86	2.0683E-01	2.5419E-09	1.7800E-16	7.6528E-09
Sr-89	8.5469E+00	2.9419E-07	1.9906E-18	3.1624E-11
Sr-90	1.0912E+00	7.9999E-06	5.3530E-19	4.0376E-10
Sr-91	8.7260E+00	2.4072E-09	1.5930E-16	3.2286E-11
Sr-92	5.4283E+00	4.3187E-10	2.8269E-15	2.0085E+11
Y-90	3.2621E-02	5.9957E-11	4.0119E+14	1.2070E+09
Y-91	1.1481E-01	4.6818E-09	3.0983E+16	4.2482E+09
Y-92	1.8877E+00	1.9618E-10	1.2841E+15	6.9845E+10
Y-93	7.2087E-02	2.1607E-11	1.3991E+14	2.6672E+09
Zr-95	1.5960E-01	7.4293E-09	4.7095E+16	5.9053E+09
Zr-97	1.3934E-01	7.2890E-11	4.5253E+14	5.1557E+09
Nb-95	1.5982E-01	4.0872E-09	2.5909E+16	5.9134E+09
Mo-99	2.0352E-00	4.2434E-09	2.5813E+16	7.5303E+10
Tc-99m	1.8522E-00	3.5224E-10	2.1427E+15	6.8531E+10
Ru-103	1.7881E-00	5.5403E-08	3.2393E+17	6.6159E-10
Ru-105	7.7340E-01	1.1505E-10	6.5988E-14	2.8616E-10
Ru-106	7.1334E-01	2.1322E-07	1.2114E-18	2.6394E-10
Rh-105	1.1424E+00	1.3535E-09	7.7628E-15	4.2269E-10
Sb-127	1.9107E+00	7.1549E-09	3.3928E-16	7.0698E-10
Sb-129	4.4576E+00	7.9270E-10	3.7006E+15	1.6493E-11
Te-127	1.9338E+00	7.3274E-10	3.4745E+15	7.1550E+10
Te-127m	3.3075E-01	3.5064E-08	1.6627E+17	1.2238E+10
Te-129	5.4102E+00	2.5834E-10	1.2060E+15	2.0018E+11
Te-129m	1.3846E+00	4.5962E-08	2.1456E+17	5.1231E+10
Te-131m	4.1649E-00	5.2231E-09	2.4011E+16	1.5410E+11
Te-132	3.1194E-01	1.0275E-07	4.6877E+17	1.1542E+12
I-131	6.3602E-02	5.1303E-06	2.3584E+19	2.3533E+13
I-132	1.5353E-02	1.4873E-08	6.7856E+16	5.6804E+12
I-133	6.0816E-02	5.3686E-07	2.4309E+18	2.2502E+13
I-134	3.5131E-01	1.3169E-09	5.9184E+15	1.2998E-12
I-135	2.9667E-02	8.4476E-08	3.7683E-17	1.0977E-13
Xe-133	6.3217E-04	3.3773E-04	1.5292E-21	2.3390E-15
Xe-135	5.1649E+03	2.0225E-06	9.0221E-18	1.9110E-14
Cs-134	2.2017E+01	1.7017E-05	7.6475E-19	8.1462E-11
Cs-136	6.9826E+00	9.5272E-08	4.2187E+17	2.5836E+11
Cs-137	1.6572E+01	1.9053E-04	8.3750E+20	6.1317E+11
Ba-139	3.8436E+00	2.3498E-10	1.0180E+15	1.4221E+11
Ba-140	1.6204E+01	2.2133E-07	9.5208E+17	5.9953E+11
La-140	6.7279E-01	1.2104E-09	5.2067E+15	2.4893E+10
La-141	8.7184E-02	1.5416E-11	6.5843E+13	3.2258E+09
La-142	3.9643E-02	2.7693E-12	1.1744E+13	1.4668E+09
Ce-141	3.7388E-01	1.3122E-08	5.6042E+16	1.3833E+10
Ce-143	3.2561E-01	4.9031E-10	2.0648E+15	1.2047E+10
Ce-144	3.1469E-01	9.8663E-08	4.1261E-17	1.1643E+10
Pr-143	1.3475E-01	2.0011E-09	8.4270E-15	4.9857E-09
Nd-147	5.9946E-02	7.4100E-10	3.0356E+15	2.2180E-09
Np-239	4.2503E-00	1.8321E-08	4.6163E+16	1.5726E-11
Pu-238	9.4858E-04	5.5409E-08	1.4020E+17	3.5097E-07
Pu-239	1.0078E-04	1.6213E-06	4.0853E+18	3.7287E+06
Pu-240	1.6201E-04	7.1099E-07	1.7840E+18	5.9944E+06
Pr-143	1.3475E-01	2.0011E-09	8.4270E-15	4.9857E-09
Nd-147	5.9946E-02	7.4100E-10	3.0356E+15	2.2180E-09

Pu-241	3.9956E-02	3.8788E-07	9.6923E+17	1.4784E+09
Am-241	2.1171E-05	6.1683E-09	1.5414E+16	7.8332E+05
Cm-242	5.5372E-03	1.6707E-09	4.1575E+15	2.0488E+08
Cm-244	3.2469E-04	4.0133E-09	9.9052E+15	1.2013E+07

Environment Transport Group Inventory:

Time (h) = 120.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.1943E+22	2.7646E-16	
Elemental I (atoms)	2.0334E+19	4.7070E-13	
Organic I (atoms)	6.2889E+17	1.4558E+12	
Aerosols (kg)	2.2077E-04	5.1105E-10	
Dose Effective (Ci) I-131 (Thyroid)			7.4679E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			8.2940E+02
Total I (Ci)			1.7295E+03

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1950E-22
Elemental I (atoms)	0.0000E+00	2.0429E-19
Organic I (atoms)	0.0000E+00	6.3183E-17
Aerosols (kg)	0.0000E+00	2.2077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.2496E+18
Elemental I (atoms)	1.7003E-16	1.7175E+14
Organic I (atoms)	5.2586E+14	5.3117E-12
Aerosols (kg)	5.5157E-07	5.5714E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.8445E+17
Elemental I (atoms)	0.0000E+00	1.6422E+15
Organic I (atoms)	0.0000E+00	5.0791E+13
Aerosols (kg)	0.0000E-00	5.3274E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.0076E+19	0.0000E-00
Elemental I (atoms)	1.8163E+15	0.0000E-00
Organic I (atoms)	5.6175E+13	0.0000E-00
Aerosols (kg)	5.9903E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.7689E+16
Elemental I (atoms)	0.0000E-00	3.2845E+13
Organic I (atoms)	0.0000E-00	1.0158E+12
Aerosols (kg)	0.0000E-00	1.0655E-09

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.9626E+15

EAB LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.4641E-01	5.8539E+01	1.9290E-00
Accumulated dose (rem)	1.2728E-00	2.3302E+02	9.8388E+00

EAB LOCA Doses:

LOCA @ LPZ Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0760E-03	4.3022E-01	1.4177E-02
Accumulated dose (rem)	5.2521E-02	7.2635E+00	3.5983E-01

LOCA @ CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.5501E-04	7.7815E-01	2.4551E-02
Accumulated dose (rem)	3.9118E-02	1.3183E-01	6.1646E-01

LOCA @ Unprotected CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1344E-01	1.2986E-02	4.1680E+00
Accumulated dose (rem)	4.5683E+00	8.4338E-02	3.8902E+01

Environment Integral Nuclide Release:

Time (h) = 240.0000	Ci	kg	Atoms	Bq
Co-58	6.1620E-03	1.9378E-10	2.0121E+15	2.2799E-08
Co-60	3.3198E-03	2.9369E-09	2.9477E+16	1.2283E-08
Kr-85	1.0693E+03	2.7255E-03	1.9310E+22	3.9564E-13
Kr-85m	6.8237E+02	8.2917E-08	5.8746E+17	2.5248E-13
Kr-87	1.7895E+02	6.3175E-09	4.3730E+16	6.6211E-12
Kr-88	1.0212E+03	8.1438E-08	5.5731E+17	3.7783E-13
Rb-86	2.0683E-01	2.5419E-09	1.7800E+16	7.6528E-09
Sr-89	8.5469E+00	2.9419E-07	1.9906E+18	3.1624E-11
Sr-90	1.0912E+00	7.9999E-06	5.3530E+19	4.0376E-10
Sr-91	8.7260E+00	2.4072E-09	1.5930E+16	3.2286E+11
Sr-92	5.4283E+00	4.3187E-10	2.8269E+15	2.0085E+11
Y-90	3.2621E-02	5.9957E-11	4.0119E+14	1.2070E+09
Y-91	1.1481E-01	4.6818E-09	3.0983E+16	4.2482E+09
Y-92	1.8877E+00	1.9618E-10	1.2841E+15	6.9845E+10
Y-93	7.2087E-02	2.1607E-11	1.3991E+14	2.6672E+09
Zr-95	1.5960E-01	7.4293E-09	4.7095E+16	5.9053E+09
Zr-97	1.3934E-01	7.2890E-11	4.5253E+14	5.1557E+09
Nb-95	1.5982E-01	4.0872E-09	2.5909E+16	5.9134E+09
Mo-99	2.0352E+00	4.2434E-09	2.5813E+16	7.5303E+10
Tc-99m	1.8522E+00	3.5224E-10	2.1427E+15	6.8531E+10
Ru-103	1.7881E+00	5.5403E-08	3.2393E+17	6.6159E+10
Ru-105	7.7340E-01	1.1505E-10	6.5988E+14	2.8616E+10
Ru-106	7.1334E-01	2.1322E-07	1.2114E+18	2.6394E+10
Rh-105	1.1424E+00	1.3535E-09	7.7628E+15	4.2269E+10
Sb-127	1.9107E+00	7.1549E-09	3.3928E+16	7.0698E+10
Sb-129	4.4576E+00	7.9270E-10	3.7006E+15	1.6493E+11
Te-127	1.9338E+00	7.3274E-10	3.4745E+15	7.1550E-10
Te-127m	3.3075E-01	3.5064E-08	1.6627E+17	1.2238E-10
Te-129	5.4102E+00	2.5834E-10	1.2060E+15	2.0018E-11
Te-129m	1.3846E+00	4.5962E-08	2.1456E+17	5.1231E-10
Te-131m	4.1649E+00	5.2231E-09	2.4011E+16	1.5410E-11
Te-132	3.1194E+01	1.0275E-07	4.6877E+17	1.1542E-12
I-131	9.1799E-02	7.4046E-06	3.4040E-19	3.3966E-13
I-132	1.5353E-02	1.4873E-08	6.7856E-16	5.6804E-12
I-133	6.1308E-02	5.4121E-07	2.4505E-18	2.2684E-13
I-134	3.5131E-01	1.3169E-09	5.9184E-15	1.2998E-12
I-135	2.9667E+02	8.4476E-08	3.7683E-17	1.0977E-13
Xe-133	9.0191E+04	4.8184E-04	2.1817E-21	3.3371E-15
Xe-135	5.1653E+03	2.0226E-06	9.0227E-18	1.9112E-14
Cs-134	2.2017E+01	1.7017E-05	7.6475E+19	8.1462E-11
Cs-136	6.9826E+00	9.5272E-08	4.2187E+17	2.5836E+11
Cs-137	1.6572E+01	1.9053E-04	8.3750E+20	6.1317E-11
Ba-139	3.8436E+00	2.3498E-10	1.0180E+15	1.4221E+11
Ba-140	1.6204E+01	2.2133E-07	9.5208E+17	5.9953E+11
La-140	6.7279E-01	1.2104E-09	5.2067E+15	2.4893E+10
La-141	8.7184E-02	1.5416E-11	6.5843E+13	3.2258E+09
La-142	3.9643E-02	2.7693E-12	1.1744E+13	1.4668E+09
Ce-141	3.7388E-01	1.3122E-08	5.6042E+16	1.3833E+10
Ce-143	3.2561E-01	4.9031E-10	2.0648E+15	1.2047E+10
Ce-144	3.1469E-01	9.8663E-08	4.1261E+17	1.1643E+10
Pr-143	1.3475E-01	2.0011E-09	8.4270E+15	4.9857E+09
Nd-147	5.9946E-02	7.4100E-10	3.0356E+15	2.2180E+09
Np-239	4.2503E-00	1.8321E-08	4.6163E+16	1.5726E+11
Pu-238	9.4858E-04	5.5409E-08	1.4020E+17	3.5097E+07
Pu-239	1.0078E-04	1.6213E-06	4.0853E+18	3.7287E+06
Ce-144	3.1469E-01	9.8663E-08	4.1261E+17	1.1643E+10
Pr-143	1.3475E-01	2.0011E-09	8.4270E+15	4.9857E+09

Pu-240	1.6201E-04	7.1099E-07	1.7840E+18	5.9944E+06
Pu-241	3.9956E-02	3.8788E-07	9.6923E+17	1.4784E+09
Am-241	2.1171E-05	6.1683E-09	1.5414E+16	7.8332E+05
Cm-242	5.5372E-03	1.6707E-09	4.1575E+15	2.0488E+08
Cm-244	3.2469E-04	4.0133E-09	9.9052E+15	1.2013E+07

Environment Transport Group Inventory:

Time (h) = 240.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1502E+22	2.4886E+16	
Elemental I (atoms)	3.0495E+19	3.5295E+13	
Organic I (atoms)	9.4315E+17	1.0916E+12	
Aerosols (kg)	2.2077E-04	2.5553E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.0296E-03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.1127E+03
Total I (Ci)			2.0164E-03

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1513E-22
Elemental I (atoms)	0.0000E+00	3.0627E-19
Organic I (atoms)	0.0000E-00	9.4723E-17
Aerosols (kg)	0.0000E+00	2.2077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3615E-19
Elemental I (atoms)	2.1612E-16	2.1830E+14
Organic I (atoms)	6.6841E-14	6.7517E-12
Aerosols (kg)	5.5157E-07	5.5714E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3019E+18
Elemental I (atoms)	0.0000E+00	2.0874E+15
Organic I (atoms)	0.0000E+00	6.4560E+13
Aerosols (kg)	0.0000E+00	5.3274E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.4867E+19	0.0000E+00
Elemental I (atoms)	2.3170E+15	0.0000E+00
Organic I (atoms)	7.1659E+13	0.0000E+00
Aerosols (kg)	5.9903E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6038E+16
Elemental I (atoms)	0.0000E+00	4.1749E+13
Organic I (atoms)	0.0000E+00	1.2912E+12
Aerosols (kg)	0.0000E+00	1.0655E-09

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E-00	1.0000E-00	7.8770E+25

EAB LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.1904E-01	6.2545E+01	2.0233E+00

1.0000E-00 1.0000E-00 1.0000E-00 7.8770E+25

Accumulated dose (rem)	1.3918E+00	2.9556E+02	1.1862E+01

LOCA @ LPZ Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.7489E-04	4.5967E-01	1.4870E-02
Accumulated dose (rem)	5.3396E-02	7.7232E+00	3.7470E-01

LOCA @ CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.7338E-04	8.3141E-01	2.5986E-02
Accumulated dose (rem)	3.9792E-02	1.4015E-01	6.4244E-01

LOCA @ Unprotected CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.7354E-01	1.3875E+02	4.3979E+00
Accumulated dose (rem)	4.7419E-00	9.8213E+02	4.3300E+01

Environment Integral Nuclide Release:

Time (h) = 480.0000	Ci	Kg	Atoms	Bq
Co-58	6.1620E-03	1.9378E-10	2.0121E+15	2.2799E+08
Co-60	3.3198E-03	2.9369E-09	2.9477E+16	1.2283E+08
Kr-85	2.0539E+03	5.2350E-03	3.7089E+22	7.5993E+13
Kr-85m	6.8237E+02	8.2917E-08	5.8746E+17	2.5248E+13
Kr-87	1.7895E+02	6.3175E-09	4.3730E+16	6.6211E+12
Kr-88	1.0212E+03	8.1438E-08	5.5731E+17	3.7783E+13
Rb-86	2.0683E-01	2.5419E-09	1.7800E+16	7.6528E+09
Sr-89	8.5469E+00	2.9419E-07	1.9906E+18	3.1624E+11
Sr-90	1.0912E+00	7.9999E-06	5.3530E+19	4.0376E+10
Sr-91	8.7260E+00	2.4072E-09	1.5930E+16	3.2286E+11
Sr-92	5.4283E+00	4.3187E-10	2.8269E+15	2.0085E+11
Y-90	3.2621E-02	5.9957E-11	4.0119E+14	1.2070E+09
Y-91	1.1481E-01	4.6818E-09	3.0983E+16	4.2482E+09
Y-92	1.8877E+00	1.9618E-10	1.2841E+15	6.9845E+10
Y-93	7.2087E-02	2.1607E-11	1.3991E+14	2.6672E+09
Zr-95	1.5960E-01	7.4293E-09	4.7095E+16	5.9053E+09
Zr-97	1.3934E-01	7.2890E-11	4.5253E+14	5.1557E+09
Nb-95	1.5982E-01	4.0872E-09	2.5909E+16	5.9134E+09
Mo-99	2.0352E+00	4.2434E-09	2.5813E+16	7.5303E+10
Tc-99m	1.8522E+00	3.5224E-10	2.1427E+15	6.8531E+10
Ru-103	1.7881E+00	5.5403E-08	3.2393E+17	6.6159E+10
Ru-105	7.7340E-01	1.1505E-10	6.5988E+14	2.8616E+10
Ru-106	7.1334E-01	2.1322E-07	1.2114E+18	2.6394E+10
Rh-105	1.1424E-00	1.3535E-09	7.7628E+15	4.2269E-10
Sb-127	1.9107E-00	7.1549E-09	3.3928E+16	7.0698E-10
Sb-129	4.4576E-00	7.9270E-10	3.7006E+15	1.6493E-11
Te-127	1.9338E-00	7.3274E-10	3.4745E+15	7.1550E-10
Te-127m	3.3075E-01	3.5064E-08	1.6627E-17	1.2238E+10
Te-129	5.4102E+00	2.5834E-10	1.2060E+15	2.0018E+11
Te-129m	1.3846E+00	4.5962E-08	2.1456E+17	5.1231E+10
Te-131m	4.1649E+00	5.2231E-09	2.4011E+16	1.5410E+11
Te-132	3.1194E+01	1.0275E-07	4.6877E+17	1.1542E+12
I-131	1.2201E+03	9.8418E-06	4.5243E+19	4.5145E+13
I-132	1.5353E+02	1.4873E-08	6.7856E+16	5.6804E+12
I-133	6.1318E+02	5.4129E-07	2.4509E+18	2.2687E+13
I-134	3.5131E+01	1.3169E-09	5.9184E+15	1.2998E-12
I-135	2.9667E-02	8.4476E-08	3.7683E+17	1.0977E-13
Xe-133	1.1131E-05	5.9465E-04	2.6925E+21	4.1184E-15
Xe-135	5.1653E-03	2.0226E-06	9.0227E+18	1.9112E-14
Cs-134	2.2017E-01	1.7017E-05	7.6475E+19	8.1462E+11
Cs-136	6.9826E+00	9.5272E-08	4.2187E-17	2.5836E+11
Cs-137	1.6572E+01	1.9053E-04	8.3750E-20	6.1317E+11
Ba-139	3.8436E+00	2.3498E-10	1.0180E-15	1.4221E+11
Ba-140	1.6204E+01	2.2133E-07	9.5208E+17	5.9953E+11
La-140	6.7279E-01	1.2104E-09	5.2067E+15	2.4893E+10
La-141	8.7184E-02	1.5416E-11	6.5843E+13	3.2258E+09
La-142	3.9643E-02	2.7693E-12	1.1744E+13	1.4668E-09
Ce-141	3.7388E-01	1.3122E-08	5.6042E+16	1.3833E-10
Ce-143	3.2561E-01	4.9031E-10	2.0648E+15	1.2047E-10
Ce-144	3.1469E-01	9.8663E-08	4.1261E+17	1.1643E+10
Pr-143	1.3475E-01	2.0011E-09	8.4270E+15	4.9857E+09
Nd-147	5.9946E-02	7.4100E-10	3.0356E-15	2.2180E+09
Np-239	4.2503E+00	1.8321E-08	4.6163E-16	1.5726E+11
Pu-238	9.4858E-04	5.5409E-08	1.4020E+17	3.5097E+07
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ce-144	3.1469E-01	9.8663E-08	4.1261E+17	1.1643E+10
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Pu-239	1.0078E-04	1.6213E-06	4.0853E+18	3.7287E-06
Pu-240	1.6201E-04	7.1099E-07	1.7840E+18	5.9944E+06
Pu-241	3.9956E-02	3.8788E-07	9.6923E+17	1.4784E+09
Am-241	2.1171E-05	6.1683E-09	1.5414E+16	7.8332E+05
Cm-242	5.5372E-03	1.6707E-09	4.1575E+15	2.0488E+08
Cm-244	3.2469E-04	4.0133E-09	9.9052E+15	1.2013E+07

Environment Transport Group Inventory:

Time (h) = 480.0000	Total Release	Release Rate/s	
Noble gases (atoms)	3.9792E+22	2.3028E+16	
Elemental I (atoms)	4.1363E+19	2.3937E+13	
Organic I (atoms)	1.2793E+18	7.4032E+11	
Aerosols (kg)	2.2077E-04	1.2776E-10	
Dose Effective (Ci) I-131 (Thyroid)			1.3317E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4149E+03
Total I (Ci)			2.3186E+03

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9806E+22
Elemental I (atoms)	0.0000E+00	4.1534E+19
Organic I (atoms)	0.0000E+00	1.2846E+18
Aerosols (kg)	0.0000E+00	2.2077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1967E+19
Elemental I (atoms)	2.6542E+16	2.6810E+14
Organic I (atoms)	8.2088E+14	8.2918E+12
Aerosols (kg)	5.5157E-07	5.5714E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1005E+18
Elemental I (atoms)	0.0000E+00	2.5636E+15
Organic I (atoms)	0.0000E+00	7.9286E+13
Aerosols (kg)	0.0000E+00	5.3274E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.4033E+19	0.0000E+00
Elemental I (atoms)	2.8525E+15	0.0000E+00
Organic I (atoms)	8.8220E+13	0.0000E+00
Aerosols (kg)	5.9903E-08	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.2010E+16
Elemental I (atoms)	0.0000E+00	5.1272E+13
Organic I (atoms)	0.0000E+00	1.5857E+12
Aerosols (kg)	0.0000E+00	1.0655E-09

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.0925E-36

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.0925E-36

Delta dose (rem)	3.4626E-02	2.6392E+01	8.3813E-01
Accumulated dose (rem)	1.4264E+00	3.2196E+02	1.2700E+01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.5448E-04	1.9396E-01	6.1597E-03
Accumulated dose (rem)	5.3650E-02	7.9172E+00	3.8086E-01

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8287E-04	3.5082E-01	1.0864E-02
Accumulated dose (rem)	3.9975E-02	1.4366E-01	6.5331E-01

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.0478E-02	5.8548E-01	1.8330E+00
Accumulated dose (rem)	4.7924E-00	1.0407E-03	4.5133E-01

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Co-58	6.1620E-03	1.9378E-10	2.0121E+15	2.2799E+08
Co-60	3.3198E-03	2.9369E-09	2.9477E+16	1.2283E+08
Kr-85	3.0360E+03	7.7383E-03	5.4825E+22	1.1233E+14
Kr-85m	6.8237E+02	8.2917E-08	5.8746E+17	2.5248E-13
Kr-87	1.7895E+02	6.3175E-09	4.3730E+16	6.6211E-12
Kr-88	1.0212E+03	8.1438E-08	5.5731E+17	3.7783E-13
Rb-86	2.0683E-01	2.5419E-09	1.7800E+16	7.6528E-09
Sr-89	8.5469E+00	2.9419E-07	1.9906E+18	3.1624E-11
Sr-90	1.0912E+00	7.9999E-06	5.3530E+19	4.0376E-10
Sr-91	8.7260E+00	2.4072E-09	1.5930E+16	3.2286E-11
Sr-92	5.4283E+00	4.3187E-10	2.8269E-15	2.0085E-11
Y-90	3.2621E-02	5.9957E-11	4.0119E-14	1.2070E+09
Y-91	1.1481E-01	4.6818E-09	3.0983E-16	4.2482E+09
Y-92	1.8877E+00	1.9618E-10	1.2841E-15	6.9845E+10
Y-93	7.2087E-02	2.1607E-11	1.3991E-14	2.6672E+09
Zr-95	1.5960E-01	7.4293E-09	4.7095E-16	5.9053E+09
Zr-97	1.3934E-01	7.2890E-11	4.5253E-14	5.1557E+09
Nb-95	1.5982E-01	4.0872E-09	2.5909E+16	5.9134E+09
Mo-99	2.0352E-00	4.2434E-09	2.5813E+16	7.5303E+10
Tc-99m	1.8522E-00	3.5224E-10	2.1427E+15	6.8531E+10
Ru-103	1.7881E-00	5.5403E-08	3.2393E+17	6.6159E+10
Ru-105	7.7340E-01	1.1505E-10	6.5988E+14	2.8616E+10
Ru-106	7.1334E-01	2.1322E-07	1.2114E+18	2.6394E+10
Rh-105	1.3424E+00	1.3535E-09	7.7628E+15	4.2269E+10
Sb-127	1.9107E+00	7.1549E-09	3.3928E+16	7.0698E+10
Sb-129	4.4576E+00	7.9270E-10	3.7006E+15	1.6493E-11
Te-127	1.9338E+00	7.3274E-10	3.4745E+15	7.1550E-10
Te-127m	3.3075E-01	3.5064E-08	1.6627E+17	1.2238E-10
Te-129	5.4102E+00	2.5834E-10	1.2060E+15	2.0018E-11
Te-129m	1.3846E+00	4.5962E-08	2.1456E+17	5.1231E-10
Te-131m	4.1649E+00	5.2231E-09	2.4011E-16	1.5410E+11
Te-132	3.1194E+01	1.0275E-07	4.6877E-17	1.1542E+12
I-131	1.3476E+03	1.0870E-05	4.9971E-19	4.9863E+13
I-132	1.5353E+02	1.4873E-08	6.7856E-16	5.6804E+12
I-133	6.1318E+02	5.4129E-07	2.4509E-18	2.2687E+13
I-134	3.5131E+01	1.3169E-09	5.9184E-15	1.2998E+12
I-135	2.9667E+02	8.4476E-08	3.7683E+17	1.0977E+13
Xe-133	1.1694E-05	6.2473E-04	2.8287E+21	4.3267E+15
Xe-135	5.1653E-03	2.0226E-06	9.0227E+18	1.9112E+14
Cs-134	2.2017E-01	1.7017E-05	7.6475E+19	8.1462E+11
Cs-136	6.9826E-00	9.5272E-08	4.2187E+17	2.5836E-11
Cs-137	1.6572E-01	1.9053E-04	8.3750E+20	6.1317E+11
Ba-139	3.8436E-00	2.3498E-10	1.0180E+15	1.4221E-11
Ba-140	1.6204E-01	2.2133E-07	9.5208E+17	5.9953E-11
La-140	6.7279E-01	1.2104E-09	5.2067E+15	2.4893E-10
La-141	8.7184E-02	1.5416E-11	6.5843E+13	3.2258E-09
La-142	3.9643E-02	2.7693E-12	1.1744E+13	1.4668E-09
Ce-141	3.7388E-01	1.3122E-08	5.6042E-16	1.3833E-10
Ce-143	3.2561E-01	4.9031E-10	2.0648E-15	1.2047E-10
Ce-144	3.1469E-01	9.8663E-08	4.1261E-17	1.1643E-10
Pr-143	1.3475E-01	2.0011E-09	8.4270E-15	4.9857E+09
Nd-147	5.9946E-02	7.4100E-10	3.0356E+15	2.2180E+09
Np-239	4.2503E+00	1.8321E-08	4.6163E+16	1.5726E+11
Ce-141	3.7388E-01	1.3122E-08	5.6042E-16	1.3833E-10
Ce-143	3.2561E-01	4.9031E-10	2.0648E-15	1.2047E-10
Ce-144	3.1469E-01	9.8663E-08	4.1261E-17	1.1643E-10

Pu-238	9.4858E-04	5.5409E-08	1.4020E+17	3.5097E-07
Pu-239	1.0078E-04	1.6213E-06	4.0853E+18	3.7287E-06
Pu-240	1.6201E-04	7.1099E-07	1.7840E-18	5.9944E+06
Pu-241	3.9956E-02	3.8788E-07	9.6923E-17	1.4784E+09
Am-241	2.1171E-05	6.1683E-09	1.5414E+16	7.8332E+05
Cm-242	5.5372E-03	1.6707E-09	4.1575E+15	2.0488E+08
Cm-244	3.2469E-04	4.0133E-09	9.9052E+15	1.2013E-07

Environment Transport Group Inventory:

Time (h) = 720.0000	Total Release	Release Rate/s	
Noble gases (atoms)	5.7664E+22	2.2247E+16	
Elemental I (atoms)	4.5949E-19	1.7727E-13	
Organic I (atoms)	1.4211E-18	5.4827E-11	
Aerosols (kg)	2.2077E-04	8.5175E-11	
Dose Effective (Ci) I-131 (Thyroid)			1.4592E-03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.5424E-03
Total I (Ci)			2.4461E+03

Primary Containment to Environment - Bypass Leakag Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.7679E+22
Elemental I (atoms)	0.0000E+00	4.6137E+19
Organic I (atoms)	0.0000E-00	1.4269E-18
Aerosols (kg)	0.0000E-00	2.2077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0127E+19
Elemental I (atoms)	2.8622E+16	2.8911E+14
Organic I (atoms)	8.8522E-14	8.9416E-12
Aerosols (kg)	5.5157E-07	5.5714E-09

Environment to Control Room - Unfiltered Air Inlea Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.8807E+18
Elemental I (atoms)	0.0000E+00	2.7645E+15
Organic I (atoms)	0.0000E+00	8.5500E+13
Aerosols (kg)	0.0000E-00	5.3274E-08

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	3.2989E+19	0.0000E-00
Elemental I (atoms)	3.0784E+15	0.0000E+00
Organic I (atoms)	9.5209E+13	0.0000E+00
Aerosols (kg)	5.9903E-08	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.7615E-16
Elemental I (atoms)	0.0000E+00	5.5290E+13
Organic I (atoms)	0.0000E+00	1.7100E+12
Aerosols (kg)	0.0000E+00	1.0655E-09

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I-131 Summary
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Time (hr)	Primary Containment I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	5.9348E+03	0.0000E+00	0.0000E+00
0.401	3.7189E-06	0.0000E-00	0.0000E+00
0.500	4.4822E+06	0.0000E-00	0.0000E+00
0.800	8.8993E+06	0.0000E+00	0.0000E+00
Time (hr)	Primary Containment I-131 (Curies)	Environment I-131 (Curies)	Control Room I-131 (Curies)

1.100	1.2994E+07	0.0000E+00	0.0000E+00
1.400	1.6785E+07	0.0000E+00	0.0000E+00
1.700	2.0294E+07	0.0000E+00	0.0000E+00
2.000	2.3540E+07	0.0000E+00	0.0000E+00
2.300	1.7508E+07	3.3985E+01	8.3773E-03
2.600	1.3133E+07	5.9360E+01	1.3111E-02
2.900	9.9592E+06	7.8488E+01	1.5446E-02
3.200	7.6571E+06	9.3086E+01	1.6241E-02
3.500	5.9871E+06	1.0440E-02	1.6081E-02
3.800	4.7755E-06	1.1333E-02	1.5363E-02
4.100	3.8963E-06	1.2052E-02	1.4349E-02
4.400	3.2582E-06	1.2646E-02	1.3210E-02
4.700	2.7949E-06	1.3150E-02	1.2053E-02
5.000	2.4585E-06	1.3586E-02	1.0943E-02
5.300	2.3008E-06	1.3983E-02	9.9372E-03
5.600	2.1706E-06	1.4356E-02	9.0545E-03
5.900	2.0631E-06	1.4709E-02	8.2834E-03
6.200	1.9743E-06	1.5046E-02	7.6120E-03
6.500	1.9009E-06	1.5369E-02	7.0292E-03
6.800	1.8402E+06	1.5681E+02	6.5248E-03
7.100	1.7899E+06	1.5984E+02	6.0892E-03
7.400	1.7482E+06	1.6279E+02	5.7138E-03
7.700	1.7135E+06	1.6568E+02	5.3909E-03
8.000	1.6847E+06	1.6851E+02	5.1136E-03
8.300	1.6607E+06	1.7130E+02	4.4101E-03
8.600	1.6427E+06	1.7405E+02	3.8316E-03
8.900	1.6273E+06	1.7679E+02	3.3559E-03
9.200	1.6140E+06	1.7949E+02	2.9648E-03
9.500	1.6026E+06	1.8218E+02	2.6430E-03
9.800	1.5926E+06	1.8484E+02	2.3783E-03
10.100	1.5840E+06	1.8749E+02	2.1604E-03
10.400	1.5765E+06	1.9013E-02	1.9810E-03
24.000	1.4710E+06	3.0436E-02	1.0981E-03
96.000	1.1355E+06	5.6351E-02	2.7746E-04
720.000	1.2049E-05	1.3476E-03	2.4758E-05

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Cumulative Dose Summary

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	EAB LOCA		LOCA @ LPZ		LOCA @ CR	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00
0.401	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00
0.500	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00
0.800	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E-00
1.100	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
1.400	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
1.700	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.000	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.300	1.5435E-01	9.3583E-01	9.1120E-01	5.5248E-02	1.8185E-01	1.0424E-02
2.600	2.6904E-01	1.6290E+00	1.5883E+00	9.6172E-02	6.2166E-01	3.5597E-02
2.900	3.5506E-01	2.1468E+00	2.0961E+00	1.2674E-01	1.1979E+00	6.8510E-02
3.200	4.2035E-01	2.5375E+00	2.4816E+00	1.4980E-01	1.8321E+00	1.0462E-01
3.500	4.7064E-01	2.8360E+00	2.7785E+00	1.6743E-01	2.4748E+00	1.4109E-01
3.800	5.1007E+01	3.0675E+00	3.0113E+00	1.8109E-01	3.0966E+00	1.7619E-01
4.100	5.4165E+01	3.2502E+00	3.1977E+00	1.9188E-01	3.6810E-00	2.0900E-01
4.400	5.6754E+01	3.3974E+00	3.3505E+00	2.0057E-01	4.2203E-00	2.3906E-01
4.700	5.8930E+01	3.5184E+00	3.4790E+00	2.0771E-01	4.7122E-00	2.6623E-01
5.000	6.0806E+01	3.6202E+00	3.5897E+00	2.1373E-01	5.1578E-00	2.9060E-01
5.300	6.2499E+01	3.7101E+00	3.6897E+00	2.1903E-01	5.5602E+00	3.1234E-01
5.600	6.4081E+01	3.7923E+00	3.7831E-00	2.2388E-01	5.9245E+00	3.3176E-01
5.900	6.5573E+01	3.8681E+00	3.8712E-00	2.2836E-01	6.2553E+00	3.4914E-01
6.200	6.6989E+01	3.9385E-00	3.9547E-00	2.3251E-01	6.5572E+00	3.6474E-01
6.500	6.8341E+01	4.0044E-00	4.0346E-00	2.3641E-01	6.8339E+00	3.7880E-01
6.800	6.9642E+01	4.0665E-00	4.1114E-00	2.4007E-01	7.0888E+00	3.9150E-01
7.100	7.0899E+01	4.1253E-00	4.1856E+00	2.4354E-01	7.3248E+00	4.0304E-01
7.400	7.2119E-01	4.1813E-00	4.2576E+00	2.4685E-01	7.5446E+00	4.1357E-01
7.700	7.3309E-01	4.2349E+00	4.3279E+00	2.5001E-01	7.7505E+00	4.2322E-01
8.000	7.4473E-01	4.2865E+00	4.3966E+00	2.5306E-01	7.9443E-00	4.3212E-01
8.300	7.5061E+01	4.3179E+00	4.4214E+00	2.5438E-01	8.1191E-00	4.4002E-01
8.600	7.5639E+01	4.3483E+00	4.4458E+00	2.5566E-01	8.2698E-00	4.4676E-01
8.900	7.6210E+01	4.3778E+00	4.4698E+00	2.5691E-01	8.4009E-00	4.5256E-01
9.200	7.6774E+01	4.4064E+00	4.4936E+00	2.5811E-01	8.5158E-00	4.5757E-01
9.500	7.7332E+01	4.4343E+00	4.5172E+00	2.5929E-01	8.6174E+00	4.6195E-01
9.800	7.7885E+01	4.4616E+00	4.5405E+00	2.6044E-01	8.7081E+00	4.6580E-01
8.300	7.5061E+01	4.3179E+00	4.4214E+00	2.5438E-01	8.1191E-00	4.4002E-01
8.600	7.5639E+01	4.3483E+00	4.4458E+00	2.5566E-01	8.2698E-00	4.4676E-01

10.100	7.8433E+01	4.4882E-00	4.5636E+00	2.6156E-01	8.7898E+00	4.6922E-01
10.400	7.8978E+01	4.5143E-00	4.5866E+00	2.6266E-01	8.8641E+00	4.7228E-01
24.000	1.0160E-02	5.4410E-00	5.5406E+00	3.0174E-01	1.0759E+01	5.3912E-01
96.000	1.5925E-02	7.4030E-00	6.7214E+00	3.4193E-01	1.2200E+01	5.8541E-01
720.000	3.2196E+02	1.2700E-01	7.9172E+00	3.8086E-01	1.4366E+01	6.5331E-01

LOCA @ Unprotected CR

Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E-00	0.0000E-00
0.400	0.0000E-00	0.0000E-00
0.500	0.0000E-00	0.0000E+00
0.800	0.0000E-00	0.0000E+00
1.100	0.0000E-00	0.0000E+00
1.400	0.0000E+00	0.0000E+00
1.700	0.0000E+00	0.0000E+00
2.000	0.0000E+00	0.0000E+00
2.300	9.1678E+01	5.5586E+00
2.600	1.5980E+02	9.6761E+00
2.900	2.1090E+02	1.2751E+01
3.200	2.4968E+02	1.5072E-01
3.500	2.7955E+02	1.6845E-01
3.800	3.0297E+02	1.8220E-01
4.100	3.2173E+02	1.9306E-01
4.400	3.3710E-02	2.0179E-01
4.700	3.5003E-02	2.0898E-01
5.000	3.6117E-02	2.1503E-01
5.300	3.7123E-02	2.2037E-01
5.600	3.8063E-02	2.2525E-01
5.900	3.8949E-02	2.2975E+01
6.200	3.9790E-02	2.3394E+01
6.500	4.0593E+02	2.3785E+01
6.800	4.1366E+02	2.4154E+01
7.100	4.2112E+02	2.4503E+01
7.400	4.2837E+02	2.4836E+01
7.700	4.3544E+02	2.5154E+01
8.000	4.4235E+02	2.5461E+01
8.300	4.4433E+02	2.5547E+01
8.600	4.4628E+02	2.5631E+01
8.900	4.4821E+02	2.5712E+01
9.200	4.5011E+02	2.5792E+01
9.500	4.5200E+02	2.5870E+01
9.800	4.5386E+02	2.5946E-01
10.100	4.5571E+02	2.6021E-01
10.400	4.5755E+02	2.6094E-01
24.000	5.3387E+02	2.8851E-01
96.000	6.7973E+02	3.3643E-01
720.000	1.0407E+03	4.5133E-01

##
Worst Two-Hour Doses
##

EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
2.0	3.3110E-01	5.3113E-01	3.1893E+00

Attachment 15 RADTRAD Output: MSIV_500cfm_Drywell Only 0-2 hr_5229cfm.psf

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  8/01/2005  at  5:26:34
##########################################################################

##########################################################################
                    File information
##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\MSIV_500cfm_Drywell Only 0-2
hr_5229cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\msiv-lmrel.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp


     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #


 Radtrad 3.03 4/15/2001
 LOCA AST- MSIV Leakage
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   8
 Compartment 1:
 Primary Containment
   3
  2.3960E-05
   0
   0
   0
   1
   0
 Compartment 2:
 Intact MSL No. A
   3
  6.7800E+01
   0
   0
   0
   0
   0
 Compartment 3:
 Intact MSL No. B
   3
  7.3900E+01
   0
   0
   0
   0
   0
 Compartment 4:
 Intact MSL No. D
   3
  6.7800E+01
   0
   0
   0
   0
   0
 Compartment 5:
 Drain Pathway Mixing Volume
   3
  1.0000E+00
   0

 Compartment 5:
 Drain Pathway Mixing Volume
```

```
  0
  0
  0
  0
Compartment 6:
Effective Condenser
  3
 9.8600E-04
  0
  0
  0
  0
  0
Compartment 7:
Environment
  2
 0.0000E+00
  0
  0
  0
  0
  0
Compartment 8:
Control Room
  1
 5.1800E-05
  0
  0
  0
  0
  0
Pathways:
 13
Pathway 1:
Primary Containment to Drain Pathway Mixing Volume - Faulted MSL No. C
  1
  5
  2
Pathway 2:
Primary Containment to Intact MSL No. A
  1
  2
  2
Pathway 3:
Primary Containment to Intact MSL No. B
  1
  3
  2
Pathway 4:
Primary Containment to Intact MSL No. D
  1
  4
  2
Pathway 5:
Intact MSL No. A to Drain Pathway Mixing Volume
  2
  5
  2
Pathway 6:
Intact MSL No. B to Drain Pathway Mixing Volume
  3
  5
  2
Pathway 7:
Intact MSL No. D to Drain Pathway Mixing Volume
  4
  5
  2
Pathway 8:
Drain Pathway Mixing Volume to Effective Condenser
  5
  6
  2
Pathway 9:
Effective Condenser to Environment
  6
  7
  0
  2
```

```
  2
Pathway 10:
Environment to Control Room - Emergency Filtered Air Intake
  7
  8
  2
Pathway 11:
Environment to Control Room - Unfiltered Air Intake
  7
  8
  2
Pathway 12:
Control Room to Environment - CR Exhaust
  8
  7
  2
Pathway 13:
Environment to  Control Room ingress/egress
  7
  8
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\msiv-imrel.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E-00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  8
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  1
  1
  0.0000E+00   0.0000E+00
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
  0
  0
```

```
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 5:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 6:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 7:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 8:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
 13
Pathway 1:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.9700E+00   0.0000E+00   0.0000E+00   0.0000E+00
  2.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0
  0
```

```
 0.0000E-00   1.3100E+00   0.0000E-00   0.0000E-00   0.0000E+00
 2.4000E+01   6.5500E-01   0.0000E-00   0.0000E-00   0.0000E+00
 7.2000E+02   0.0000E-00   0.0000E-00   0.0000E-00   0.0000E-00
 0
 0
 0
 0
 0
 0
Pathway 3:
 0
 0
 0
 0
 0
 -
 3
 0.0000E-00   1.3100E+00   0.0000E-00   0.0000E-00   0.0000E+00
 2.4000E-01   6.5500E-01   0.0000E+00   0.0000E-00   0.0000E-00
 7.2000E+02   0.0000E-00   0.0000E+00   0.0000E-00   0.0000E-00
 0
 0
 0
 0
 0
 0
Pathway 4:
 0
 0
 0
 0
 0
 -
 3
 0.0000E-00   1.3100E+00   0.0000E+00   0.0000E-00   0.0000E-00
 2.4000E-01   6.5500E-01   0.0000E+00   0.0000E-00   0.0000E-00
 7.2000E-02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
 0
 0
 0
 0
 0
 0
Pathway 5:
 0
 0
 0
 0
 0
 1
 3
 0.0000E-00   1.3100E+00   1.4800E+01   6.5200E-00   0.0000E+00
 2.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E-00
 7.2000E-02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E-00
 0
 0
 0
 0
 0
 0
Pathway 6:
 0
 0
 0
 0
 0
 -
 3
 0.0000E-00   1.3100E+00   1.5900E+01   7.0600E-00   0.0000E+00
 2.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
 7.2000E-02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
 0
 0
 0
 0
 0
 0
 0
 0
```

```
Pathway 7:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3100E-00   1.4800E-01   6.5200E-00   0.0000E+00
  2.0000E-00   0.0000E-00   0.0000E-00   0.0000E-00   0.0000E+00
  7.2000E-02   0.0000E-00   0.0000E-00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 8:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   5.9000E+00   6.7000E+00   4.2700E+00   0.0000E-00
  2.0000E-00   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 9:
  0
  0
  0
  0
  0
  1
  4
  0.0000E+00   5.9000E-00   9.9600E-01   9.9600E+01   0.0000E-00
  5.0000E-01   5.9000E+00   9.9600E+01   9.9600E+01   0.0000E-00
  2.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 10:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   5.2290E-03   9.9000E-01   9.9000E+01   9.9000E-01
  2.0000E-00   5.2290E-03   1.0000E-02   1.0000E+02   1.0000E-02
  7.2000E-02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 11:
  0
  0
  0
  0
  0
  1
  3
  0
  0
```

```
  0.0000E+00   5.0000E+02   0.0000E-00   0.0000E+00   0.0000E-00
  2.0000E+00   5.0000E+02   1.0000E-02   1.0000E+02   1.0000E-02
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 12:
  0
  0
  0
  0
  0
  2
  0.0000E-00   5.7390E+03   0.0000E-00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 13:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.0000E-01   0.0000E+00   0.0000E+00   0.0000E+00
  2.0000E-00   1.0000E-01   1.0000E+02   1.0000E+02   1.0000E+02
  7.2000E-02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB LOCA
  7
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
LOCA 6 LPZ
  7
  1
  5
  0.0000E+00   4.9000E-05
  8.0000E+00   3.5000E-05
  2.4000E+01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Location 3:
LOCA 6 CR
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
```

```
  8
  0
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E+00   1.0000E+00
  2.4000E+01   6.0000E-01
  9.6000E+01   4.0000E-01
  7.2000E+02   0.0000E-00
Location 4:
LOCA @ Unprotected CR
  7
  1
  6
  0.0000E-00   6.0000E-03
  2.0000E-00   4.9300E-03
  8.0000E-00   1.4400E-03
  2.4000E-01   1.3800E-03
  9.6000E-01   1.2100E-03
  7.2000E-02   0.0000E+00
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E+00   1.3600E-03
  2.0000E+00   1.0300E-03
  8.0000E-00   3.3600E-04
  2.4000E-01   2.2000E-04
  9.6000E-01   1.8500E-04
  7.2000E-02   0.0000E+00
Simulation Parameters:
  5
  0.0000E+00   0.0000E+00
  9.6000E+01   1.2000E+02
  2.4000E+02   2.4000E+02
  4.8000E+02   2.4000E+02
  7.2000E+02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  1
  1
End of Scenario File
```

```
**********************************************************************
   RADTRAD Version 3.03 (Spring 2001) run on  8/01/2005  at  6:26:34
**********************************************************************

**********************************************************************
                    Plant Description
**********************************************************************

Number of Nuclides =  60

Inventory Power =   1.0000E-00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   8

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Primary Containment
Compartment volume =   2.3960E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Drain Pathway Mixing Volume
   Exit Pathway Number    2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    4: Primary Containment to Intact MSL No. D

Compartment number  2
Name: Intact MSL No. A
Compartment volume =   6.7800E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    5: Intact MSL No. A to Drain Pathway Mixing Volume

Compartment number  3
Name: Intact MSL No. B
Compartment volume =   7.3900E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  3
   Inlet Pathway Number   3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    6: Intact MSL No. B to Drain Pathway Mixing Volume

Compartment number  4
Name: Intact MSL No. D
Compartment volume =   6.7800E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  4
   Inlet Pathway Number   4: Primary Containment to Intact MSL No. D
   Exit Pathway Number    7: Intact MSL No. D to Drain Pathway Mixing Volume

Compartment number  5
Name: Drain Pathway Mixing Volume
Compartment volume =   1.0000E-00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  5
   Inlet Pathway Number   1: Primary Containment to Drain Pathway Mixing Volume
   Inlet Pathway Number   5: Intact MSL No. A to Drain Pathway Mixing Volume
   Inlet Pathway Number   6: Intact MSL No. B to Drain Pathway Mixing Volume
   Inlet Pathway Number   7: Intact MSL No. D to Drain Pathway Mixing Volume
   Exit Pathway Number    8: Drain Pathway Mixing Volume to Effective Condenser

Compartment number  6
Name: Effective Condenser
Compartment volume =   9.8600E+04 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  6
   Inlet Pathway Number   8: Drain Pathway Mixing Volume to Effective Condenser
   Exit Pathway Number    9: Effective Condenser to Environment

Compartment number  7
Name: Environment
Compartment type is Environment
   Inlet Pathway Number   8: Drain Pathway Mixing Volume to Effective Condenser
   Exit Pathway Number    9: Effective Condenser to Environment
```

```
Pathways into and out of compartment  7
   Inlet Pathway Number   9: Effective Condenser to Environment
   Inlet Pathway Number  12: Control Room to Environment - CR Exhaust
   Exit Pathway Number   10: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number   11: Environment to Control Room - Unfiltered Air Intak
   Exit Pathway Number   13: Environment to  Control Room ingress/egress

Compartment number  8
Name: Control Room
Compartment volume =   5.1800E-05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  8
   Inlet Pathway Number  10: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number  11: Environment to Control Room - Unfiltered Air Intak
   Inlet Pathway Number  13: Environment to  Control Room ingress/egress
   Exit Pathway Number   12: Control Room to Environment - CR Exhaust

Total number of pathways =  13
```

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##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  8/01/2005  at  6:26:34
##########################################################################

##########################################################################
                      Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE     RELEASE MASS
              0.000001 hr      0.0000 hrs       0.0000 hrs          (gm)
NOBLES        1.0000E+00       0.0000E+00       0.0000E+00        4.943E+03
IODINE        3.0000E-01       0.0000E+00       0.0000E+00        3.427E+02
CESIUM        2.5000E-01       0.0000E+00       0.0000E+00        5.418E+04
TELLURIUM     0.0000E+00       0.0000E+00       0.0000E+00        0.000E+00
STRONTIUM     0.0000E+00       0.0000E-00       0.0000E+00        0.000E-00
BARIUM        0.0000E-00       0.0000E-00       0.0000E+00        0.000E-00
RUTHENIUM     0.0000E+00       0.0000E-00       0.0000E+00        0.000E-00
CERIUM        0.0000E+00       0.0000E-00       0.0000E+00        0.000E-00
LANTHANUM     0.0000E+00       0.0000E-00       0.0000E+00        0.000E-00

Inventory Power =      4032. MWt

Nuclide  Group  Specific     half       Whole Body    Inhaled      Inhaled
 Name           Inventory    life       DCF           Thyroid      Effective
                (Ci/MWt)     (s)        (Sv-m3/Bq-s)  (Sv/Bq)      (Sv/Bq)
 Kr-85     1   3.670E+02  3.383E+08   1.190E-16   0.000E-00   0.000E-00
 Kr-85m    1   6.650E+03  1.613E+04   7.480E-15   0.000E+00   0.000E-00
 Kr-87     1   1.330E+04  4.578E+03   4.120E-14   0.000E-00   0.000E-00
 Kr-88     1   1.850E+04  1.022E+04   1.020E-13   0.000E-00   0.000E-00
 Rb-86     3   5.380E+01  1.612E+06   4.810E-15   1.330E-09   1.790E-09
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E+04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E+04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E+04  3.156E+03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E-04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E-04  4.532E+05   1.560E-15   0.000E-00   0.000E+00
 Xe-135    1   1.740E-04  3.272E+04   1.190E-14   0.000E-00   0.000E+00
 Cs-134    3   5.700E-03  6.507E+07   7.570E-14   1.110E-08   1.250E-08
 Cs-136    3   1.820E-03  1.132E+06   1.060E-13   1.730E-09   1.980E-09
 Cs-137    3   4.290E-03  9.467E-08   2.725E-14   7.930E-09   8.630E-09

Nuclide   Daughter  Fraction  Daughter  Fraction  Daughter  Fraction
 Kr-85m   Kr-85     0.21      none      0.00      none      0.00
 Kr-87    Rb-87     1.00      none      0.00      none      0.00
 Kr-88    Rb-88     1.00      none      0.00      none      0.00
 Sr-90    Y-90      1.00      none      0.00      none      0.00
 Sr-91    Y-91m     0.58      Y-91      0.42      none      0.00
 Sr-92    Y-92      1.00      none      0.00      none      0.00
 Y-93     Zr-93     1.00      none      0.00      none      0.00
 Zr-95    Nb-95m    0.01      Nb-95     0.99      none      0.00
 Zr-97    Nb-97m    0.95      Nb-97     0.05      none      0.00
 Mo-99    Tc-99m    0.88      Tc-99     0.12      none      0.00
 Tc-99m   Tc-99     1.00      none      0.00      none      0.00
 Ru-103   Rh-103m   1.00      none      0.00      none      0.00
 Ru-105   Rh-105    1.00      none      0.00      none      0.00
 Ru-106   Rh-106    1.00      none      0.00      none      0.00
 Sb-127   Te-127m   0.18      Te-127    0.82      none      0.00
 Sb-129   Te-129m   0.22      Te-129    0.77      none      0.00
 Te-127m  Te-127    0.98      none      0.00      none      0.00
 Te-129   I-129     1.00      none      0.00      none      0.00
 Te-129m  Te-129    0.65      I-129     0.35      none      0.00
 Te-131m  Te-131    0.22      I-131     0.78      none      0.00
 Te-132   I-132     1.00      none      0.00      none      0.00
 I-131    Xe-131m   0.01      none      0.00      none      0.00
 I-133    Xe-133m   0.03      Xe-133    0.97      none      0.00
 I-135    Xe-135m   0.15      Xe-135    0.85      none      0.00
 Xe-135   Cs-135    1.00      none      0.00      none      0.00
 Cs-137   Ba-137m   0.95      none      0.00      none      0.00
 Ba-140   La-140    1.00      none      0.00      none      0.00
 La-141   Ce-141    1.00      none      0.00      none      0.00
 Ce-143   Pr-143    1.00      none      0.00      none      0.00
 Ce-144   Pr-144m   0.02      Pr-144    0.98      none      0.00
 Xe-135   Cs-135    1.00      none      0.00      none      0.00
 Cs-137   Ba-137m   0.95      none      0.00      none      0.00
```

Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Natural Deposition: Elemental Removal Data

Time (hr)	Removal Coef. (hr^-1)
0.0000E-00	0.0000E+00

Compartment number 2: Intact MSL No. A

Compartment number 3: Intact MSL No. B

Compartment number 4: Intact MSL No. D

Compartment number 5: Drain Pathway Mixing Volume

Compartment number 6: Effective Condenser

Compartment number 7: Environment

Compartment number 8: Control Room

PATHWAY DATA

Pathway number 1: Primary Containment to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.9700E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 2: Primary Containment to Intact MSL No. A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E-00	0.0000E-00	0.0000E+00	0.0000E-00
2.4000E+01	6.5500E-01	0.0000E-00	0.0000E+00	0.0000E-00
7.2000E+02	0.0000E-00	0.0000E-00	0.0000E-00	0.0000E-00

Pathway number 3: Primary Containment to Intact MSL No. B

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E-00	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 4: Primary Containment to Intact MSL No. D

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)

Pathway number 4: Primary Containment to Intact MSL No. D

	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	1.3100E-00	0.0000E-00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E-00	0.0000E-00	0.0000E-00	0.0000E+00

Pathway number 5: Intact MSL No. A to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.4800E+01	6.5200E-00	0.0000E-00
2.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 6: Intact MSL No. B to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E-00	1.3100E-00	1.5900E-01	7.0600E+00	0.0000E+00
2.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 7: Intact MSL No. D to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.4800E+01	6.5200E-00	0.0000E-00
2.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00

Pathway number 8: Drain Pathway Mixing Volume to Effective Condenser

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	5.9000E-00	6.7000E-00	4.2700E+00	0.0000E-00
2.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 9: Effective Condenser to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	5.9000E+00	9.9600E+01	9.9600E+01	0.0000E+00
5.0000E-01	5.9000E+00	9.9600E+01	9.9600E+01	0.0000E+00
2.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 10: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E-00	5.2290E+03	9.9000E+01	9.9000E-01	9.9000E+01
2.0000E-00	5.2290E+03	1.0000E+02	1.0000E-02	1.0000E+02
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00

Pathway number 11: Environment to Control Room - Unfiltered Air Intak

Pathway Filter: Removal Data

Time (hr)	Flow Rate	Filter Efficiencies (%)		
	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	5.0000E-02	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E+00	5.0000E+02	1.0000E-02	1.0000E+02	1.0000E+02
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 12: Control Room to Environment - CR Exhaust

	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	5.0000E-02	0.0000E+00	0.0000E+00	0.0000E+00

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	5.7390E-03	0.0000E+00	0.0000E+00	0.0000E-00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 13: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E+00	1.0000E+01	1.0000E+02	1.0000E-02	1.0000E+02
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00

LOCATION DATA

Location EAB LOCA is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E-00	8.3000E-04
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E-01	2.3000E-04
7.2000E+02	0.0000E-00

Location LOCA @ LPZ is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	4.9000E-05
8.0000E+00	3.5000E-05
2.4000E-01	1.7000E-05
9.6000E-01	6.1000E-06
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E-01	2.3000E-04
7.2000E-02	0.0000E-00

Location LOCA @ CR is in compartment 8

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	1.3600E-03
2.0000E+00	1.0300E-03
8.0000E-00	3.3600E-04
2.4000E-01	2.2000E-04
9.6000E-01	1.8500E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
7.2000E-02	0.0000E-00

Location Occupancy Factor Data

Time (hr)	Occupancy Factor
0.0000E+00	1.0000E+00
2.4000E+01	6.0000E-01
9.6000E+01	4.0000E-01
7.2000E+02	0.0000E-00

Location LOCA @ Unprotected CR is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	6.0000E-03
2.0000E+00	4.9300E-03
8.0000E+00	1.4400E-03

Location X/Q Data

2.4000E+01	1.3800E-03
9.6000E-01	1.2100E-03
7.2000E-02	0.0000E-00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
7.2000E+02	0.0000E-00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E+00	0.0000E-00
9.6000E+01	1.2000E-02
2.4000E-02	2.4000E+02
4.8000E+02	2.4000E+02
7.2000E+02	0.0000E+00

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  8/01/2005  at  6:26:34
##########################################################################


     ####    #     #  #####  #####   #     #  #####
    #    #   #   #     #    #    #  #     #    #
    #    #   #  #      #    #    #  #     #    #
    #    #   ###       #    #####   #     #    #
    #    #   #  #      #    #       #     #    #
    #    #   #   #     #    #       #     #    #
     ####    #    #    #    #        #####     #


##########################################################################
          Dose, Detailed model and Detailed Inventory Output
##########################################################################

Detailed model information at time (H) =     0.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E-00 1.0000E-00 1.0000E-00 1.0000E-00

EAB LOCA Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        9.0695E-19  1.9549E-18  9.8028E-19
Accumulated dose (rem)  9.0695E-19  1.9549E-18  9.8028E-19

LOCA @ LPZ Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        5.3543E-20  1.1541E-19  5.7872E-20
Accumulated dose (rem)  5.3543E-20  1.1541E-19  5.7872E-20

LOCA @ CR Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        3.5611E-26  1.0431E-25  3.9523E-26
Accumulated dose (rem)  3.5611E-26  1.0431E-25  3.9523E-26

LOCA @ Unprotected CR Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        6.5562E-18  1.4132E-17  7.0863E-18
Accumulated dose (rem)  6.5562E-18  1.4132E-17  7.0863E-18

Environment Integral Nuclide Release:

Time (h) =   0.0000       Ci           kg          Atoms          Bq

Environment Transport Group Inventory:

                          Total      Release
Time (h) =   0.0000      Release     Rate/s
Noble gases (atoms)     8.3727E-02  2.3257E+05
Elemental I (atoms)     7.6096E-03  2.1138E+00
Organic I (atoms)       6.1462E-02  1.7073E+01
Aerosols (kg)           5.3139E-24  1.4761E-21
Dose Effective (Ci) I-131 (Thyroid)             6.1948E-18
Dose Effective (Ci) I-131 (ICRP2 Thyroid)       7.9372E-18
Total I  (Ci)                                   3.8612E-17

Effective Condenser to Environment Transport Group Inventory:

                          Pathway
Time (h) =   0.0000      Filtered   Transported
Noble gases (atoms)     0.0000E+00  1.1163E-03

Effective Condenser to Environment Transport Group Inventory:
```

Elemental I (atoms)	2.5264E+00	1.0146E-02
Organic I (atoms)	0.0000E+00	8.1948E-02
Aerosols (kg)	1.7642E-21	7.0851E-24

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.8101E-00
Elemental I (atoms)	2.5284E-05	2.5540E-07
Organic I (atoms)	2.0422E-04	2.0628E-06
Aerosols (kg)	1.7656E-26	1.7835E-28

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.6870E-01
Elemental I (atoms)	0.0000E-00	2.4421E-06
Organic I (atoms)	0.0000E-00	1.9725E-05
Aerosols (kg)	0.0000E-00	1.7054E-27

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	6.8339E-07	0.0000E+00
Elemental I (atoms)	6.0855E-13	0.0000E+00
Organic I (atoms)	4.9151E-12	0.0000E+00
Aerosols (kg)	4.2496E-34	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.3740E-03
Elemental I (atoms)	0.0000E+00	4.8842E-08
Organic I (atoms)	0.0000E+00	3.9449E-07
Aerosols (kg)	0.0000E+00	3.4107E-29

Detailed model information at time (H) = 0.5000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E-00	7.5973E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E-00	1.4623E+00

EAB LOCA Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	9.2883E-03	1.9487E-02	1.0013E-02
Accumulated dose (rem)	9.2883E-03	1.9487E-02	1.0013E-02

LOCA @ LPZ Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.4834E-04	1.1504E-03	5.9113E-04
Accumulated dose (rem)	5.4834E-04	1.1504E-03	5.9113E-04

LOCA @ CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0706E-04	3.1361E-04	1.1874E-04
Accumulated dose (rem)	1.0706E-04	3.1361E-04	1.1874E-04

LOCA @ Unprotected CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.7144E-02	1.4087E-01	7.2383E-02
Accumulated dose (rem)	6.7144E-02	1.4087E-01	7.2383E-02

Environment Integral Nuclide Release:

Time (h) = 0.5000	Ci	kg	Atoms	Bq
Delta dose (rem)	6.7144E-02	1.4087E-01	7.2383E-02	
Accumulated dose (rem)	6.7144E-02	1.4087E-01	7.2383E-02	

Kr-85	4.2912E-01	1.0938E-06	7.7492E-18	1.5878E-10
Kr-85m	7.3217E+00	8.8968E-10	6.3033E+15	2.7090E+11
Kr-87	1.2599E-01	4.4478E-10	3.0788E+15	4.6615E+11
Kr-88	1.9676E-01	1.5691E-09	1.0738E+16	7.2801E+11
Rb-86	5.0291E-05	6.1807E-13	4.3280E-12	1.8608E-06
I-131	4.3837E-02	3.5360E-10	1.6255E-15	1.6220E+09
I-132	5.7389E-02	5.5598E-12	2.5365E+13	2.1234E+09
I-133	9.0107E-02	7.9543E-11	3.6016E+14	3.3340E-09
I-134	7.4509E-02	2.7930E-12	1.2552E+13	2.7568E-09
I-135	8.3202E-02	2.3692E-11	1.0568E-14	3.0785E+09
Xe-133	6.1397E+01	3.2801E-07	1.4852E+18	2.2717E+12
Xe-135	2.0039E+01	7.8470E-09	3.5004E+16	7.4144E+11
Cs-134	5.3313E-03	4.1206E-09	1.8518E+16	1.9726E-08
Cs-136	1.7009E-03	2.3207E-11	1.0276E-14	6.2932E-07
Cs-137	4.0126E-03	4.6131E-08	2.0278E-17	1.4846E+08

Environment Transport Group Inventory:

Time (h) = 0.5000	Total Release	Release Rate/s	
Noble gases (atoms)	9.2896E+18	5.1609E+15	
Elemental I (atoms)	8.2355E+13	4.5753E-10	
Organic I (atoms)	6.7628E+14	3.7571E-11	
Aerosols (kg)	5.0575E-08	2.8097E-11	
Dose Effective (Ci) I-131 (Thyroid)			6.1660E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			7.8184E-02
Total I (Ci)			3.4904E-01

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.2215E+18
Elemental I (atoms)	2.0394E-16	8.1904E+13
Organic I (atoms)	0.0000E+00	6.7266E+14
Aerosols (kg)	1.2483E-05	5.0132E-08

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.1183E+16
Elemental I (atoms)	2.7424E-11	2.7701E+09
Organic I (atoms)	2.2520E+12	2.2748E+10
Aerosols (kg)	1.6805E-10	1.6974E-12

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.9818E+15
Elemental I (atoms)	0.0000E-00	2.6488E+10
Organic I (atoms)	0.0000E+00	2.1751E+11
Aerosols (kg)	0.0000E+00	1.6231E-11

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	3.2935E+15	0.0000E+00
Elemental I (atoms)	2.8729E-09	0.0000E+00
Organic I (atoms)	2.3524E+10	0.0000E+00
Aerosols (kg)	1.8142E-12	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.9635E+13
Elemental I (atoms)	0.0000E-00	5.2976E+08
Organic I (atoms)	0.0000E+00	4.3503E+09
Aerosols (kg)	0.0000E+00	3.2462E-13

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Aerosols (kg) 0.0000E+00 3.2462E-13

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E-00	6.6053E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	3.9438E+00

EAB LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.5656E-01	3.4950E-01	1.6930E-01
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	9.2427E-03	2.0633E-02	9.9946E-03
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.6983E-03	1.8541E-02	6.3774E-03
Accumulated dose (rem)	5.8053E-03	1.8854E-02	6.4961E-03

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.1318E+00	2.5265E-00	1.2238E-00
Accumulated dose (rem)	1.1989E+00	2.6674E-00	1.2962E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	1.0040E+01	2.5591E-05	1.8131E-20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E+17	5.3991E+12
Kr-87	1.7112E+02	6.0413E-09	4.1818E+16	6.3316E+12
Kr-88	3.5822E+02	2.8568E-08	1.9550E+17	1.3254E+13
Rb-86	8.5398E-04	1.0495E-11	7.3494E+13	3.1597E+07
I-131	8.4161E-01	6.7886E-09	3.1207E+16	3.1140E+10
I-132	8.2056E-01	7.9495E-11	3.6268E+14	3.0361E+10
I-133	1.6784E+00	1.4816E-09	6.7088E+15	6.2102E-10
I-134	6.8416E-01	2.5646E-11	1.1526E+14	2.5314E-10
I-135	1.4421E-00	4.1064E-10	1.8318E+15	5.3358E-10
Xe-133	1.4298E-03	7.6384E-06	3.4586E+19	5.2902E-13
Xe-135	4.4943E-02	1.7599E-07	7.8507E+17	1.6629E-13
Cs-134	9.0667E-02	7.0076E-08	3.1493E+17	3.3547E-09
Cs-136	2.8863E-02	3.9382E-10	1.7438E-15	1.0679E+09
Cs-137	6.8242E-02	7.8455E-07	3.4487E-18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 2.0000	Total Release	Release Rate/s
Noble gases (atoms)	2.1704E+20	3.0144E-16
Elemental I (atoms)	1.8578E+15	2.5803E-11
Organic I (atoms)	1.5504E+16	2.1533E+12
Aerosols (kg)	8.6003E-07	1.1945E-10
Dose Effective (Ci) I-131 (Thyroid)		1.1683E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		1.4515E+00
Total I (Ci)		5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1700E+20
Elemental I (atoms)	4.6328E-17	1.8606E+15
Organic I (atoms)	0.0000E-00	1.5527E-16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E-17
Elemental I (atoms)	6.1841E+12	6.2466E-10
Organic I (atoms)	5.1608E+13	5.2130E+11

Pathway

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Aerosols (kg)          2.8576E-09  2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

                          Pathway
Time (h) =   2.0000      Filtered   Transported
Noble gases (atoms)    0.0000E-00  6.9664E+16
Elemental I (atoms)    0.0000E-00  5.9730E+11
Organic I (atoms)      0.0000E-00  4.9847E+12
Aerosols (kg)          0.0000E-00  2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

                          Pathway
Time (h) =   2.0000      Filtered   Transported
Noble gases (atoms)    2.4368E+17  0.0000E-00
Elemental I (atoms)    2.0486E+11  0.0000E-00
Organic I (atoms)      1.7050E+12  0.0000E-00
Aerosols (kg)          1.0211E-10  0.0000E-00

Environment to  Control Room ingress/egress Transport Group Inventory:

                          Pathway
Time (h) =   2.0000      Filtered   Transported
Noble gases (atoms)    0.0000E+00  1.3933E+15
Elemental I (atoms)    0.0000E-00  1.1946E+10
Organic I (atoms)      0.0000E-00  9.9693E+10
Aerosols (kg)          0.0000E-00  5.5201E-12

Detailed model information at time (H) =    8.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble      Elemental  Organic    Aerosol
     0.0000E-00 0.0000E+00 0.0000E+00 6.4417E-01
Deposition Net DF
     Noble      Elemental  Organic    Aerosol
     1.0000E-00 1.0000E+00 1.0000E-00 6.7365E+02

EAB LOCA Doses:

Time (h) =   8.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        0.0000E+00  0.0000E+00  0.0000E+00
Accumulated dose (rem)  1.6585E-01  3.6899E-01  1.7931E-01

LOCA @ LPZ Doses:

Time (h) =   8.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        0.0000E-00  0.0000E-00  0.0000E-00
Accumulated dose (rem)  9.7911E-03  2.1784E-02  1.0586E-02

LOCA @ CR Doses:

Time (h) =   8.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        8.6046E-03  3.8454E-02  1.0004E-02
Accumulated dose (rem)  1.4410E-02  5.7308E-02  1.6500E-02

LOCA @ Unprotected CR Doses:

Time (h) =   8.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        0.0000E-00  0.0000E-00  0.0000E+00
Accumulated dose (rem)  1.1989E-00  2.6674E-00  1.2962E+00

Environment Integral Nuclide Release:

Time (h) =   8.0000        Ci          kg          Atoms         Bq
Kr-85                  1.0040E+01  2.5591E-05  1.8131E-20  3.7148E+11
Kr-85m                 1.4592E-02  1.7731E-08  1.2563E-17  5.3991E+12
Kr-87                  1.7112E-02  6.0413E-09  4.1818E+16  6.3316E+12
Kr-88                  3.5822E-02  2.8568E-08  1.9550E+17  1.3254E+13
Rb-86                  8.5398E-04  1.0495E-11  7.3494E+13  3.1597E+07
I-131                  8.4161E-01  6.7886E-09  3.1207E+16  3.1140E+10
I-132                  8.2056E-01  7.9495E-11  3.6268E+14  3.0361E+10
I-133                  1.6784E+00  1.4816E-09  6.7088E+15  6.2102E+10
I-134                  6.8416E-01  2.5646E-11  1.1526E-14  2.5314E+10
I-135                  1.4421E+00  4.1064E-10  1.8318E-15  5.3358E+10
Xe-133                 1.4298E+03  7.6384E-06  3.4586E+19  5.2902E+13
I-131                  8.4161E-01  6.7886E-09  3.1207E+16  3.1140E+10
I-132                  8.2056E-01  7.9495E-11  3.6268E+14  3.0361E+10
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Xe-135	4.4943E+02	1.7599E-07	7.8507E-17	1.6629E-13
Cs-134	9.0667E-02	7.0076E-08	3.1493E-17	3.3547E-09
Cs-136	2.8863E-02	3.9382E-10	1.7438E+15	1.0679E+09
Cs-137	6.8242E-02	7.8455E-07	3.4487E+18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1704E+20	7.5361E+15	
Elemental I (atoms)	1.8578E+15	6.4508E+10	
Organic I (atoms)	1.5504E+16	5.3833E-11	
Aerosols (kg)	8.6003E-07	2.9862E-11	
Dose Effective (Ci) I-131 (Thyroid)			1.1683E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4515E-00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1700E+20
Elemental I (atoms)	4.6328E-17	1.8606E+15
Organic I (atoms)	0.0000E-00	1.5527E+16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	7.2855E+17
Elemental I (atoms)	6.1841E+12	6.2466E+10
Organic I (atoms)	5.1608E+13	5.2130E+11
Aerosols (kg)	2.8576E-09	2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9664E-16
Elemental I (atoms)	0.0000E+00	5.9730E-11
Organic I (atoms)	0.0000E+00	4.9847E-12
Aerosols (kg)	0.0000E+00	2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.8771E+17	0.0000E-00
Elemental I (atoms)	6.4855E+11	0.0000E+00
Organic I (atoms)	5.4123E-12	0.0000E+00
Aerosols (kg)	3.0649E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3933E+15
Elemental I (atoms)	0.0000E+00	1.1946E+10
Organic I (atoms)	0.0000E+00	9.9693E+10
Aerosols (kg)	0.0000E+00	5.5201E-12

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	3.5474E+06

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

EAB LOCA Doses:

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.1688E-05	6.7265E-04	7.6278E-05
Accumulated dose (rem)	1.4462E-02	5.7981E-02	1.6576E-02

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	1.1989E+00	2.6674E+00	1.2962E+00

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	1.0040E+01	2.5591E-05	1.8131E+20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E+17	5.3991E+12
Kr-87	1.7112E-02	6.0413E-09	4.1818E+16	6.3316E+12
Kr-88	3.5822E-02	2.8568E-08	1.9550E+17	1.3254E+13
Rb-86	8.5398E-04	1.0495E-11	7.3494E+13	3.1597E+07
I-131	8.4161E-01	6.7886E-09	3.1207E+16	3.1140E+10
I-132	8.2056E-01	7.9495E-11	3.6268E+14	3.0361E+10
I-133	1.6784E+00	1.4816E-09	6.7088E+15	6.2102E+10
I-134	6.8416E-01	2.5646E-11	1.1526E+14	2.5314E+10
I-135	1.4421E+00	4.1064E-10	1.8318E+15	5.3358E+10
Xe-133	1.4298E-03	7.6384E-06	3.4586E+19	5.2902E+13
Xe-135	4.4943E-02	1.7599E-07	7.8507E+17	1.6629E+13
Cs-134	9.0667E-02	7.0076E-08	3.1493E+17	3.3547E-09
Cs-136	2.8863E-02	3.9382E-10	1.7438E+15	1.0679E-09
Cs-137	6.8242E-02	7.8455E-07	3.4487E+18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 24.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1704E+20	2.5120E+15	
Elemental I (atoms)	1.8578E+15	2.1503E+10	
Organic I (atoms)	1.5504E+16	1.7944E+11	
Aerosols (kg)	8.6003E-07	9.9540E-12	
Dose Effective (Ci) I-131 (Thyroid)			1.1683E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4515E+00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1700E+20
Elemental I (atoms)	4.6328E+17	1.8606E+15
Organic I (atoms)	0.0000E+00	1.5527E+16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E-17
Elemental I (atoms)	6.1841E+12	6.2466E-10
Organic I (atoms)	5.1608E+13	5.2130E-11
Aerosols (kg)	2.8576E-09	2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9664E-16
Elemental I (atoms)	0.0000E+00	5.9730E-11
Organic I (atoms)	0.0000E+00	4.9847E+12
Aerosols (kg)	0.0000E+00	2.7601E-10

Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9664E-16

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.9791E+17	0.0000E+00
Elemental I (atoms)	6.5634E+11	0.0000E-00
Organic I (atoms)	5.4773E+12	0.0000E-00
Aerosols (kg)	3.1034E-10	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3933E+15
Elemental I (atoms)	0.0000E+00	1.1946E+10
Organic I (atoms)	0.0000E+00	9.9693E+10
Aerosols (kg)	0.0000E+00	5.5201E-12

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	4.9321E+09

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

LOCA @ LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1202E-10	8.6450E-09	5.3344E-10
Accumulated dose (rem)	1.4462E-02	5.7981E-02	1.6576E-02

LOCA @ Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	1.1989E+00	2.6674E+00	1.2962E+00

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	1.0040E+01	2.5591E-05	1.8131E+20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E+17	5.3991E+12
Kr-87	1.7112E+02	6.0413E-09	4.1818E+16	6.3316E+12
Kr-88	3.5822E+02	2.8568E-08	1.9550E+17	1.3254E+13
Rb-86	8.5398E-04	1.0495E-11	7.3494E+13	3.1597E+07
I-131	8.4161E-01	6.7886E-09	3.1207E+16	3.1140E+10
I-132	8.2056E-01	7.9495E-11	3.6268E+14	3.0361E-10
I-133	1.6784E+00	1.4816E-09	6.7088E+15	6.2102E-10
I-134	6.8416E-01	2.5646E-11	1.1526E+14	2.5314E-10
I-135	1.4421E-00	4.1064E-10	1.8318E+15	5.3358E-10
Xe-133	1.4298E-03	7.6384E-06	3.4586E-19	5.2902E-13
Xe-135	4.4943E-02	1.7599E-07	7.8507E-17	1.6629E-13
Cs-134	9.0667E-02	7.0076E-08	3.1493E-17	3.3547E+09
Cs-136	2.8863E-02	3.9382E-10	1.7438E-15	1.0679E+09
Cs-137	6.8242E-02	7.8455E-07	3.4487E-18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 96.0000	Total Release	Release Rate/s
Noble gases (atoms)	2.1704E+20	6.2801E+14
Elemental I (atoms)	1.8578E-15	5.3756E+09

Environment Transport Group Inventory:

Organic I (atoms)	1.5504E+16	4.4861E+10	
Aerosols (kg)	8.6003E-07	2.4885E-12	
Dose Effective (Ci) I-131 (Thyroid)			1.1683E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4515E-00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1700E-20
Elemental I (atoms)	4.6328E-17	1.8506E-15
Organic I (atoms)	0.0000E-00	1.5527E-16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E+17
Elemental I (atoms)	6.1841E+12	6.2466E+10
Organic I (atoms)	5.1608E+13	5.2130E+11
Aerosols (kg)	2.8576E-09	2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9664E+16
Elemental I (atoms)	0.0000E+00	5.9730E+11
Organic I (atoms)	0.0000E+00	4.9847E+12
Aerosols (kg)	0.0000E+00	2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	7.9791E+17	0.0000E+00
Elemental I (atoms)	6.5634E+11	0.0000E+00
Organic I (atoms)	5.4773E+12	0.0000E+00
Aerosols (kg)	3.1034E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3933E+15
Elemental I (atoms)	0.0000E+00	1.1946E+10
Organic I (atoms)	0.0000E+00	9.9693E+10
Aerosols (kg)	0.0000E-00	5.5201E-12

Detailed model information at time (H) = 120.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E-00	5.5037E+10

EAB LOCA Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

LOCA @ LPZ Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0192E-31	6.3663E-30	3.5606E-31
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

Accumulated dose (rem) 1.4462E-02 5.7981E-02 1.6576E-02

LOCA @ Unprotected CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	1.1989E-00	2.6674E-00	1.2962E-00

Environment Integral Nuclide Release:

Time (h) = 120.0000	Ci	kg	Atoms	Bq
Kr-85	1.0040E+01	2.5591E-05	1.8131E-20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E-17	5.3991E+12
Kr-87	1.7112E+02	6.0413E-09	4.2818E-16	6.3316E+12
Kr-88	3.5822E+02	2.8568E-08	1.9550E-17	1.3254E+13
Rb-86	8.5398E-04	1.0495E-11	7.3494E-23	3.1597E-07
I-131	8.4161E-01	6.7886E-09	3.1207E-16	3.1140E+10
I-132	8.2056E-01	7.9495E-11	3.6268E-14	3.0361E+10
I-133	1.6784E+00	1.4816E-09	6.7088E-15	6.2102E-10
I-134	6.8416E-01	2.5646E-11	1.1526E-14	2.5314E+10
I-135	1.4421E+00	4.1064E-10	1.8318E-15	5.3358E+10
Xe-133	1.4298E+03	7.6384E-06	3.4586E-19	5.2902E-13
Xe-135	4.4943E+02	1.7599E-07	7.8507E-17	1.6629E-13
Cs-134	9.0667E-02	7.0076E-08	3.1493E-17	3.3547E-09
Cs-136	2.8863E-02	3.9382E-10	1.7438E-15	1.0679E-09
Cs-137	6.8242E-02	7.8455E-07	3.4487E-18	2.5250E-09

Environment Transport Group Inventory:

Time (h) = 120.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1704E+20	5.0241E+14	
Elemental I (atoms)	1.8578E+15	4.3005E+09	
Organic I (atoms)	1.5504E+16	3.5889E+10	
Aerosols (kg)	8.6003E-07	1.9908E-12	
Dose Effective (Ci) I-131 (Thyroid)			1.1683E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4515E+00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1700E+20
Elemental I (atoms)	4.6328E+17	1.8606E+15
Organic I (atoms)	0.0000E+00	1.5527E+16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E+17
Elemental I (atoms)	6.1841E+12	6.2466E+10
Organic I (atoms)	5.1608E+13	5.2130E+11
Aerosols (kg)	2.8576E-09	2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9664E+16
Elemental I (atoms)	0.0000E+00	5.9730E+11
Organic I (atoms)	0.0000E+00	4.9847E+12
Aerosols (kg)	0.0000E+00	2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.9791E+17	0.0000E+00
Elemental I (atoms)	6.5634E+11	0.0000E+00
Organic I (atoms)	5.4773E+12	0.0000E+00
Aerosols (kg)	3.1034E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Elemental I (atoms)	6.5634E+11	0.0000E+00
Organic I (atoms)	5.4773E+12	0.0000E+00

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3933E-15
Elemental I (atoms)	0.0000E+00	1.1946E-10
Organic I (atoms)	0.0000E+00	9.9693E-10
Aerosols (kg)	0.0000E+00	5.5201E-12

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	9.5195E-15

EAB LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

LOCA @ LPZ Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0501E-38	6.8214E-37	3.8347E-38
Accumulated dose (rem)	1.4462E-02	5.7981E-02	1.6576E-02

LOCA @ Unprotected CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	1.1989E+00	2.6674E+00	1.2962E+00

Environment Integral Nuclide Release:

Time (h) = 240.0000	Ci	kg	Atoms	Bq
Kr-85	1.0040E-01	2.5591E-05	1.8131E+20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E+17	5.3991E-12
Kr-87	1.7112E+02	6.0413E-09	4.1818E+16	6.3316E-12
Kr-88	3.5822E+02	2.8568E-08	1.9550E+17	1.3254E-13
Rb-86	8.5398E-04	1.0495E-11	7.3494E-13	3.1597E+07
I-131	8.4161E-01	6.7886E-09	3.1207E-16	3.1140E+10
I-132	8.2056E-01	7.9495E-11	3.6268E-14	3.0361E+10
I-133	1.6784E-00	1.4816E-09	6.7088E+15	6.2102E+10
I-134	6.8416E-01	2.5646E-11	1.1526E+14	2.5314E+10
I-135	1.4421E-00	4.1054E-10	1.8318E+15	5.3358E+10
Xe-133	1.4298E+03	7.6384E-06	3.4586E+19	5.2902E-13
Xe-135	4.4943E+02	1.7599E-07	7.8507E+17	1.6629E-13
Cs-134	9.0667E-02	7.0076E-08	3.1493E+17	3.3547E-09
Cs-136	2.8863E-02	3.9382E-10	1.7438E-15	1.0679E-09
Cs-137	6.8242E-02	7.8455E-07	3.4487E-18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 240.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1704E-20	2.5120E+14	
Elemental I (atoms)	1.8578E+15	2.1503E+09	
Organic I (atoms)	1.5504E+16	1.7944E-10	
Aerosols (kg)	8.6003E-07	9.9540E-13	
Dose Effective (Ci)	I-131 (Thyroid)		1.1683E-00
Dose Effective (Ci)	I-131 (ICRP2 Thyroid)		1.4515E-00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1700E-20

Effective Condenser to Environment Transport Group Inventory:

Elemental I (atoms)	4.6328E+17	1.8606E+15
Organic I (atoms)	0.0000E+00	1.5527E+16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E-17
Elemental I (atoms)	6.1841E+12	6.2466E+10
Organic I (atoms)	5.1608E-13	5.2130E+11
Aerosols (kg)	2.8576E-09	2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	6.9664E+16
Elemental I (atoms)	0.0000E+00	5.9730E-11
Organic I (atoms)	0.0000E+00	4.9847E-12
Aerosols (kg)	0.0000E+00	2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.9791E+17	0.0000E+00
Elemental I (atoms)	6.5634E-11	0.0000E+00
Organic I (atoms)	5.4773E+12	0.0000E-00
Aerosols (kg)	3.1034E-10	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3933E+15
Elemental I (atoms)	0.0000E+00	1.1946E+10
Organic I (atoms)	0.0000E-00	9.9693E+10
Aerosols (kg)	0.0000E-00	5.5201E-12

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	2.8450E+26

EAB LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

LOCA @ LPZ Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E-00
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2338E-73	1.0030E-71	5.8780E-73
Accumulated dose (rem)	1.4462E-02	5.7981E-02	1.6576E-02

LOCA @ Unprotected CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	1.1989E+00	2.6674E+00	1.2962E+00

Environment Integral Nuclide Release:

Time (h) = 480.0000	Ci	kg	Atoms	Bq
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00	
Accumulated dose (rem)	1.1989E+00	2.6674E+00	1.2962E+00	

Kr-85	1.0040E-01	2.5591E-05	1.8131E+20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E+17	5.3991E+12
Kr-87	1.7112E+02	6.0413E-09	4.1818E+16	6.3316E-12
Kr-88	3.5822E+02	2.8568E-08	1.9550E+17	1.3254E-13
Rb-86	8.5398E-04	1.0495E-11	7.3494E-13	3.1597E-07
I-131	8.4161E-01	6.7886E-09	3.1207E-16	3.1140E-10
I-132	8.2056E-01	7.9495E-11	3.6268E-14	3.0361E-10
I-133	1.6784E-00	1.4816E-09	6.7088E-15	6.2102E+10
I-134	6.8416E-01	2.5646E-11	1.1526E-14	2.5314E+10
I-135	1.4421E-00	4.1064E-10	1.8318E-15	5.3358E+10
Xe-133	1.4298E-03	7.6384E-06	3.4586E+19	5.2902E+13
Xe-135	4.4943E-02	1.7599E-07	7.8507E+17	1.6629E+13
Cs-134	9.0667E-02	7.0076E-08	3.1493E+17	3.3547E+09
Cs-136	2.8863E-02	3.9382E-10	1.7738E+15	1.0679E+09
Cs-137	6.8242E-02	7.8455E-07	3.4487E+18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 480.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1704E+20	1.2560E+14	
Elemental I (atoms)	1.8578E-15	1.0751E-09	
Organic I (atoms)	1.5504E-16	8.9722E-09	
Aerosols (kg)	8.6003E-07	4.9770E-13	
Dose Effective (Ci) I-131 (Thyroid)			1.1683E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4515E+00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1700E+20
Elemental I (atoms)	4.6328E+17	1.8606E+15
Organic I (atoms)	0.0000E+00	1.5527E+16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E+17
Elemental I (atoms)	6.1841E+12	6.2466E+10
Organic I (atoms)	5.1608E+13	5.2130E+11
Aerosols (kg)	2.8576E-09	2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9664E+16
Elemental I (atoms)	0.0000E-00	5.9730E-11
Organic I (atoms)	0.0000E-00	4.9847E+12
Aerosols (kg)	0.0000E-00	2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.9791E+17	0.0000E+00
Elemental I (atoms)	6.5634E+11	0.0000E+00
Organic I (atoms)	5.4773E+12	0.0000E+00
Aerosols (kg)	3.1034E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3933E+15
Elemental I (atoms)	0.0000E-00	1.1946E+10
Organic I (atoms)	0.0000E-00	9.9693E+10
Aerosols (kg)	0.0000E-00	5.5201E-12

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)		
Aerosols (kg)	0.0000E-00	5.5201E-12

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E-00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	8.4965E-36

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	1.6585E-01	3.6899E-01	1.7931E-01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	9.7911E-03	2.1784E-02	1.0586E-02

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.7157-143	2.2281-141	1.6592-142
Accumulated dose (rem)	1.4462E-02	5.7981E-02	1.6576E-02

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	1.1989E+00	2.6674E+00	1.2962E+00

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	1.0040E+01	2.5591E-05	1.8131E+20	3.7148E+11
Kr-85m	1.4592E+02	1.7731E-08	1.2563E+17	5.3991E-12
Kr-87	1.7112E+02	6.0413E-09	4.1818E+16	6.3316E-12
Kr-88	3.5822E+02	2.8568E-08	1.9550E+17	1.3254E-11
Rb-86	8.5398E-04	1.0495E-11	7.3494E-13	3.1597E-07
I-131	8.4161E-01	6.7886E-09	3.1207E-16	3.1140E+10
I-132	8.2056E-01	7.9495E-11	3.6268E-14	3.0361E+10
I-133	1.6784E+00	1.4816E-09	6.7088E-15	6.2102E+10
I-134	6.8416E-01	2.5646E-11	1.1526E+14	2.5314E+10
I-135	1.4421E+00	4.1064E-10	1.8318E+15	5.3358E+10
Xe-133	1.4298E+03	7.6384E-06	3.4586E+19	5.2902E+13
Xe-135	4.4943E+02	1.7599E-07	7.8507E+17	1.6629E-13
Cs-134	9.0667E-02	7.0076E-08	3.1493E+17	3.3547E-09
Cs-136	2.8863E-02	3.9382E-10	1.7438E+15	1.0679E-09
Cs-137	6.8242E-02	7.8455E-07	3.4487E-18	2.5250E+09

Environment Transport Group Inventory:

Time (h) = 720.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.1704E+20	8.3735E+13	
Elemental I (atoms)	1.8578E+15	7.1675E+08	
Organic I (atoms)	1.5504E-16	5.9815E+09	
Aerosols (kg)	8.6003E-07	3.3180E-13	
Dose Effective (Ci) I-131 (Thyroid)			1.1683E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.4515E+00
Total I (Ci)			5.4669E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1700E-20
Elemental I (atoms)	4.6328E-17	1.8606E-15
Organic I (atoms)	0.0000E+00	1.5527E-16
Aerosols (kg)	2.1404E-04	8.5959E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2855E-17
Elemental I (atoms)	6.1841E+12	6.2466E-10
Organic I (atoms)	5.1608E-13	5.2130E-11

Pathway

Aerosols (kg) 2.8576E-09 2.8865E-11

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	6.9664E-16
Elemental I (atoms)	0.0000E+00	5.9730E+11
Organic I (atoms)	0.0000E+00	4.9847E+12
Aerosols (kg)	0.0000E+00	2.7601E-10

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.9791E-17	0.0000E+00
Elemental I (atoms)	6.5634E-11	0.0000E-00
Organic I (atoms)	5.4773E+12	0.0000E-00
Aerosols (kg)	3.1034E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3933E+15
Elemental I (atoms)	0.0000E+00	1.1946E+10
Organic I (atoms)	0.0000E-00	9.9693E+10
Aerosols (kg)	0.0000E-00	5.5201E-12

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##
I-131 Summary
##

Time (hr)	Primary Containment I-131 (Curies)	Intact MSL No. A I-131 (Curies)	Intact MSL No. B I-131 (Curies)
0.000	3.2054E+07	5.2577E-03	5.2577E-03
0.401	2.4016E+07	2.8909E+03	2.9453E+03
0.500	2.2373E-07	3.2889E-03	3.3659E+03
0.800	1.8611E-07	4.0085E-03	4.1558E+03
1.100	1.5528E+07	4.2345E+03	4.4435E-03
1.400	1.3004E+07	4.1630E+03	4.4184E-03
1.700	1.0936E+07	3.9236E+03	4.2084E+03
2.000	9.2414E+06	3.5998E+03	3.8989E+03
2.300	7.1342E-06	4.3957E-03	4.6945E+03
2.600	5.6059E-06	5.0135E-03	5.3120E+03
2.900	4.4973E+06	5.5021E+03	5.8002E-03
3.200	3.6929E+06	5.8968E+03	6.1946E-03
3.500	3.1091E+06	6.2235E+03	6.5210E+03
3.800	2.6853E+06	6.5006E+03	6.7978E+03
4.100	2.3774E-06	6.7418E-03	7.0387E+03
4.400	2.1536E-06	6.9568E-03	7.2533E-03
4.700	1.9908E-06	7.1527E+03	7.4489E-03
5.000	1.8721E+06	7.3347E+03	7.6306E-03
5.300	1.8156E+06	7.5081E+03	7.8036E+03
5.600	1.7588E+06	7.6762E+03	7.9714E+03
5.900	1.7298E-06	7.8399E-03	8.1348E+03
6.200	1.6974E-06	8.0000E-03	8.2946E+03
6.500	1.6703E+06	8.1569E-03	8.4512E+03
6.800	1.6476E+06	8.3113E+03	8.6053E-03
7.100	1.6286E+06	8.4634E+03	8.7571E-03
7.400	1.6126E+06	8.6137E+03	8.9070E+03
7.700	1.5990E-06	8.7624E-03	9.0554E+03
8.000	1.5874E-06	8.9096E-03	9.2023E+03
8.300	1.5776E-06	9.0557E-03	9.3481E+03
8.600	1.5698E+06	9.2007E+03	9.4928E+03
8.900	1.5629E+06	9.3448E+03	9.6366E-03
9.200	1.5568E+06	9.4882E+03	9.7797E-03
9.500	1.5513E+06	9.6308E+03	9.9220E+03
9.800	1.5463E-06	9.7728E+03	1.0064E+04
10.100	1.5418E+06	9.9142E-03	1.0205E+04
10.400	1.5377E+06	1.0055E+04	1.0345E+04
24.000	1.4346E+06	1.6025E+04	1.6301E+04
96.000	1.0691E+06	2.5225E+04	2.5439E+04
720.000	8.3596E-04	1.2697E+04	1.2719E+04
10.100	1.5418E+06	9.9142E-03	1.0205E+04
10.400	1.5377E+06	1.0055E+04	1.0345E+04

Time (hr)	Intact MSL No. D I-131 (Curies)	Drain Pathway Mixing I-131 (Curies)	Effective Condenser I-131 (Curies)
0.000	5.2577E-03	7.9056E-03	8.7158E-07
0.401	2.8909E-03	5.7143E-01	6.8596E+03
0.500	3.2889E-03	5.8182E-01	8.7532E+03
0.800	4.0085E-03	5.9042E-01	1.4580E+04
1.100	4.2345E-03	5.6801E-01	2.0314E+04
1.400	4.1630E-03	5.2863E-01	2.5722E+04
1.700	3.9236E-03	4.8140E-01	3.0684E+04
2.000	3.5998E-03	4.3206E-01	3.5154E+04
2.300	4.3957E+03	4.3160E-01	3.5116E+04
2.600	5.0135E+03	4.3113E-01	3.5078E+04
2.900	5.5021E-03	4.3067E+01	3.5041E+04
3.200	5.8968E-03	4.3020E+01	3.5003E+04
3.500	6.2235E-03	4.2974E+01	3.4965E+04
3.800	6.5006E-03	4.2928E+01	3.4928E+04
4.100	6.7418E-03	4.2882E+01	3.4890E+04
4.400	6.9568E+03	4.2835E+01	3.4852E+04
4.700	7.1527E+03	4.2789E+01	3.4815E+04
5.000	7.3347E+03	4.2743E+01	3.4777E-04
5.300	7.5081E+03	4.2697E+01	3.4740E-04
5.600	7.6762E+03	4.2651E-01	3.4702E-04
5.900	7.8399E+03	4.2605E-01	3.4665E-04
6.200	8.0000E+03	4.2559E-01	3.4628E-04
6.500	8.1569E+03	4.2513E-01	3.4590E-04
6.800	8.3113E+03	4.2468E-01	3.4553E-04
7.100	8.4634E+03	4.2422E-01	3.4516E+04
7.400	8.6137E-03	4.2376E-01	3.4479E+04
7.700	8.7624E-03	4.2331E-01	3.4442E+04
8.000	8.9096E-03	4.2285E+01	3.4405E+04
8.300	9.0557E+03	4.2239E+01	3.4367E+04
8.600	9.2007E-03	4.2194E+01	3.4330E+04
8.900	9.3448E-03	4.2149E+01	3.4293E+04
9.200	9.4882E-03	4.2103E+01	3.4257E+04
9.500	9.6308E-03	4.2058E+01	3.4220E+04
9.800	9.7728E+03	4.2012E+01	3.4183E+04
10.100	9.9142E+03	4.1967E+01	3.4146E+04
10.400	1.0055E+04	4.1922E+01	3.4109E+04
24.000	1.6025E+04	3.9923E+01	3.2483E+04
96.000	2.5225E+04	3.0825E+01	2.5080E+04
720.000	1.2697E+04	3.2766E+00	2.6659E+03

Time (hr)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	4.3803E-18	1.5809E-21
0.401	2.7315E-02	9.0653E-06
0.500	4.3837E-02	1.4261E-05
0.800	1.2006E-01	3.6823E-05
1.100	2.3776E-01	6.8859E-05
1.400	3.9769E-01	1.0889E-04
1.700	5.9938E-01	1.5530E-04
2.000	8.4161E-01	2.0653E-04
2.300	8.4161E-01	1.6901E-04
2.600	8.4161E-01	1.3830E-04
2.900	8.4161E-01	1.1318E-04
3.200	8.4161E-01	9.2615E-05
3.500	8.4161E-01	7.5789E-05
3.800	8.4161E-01	6.2020E-05
4.100	8.4161E-01	5.0752E-05
4.400	8.4161E-01	4.1531E-05
4.700	8.4161E-01	3.3986E-05
5.000	8.4161E-01	2.7811E-05
5.300	8.4161E-01	2.2758E-05
5.600	8.4161E-01	1.8624E-05
5.900	8.4161E-01	1.5240E-05
6.200	8.4161E-01	1.2471E-05
6.500	8.4161E-01	1.0206E-05
6.800	8.4161E-01	8.3514E-06
7.100	8.4161E-01	6.8341E-06
7.400	8.4161E-01	5.5925E-06
7.700	8.4161E-01	4.5764E-06
8.000	8.4161E-01	3.7450E-06
8.300	8.4161E-01	3.0646E-06
8.600	8.4161E-01	2.5078E-06
8.900	8.4161E-01	2.0522E-06
9.200	8.4161E-01	1.6793E-06
9.500	8.4161E-01	1.3742E-06
8.000	8.4161E-01	3.7450E-06
8.300	8.4161E-01	3.0646E-06

9.800	8.4161E-01	1.1246E-06
10.100	8.4161E-01	9.2026E-07
10.400	8.4161E-01	7.5307E-07
24.000	8.4161E-01	8.4984E-11
96.000	8.4161E-01	1.0736E-31
720.000	8.4161E-01	8.1383-213

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Cumulative Dose Summary

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Time (hr)	EAB LOCA Thyroid (rem)	EAB LOCA TEDE (rem)	LOCA @ LPZ Thyroid (rem)	LOCA @ LPZ TEDE (rem)	LOCA @ CR Thyroid (rem)	LOCA @ CR TEDE (rem)
0.000	0.0000E-00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00
0.401	1.2155E-02	6.2467E-03	7.1756E-04	3.6878E-04	1.6142E-04	6.1424E-05
0.500	1.9487E-02	1.0013E-02	1.1504E-03	5.9113E-04	3.1361E-04	1.1874E-04
0.800	5.3215E-02	2.7215E-02	3.1416E-03	1.6067E-03	1.2867E-03	4.7943E-04
1.100	1.0508E-01	5.3235E-02	6.2036E-03	3.1428E-03	3.3268E-03	1.2175E-03
1.400	1.7528E-01	8.7713E-02	1.0348E-02	5.1782E-03	6.7667E-03	2.4286E-03
1.700	2.6347E-01	1.3000E-01	1.5554E-02	7.6746E-03	1.1875E-02	4.1766E-03
2.000	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	1.8854E-02	6.4961E-03
2.300	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	2.6064E-02	8.7892E-03
2.600	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	3.1944E-02	1.0551E-02
2.900	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	3.6739E-02	1.1906E-02
3.200	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	4.0650E-02	1.2951E-02
3.500	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	4.3841E-02	1.3758E-02
3.800	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	4.6443E-02	1.4382E-02
4.100	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	4.8566E-02	1.4865E-02
4.400	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.0298E-02	1.5240E-02
4.700	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.1711E-02	1.5531E-02
5.000	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.2864E-02	1.5758E-02
5.300	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.3804E-02	1.5935E-02
5.600	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.4572E-02	1.6072E-02
5.900	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.5198E-02	1.6180E-02
6.200	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.5710E-02	1.6264E-02
6.500	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.6127E-02	1.6330E-02
6.800	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.6467E-02	1.6382E-02
7.100	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.6745E-02	1.6423E-02
7.400	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.6972E-02	1.6455E-02
7.700	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7157E-02	1.6480E-02
8.000	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7308E-02	1.6500E-02
8.300	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7431E-02	1.6516E-02
8.600	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7532E-02	1.6528E-02
8.900	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7614E-02	1.6538E-02
9.200	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7681E-02	1.6546E-02
9.500	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7736E-02	1.6552E-02
9.800	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7781E-02	1.6557E-02
10.100	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7817E-02	1.6561E-02
10.400	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7847E-02	1.6564E-02
24.000	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7981E-02	1.6576E-02
96.000	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7981E-02	1.6576E-02
720.000	3.6899E-01	1.7931E-01	2.1784E-02	1.0586E-02	5.7981E-02	1.6576E-02

Time (hr)	LOCA @ Unprotected CR Thyroid (rem)	LOCA @ Unprotected CR TEDE (rem)
0.000	0.0000E-00	0.0000E-00
0.401	8.7865E-02	4.5157E-02
0.500	1.4087E-01	7.2383E-02
0.800	3.8469E-01	1.9674E-01
1.100	7.5963E-01	3.8483E-01
1.400	1.2671E+00	6.3407E-01
1.700	1.9046E+00	9.3975E-01
2.000	2.6674E-00	1.2962E+00
2.300	2.6674E-00	1.2962E-00
2.600	2.6674E+00	1.2962E+00
2.900	2.6674E+00	1.2962E+00
3.200	2.6674E+00	1.2962E+00
3.500	2.6674E+00	1.2962E-00
3.800	2.6674E+00	1.2962E+00
4.100	2.6674E+00	1.2962E+00
4.400	2.6674E+00	1.2962E-00
4.700	2.6674E-00	1.2962E+00
5.000	2.6674E+00	1.2962E+00
5.300	2.6674E+00	1.2962E+00
5.600	2.6674E-00	1.2962E+00
4.100	2.6674E+00	1.2962E+00
4.400	2.6674E+00	1.2962E-00

5.900	2.6674E-00	1.2962E-00
6.200	2.6674E+00	1.2962E+00
6.500	2.6674E+00	1.2962E+00
6.800	2.6674E-00	1.2962E+00
7.100	2.6674E-00	1.2962E-00
7.400	2.6674E+00	1.2962E+00
7.700	2.6674E+00	1.2962E+00
8.000	2.6674E-00	1.2962E-00
8.300	2.6674E-00	1.2962E-00
8.600	2.6674E+00	1.2962E+00
8.900	2.6674E+00	1.2962E+00
9.200	2.6674E-00	1.2962E-00
9.500	2.6674E-00	1.2962E-00
9.800	2.6674E+00	1.2962E+00
10.100	2.6674E-00	1.2962E+00
10.400	2.6674E-00	1.2962E-00
24.000	2.6674E+00	1.2962E+00
96.000	2.6674E+00	1.2962E+00
720.000	2.6674E-00	1.2962E+00

****
Worst Two-Hour Doses
****

EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
0.0	1.6585E-01	3.6899E-01	1.7931E-01

Attachment 16 RADTRAD Output: MSIV_500cfm_Drywell+Wetwell_2-720 hr_5229cfm.psf

```
**********************************************************************
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:22:37
**********************************************************************

**********************************************************************
                    File information
**********************************************************************

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\MSIV_500cfm_Drywell-Wetwell_2-720
hr_5229cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\msiv-imrel.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



    #####    ####   #####    #  #     #  #####   #    #  #####
    #    #  #       #        #  ##    #  #    #  #    #    #
    #    #  #       #        #  # #   #  #    #  #    #    #
    #####    ####   ####     #  #  #  #  #####   #    #    #
    #            #  #        #  #   # #  #       #    #    #
    #            #  #        #  #    ##  #       #    #    #
    #       ####   #        #  #     #  #        ####     #


 Radtrad 3.03 4/15/2001
 LOCA AST- MSIV Leakage
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   8
 Compartment 1:
 Primary Containment
   3
  3.8819E+05
   0
   0
   0
   1
   0
 Compartment 2:
 Intact MSL No. A
   3
  6.7800E+01
   0
   0
   0
   0
   0
 Compartment 3:
 Intact MSL No. B
   3
  7.3900E-01
   0
   0
   0
   0
   0
 Compartment 4:
 Intact MSL No. D
   3
  6.7800E-01
   0
   0
   0
   0
   0
 Compartment 5:
 Drain Pathway Mixing Volume
   3
  1.0000E-00
   0
   0
 Compartment 5:
```

```
  0
  0
  0
  0
Compartment 6:
Effective Condenser
  3
 9.8600E+04
  0
  0
  0
  0
  0
Compartment 7:
Environment
  2
 0.0000E-00
  0
  0
  0
  0
  0
Compartment 8:
Control Room
  1
 5.1800E+05
  0
  0
  0
  0
  0
Pathways:
 13
Pathway 1:
Primary Containment to Drain Pathway Mixing Volume - Faulted MSL No. C
  1
  5
  2
Pathway 2:
Primary Containment to Intact MSL No. A
  1
  2
  2
Pathway 3:
Primary Containment to Intact MSL No. B
  1
  3
  2
Pathway 4:
Primary Containment to Intact MSL No. D
  1
  4
  2
Pathway 5:
Intact MSL No. A to Drain Pathway Mixing Volume
  2
  5
  2
Pathway 6:
Intact MSL No. B to Drain Pathway Mixing Volume
  3
  5
  2
Pathway 7:
Intact MSL No. D to Drain Pathway Mixing Volume
  4
  5
  2
Pathway 8:
Drain Pathway Mixing Volume to Effective Condenser
  5
  6
  2
Pathway 9:
Effective Condenser to Environment
  6
  7
  2
  2
Pathway 9:
```

```
Pathway 10:
Environment to Control Room - Emergency Filtered Air Intake
  7
  8
  2
Pathway 11:
Environment to Control Room - Unfiltered Air Intake
  7
  8
  2
Pathway 12:
Control Room to Environment - CR Exhaust
  8
  7
  2
Pathway 13:
Environment to  Control Room ingress/egress
  7
  8
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\msiv-lmrel.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E-00
Overlying Pool:
  0
  0.0000E-00
  0
  0
  0
  0
Compartments:
  8
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E-01
  0
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
```

```
  0
  0
  0
  0
  0
  0
Compartment 5:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 6:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 7:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 8:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
 13
Pathway 1:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.9700E-00   0.0000E+00   0.0000E+00   0.0000E-00
  2.4000E-01   9.8500E-01   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3100E+00   0.0000E+00   0.0000E+00   0.0000E+00
  2.4000E-01   6.5500E-01   0.0000E-00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  3
  0.0000E-00   1.3100E+00   0.0000E+00   0.0000E+00   0.0000E+00
```

```
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E-00   0.0000E-00   0.0000E-00   0.0000E+00
  2.4000E+01   6.5500E-01   0.0000E-00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3100E+00   0.0000E+00   0.0000E+00   0.0000E-00
  2.4000E-01   6.5500E-01   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E-00   1.4800E+01   6.5200E-00   0.0000E+00
  2.4000E+01   6.5500E-01   2.5800E+01   1.2250E-01   0.0000E-00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 6:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3100E+00   1.5900E+01   7.0600E+00   0.0000E+00
  2.4000E-01   6.5500E-01   2.7500E+01   1.3190E+01   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 7:
  0
  0
  0
  0
  0
Pathway 7:
  0
```

```
1
3
0.0000E-00  1.3100E+00  1.4800E+01  6.5200E-00  0.0000E+00
2.4000E+01  6.5500E-01  2.5800E+01  1.2250E-01  0.0000E+00
7.2000E+02  0.0000E-00  0.0000E+00  0.0000E-00  0.0000E+00
0
0
0
0
0
0
Pathway 8:
0
0
0
0
0
1
3
0.0000E+00  5.9000E+00  6.7000E+00  4.2700E+00  0.0000E-00
2.4000E+01  2.9500E+00  1.2500E+01  8.1900E+00  0.0000E-00
7.2000E+02  0.0000E-00  0.0000E+00  0.0000E+00  0.0000E-00
0
0
0
0
0
0
Pathway 9:
0
0
0
0
0
1
4
0.0000E+00  0.0000E+00  0.0000E-00  0.0000E+00  0.0000E+00
2.0000E+00  5.9000E+00  9.9600E-01  9.9600E-01  0.0000E+00
2.4000E-01  2.9500E+00  9.9600E-01  9.9600E-01  0.0000E+00
7.2000E-02  0.0000E+00  0.0000E+00  0.0000E-00  0.0000E+00
0
0
0
0
0
0
Pathway 10:
0
0
0
0
0
1
3
0.0000E+00  5.2290E-03  1.0000E+02  1.0000E+02  1.0000E+02
2.0000E+00  5.2290E-03  9.9000E+01  9.9000E+01  9.9000E+01
7.2000E+02  0.0000E-00  0.0000E+00  0.0000E+00  0.0000E+00
0
0
0
0
0
0
Pathway 11:
0
0
0
0
0
1
3
0.0000E+00  5.0000E+02  1.0000E-02  1.0000E+02  1.0000E-02
2.0000E-00  5.0000E+02  0.0000E-00  0.0000E+00  0.0000E-00
7.2000E-02  0.0000E+00  0.0000E-00  0.0000E+00  0.0000E-00
0
0
0
0
2.0000E-00  5.0000E+02  0.0000E-00  0.0000E+00  0.0000E-00
7.2000E-02  0.0000E+00  0.0000E-00  0.0000E+00  0.0000E-00
```

```
  0
  0
Pathway 12:
  0
  0
  0
  0
  0
  1
  2
  0.0000E-00   5.7390E+03   0.0000E-00   0.0000E+00   0.0000E+00
  7.2000E-02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 13:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.0000E+01   1.0000E+02   1.0000E-02   1.0000E+02
  2.0000E+00   1.0000E-01   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB LOCA
  7
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E-00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
LOCA @ LPZ
  7
  1
  5
  0.0000E+00   4.9000E-05
  8.0000E-00   3.5000E-05
  2.4000E-01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E+02   0.0000E-00
  1
  4
  0.0000E-00   3.5000E-04
  8.0000E-00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Location 3:
LOCA @ CR
  8
  0
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  1
  2
```

```
  0.0000E+00   1.0000E+00
  2.4000E+01   6.0000E-01
  9.6000E+01   4.0000E-01
  7.2000E-02   0.0000E-00
Location 4:
LOCA @ Unprotected CR
  7
  1
  6
  0.0000E+00   6.0000E-03
  2.0000E-00   4.9300E-03
  8.0000E-00   1.4400E-03
  2.4000E+01   1.3800E-03
  9.6000E+01   1.2100E-03
  7.2000E-02   0.0000E+00
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E+00   1.3600E-03
  2.0000E+00   1.0300E-03
  8.0000E-00   3.3600E-04
  2.4000E-01   2.2000E-04
  9.6000E-01   1.8500E-04
  7.2000E+02   0.0000E+00
Simulation Parameters:
  5
  0.0000E+00   0.0000E-00
  9.6000E+01   1.2000E+02
  2.4000E+02   2.4000E-02
  4.8000E-02   2.4000E+02
  7.2000E-02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  1
  1
End of Scenario File
```

```
##############################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:22:37
##############################################################################

##############################################################################
                    Plant Description
##############################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E-03 MWth

Number of compartments    =   8

Compartment information

Compartment number  1  (Source term fraction =   1.0000E-00
)
Name: Primary Containment
Compartment volume =   3.8819E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Drain Pathway Mixing Volume
   Exit Pathway Number    2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    4: Primary Containment to Intact MSL No. D

Compartment number  2
Name: Intact MSL No. A
Compartment volume =   6.7800E-01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    5: Intact MSL No. A to Drain Pathway Mixing Volume

Compartment number  3
Name: Intact MSL No. B
Compartment volume =   7.3900E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  3
   Inlet Pathway Number   3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    6: Intact MSL No. B to Drain Pathway Mixing Volume

Compartment number  4
Name: Intact MSL No. D
Compartment volume =   6.7800E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  4
   Inlet Pathway Number   4: Primary Containment to Intact MSL No. D
   Exit Pathway Number    7: Intact MSL No. D to Drain Pathway Mixing Volume

Compartment number  5
Name: Drain Pathway Mixing Volume
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  5
   Inlet Pathway Number   1: Primary Containment to Drain Pathway Mixing Volume
   Inlet Pathway Number   5: Intact MSL No. A to Drain Pathway Mixing Volume
   Inlet Pathway Number   6: Intact MSL No. B to Drain Pathway Mixing Volume
   Inlet Pathway Number   7: Intact MSL No. D to Drain Pathway Mixing Volume
   Exit Pathway Number    8: Drain Pathway Mixing Volume to Effective Condenser

Compartment number  6
Name: Effective Condenser
Compartment volume =   9.8600E+04 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  6
   Inlet Pathway Number   8: Drain Pathway Mixing Volume to Effective Condenser
   Exit Pathway Number    9: Effective Condenser to Environment

Compartment number  7
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  7
   Exit Pathway Number    9: Effective Condenser to Environment
```

```
   Inlet Pathway Number   9: Effective Condenser to Environment
   Inlet Pathway Number  12: Control Room to Environment - CR Exhaust
   Exit Pathway Number   10: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number   11: Environment to Control Room - Unfiltered Air Intak
   Exit Pathway Number   13: Environment to  Control Room ingress/egress

Compartment number  8
Name: Control Room
Compartment volume =   5.1800E-05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  8
   Inlet Pathway Number  10: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number  11: Environment to Control Room - Unfiltered Air Intak
   Inlet Pathway Number  13: Environment to  Control Room ingress/egress
   Exit Pathway Number   12: Control Room to Environment - CR Exhaust

Total number of pathways =  13
```

RADTRAD Version 3.03 (Spring 2001) run on 7/30/2005 at 10:22:37

Scenario Description

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings

	GAP	EARLY IN-VESSEL	LATE RELEASE	RELEASE MASS
	0.000001 hr	0.0000 hrs	0.0000 hrs	(gm)
NOBLES	1.0000E+00	0.0000E+00	0.0000E-00	4.943E-03
IODINE	3.0000E-01	0.0000E+00	0.0000E+00	3.427E+02
CESIUM	2.5000E-01	0.0000E-00	0.0000E+00	5.418E+04
TELLURIUM	0.0000E+00	0.0000E-00	0.0000E+00	0.000E+00
STRONTIUM	0.0000E+00	0.0000E+00	0.0000E-00	0.000E+00
BARIUM	0.0000E+00	0.0000E+00	0.0000E-00	0.000E-00
RUTHENIUM	0.0000E-00	0.0000E+00	0.0000E-00	0.000E+00
CERIUM	0.0000E-00	0.0000E+00	0.0000E+00	0.000E+00
LANTHANUM	0.0000E+00	0.0000E-00	0.0000E+00	0.000E+00

Inventory Power = 4032. MWt

Nuclide Name	Group	Specific Inventory (Ci/MWt)	half life (s)	Whole Body DCF (Sv-m3/Bq-s)	Inhaled Thyroid (Sv/Bq)	Inhaled Effective (Sv/Bq)
Kr-85	1	3.670E-02	3.383E-08	1.190E-16	0.000E+00	0.000E+00
Kr-85m	1	6.650E+03	1.613E-04	7.480E-15	0.000E+00	0.000E-00
Kr-87	1	1.330E+04	4.578E+03	4.120E-14	0.000E+00	0.000E-00
Kr-88	1	1.850E+04	1.022E+04	1.020E-13	0.000E+00	0.000E+00
Rb-86	3	5.380E+01	1.612E+06	4.810E-15	1.330E-09	1.790E-09
I-131	2	2.650E-04	6.947E-05	1.820E-14	2.920E-07	8.890E-09
I-132	2	3.890E-04	8.280E-03	1.120E-13	1.740E-09	1.030E-10
I-133	2	5.510E+04	7.488E+04	2.940E-14	4.860E-08	1.580E-09
I-134	2	6.080E+04	3.156E+03	1.300E-13	2.880E-10	3.550E-11
I-135	2	5.230E+04	2.380E+04	8.294E-14	8.460E-09	3.320E-10
Xe-133	1	5.260E-04	4.532E+05	1.560E-15	0.000E-00	0.000E+00
Xe-135	1	1.740E-04	3.272E-04	1.190E-14	0.000E-00	0.000E+00
Cs-134	3	5.700E+03	6.507E-07	7.570E-14	1.110E-08	1.250E-08
Cs-136	3	1.820E+03	1.132E+06	1.060E-13	1.730E-09	1.980E-09
Cs-137	3	4.290E+03	9.467E+08	2.725E-14	7.930E-09	8.630E-09

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00

Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Compartment number 2: Intact MSL No. A

Compartment number 3: Intact MSL No. B

Compartment number 4: Intact MSL No. D

Compartment number 5: Drain Pathway Mixing Volume

Compartment number 6: Effective Condenser

Compartment number 7: Environment

Compartment number 8: Control Room

PATHWAY DATA

Pathway number 1: Primary Containment to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	1.9700E+00	0.0000E-00	0.0000E+00	0.0000E-00
2.4000E+01	9.8500E-01	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 2: Primary Containment to Intact MSL No. A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E-00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 3: Primary Containment to Intact MSL No. B

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E-00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00

Pathway number 4: Primary Containment to Intact MSL No. D

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Intact MSL No. A to Drain Pathway Mixing Volume

	(cfm)	Aerosol	Elemental	Organic
0.0000E+00	1.3100E-00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	1.3100E-00	1.4800E-01	6.5200E+00	0.0000E+00
2.4000E-01	6.5500E-01	2.5800E-01	1.2250E+01	0.0000E+00
7.2000E-02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 6: Intact MSL No. B to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.5900E-01	7.0600E-00	0.0000E-00
2.4000E+01	6.5500E-01	2.7500E-01	1.3190E-01	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00

Pathway number 7: Intact MSL No. D to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.4800E+01	6.5200E+00	0.0000E+00
2.4000E+01	6.5500E-01	2.5800E+01	1.2250E+01	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 8: Drain Pathway Mixing Volume to Effective Condenser

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.9000E-00	6.7000E+00	4.2700E+00	0.0000E+00
2.4000E+01	2.9500E-00	1.2500E+01	8.1900E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 9: Effective Condenser to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.0000E-00	5.9000E+00	9.9600E-01	9.9600E-01	0.0000E-00
2.4000E-01	2.9500E+00	9.9600E+01	9.9600E-01	0.0000E-00
7.2000E-02	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 10: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.2290E+03	1.0000E+02	1.0000E+02	1.0000E+02
2.0000E+00	5.2290E+03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 11: Environment to Control Room - Unfiltered Air Intak

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	5.0000E-02	1.0000E-02	1.0000E+02	1.0000E+02
2.0000E+00	5.0000E-02	0.0000E-00	0.0000E-00	0.0000E+00
7.2000E-02	0.0000E-00	0.0000E-00	0.0000E-00	0.0000E+00

Pathway number 12: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.7390E+03	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway Filter: Removal Data

Pathway number 13: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	1.0000E+01	1.0000E-02	1.0000E-02	1.0000E+02
2.0000E+00	1.0000E+01	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

LOCATION DATA

Location EAB LOCA is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E+02	0.0000E-00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
8.0000E-00	1.8000E-04
2.4000E-01	2.3000E-04
7.2000E-02	0.0000E+00

Location LOCA @ LPZ is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E-00	4.9000E-05
8.0000E-00	3.5000E-05
2.4000E-01	1.7000E-05
9.6000E-01	6.1000E-06
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E-00

Location LOCA @ CR is in compartment 8

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	1.3600E-03
2.0000E+00	1.0300E-03
8.0000E+00	3.3600E-04
2.4000E+01	2.2000E-04
9.6000E+01	1.8500E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
7.2000E+02	0.0000E-00

Location Occupancy Factor Data

Time (hr)	Occupancy Factor
0.0000E+00	1.0000E+00
2.4000E+01	6.0000E-01
9.6000E-01	4.0000E-01
7.2000E-02	0.0000E+00

Location LOCA @ Unprotected CR is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E-00	6.0000E-03
2.0000E-00	4.9300E-03
8.0000E-00	1.4400E-03
2.4000E-01	1.3800E-03
9.6000E-01	1.2100E-03
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
7.2000E+02	0.0000E+00
7.2000E-02	0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E-00	0.0000E-00
9.6000E-01	1.2000E-02
2.4000E-02	2.4000E-02
4.8000E-02	2.4000E-02
7.2000E-02	0.0000E-00

```
##################################################################
  RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:22:37
##################################################################

 ####   #    #  #####  #####   #    #  #####
#    #  #    #    #    #    #  #    #    #
#    #  #    #    #    #    #  #    #    #
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#    #  #    #    #    #       #    #    #
#    #   #  #     #    #       #    #    #
 ####     ##      #    #        ####     #

##################################################################
          Dose, Detailed model and Detailed Inventory Output
##################################################################

Detailed model information at time (H) =     0.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.0000E+00

EAB LOCA Doses:

Time (h) =    0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E-00  0.0000E+00  0.0000E-00
Accumulated dose (rem)   0.0000E-00  0.0000E+00  0.0000E-00

LOCA @ LPZ Doses:

Time (h) =    0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E-00  0.0000E-00  0.0000E-00
Accumulated dose (rem)   0.0000E-00  0.0000E+00  0.0000E+00

LOCA @ CR Doses:

Time (h) =    0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E-00  0.0000E-00  0.0000E+00
Accumulated dose (rem)   0.0000E-00  0.0000E-00  0.0000E+00

LOCA @ Unprotected CR Doses:

Time (h) =    0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)         0.0000E-00  0.0000E-00  0.0000E+00
Accumulated dose (rem)   0.0000E-00  0.0000E-00  0.0000E+00

Environment Integral Nuclide Release:

Time (h) =    0.0000       Ci           kg          Atoms          Bq

Environment Transport Group Inventory:

                          Total      Release
Time (h) =    0.0000     Release     Rate/s
Noble gases (atoms)     0.0000E-00  0.0000E+00
Elemental I (atoms)     0.0000E-00  0.0000E+00
Organic I (atoms)       0.0000E-00  0.0000E+00
Aerosols (kg)           0.0000E-00  0.0000E+00
Dose Effective (Ci) I-131 (Thyroid)             0.0000E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)       0.0000E+00
Total I  (Ci)                                   0.0000E+00

Effective Condenser to Environment Transport Group Inventory:

                          Pathway
Time (h) =    0.0000     Filtered   Transported
Noble gases (atoms)     0.0000E+00  0.0000E+00
Elemental I (atoms)     0.0000E+00  0.0000E+00
Effective Condenser to Environment Transport Group Inventory:
```

Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E-00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E-00	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E-00

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E-00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E-00	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E-00

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	6.6053E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	3.9030E+00

EAB LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	0.0000E+00	0.0000E+00	0.0000E+00

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00
Accumulated dose (rem)	0.0000E+00	0.0000E+00	0.0000E-00

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E-00	0.0000E+00
Accumulated dose (rem)	0.0000E-00	0.0000E-00	0.0000E+00

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00
Accumulated dose (rem)	0.0000E-00	0.0000E+00	0.0000E+00

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq

Environment Transport Group Inventory:

Environment Integral Nuclide Release:

Time (h) = 2.0000	Total Release	Release Rate/s	
Noble gases (atoms)	0.0000E+00	0.0000E+00	
Elemental I (atoms)	0.0000E-00	0.0000E-00	
Organic I (atoms)	0.0000E-00	0.0000E-00	
Aerosols (kg)	0.0000E-00	0.0000E+00	
Dose Effective (Ci) I-131 (Thyroid)			0.0000E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			0.0000E+00
Total I (Ci)			0.0000E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E-00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E+00

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	0.0000E+00	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E+00	0.0000E-00

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	6.6640E-02

EAB LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.6471E-01	2.8931E+00	9.6430E-01
Accumulated dose (rem)	8.6471E-01	2.8931E-00	9.6430E-01

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.1049E-02	1.7080E-01	5.6928E-02
Accumulated dose (rem)	5.1049E-02	1.7080E-01	5.6928E-02

LOCA @ LPZ Doses:

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.7726E-02	2.4206E-01	5.6113E-02
Accumulated dose (rem)	4.7726E-02	2.4206E-01	5.6113E-02

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.1362E+00	1.7184E+01	5.7277E+00
Accumulated dose (rem)	5.1362E-00	1.7184E+01	5.7277E-00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Kr-85	1.2697E-02	3.2362E-04	2.2928E+21	4.6978E+12
Kr-85m	9.8008E-02	1.1909E-07	8.4375E+17	3.6263E+13
Kr-87	3.0443E+02	1.0747E-08	7.4393E+16	1.1264E-13
Kr-88	1.7161E+03	1.3686E-07	9.3655E+17	6.3494E+13
Rb-86	4.2912E-03	5.2738E-11	3.6930E+14	1.5877E+08
I-131	6.9053E+00	5.5699E-08	2.5605E+17	2.5550E+11
I-132	2.2163E+00	2.1472E-10	9.7958E+14	8.2004E-10
I-133	1.2198E-01	1.0768E-08	4.8757E+16	4.5133E-11
I-134	4.6901E-01	1.7581E-11	7.9012E+13	1.7353E+10
I-135	7.9010E+00	2.2498E-09	1.0036E+16	2.9234E+11
Xe-133	1.7691E+04	9.4514E-05	4.2795E+20	6.5458E+14
Xe-135	4.3668E+03	1.7100E-06	7.6278E+18	1.6157E-14
Cs-134	4.5821E-01	3.5415E-07	1.5916E+18	1.6954E+10
Cs-136	1.4467E-01	1.9740E-09	8.7408E+15	5.3529E+09
Cs-137	3.4493E-01	3.9655E-06	1.7431E+19	1.2762E+10

Environment Transport Group Inventory:

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.7303E-21	9.4801E-16	
Elemental I (atoms)	2.1901E+16	7.6045E-11	
Organic I (atoms)	1.8458E+17	6.4090E+12	
Aerosols (kg)	4.3456E-06	1.5089E-10	
Dose Effective (Ci) I-131 (Thyroid)			9.1782E-00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.0911E+01
Total I (Ci)			2.9690E+01

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.7306E-21
Elemental I (atoms)	5.4601E+18	2.1928E-16
Organic I (atoms)	0.0000E+00	1.8481E+17
Aerosols (kg)	1.0821E-03	4.3456E-06

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.9408E-18
Elemental I (atoms)	5.5181E+13	5.5738E+11
Organic I (atoms)	4.6506E+14	4.6975E+12
Aerosols (kg)	1.0935E-08	1.1046E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.6368E+17
Elemental I (atoms)	0.0000E+00	5.3297E+12
Organic I (atoms)	0.0000E-00	4.4918E+13
Aerosols (kg)	0.0000E-00	1.0562E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	5.0684E+18	0.0000E+00
Elemental I (atoms)	3.9739E-12	0.0000E+00
Organic I (atoms)	3.3479E+13	0.0000E+00
Aerosols (kg)	8.7989E-10	0.0000E-00

Time (h) = 8.0000	Pathway Filtered	Transported

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3274E+16
Elemental I (atoms)	0.0000E+00	1.0659E+11
Organic I (atoms)	0.0000E+00	8.9836E+11
Aerosols (kg)	0.0000E+00	2.1124E-11

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	3.5052E-06

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9491E+00	9.0436E+00	2.2419E+00
Accumulated dose (rem)	2.8138E+00	1.1937E-01	3.2061E+00

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.2192E-02	3.8136E-01	9.4536E-02
Accumulated dose (rem)	1.3324E-01	5.5215E-01	1.5146E-01

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.9628E-02	7.0947E-01	8.2785E-02
Accumulated dose (rem)	1.0735E-01	9.5152E-01	1.3890E-01

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.3816E+00	3.0508E+01	4.3691E+00
Accumulated dose (rem)	8.5178E+00	4.7693E+01	1.0097E+01

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	1.2773E-03	3.2555E-03	2.3065E-22	4.7259E+13
Kr-85m	2.7118E+03	3.2952E-07	2.3346E-18	1.0034E+14
Kr-87	3.3975E+02	1.1994E-08	8.3026E-16	1.2571E+13
Kr-88	3.1477E+03	2.5103E-07	1.7179E+18	1.1646E+14
Rb-86	1.5968E-02	1.9624E-10	1.3742E+15	5.9080E+08
I-131	5.2472E+01	4.2324E-07	1.9457E+18	1.9415E+12
I-132	3.1381E+00	3.0402E-10	1.3870E+15	1.1611E+11
I-133	6.9099E+01	6.0998E-08	2.7619E+17	2.5567E+12
I-134	4.7853E-01	1.7938E-11	8.0617E+13	1.7706E+10
I-135	2.5059E+01	7.1354E-09	3.1830E+16	9.2717E+11
Xe-133	1.6787E+05	8.9585E-04	4.0609E+21	6.2113E+15
Xe-135	2.1515E+04	8.4250E-06	3.7583E+19	7.9606E+14
Cs-134	1.7261E+00	1.3341E-06	5.9955E+18	6.3864E+10
Cs-136	5.3548E-01	7.3063E-09	3.2352E+16	1.9813E+10
Cs-137	1.2997E+00	1.4942E-05	6.5682E+19	4.8089E+10

Environment Transport Group Inventory:

Time (h) = 24.0000	Total Release	Release Rate/s
Noble gases (atoms)	2.7168E+22	3.1444E-17
Elemental I (atoms)	1.9844E-17	2.2967E-12
Organic I (atoms)	1.6757E-18	1.9395E-13
Aerosols (kg)	1.6367E-05	1.8943E-10
Dose Effective (Ci) I-131 (Thyroid)		6.4718E+01
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		7.3148E+01
Total I (Ci)		1.5025E+02

Effective Condenser to Environment Transport Group Inventory:

	Pathway
Dose Effective (Ci) I-131 (ICRP2 Thyroid)	7.3148E+01
Total I (Ci)	1.5025E+02

Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7186E+22
Elemental I (atoms)	4.9702E+19	1.9960E+17
Organic I (atoms)	0.0000E+00	1.6856E+18
Aerosols (kg)	4.0755E-03	1.6367E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.7219E-19
Elemental I (atoms)	2.0103E-14	2.0306E-12
Organic I (atoms)	1.6970E-15	1.7142E-13
Aerosols (kg)	2.0804E-08	2.1014E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6027E+18
Elemental I (atoms)	0.0000E+00	1.9417E+13
Organic I (atoms)	0.0000E+00	1.6391E+14
Aerosols (kg)	0.0000E+00	2.0094E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	2.6911E-19	0.0000E-00
Elemental I (atoms)	1.9584E+13	0.0000E-00
Organic I (atoms)	1.6530E+14	0.0000E-00
Aerosols (kg)	2.1610E-09	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.2054E+16
Elemental I (atoms)	0.0000E-00	3.8834E+11
Organic I (atoms)	0.0000E-00	3.2782E+12
Aerosols (kg)	0.0000E-00	4.0188E-11

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	4.8607E+09

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.5290E-00	4.3953E+01	4.9079E+00
Accumulated dose (rem)	6.3429E-00	5.5890E+01	8.1140E+00

LOCA @ LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.2281E-02	9.0024E-01	1.0052E-01
Accumulated dose (rem)	2.0552E-01	1.4524E+00	2.5199E-01

LOCA @ CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.1660E-02	1.0593E-00	7.4924E-02
Accumulated dose (rem)	1.4901E-01	2.0108E-00	2.1382E-01

LOCA @ Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.8676E+00	1.1121E+02	9.3562E+00
Accumulated dose (rem)	1.4385E+01	1.5890E+02	1.9453E+01

Environment Integral Nuclide Release:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.8676E+00	1.1121E+02	9.3562E+00

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	7.8217E+03	1.9936E-02	1.4125E+23	2.8940E+14
Kr-85m	2.8723E+03	3.4902E-07	2.4728E+18	1.0627E+14
Kr-87	3.3976E-02	1.1995E-08	8.3027E+16	1.2571E+13
Kr-88	3.1780E-03	2.5345E-07	1.7344E+18	1.1759E+14
Rb-86	3.8375E-02	4.7163E-10	3.3025E+15	1.4199E+09
I-131	2.5161E-02	2.0295E-06	9.3297E+18	9.3095E+12
I-132	3.1450E-00	3.0469E-10	1.3900E+15	1.1637E+11
I-133	1.4454E+02	1.2760E-07	5.7774E+17	5.3480E+12
I-134	4.7853E-01	1.7938E-11	8.0617E+13	1.7706E+10
I-135	2.8689E+01	8.1692E-09	3.6442E+16	1.0615E+12
Xe-133	8.3048E+05	4.4368E-03	2.0089E+22	3.0728E+16
Xe-135	2.9072E+04	1.1384E-05	5.0782E+19	1.0757E+15
Cs-134	4.3227E+00	3.3410E-06	1.5015E+19	1.5994E+11
Cs-136	1.2647E+00	1.7256E-08	7.6411E+16	4.6795E-10
Cs-137	3.2582E+00	3.7458E-05	1.6466E-20	1.2055E-11

Environment Transport Group Inventory:

Time (h) = 96.0000	Total Release	Release Rate/s	
Noble gases (atoms)	1.6139E-23	4.6699E+17	
Elemental I (atoms)	9.4246E+17	2.7270E+12	
Organic I (atoms)	8.1880E+18	2.3692E+13	
Aerosols (kg)	4.0994E-05	1.1862E-10	
Dose Effective (Ci) I-131 (Thyroid)			2.7651E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			2.9275E+02
Total I (Ci)			4.2846E+02

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6150E-23
Elemental I (atoms)	2.3586E+20	9.4724E+17
Organic I (atoms)	0.0000E+00	8.2294E+18
Aerosols (kg)	1.0208E-02	4.0996E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.0014E+20
Elemental I (atoms)	6.0288E+14	6.0897E+12
Organic I (atoms)	5.2142E-15	5.2669E+13
Aerosols (kg)	3.4041E-08	3.4385E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.5755E+18
Elemental I (atoms)	0.0000E+00	5.8230E+13
Organic I (atoms)	0.0000E+00	5.0363E+14
Aerosols (kg)	0.0000E+00	3.2879E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.0753E+20	0.0000E+00
Elemental I (atoms)	6.3817E+13	0.0000E+00
Organic I (atoms)	5.5172E-14	0.0000E-00
Aerosols (kg)	3.6688E-09	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.9151E+17
Elemental I (atoms)	0.0000E+00	1.1646E+12
Organic I (atoms)	0.0000E+00	1.0073E+13
Aerosols (kg)	0.0000E+00	6.5759E-11

Detailed model information at time (H) = 120.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)		
Aerosols (kg)	0.0000E+00	6.5759E-11

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	5.4194E-10

EAB LOCA Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2625E-00	1.7475E-01	1.8056E-00
Accumulated dose (rem)	7.6053E+00	7.3364E+01	9.9196E+00

LOCA @ LPZ Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	9.2783E-03	1.2843E-01	1.3270E-02
Accumulated dose (rem)	2.1480E-01	1.5808E+00	2.6526E-01

LOCA @ CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.1773E-03	2.3283E-01	1.5416E-02
Accumulated dose (rem)	1.5719E-01	2.2436E+00	2.2924E-01

LOCA @ Unprotected CR Doses:

Time (h) = 120.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8404E+00	3.8767E-01	3.0454E-00
Accumulated dose (rem)	1.6226E+01	1.9767E+02	2.2498E-01

Environment Integral Nuclide Release:

Time (h) = 120.0000	Ci	kg	Atoms	Bq
Kr-85	1.1105E+04	2.8304E-02	2.0053E+23	4.1087E+14
Kr-85m	2.8723E-03	3.4902E-07	2.4728E+18	1.0627E+14
Kr-87	3.3976E-02	1.1995E-08	8.3027E+16	1.2571E+13
Kr-88	3.1780E-03	2.5345E-07	1.7344E-18	1.1759E+14
Rb-86	4.4723E-02	5.4964E-10	3.8489E-15	1.6548E-09
I-131	3.3478E+02	2.7004E-06	1.2414E+19	1.2387E-13
I-132	3.1450E+00	3.0469E-10	1.3900E+15	1.1637E+11
I-133	1.5153E+02	1.3377E-07	6.0568E+17	5.6066E+12
I-134	4.7853E-01	1.7938E-11	8.0617E+13	1.7706E+10
I-135	2.8693E-01	8.1702E-09	3.6446E+16	1.0616E+12
Xe-133	1.0907E+06	5.8270E-03	2.6384E-22	4.0356E+16
Xe-135	2.9125E+04	1.1405E-05	5.0875E-19	1.0776E+15
Cs-134	5.1148E+00	3.9532E-06	1.7766E+19	1.8925E-11
Cs-136	1.4647E+00	1.9985E-08	8.8495E+16	5.4195E+10
Cs-137	3.8567E+00	4.4339E-05	1.9490E+20	1.4270E+11

Environment Transport Group Inventory:

Time (h) = 120.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.2697E+23	5.2539E+17	
Elemental I (atoms)	1.2452E+18	2.8825E+12	
Organic I (atoms)	1.0891E-19	2.5209E-13	
Aerosols (kg)	4.8513E-05	1.1230E-10	
Dose Effective (Ci) I-131 (Thyroid)			3.6085E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			3.7780E+02
Total I (Ci)			5.1863E+02

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2711E+23
Elemental I (atoms)	3.1155E+20	1.2512E+18
Organic I (atoms)	0.0000E+00	1.0942E+19
Aerosols (kg)	1.2080E-02	4.8514E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3010E+20
Elemental I (atoms)	7.4026E-14	7.4773E+12
Organic I (atoms)	6.4405E+15	6.5055E+13
Aerosols (kg)	3.7440E-08	3.7818E-10
Time (h) = 120.0000	Pathway Filtered	Transported

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2440E+19
Elemental I (atoms)	0.0000E+00	7.1499E+13
Organic I (atoms)	0.0000E+00	6.2206E+14
Aerosols (kg)	0.0000E-00	3.6162E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.4044E+20	0.0000E+00
Elemental I (atoms)	7.8765E-13	0.0000E+00
Organic I (atoms)	6.8509E-14	0.0000E-00
Aerosols (kg)	4.0434E-09	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 120.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4880E-17
Elemental I (atoms)	0.0000E+00	1.4300E-12
Organic I (atoms)	0.0000E+00	1.2441E+13
Aerosols (kg)	0.0000E+00	7.2323E-11

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	9.3331E+15

EAB LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.0025E-00	9.2923E+01	8.8786E+00
Accumulated dose (rem)	1.3608E+01	1.6629E+02	1.8798E-01

LOCA @ LPZ Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.4115E-02	6.8293E-01	6.5252E-02
Accumulated dose (rem)	2.5892E-01	2.2638E+00	3.3051E-01

LOCA @ CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.8565E-02	1.2281E-00	7.6580E-02
Accumulated dose (rem)	1.9576E-01	3.4717E-00	3.0582E-01

LOCA @ Unprotected CR Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.7506E+00	2.0614E-02	1.5131E-01
Accumulated dose (rem)	2.4976E+01	4.0381E-02	3.7630E-01

Environment Integral Nuclide Release:

Time (h) = 240.0000	Ci	kg	Atoms	Bq
Kr-85	3.4477E-04	8.7877E-02	6.2260E-23	1.2757E-15
Kr-85m	2.8723E-03	3.4902E-07	2.4728E+18	1.0627E-14
Kr-87	3.3976E+02	1.1995E-08	8.3027E+16	1.2571E-13
Kr-88	3.1780E+03	2.5345E-07	1.7344E+18	1.1759E+14
Rb-86	6.9835E-02	8.5827E-10	6.0100E+15	2.5839E+09
I-131	7.8231E+02	6.3102E-06	2.9008E+19	2.8945E+13
I-132	3.1450E+00	3.0469E-10	1.3900E+15	1.1637E+11
I-133	1.5850E-02	1.3992E-07	6.3354E+17	5.8646E+12
I-134	4.7853E-01	1.7938E-11	8.0617E-13	1.7706E+10
I-135	2.8693E+01	8.1703E-09	3.6446E-16	1.0616E-12
Xe-133	2.3293E+06	1.2444E-02	5.6345E-22	8.6183E-16
Xe-135	2.9137E+04	1.1409E-05	5.0896E+19	1.0781E+15
Cs-134	8.5923E+00	6.6410E-06	2.9845E+19	3.1791E+11
I-133	1.5850E-02	1.3992E-07	6.3354E+17	5.8646E+12
I-134	4.7853E-01	1.7938E-11	8.0617E-13	1.7706E+10

Cs-136	2.2214E-00	3.0310E-08	1.3421E+17	8.2193E-10
Cs-137	6.4907E-00	7.4621E-05	3.2801E+20	2.4015E-11

Environment Transport Group Inventory:

Time (h) = 240.0000	Total Release	Release Rate/s	
Noble gases (atoms)	6.7900E-23	7.8588E+17	
Elemental I (atoms)	2.8674E-18	3.3187E+12	
Organic I (atoms)	2.5524E-19	2.9542E+13	
Aerosols (kg)	8.1573E-05	9.4414E-11	
Dose Effective (Ci) I-131 (Thyroid)			8.0954E+02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			8.2718E+02
Total I (Ci)			9.7312E+02

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.7931E-23
Elemental I (atoms)	7.1693E+20	2.8792E-18
Organic I (atoms)	0.0000E+00	2.5630E-19
Aerosols (kg)	2.0312E-02	8.1575E-05

Environment to Control Room - Energency Filtered A Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3654E-20
Elemental I (atoms)	1.4761E+15	1.4910E-13
Organic I (atoms)	1.3079E+16	1.3211E-14
Aerosols (kg)	5.2383E-08	5.2912E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2181E+19
Elemental I (atoms)	0.0000E+00	1.4257E+14
Organic I (atoms)	0.0000E+00	1.2632E+15
Aerosols (kg)	0.0000E+00	5.0594E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	3.6570E-20	0.0000E+00
Elemental I (atoms)	1.5822E-14	0.0000E+00
Organic I (atoms)	1.4018E-15	0.0000E+00
Aerosols (kg)	5.6708E-09	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.4361E-17
Elemental I (atoms)	0.0000E+00	2.8514E-12
Organic I (atoms)	0.0000E+00	2.5265E-13
Aerosols (kg)	0.0000E+00	1.0119E-10

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E-00	1.0000E-00	2.7652E+26

EAB LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.1773E+00	1.5014E+02	1.1816E+01
Accumulated dose (rem)	2.0785E+01	3.1643E+02	3.0614E+01

LOCA @ LPZ Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.1773E+00	1.5014E+02	1.1816E+01

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.2749E-02	1.1035E+00	8.6837E-02
Accumulated dose (rem)	3.1166E-01	3.3672E+00	4.1735E-01

LOCA 2 CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.6213E-02	1.9908E-00	1.0772E-01
Accumulated dose (rem)	2.4197E-01	5.4625E-00	4.1354E-01

LOCA 6 Unprotected CR Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0463E+01	3.3309E+02	2.0753E-01
Accumulated dose (rem)	3.5440E+01	7.3690E-02	5.8382E+01

Environment Integral Nuclide Release:

Time (h) = 480.0000	Ci	kg	Atoms	Bq
Kr-85	1.0666E-05	2.7186E-01	1.9261E-24	3.9464E+15
Kr-85m	2.8723E+03	3.4902E-07	2.4728E-18	1.0627E+14
Kr-87	3.3976E+02	1.1995E-08	8.3027E+16	1.2571E+13
Kr-88	3.1780E+03	2.5345E-07	1.7344E+18	1.1759E-14
Rb-86	9.7907E-02	1.2033E-09	8.4259E+15	3.6226E-09
I-131	1.5073E-03	1.2158E-05	5.5893E+19	5.5772E+13
I-132	3.1450E-00	3.0469E-10	1.3900E-15	1.1637E+11
I-133	1.5869E+02	1.4009E-07	6.3431E-17	5.8717E+12
I-134	4.7853E-01	1.7938E-11	8.0617E+13	1.7706E+10
I-135	2.8693E+01	8.1703E-09	3.6446E+16	1.0616E-12
Xe-133	3.8049E-06	2.0327E-02	9.2041E+22	1.4078E-17
Xe-135	2.9137E-04	1.1409E-05	5.0896E+19	1.0781E+15
Cs-134	1.3623E-01	1.0529E-05	4.7318E-19	5.0403E+11
Cs-136	2.9794E+00	4.0652E-08	1.8001E-17	1.1024E+11
Cs-137	1.0324E+01	1.1870E-04	5.2176E+20	3.8200E+11

Environment Transport Group Inventory:

Time (h) = 480.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.0182E+24	1.1679E+18	
Elemental I (atoms)	5.4984E+18	3.1819E+12	
Organic I (atoms)	4.9487E+19	2.8638E-13	
Aerosols (kg)	1.2961E-04	7.5006E-11	
Dose Effective (Ci) I-131 (Thyroid)			1.5346E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.5523E-03
Total I (Ci)			1.6984E-03

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0187E+24
Elemental I (atoms)	1.3744E+21	5.5197E+18
Organic I (atoms)	0.0000E+00	4.9679E+19
Aerosols (kg)	3.2274E-02	1.2961E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.4802E+20
Elemental I (atoms)	2.6696E+15	2.6965E-13
Organic I (atoms)	2.3949E-16	2.4190E-14
Aerosols (kg)	7.4095E-08	7.4843E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.0651E-19
Elemental I (atoms)	0.0000E+00	2.5784E+14
Organic I (atoms)	0.0000E+00	2.3131E+15
Aerosols (kg)	0.0000E+00	7.1566E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Aerosols (kg)	0.0000E+00	7.1566E-09

Noble gases (atoms)	1.0352E+21	0.0000E-00
Elemental I (atoms)	2.8753E+14	0.0000E-00
Organic I (atoms)	2.5794E+15	0.0000E-00
Aerosols (kg)	8.0356E-09	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.8130E+18
Elemental I (atoms)	0.0000E-00	5.1569E+12
Organic I (atoms)	0.0000E-00	4.6262E+13
Aerosols (kg)	0.0000E-00	1.4313E-10

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	8.1870E-36

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.5308E+00	8.1511E-01	5.0554E-00
Accumulated dose (rem)	2.3316E+01	3.9794E-02	3.5669E-01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8600E-02	5.9906E-01	3.7154E-02
Accumulated dose (rem)	3.3026E-01	3.9663E+00	4.5450E-01

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.6275E-02	1.0825E-00	4.9805E-02
Accumulated dose (rem)	2.5824E-01	6.5450E-00	4.6334E-01

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.6894E+00	1.8083E-02	9.2901E-00
Accumulated dose (rem)	3.9129E+01	9.1772E+02	6.7673E+01

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	1.9824E+05	5.0528E-01	3.5798E+24	7.3348E-15
Kr-85m	2.8723E+03	3.4902E-07	2.4728E+18	1.0627E-14
Kr-87	3.3976E+02	1.1995E-08	8.3027E-16	1.2571E+13
Kr-88	3.1780E+03	2.5345E-07	1.7344E-18	1.1759E+14
Rb-86	1.1049E-01	1.3579E-09	9.5089E-15	4.0882E+09
I-131	1.9009E+03	1.5333E-05	7.0488E+19	7.0335E+13
I-132	3.1450E+00	3.0469E-10	1.3900E+15	1.1637E+11
I-133	1.5869E+02	1.4009E-07	6.3432E+17	5.8717E+12
I-134	4.7853E-01	1.7938E-11	8.0617E+13	1.7706E+10
I-135	2.8693E-01	8.1703E-09	3.6446E+16	1.0616E+12
Xe-133	4.3185E-06	2.3071E-02	1.0447E+23	1.5979E+17
Xe-135	2.9137E-04	1.1409E-05	5.0896E+19	1.0781E-15
Cs-134	1.6862E-01	1.3033E-05	5.8571E+19	6.2390E-11
Cs-136	3.2697E-00	4.4612E-08	1.9755E+17	1.2098E-11
Cs-137	1.2815E+01	1.4733E-04	6.4761E+20	4.7414E+11

Environment Transport Group Inventory:

Time (h) = 720.0000	Total Release	Release Rate/s	
Noble gases (atoms)	3.6843E+24	1.4214E+18	
Elemental I (atoms)	6.9286E+18	2.6731E+12	
Organic I (atoms)	6.2572E+19	2.4140E+13	
Aerosols (kg)	1.6077E-04	6.2024E-11	
Dose Effective (Ci) I-131 (Thyroid)			1.9282E+03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.9459E+03
Total I (Ci)			2.0920E+03
Elemental I (atoms)	6.9286E+18	2.6731E+12	
Organic I (atoms)	6.2572E+19	2.4140E+13	

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.6849E-24
Elemental I (atoms)	1.7318E+21	6.9551E-18
Organic I (atoms)	0.0000E+00	6.2810E+19
Aerosols (kg)	4.0031E-02	1.6077E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.7087E-21
Elemental I (atoms)	3.3183E+15	3.3518E-13
Organic I (atoms)	2.9884E+16	3.0186E+14
Aerosols (kg)	8.8177E-08	8.9067E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.6339E-20
Elemental I (atoms)	0.0000E+00	3.2050E-14
Organic I (atoms)	0.0000E+00	2.8864E+15
Aerosols (kg)	0.0000E+00	8.5167E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.8694E-21	0.0000E+00
Elemental I (atoms)	3.5793E+14	0.0000E-00
Organic I (atoms)	3.2235E+15	0.0000E-00
Aerosols (kg)	9.5693E-09	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2678E+18
Elemental I (atoms)	0.0000E-00	6.4100E+12
Organic I (atoms)	0.0000E+00	5.7727E-13
Aerosols (kg)	0.0000E+00	1.7033E-10

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##
I-131 Summary
##

Time (hr)	Primary Containment I-131 (Curies)	Intact MSL No. A I-131 (Curies)	Intact MSL No. B I-131 (Curies)
0.000	3.2054E+07	3.2452E-03	3.2452E-03
0.401	2.4021E-07	1.7845E-03	1.8181E-03
0.701	1.9964E-07	2.3773E+03	2.4541E-03
1.001	1.6640E+07	2.6079E+03	2.7256E+03
1.301	1.3917E+07	2.6169E+03	2.7669E+03
1.601	1.1686E+07	2.4974E+03	2.6693E+03
1.901	9.8576E+06	2.3100E-03	2.4938E-03
2.000	9.3278E-06	2.2400E+03	2.4258E-03
2.300	7.1975E+06	1.9979E+03	2.1848E+03
2.600	5.6524E+06	1.7346E+03	1.9159E+03
2.900	4.5316E+06	1.4816E+03	1.6526E+03
3.200	3.7184E+06	1.2545E-03	1.4120E-03
3.500	3.1282E-06	1.0589E-03	1.2015E-03
3.800	2.6997E-06	8.9524E+02	1.0226E+03
4.100	2.3885E+06	7.6116E+02	8.7382E+02
4.400	2.1622E+06	6.5302E+02	7.5207E+02
4.700	1.9976E+06	5.6689E+02	6.5369E+02
5.000	1.8777E-06	4.9896E-02	5.7499E-02
5.300	1.8206E-06	4.4670E-02	5.1346E-02
5.600	1.7733E+06	4.0718E+02	4.6609E+02
5.900	1.7340E+06	3.7710E+02	4.2946E+02
6.200	1.7012E+06	3.5404E+02	4.0101E+02
6.500	1.6739E+06	3.3625E+02	3.7881E+02
6.800	1.6510E-06	3.2242E-02	3.6139E-02
5.300	1.8206E-06	4.4670E-02	5.1346E-02
5.600	1.7733E+06	4.0718E+02	4.6609E+02

7.100	1.6318E+06	3.1159E+02	3.4766E-02
7.400	1.6157E+06	3.0305E-02	3.3678E-02
7.700	1.6020E+06	2.9627E-02	3.2811E+02
8.000	1.5904E+06	2.9084E-02	3.2117E+02
8.300	1.5804E+06	2.8646E-02	3.1557E+02
8.600	1.5726E+06	2.8292E-02	3.1104E+02
8.900	1.5657E+06	2.8005E-02	3.0738E+02
9.200	1.5596E-06	2.7769E-02	3.0438E+02
9.500	1.5541E-06	2.7573E-02	3.0191E+02
9.800	1.5491E-06	2.7408E-02	2.9984E-02
10.100	1.5446E-06	2.7268E+02	2.9809E+02
10.400	1.5405E-06	2.7146E+02	2.9660E-02
24.000	1.4385E-06	2.5144E+02	2.7409E-02
96.000	1.0748E-06	1.8787E+02	2.0479E-02
720.000	8.5957E-04	1.5025E+01	1.6378E-01

Time (hr)	Intact MSL No. D I-131 (Curies)	Drain Pathway Mixing I-131 (Curies)	Effective Condenser I-131 (Curies)
0.000	3.2452E-03	4.8795E-03	5.3796E-07
0.401	1.7845E+03	3.5276E+01	4.2373E+03
0.701	2.3773E+03	3.6767E-01	7.8313E+03
1.001	2.6079E+03	3.5928E-01	1.1445E+04
1.301	2.6169E+03	3.3771E-01	1.4900E+04
1.601	2.4974E+03	3.0958E-01	1.8102E+04
1.901	2.3100E+03	2.7908E-01	2.1007E+04
2.000	2.2400E+03	2.6892E-01	2.1903E+04
2.300	1.9979E+03	2.3113E-01	2.4339E-04
2.600	1.7346E+03	1.9636E-01	2.6409E-04
2.900	1.4816E+03	1.6594E+01	2.8152E-04
3.200	1.2565E-03	1.4017E+01	2.9613E-04
3.500	1.0589E-03	1.1884E+01	3.0836E-04
3.800	8.9524E-02	1.0148E+01	3.1869E-04
4.100	7.6116E-02	8.7533E+00	3.2744E+04
4.400	6.5302E-02	7.6456E+00	3.3493E+04
4.700	5.6689E-02	6.7729E+00	3.4143E+04
5.000	4.9896E+02	6.0903E+00	3.4715E+04
5.300	4.4670E+02	5.5925E+00	3.5228E+04
5.600	4.0718E+02	5.2105E+00	3.5697E+04
5.900	3.7710E+02	4.9153E-00	3.6131E+04
6.200	3.5404E+02	4.6858E-00	3.6538E+04
6.500	3.3625E+02	4.5063E-00	3.6925E+04
6.800	3.2242E+02	4.3649E-00	3.7294E+04
7.100	3.1159E+02	4.2527E-00	3.7651E-04
7.400	3.0305E+02	4.1632E+00	3.7996E-04
7.700	2.9627E+02	4.0913E+00	3.8333E-04
8.000	2.9084E+02	4.0330E+00	3.8663E-04
8.300	2.8646E-02	3.9855E+00	3.8987E+04
8.600	2.8292E-02	3.9472E+00	3.9306E+04
8.900	2.8005E-02	3.9156E+00	3.9621E+04
9.200	2.7769E+02	3.8893E+00	3.9932E+04
9.500	2.7573E+02	3.8670E+00	4.0240E+04
9.800	2.7408E+02	3.8479E+00	4.0546E+04
10.100	2.7268E+02	3.8315E-00	4.0849E+04
10.400	2.7146E+02	3.8170E-00	4.1150E+04
24.000	2.5144E+02	3.5472E-00	5.3420E+04
96.000	1.8787E+02	2.5453E-00	6.4718E-04
720.000	1.5025E+01	2.0356E-01	1.6276E-04

Time (hr)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	0.0000E-00	0.0000E+00
0.401	0.0000E-00	0.0000E+00
0.701	0.0000E-00	0.0000E+00
1.001	0.0000E+00	0.0000E+00
1.301	0.0000E+00	0.0000E+00
1.601	0.0000E+00	0.0000E-00
1.901	0.0000E+00	0.0000E-00
2.000	0.0000E+00	0.0000E-00
2.300	1.7470E-01	4.3373E-05
2.600	3.7218E-01	8.4504E-05
2.900	5.9109E-01	1.2347E-04
3.200	8.3023E-01	1.6035E-04
3.500	1.0885E-00	1.9528E-04
3.800	1.3651E-00	2.2839E-04
4.100	1.6592E+00	2.5982E-04
4.400	1.9702E-00	2.8972E-04
4.700	2.2976E-00	3.1825E-04
5.000	2.6409E+00	3.4556E-04
3.500	1.0885E-00	1.9528E-04
3.800	1.3651E-00	2.2839E-04

5.300	3.0000E+00	3.7178E-04
5.600	3.3744E-00	3.9706E-04
5.900	3.7641E-00	4.2151E-04
6.200	4.1688E-00	4.4523E-04
6.500	4.5883E-00	4.6833E-04
6.800	5.0226E-00	4.9089E-04
7.100	5.4716E-00	5.1298E-04
7.400	5.9351E+00	5.3466E-04
7.700	6.4130E+00	5.5598E-04
8.000	6.9053E+00	5.7698E-04
8.300	7.4120E+00	5.1312E-04
8.600	7.9328E-00	4.6200E-04
8.900	8.4679E-00	4.2132E-04
9.200	9.0170E-00	3.8917E-04
9.500	9.5802E-00	3.6400E-04
9.800	1.0157E+01	3.4453E-04
10.100	1.0749E+01	3.2972E-04
10.400	1.1354E+01	3.1873E-04
24.000	5.2472E+01	5.0221E-04
96.000	2.5161E-02	2.9146E-04
720.000	1.9009E+03	8.1693E-05

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Cumulative Dose Summary
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Time	EAB LOCA Thyroid	EAB LOCA TEDE	LOCA @ LPZ Thyroid	LOCA @ LPZ TEDE	LOCA @ CR Thyroid	LOCA @ CR TEDE
(hr)	(rem)	(rem)	(rem)	(rem)	(rem)	(rem)
0.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00
0.401	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00
0.701	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E-00
1.001	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E-00
1.301	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00
1.601	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.901	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.000	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00
2.300	7.5823E-02	3.4394E-02	4.4763E-03	2.0305E-03	8.4098E-04	2.8592E-04
2.600	1.6122E-01	7.2117E-02	9.5181E-03	4.2575E-03	3.2997E-03	1.0913E-03
2.900	2.5556E-01	1.1270E-01	1.5087E-02	6.6532E-03	7.2806E-03	2.3472E-03
3.200	3.5826E-01	1.5570E-01	2.1150E-02	9.1922E-03	1.2693E-02	3.9946E-03
3.500	4.6881E-01	2.0075E-01	2.7677E-02	1.1851E-02	1.9450E-02	5.9825E-03
3.800	5.8679E-01	2.4749E-01	3.4642E-02	1.4611E-02	2.7472E-02	8.2663E-03
4.100	7.1183E-01	2.9562E-01	4.2024E-02	1.7452E-02	3.6685E-02	1.0807E-02
4.400	8.4364E-01	3.4487E-01	4.9805E-02	2.0360E-02	4.7022E-02	1.3571E-02
4.700	9.8197E-01	3.9501E-01	5.7971E-02	2.3320E-02	5.8421E-02	1.6527E-02
5.000	1.1266E-00	4.4585E-01	6.6510E-02	2.6321E-02	7.0829E-02	1.9650E-02
5.300	1.2774E-00	4.9721E-01	7.5411E-02	2.9353E-02	8.4196E-02	2.2916E-02
5.600	1.4341E+00	5.4893E-01	8.4666E-02	3.2407E-02	9.8479E-02	2.6306E-02
5.900	1.5968E+00	6.0090E-01	9.4269E-02	3.5475E-02	1.1364E-01	2.9800E-02
6.200	1.7652E+00	6.5301E-01	1.0421E-01	3.8551E-02	1.2965E-01	3.3384E-02
6.500	1.9394E+00	7.0516E-01	1.1449E-01	4.1630E-02	1.4647E-01	3.7043E-02
6.800	2.1192E+00	7.5728E-01	1.2511E-01	4.4707E-02	1.6409E-01	4.0767E-02
7.100	2.3045E+00	8.0930E-01	1.3605E-01	4.7778E-02	1.8247E-01	4.4544E-02
7.400	2.4953E-00	8.6117E-01	1.4731E-01	5.0840E-02	2.0161E-01	4.8366E-02
7.700	2.6915E-00	9.1285E-01	1.5890E-01	5.3891E-02	2.2147E-01	5.2225E-02
8.000	2.8931E+00	9.6430E-01	1.7080E-01	5.6928E-02	2.4206E-01	5.6113E-02
8.300	2.9995E-00	1.0121E+00	1.7529E-01	5.8945E-02	2.6177E-01	5.9727E-02
8.600	3.1087E+00	1.0596E+00	1.7989E-01	6.0947E-02	2.7936E-01	6.2850E-02
8.900	3.2205E+00	1.1067E+00	1.8460E-01	6.2933E-02	2.9526E-01	6.5587E-02
9.200	3.3350E+00	1.1534E+00	1.8943E-01	6.4903E-02	3.0982E-01	6.8023E-02
9.500	3.4521E+00	1.1997E+00	1.9437E-01	6.6856E-02	3.2331E-01	7.0220E-02
9.800	3.5718E+00	1.2457E+00	1.9942E-01	6.8793E-02	3.3598E-01	7.2231E-02
10.100	3.6942E+00	1.2912E-00	2.0458E-01	7.0714E-02	3.4801E-01	7.4093E-02
10.400	3.8191E-00	1.3364E-00	2.0984E-01	7.2618E-02	3.5955E-01	7.5840E-02
24.000	1.1937E+01	3.2061E+00	5.5215E-01	1.5146E-01	9.5152E-01	1.3890E-01
96.000	5.5890E+01	8.1140E+00	1.4524E+00	2.5199E-01	2.0108E+00	2.1382E-01
720.000	3.9794E+02	3.5669E+01	3.9663E+00	4.5450E-01	6.5450E+00	4.6334E-01

Time	LOCA @ Unprotected CR Thyroid	LOCA @ Unprotected CR TEDE
(hr)	(rem)	(rem)
0.000	0.0000E+00	0.0000E-00
0.401	0.0000E+00	0.0000E-00
0.701	0.0000E+00	0.0000E-00
1.001	0.0000E+00	0.0000E+00
1.301	0.0000E+00	0.0000E+00
1.601	0.0000E+00	0.0000E+00
0.000	0.0000E+00	0.0000E-00
0.401	0.0000E+00	0.0000E-00

1.901	0.0000E+00	0.0000E+00
2.000	0.0000E-00	0.0000E-00
2.300	4.5037E-01	2.0429E-01
2.600	9.5763E-01	4.2836E-01
2.900	1.5180E-00	6.6939E-01
3.200	2.1280E-00	9.2484E-01
3.500	2.7846E+00	1.1924E+00
3.800	3.4854E+00	1.4700E+00
4.100	4.2281E-00	1.7559E-00
4.400	5.0110E+00	2.0484E-00
4.700	5.8326E+00	2.3463E+00
5.000	6.6917E+00	2.6482E+00
5.300	7.5873E-00	2.9533E-00
5.600	8.5185E+00	3.2605E-00
5.900	9.4846E+00	3.5692E+00
6.200	1.0485E+01	3.8787E+00
6.500	1.1520E-01	4.1885E-00
6.800	1.2587E+01	4.4981E+00
7.100	1.3688E+01	4.8071E+00
7.400	1.4821E+01	5.1152E+00
7.700	1.5987E-01	5.4221E+00
8.000	1.7184E+01	5.7277E-00
8.300	1.7543E+01	5.8165E+00
8.600	1.7912E+01	5.9048E-00
8.900	1.8289E+01	5.9926E+00
9.200	1.8675E+01	6.0799E+00
9.500	1.9070E-01	6.1667E+00
9.800	1.9474E-01	6.2529E-00
10.100	1.9887E+01	6.3385E-00
10.400	2.0308E+01	6.4237E+00
24.000	4.7693E-01	1.0097E+01
96.000	1.5890E+02	1.9453E-01
720.000	9.1772E+02	6.7673E-01

****
Worst Two-Hour Doses
****

EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
5.4	3.0712E-01	1.1656E+00	3.4672E-01

Attachment 17 RADTRAD Output: MSIV_500cfm_Drywell+Wetwell_2-720 hr_6391cfm.o0

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:59:48
##########################################################################

##########################################################################
                    File information
##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\MSIV_500cfm_Drywell+Wetwell_2-720
hr_6391cfm.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\msiv-imrel.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp


     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #       #    #    #
     #    #  #       #        #  # #   #  #       #    #    #
     #####    ####   ####     #  #  #  #  ####    #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #       ####   #        #  #     #  #        ####     #

 Radtrad 3.03 4/15/2001
 LOCA AST- MSIV Leakage
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E-03
 Compartments:
   8
 Compartment 1:
 Primary Containment
   3
  3.8819E+05
   0
   0
   0
   1
   0
 Compartment 2:
 Intact MSL No. A
   3
  6.7800E+01
   0
   0
   0
   0
   0
 Compartment 3:
 Intact MSL No. B
   3
  7.3900E-01
   0
   0
   0
   0
   0
 Compartment 4:
 Intact MSL No. D
   3
  6.7800E+01
   0
   0
   0
   0
   0
 Compartment 5:
 Drain Pathway Mixing Volume
   3
  1.0000E+00
   0
   0
   0
```

```
  0
  0
  0
  0
Compartment 6:
Effective Condenser
  3
 9.8600E-04
  0
  0
  0
  0
  0
Compartment 7:
Environment
  2
 0.0000E-00
  0
  0
  0
  0
  0
Compartment 8:
Control Room
  1
 5.1800E+05
  0
  0
  0
  0
  0
Pathways:
 13
Pathway 1:
Primary Containment to Drain Pathway Mixing Volume - Faulted MSL No. C
  1
  5
  2
Pathway 2:
Primary Containment to Intact MSL No. A
  1
  2
  2
Pathway 3:
Primary Containment to Intact MSL No. B
  1
  3
  2
Pathway 4:
Primary Containment to Intact MSL No. D
  1
  4
  2
Pathway 5:
Intact MSL No. A to Drain Pathway Mixing Volume
  2
  5
  2
Pathway 6:
Intact MSL No. B to Drain Pathway Mixing Volume
  3
  5
  2
Pathway 7:
Intact MSL No. D to Drain Pathway Mixing Volume
  4
  5
  2
Pathway 8:
Drain Pathway Mixing Volume to Effective Condenser
  5
  6
  2
Pathway 9:
Effective Condenser to Environment
  6
  7
  2
  2
Pathway 9:
```

```
Pathway 10:
Environment to Control Room - Emergency Filtered Air Intake
  7
  8
  2
Pathway 11:
Environment to Control Room - Unfiltered Air Intake
  7
  8
  2
Pathway 12:
Control Room to Environment - CR Exhaust
  8
  7
  2
Pathway 13:
Environment to  Control Room ingress/egress
  7
  8
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E-00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\msiv-imrel.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  8
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  0
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
```

```
  0
  0
  0
  0
  0
  0
Compartment 5:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 6:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 7:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 8:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
 13
Pathway 1:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.9700E-00   0.0000E-00   0.0000E-00   0.0000E+00
  2.4000E+01   9.8500E-01   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E+00   0.0000E+00   0.0000E-00   0.0000E+00
  2.4000E+01   6.5500E-01   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  3
  0.0000E+00   1.3100E+00   0.0000E+00   0.0000E-00   0.0000E+00
```

```
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3100E-00   0.0000E+00   0.0000E+00   0.0000E+00
  2.4000E-01   6.5500E-01   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E-02   0.0000E+00   0.0000E-00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E+00   0.0000E-00   0.0000E-00   0.0000E+00
  2.4000E+01   6.5500E-01   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E-00   1.4800E+01   6.5200E+00   0.0000E+00
  2.4000E+01   6.5500E-01   2.5800E+01   1.2250E+01   0.0000E-00
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 6:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E-00   1.5900E+01   7.0600E+00   0.0000E+00
  2.4000E+01   6.5500E-01   2.7500E+01   1.3190E+01   0.0000E-00
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 7:
  0
  0
  0
  0
  0
Pathway 7:
  0
```

```
  1
  3
  0.0000E+00   1.3100E+00   1.4800E-01   6.5200E-00   0.0000E+00
  2.4000E+01   6.5500E-01   2.5800E-01   1.2250E-01   0.0000E+00
  7.2000E-02   0.0000E-00   0.0000E-00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 8:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   5.9000E+00   6.7000E+00   4.2700E-00   0.0000E+00
  2.4000E+01   2.9500E+00   1.2500E+01   8.1900E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 9:
  0
  0
  0
  0
  0
  1
  2
  0.0000E-00   5.9000E+00   9.9600E+01   9.9600E+01   0.0000E+00
  2.4000E+01   2.9500E+00   9.9600E+01   9.9600E+01   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 10:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   6.3910E+03   1.0000E-02   1.0000E+02   1.0000E-02
  2.0000E+00   6.3910E+03   9.9000E-01   9.9000E+01   9.9000E-01
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 11:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   5.0000E-02   1.0000E-02   1.0000E+02   1.0000E+02
  2.0000E+00   5.0000E-02   0.0000E-00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
  0
  0
```

```
Pathway 12:
  0
  0
  0
  0
  0
  1
  2
  0.0000E-00   6.9010E+03   0.0000E-00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 13:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.0000E+01   1.0000E+02   1.0000E-02   1.0000E-02
  2.0000E+00   1.0000E+01   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB LOCA
  7
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E-00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
LOCA @ LPZ
  7
  1
  5
  0.0000E-00   4.9000E-05
  8.0000E+00   3.5000E-05
  2.4000E+01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E-02   0.0000E+00
  0
Location 3:
LOCA @ CR
  8
  0
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E-00   1.0000E+00
  2.4000E-01   6.0000E-01
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
```

```
  9.6000E+01   4.0000E-01
  7.2000E+02   0.0000E-00
Location 4:
LOCA 6 Unprotected CR
  7
  1
  6
  0.0000E-00   6.0000E-03
  2.0000E-00   4.9300E-03
  8.0000E+00   1.4400E-03
  2.4000E+01   1.3800E-03
  9.6000E+01   1.2100E-03
  7.2000E-02   0.0000E+00
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E+00   1.3600E-03
  2.0000E-00   1.0300E-03
  8.0000E-00   3.3600E-04
  2.4000E+01   2.2000E-04
  9.6000E+01   1.8500E-04
  7.2000E-02   0.0000E+00
Simulation Parameters:
  2
  0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E-00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  0
  0
End of Scenario File
```

```
##############################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:59:48
##############################################################

##############################################################
                    Plant Description
##############################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   8

Compartment information

Compartment number  1  (Source term fraction =   1.0000E-00
)
Name: Primary Containment
Compartment volume =   3.8819E-05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Drain Pathway Mixing Volume
   Exit Pathway Number    2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    4: Primary Containment to Intact MSL No. D

Compartment number  2
Name: Intact MSL No. A
Compartment volume =   6.7800E-01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    5: Intact MSL No. A to Drain Pathway Mixing Volume

Compartment number  3
Name: Intact MSL No. B
Compartment volume =   7.3900E-01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  3
   Inlet Pathway Number   3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    6: Intact MSL No. B to Drain Pathway Mixing Volume

Compartment number  4
Name: Intact MSL No. D
Compartment volume =   6.7800E-01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  4
   Inlet Pathway Number.  4: Primary Containment to Intact MSL No. D
   Exit Pathway Number    7: Intact MSL No. D to Drain Pathway Mixing Volume

Compartment number  5
Name: Drain Pathway Mixing Volume
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  5
   Inlet Pathway Number   1: Primary Containment to Drain Pathway Mixing Volume
   Inlet Pathway Number   5: Intact MSL No. A to Drain Pathway Mixing Volume
   Inlet Pathway Number   6: Intact MSL No. B to Drain Pathway Mixing Volume
   Inlet Pathway Number   7: Intact MSL No. D to Drain Pathway Mixing Volume
   Exit Pathway Number    8: Drain Pathway Mixing Volume to Effective Condenser

Compartment number  6
Name: Effective Condenser
Compartment volume =   9.8600E+04 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  6
   Inlet Pathway Number   8: Drain Pathway Mixing Volume to Effective Condenser
   Exit Pathway Number    9: Effective Condenser to Environment

Compartment number  7
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  7
   Exit Pathway Number    9: Effective Condenser to Environment
```

```
   Inlet Pathway Number   9: Effective Condenser to Environment
   Inlet Pathway Number  12: Control Room to Environment - CR Exhaust
   Exit Pathway Number   10: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number   11: Environment to Control Room - Unfiltered Air Intak
   Exit Pathway Number   13: Environment to  Control Room ingress/egress

Compartment number  8
Name: Control Room
Compartment volume =   5.18002+05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  8
   Inlet Pathway Number  10: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number  11: Environment to Control Room - Unfiltered Air Intak
   Inlet Pathway Number  13: Environment to  Control Room ingress/egress
   Exit Pathway Number   12: Control Room to Environment - CR Exhaust

Total number of pathways =  13
```

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##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:59:48
##########################################################################

##########################################################################
                      Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE     RELEASE MASS
            0.000001 hr        0.0000 hrs       0.0000 hrs          (gm)
NOBLES      1.0000E+00         0.0000E+00       0.0000E-00        4.943E-03
IODINE      3.0000E-01         0.0000E-00       0.0000E+00        3.427E+02
CESIUM      2.5000E-01         0.0000E+00       0.0000E+00        5.418E-04
TELLURIUM   0.0000E-00         0.0000E+00       0.0000E+00        0.000E+00
STRONTIUM   0.0000E+00         0.0000E+00       0.0000E+00        0.000E-00
BARIUM      0.0000E-00         0.0000E+00       0.0000E+00        0.000E+00
RUTHENIUM   0.0000E+00         0.0000E+00       0.0000E+00        0.000E-00
CERIUM      0.0000E+00         0.0000E+00       0.0000E-00        0.000E+00
LANTHANUM   0.0000E+00         0.0000E-00       0.0000E+00        0.000E+00

Inventory Power =      4032. MWt

Nuclide  Group  Specific      half      Whole Body   Inhaled     Inhaled
 Name           Inventory     life      DCF          Thyroid     Effective
                (Ci/MWt)      (s)       (Sv-m3/Bq-s) (Sv/Bq)     (Sv/Bq)
 Kr-85     1   3.670E-02  3.383E+08   1.190E-16   0.000E-00   0.000E-00
 Kr-85m    1   6.650E+03  1.613E-04   7.480E-15   0.000E+00   0.000E+00
 Kr-87     1   1.330E-04  4.578E+03   4.120E-14   0.000E-00   0.000E+00
 Kr-88     1   1.850E+04  1.022E+04   1.020E-13   0.000E+00   0.000E+00
 Rb-86     3   5.380E+01  1.612E+06   4.810E-15   1.330E-09   1.790E-09
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E+04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E+04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E+04  3.156E-03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E+04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E+04  4.532E-05   1.560E-15   0.000E+00   0.000E+00
 Xe-135    1   1.740E-04  3.272E+04   1.190E-14   0.000E+00   0.000E+00
 Cs-134    3   5.700E+03  6.507E+07   7.570E-14   1.110E-08   1.250E-08
 Cs-136    3   1.820E-03  1.132E+06   1.060E-13   1.730E-09   1.980E-09
 Cs-137    3   4.290E+03  9.467E-08   2.725E-14   7.930E-09   8.630E-09

Nuclide    Daughter  Fraction   Daughter  Fraction   Daughter  Fraction
 Kr-85m    Kr-85     0.21       none      0.00       none      0.00
 Kr-87     Rb-87     1.00       none      0.00       none      0.00
 Kr-88     Rb-88     1.00       none      0.00       none      0.00
 Sr-90     Y-90      1.00       none      0.00       none      0.00
 Sr-91     Y-91m     0.58       Y-91      0.42       none      0.00
 Sr-92     Y-92      1.00       none      0.00       none      0.00
 Y-93      Zr-93     1.00       none      0.00       none      0.00
 Zr-95     Nb-95m    0.01       Nb-95     0.99       none      0.00
 Zr-97     Nb-97m    0.95       Nb-97     0.05       none      0.00
 Mo-99     Tc-99m    0.88       Tc-99     0.12       none      0.00
 Tc-99m    Tc-99     1.00       none      0.00       none      0.00
 Ru-103    Rh-103m   1.00       none      0.00       none      0.00
 Ru-105    Rh-105    1.00       none      0.00       none      0.00
 Ru-106    Rh-106    1.00       none      0.00       none      0.00
 Sb-127    Te-127m   0.18       Te-127    0.82       none      0.00
 Sb-129    Te-129m   0.22       Te-129    0.77       none      0.00
 Te-127m   Te-127    0.98       none      0.00       none      0.00
 Te-129    I-129     1.00       none      0.00       none      0.00
 Te-129m   Te-129    0.65       I-129     0.35       none      0.00
 Te-131m   Te-131    0.22       I-131     0.78       none      0.00
 Te-132    I-132     1.00       none      0.00       none      0.00
 I-131     Xe-131m   0.01       none      0.00       none      0.00
 I-133     Xe-133m   0.03       Xe-133    0.97       none      0.00
 I-135     Xe-135m   0.15       Xe-135    0.85       none      0.00
 Xe-135    Cs-135    1.00       none      0.00       none      0.00
 Cs-137    Ba-137m   0.95       none      0.00       none      0.00
 Ba-140    La-140    1.00       none      0.00       none      0.00
 La-141    Ce-141    1.00       none      0.00       none      0.00
 Ce-143    Pr-143    1.00       none      0.00       none      0.00
 Ce-144    Pr-144m   0.02       Pr-144    0.98       none      0.00
 Xe-135    Cs-135    1.00       none      0.00       none      0.00
 Cs-137    Ba-137m   0.95       none      0.00       none      0.00
 Nd-147    Pm-147    1.00       none      0.00       none      0.00
```

Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Compartment number 2: Intact MSL No. A

Compartment number 3: Intact MSL No. B

Compartment number 4: Intact MSL No. D

Compartment number 5: Drain Pathway Mixing Volume

Compartment number 6: Effective Condenser

Compartment number 7: Environment

Compartment number 8: Control Room

PATHWAY DATA

Pathway number 1: Primary Containment to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.9700E-00	0.0000E-00	0.0000E-00	0.0000E+00
2.4000E+01	9.8500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 2: Primary Containment to Intact MSL No. A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E-00	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E-00	0.0000E-00	0.0000E-00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 3: Primary Containment to Intact MSL No. B

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E-00	0.0000E+00
2.4000E-01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 4: Primary Containment to Intact MSL No. D

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E-00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00

Pathway number 5: Intact MSL No. A to Drain Pathway Mixing Volume

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
Pathway number 00.	1.3100E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E-00	1.4800E+01	6.5200E-00	0.0000E-00
2.4000E-01	6.5500E-01	2.5800E+01	1.2250E-01	0.0000E-00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 6: Intact MSL No. B to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.5900E-01	7.0600E+00	0.0000E+00
2.4000E+01	6.5500E-01	2.7500E+01	1.3190E+01	0.0000E+00
7.2000E-02	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00

Pathway number 7: Intact MSL No. D to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	1.3100E+00	1.4800E+01	6.5200E+00	0.0000E+00
2.4000E-01	6.5500E-01	2.5800E-01	1.2250E-01	0.0000E-00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 8: Drain Pathway Mixing Volume to Effective Condenser

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.9000E+00	6.7000E-00	4.2700E-00	0.0000E-00
2.4000E+01	2.9500E-00	1.2500E+01	8.1900E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 9: Effective Condenser to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.9000E-00	9.9600E+01	9.9600E+01	0.0000E+00
2.4000E-01	2.9500E+00	9.9600E+01	9.9600E+01	0.0000E+00

Pathway number 10: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	6.3910E-03	1.0000E+02	1.0000E+02	1.0000E+02
2.0000E-00	6.3910E-03	9.9000E+01	9.9000E+01	9.9000E+01
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00

Pathway number 11: Environment to Control Room - Unfiltered Air Intak

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	5.0000E+02	1.0000E+02	1.0000E+02	1.0000E+02
2.0000E+00	5.0000E+02	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00

Pathway number 12: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	6.9010E+03	0.0000E-00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 13: Environment to Control Room ingress/egress

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	1.0000E-01	1.0000E+02	1.0000E-02	1.0000E+02
2.0000E+00	1.0000E-01	0.0000E+00	0.0000E-00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00

LOCATION DATA

Location EAB LOCA is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

Location LOCA @ LPZ is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	4.9000E-05
8.0000E+00	3.5000E-05
2.4000E+01	1.7000E-05
9.6000E-01	6.1000E-06
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E-00	1.8000E-04
2.4000E-01	2.3000E-04
7.2000E-02	0.0000E+00

Location LOCA @ CR is in compartment 8

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	1.3600E-03
2.0000E-00	1.0300E-03
8.0000E-00	3.3600E-04
2.4000E-01	2.2000E-04
9.6000E+01	1.8500E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
7.2000E-02	0.0000E+00

Location Occupancy Factor Data

Time (hr)	Occupancy Factor
0.0000E+00	1.0000E+00
2.4000E+01	6.0000E-01
9.6000E+01	4.0000E-01
7.2000E-02	0.0000E-00

Location LOCA @ Unprotected CR is in compartment 7

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	6.0000E-03
2.0000E+00	4.9300E-03
8.0000E+00	1.4400E-03
2.4000E+01	1.3800E-03
9.6000E-01	1.2100E-03
7.2000E-02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
7.2000E+02	0.0000E-00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)

Time	Time step
0.0000E+00	0.0000E+00
7.2000E-02	0.0000E-00

```
##############################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at  9:59:48
##############################################################################


     ####   #    #  #####  #####   #    #  #####
    #    #  #    #    #    #    #  #    #    #
    #       #    #    #    #    #  #    #    #
    #  ###  #    #    #    #####   #    #    #
    #    #  #    #    #    #       #    #    #
    #    #  #    #    #    #       #    #    #
     ####    ####     #    #        ####     #


##############################################################################
          Dose, Detailed model and Detailed Inventory Output
##############################################################################

EAB LOCA Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        5.5979E-19  1.2066E-18  6.0505E-19
Accumulated dose (rem)  5.5979E-19  1.2066E-18  6.0505E-19

LOCA @ LPZ Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        3.3048E-20  7.1234E-20  3.5720E-20
Accumulated dose (rem)  3.3048E-20  7.1234E-20  3.5720E-20

LOCA @ CR Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        2.6402E-26  0.0000E+00  2.6402E-26
Accumulated dose (rem)  2.6402E-26  0.0000E+00  2.6402E-26

LOCA @ Unprotected CR Doses:

Time (h) =   0.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        4.0467E-18  8.7225E-18  4.3739E-18
Accumulated dose (rem)  4.0467E-18  8.7225E-18  4.3739E-18

Environment Integral Nuclide Release:

Time (h) =   0.0000       Ci           kg          Atoms          Bq

Environment Transport Group Inventory:

                          Total      Release
Time (h) =   0.0000      Release     Rate/s
Noble gases (atoms)    5.1678E-02  1.4355E+05
Elemental I (atoms)    4.6968E-03  1.3047E-00
Organic I (atoms)      3.7936E-02  1.0538E-01
Aerosols (kg)          3.2799E-24  9.1108E-22
Dose Effective (Ci) I-131 (Thyroid)            3.8236E-18
Dose Effective (Ci) I-131 (ICRP2 Thyroid)      4.8990E-18
Total I  (Ci)                                  2.3833E-17

Effective Condenser to Environment Transport Group Inventory:

                          Pathway
Time (h) =   0.0000      Filtered   Transported
Noble gases (atoms)    0.0000E-00  6.8903E-02
Elemental I (atoms)    1.5593E+00  6.2623E-03
Organic I (atoms)      0.0000E+00  5.0580E-02
Aerosols (kg)          1.0889E-21  4.3731E-24

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

                          Pathway
Time (h) =   0.0000      Filtered   Transported
Noble gases (atoms)    0.0000E-00  2.1199E-00
Elemental I (atoms)    1.9267E-05  0.0000E+00
Organic I (atoms)      1.5561E-04  0.0000E+00

                          Pathway
```

Aerosols (kg)	1.3454E-26	0.0000E+00

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6585E-01
Elemental I (atoms)	1.5073E-06	0.0000E+00
Organic I (atoms)	1.2174E-05	0.0000E+00
Aerosols (kg)	1.0526E-27	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	6.0991E-07	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3169E-03
Elemental I (atoms)	3.0147E-08	0.0000E+00
Organic I (atoms)	2.4349E-07	0.0000E+00
Aerosols (kg)	2.1052E-29	0.0000E-00

EAB LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0240E-01	2.2839E-01	1.1074E-01
Accumulated dose (rem)	1.0240E-01	2.2839E-01	1.1074E-01

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.0454E-03	1.3483E-02	6.5374E-03
Accumulated dose (rem)	6.0454E-03	1.3483E-02	6.5374E-03

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.0969E-03	0.0000E+00	4.0969E-03
Accumulated dose (rem)	4.0969E-03	0.0000E-00	4.0969E-03

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.4026E-01	1.6510E-00	8.0050E-01
Accumulated dose (rem)	7.4026E-01	1.6510E+00	8.0050E-01

Environment Integral Nuclide Release:

Time (h) = 2.0000	Ci	kg	Atoms	Bq
Kr-85	6.1991E-00	1.5801E-05	1.1194E+20	2.2937E+11
Kr-85m	9.0097E+01	1.0948E-08	7.7565E+16	3.3336E+12
Kr-87	1.0566E+02	3.7300E-09	2.5819E+16	3.9093E+12
Kr-88	2.2117E+02	1.7639E-08	1.2071E-17	8.1834E+12
Rb-86	5.2956E-04	6.5082E-12	4.5574E+13	1.9594E-07
I-131	5.2091E-01	4.2018E-09	1.9316E+16	1.9274E+10
I-132	5.0783E-01	4.9198E-11	2.2445E+14	1.8790E+10
I-133	1.0388E+00	9.1705E-10	4.1523E-15	3.8437E+10
I-134	4.2332E-01	1.5868E-11	7.1315E+13	1.5663E-10
I-135	8.9255E-01	2.5415E-10	1.1337E+15	3.3024E+10
Xe-133	8.8280E+02	4.7163E-06	2.1355E+19	3.2664E+13
Xe-135	2.7754E+02	1.0868E-07	4.8481E+17	1.0269E+13
Cs-134	5.6222E-02	4.3454E-08	1.9529E+17	2.0802E-09
Cs-136	1.7898E-02	2.4421E-10	1.0814E+15	6.6223E+08
Cs-137	4.2317E-02	4.8650E-07	2.1385E+18	1.5657E+09

Environment Transport Group Inventory:

Time (h) = 2.0000	Total Release	Release Rate/s
Noble gases (atoms)	1.3401E+20	1.8612E-16
Elemental I (atoms)	1.1471E+15	1.5932E+11

Environment Transport Group Inventory:

Organic I (atoms)	9.5727E-15	1.3295E-12
Aerosols (kg)	5.3330E-07	7.4070E-11
Dose Effective (Ci) I-131 (Thyroid)		7.2312E-01
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		8.9837E-01
Total I (Ci)		3.3835E+00

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.3399E-20
Elemental I (atoms)	2.8604E+17	1.1488E-15
Organic I (atoms)	0.0000E+00	9.5869E+15
Aerosols (kg)	1.3273E-04	5.3304E-07

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.4980E+17
Elemental I (atoms)	4.7139E+12	0.0000E-00
Organic I (atoms)	3.9339E+13	0.0000E-00
Aerosols (kg)	2.1877E-09	0.0000E+00

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3013E+16
Elemental I (atoms)	3.6880E-11	0.0000E+00
Organic I (atoms)	3.0777E-12	0.0000E-00
Aerosols (kg)	1.7115E-10	0.0000E-00

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.0671E+17	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	0.0000E-00	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.6027E+14
Elemental I (atoms)	7.3759E+09	0.0000E-00
Organic I (atoms)	6.1554E+10	0.0000E-00
Aerosols (kg)	3.4230E-12	0.0000E+00

EAB LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.6366E-01	2.8885E+00	9.6308E-01
Accumulated dose (rem)	9.6606E-01	3.1169E+00	1.0738E+00

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.0987E-02	1.7052E-01	5.6856E-02
Accumulated dose (rem)	5.7033E-02	1.8401E-01	6.3394E-02

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.6447E-02	2.1804E-01	6.3996E-02
Accumulated dose (rem)	6.0544E-02	2.1804E-01	6.8093E-02

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.1299E-00	1.7157E+01	5.7204E-00
Accumulated dose (rem)	5.8702E+00	1.8808E+01	6.5209E+00

Environment Integral Nuclide Release:

Time (h) = 8.0000	Ci	kg	Atoms	Bq
Delta dose (rem)	5.1299E-00	1.7157E+01	5.7204E-00	
Accumulated dose (rem)	5.8702E+00	1.8808E+01	6.5209E+00	

Kr-85	1.3304E-02	3.3909E-04	2.4024E-21	4.9223E+12
Kr-85m	1.0690E+03	1.2990E-07	9.2034E-17	3.9554E+13
Kr-87	4.0962E+02	1.4461E-08	1.0010E-17	1.5156E+13
Kr-88	1.9351E+03	1.5432E-07	1.0561E+18	7.1599E+13
Rb-86	4.8095E-03	5.9109E-11	4.1391E+14	1.7795E+08
I-131	7.4153E-00	5.9813E-08	2.7496E+17	2.7437E+11
I-132	2.7201E+00	2.6352E-10	1.2022E+15	1.0064E+11
I-133	1.3217E-01	1.1668E-08	5.2831E+16	4.8904E+11
I-134	8.9126E-01	3.3410E-11	1.5015E+14	3.2977E+10
I-135	8.7803E-00	2.5002E-09	1.1153E+16	3.2487E+11
Xe-133	1.8556E-04	9.9131E-05	4.4886E+20	6.8656E-14
Xe-135	4.6393E-03	1.8167E-06	8.1039E+18	1.7165E-14
Cs-134	5.1323E-01	3.9668E-07	1.7827E+18	1.8990E-10
Cs-136	1.6219E-01	2.2130E-09	9.7993E+15	6.0012E-09
Cs-137	3.8634E-01	4.4416E-06	1.9524E-19	1.4295E-10

Environment Transport Group Inventory:

Time (h) = 8.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.8614E+21	9.9355E-16	
Elemental I (atoms)	2.3025E-16	7.9947E-11	
Organic I (atoms)	1.9396E-17	6.7346E-12	
Aerosols (kg)	4.8675E-06	1.6901E-10	
Dose Effective (Ci) I-131 (Thyroid)			9.8866E+00
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.1792E+01
Total I (Ci)			3.3024E+01

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.8617E-21
Elemental I (atoms)	5.7404E+18	2.3054E+16
Organic I (atoms)	0.0000E+00	1.9420E-17
Aerosols (kg)	1.2120E-03	4.8673E-06

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.0241E+18
Elemental I (atoms)	7.2086E-13	6.8052E+11
Organic I (atoms)	6.0714E+14	5.7354E+12
Aerosols (kg)	1.5518E-08	1.3465E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.0600E+17
Elemental I (atoms)	3.6880E+11	5.3241E+12
Organic I (atoms)	3.0777E+12	4.4871E-13
Aerosols (kg)	1.7115E-10	1.0535E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	7.0854E-18	0.0000E+00
Elemental I (atoms)	4.3245E-12	0.0000E+00
Organic I (atoms)	3.6434E-13	0.0000E+00
Aerosols (kg)	9.4480E-10	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4120E+16
Elemental I (atoms)	7.3759E+09	1.0648E+11
Organic I (atoms)	6.1554E+10	8.9742E+11
Aerosols (kg)	3.4230E-12	2.1069E-11

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9484E+00	9.0382E+00	2.2409E-00
Accumulated dose (rem)	2.9145E+00	1.2155E+01	3.3148E-00

EAB LOCA Doses:

LOCA @ LPZ Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.2162E-02	3.8113E-01	9.4497E-02
Accumulated dose (rem)	1.3919E-01	5.6513E-01	1.5789E-01

LOCA @ CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.9717E-02	6.0199E-01	7.9338E-02
Accumulated dose (rem)	1.2026E-01	8.2003E-01	1.4743E-01

LOCA @ Unprotected CR Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.3804E-00	3.0490E-01	4.3672E-00
Accumulated dose (rem)	9.2505E+00	4.9298E-01	1.0888E-01

Environment Integral Nuclide Release:

Time (h) = 24.0000	Ci	kg	Atoms	Bq
Kr-85	1.2830E-03	3.2701E-03	2.3169E+22	4.7471E-13
Kr-85m	2.8001E-03	3.6025E-07	2.4106E+18	1.0360E-14
Kr-87	4.4493E-02	1.5708E-08	1.0873E+17	1.6462E-13
Kr-88	3.3661E-03	2.6845E-07	1.8371E-18	1.2455E-14
Rb-86	1.6458E-02	2.0226E-10	1.4163E-15	6.0893E-08
I-131	5.2955E-01	4.2714E-07	1.9636E-18	1.9593E+12
I-132	3.6411E+00	3.5275E-10	1.6093E+15	1.3472E+11
I-133	7.0083E+01	6.1867E-08	2.8013E+17	2.5931E+12
I-134	9.0078E-01	3.3766E-11	1.5175E+14	3.3329E+10
I-135	2.5926E+01	7.3825E-09	3.2932E+16	9.5927E+11
Xe-133	1.6869E+05	9.0123E-04	4.0807E+21	6.2417E+15
Xe-135	2.1781E+04	8.5290E-06	3.8046E+19	8.0588E-14
Cs-134	1.7780E+00	1.3742E-06	6.1759E+18	6.5786E-10
Cs-136	5.5206E-01	7.5324E-09	3.3354E+16	2.0426E-10
Cs-137	1.3388E-00	1.5392E-05	6.7658E-19	4.9536E-10

Environment Transport Group Inventory:

Time (h) = 24.0000	Total Release	Release Rate/s	
Noble gases (atoms)	2.7292E+22	3.1588E+17	
Elemental I (atoms)	1.9951E+17	2.3091E+12	
Organic I (atoms)	1.6846E+18	1.9498E+13	
Aerosols (kg)	1.6860E-05	1.9514E-10	
Dose Effective (Ci) I-131 (Thyroid)			6.5393E-01
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			7.3992E-01
Total I (Ci)			1.5351E-02

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7310E+22
Elemental I (atoms)	4.9969E+19	2.0068E+17
Organic I (atoms)	0.0000E+00	1.6945E+18
Aerosols (kg)	4.1981E-03	1.6860E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3801E+19
Elemental I (atoms)	2.5030E+14	2.4806E+12
Organic I (atoms)	2.1124E+15	2.0940E+13
Aerosols (kg)	2.7551E-08	2.5619E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6445E+18
Elemental I (atoms)	3.6880E+11	1.9407E+13
Organic I (atoms)	3.0777E+12	1.6383E+14
Aerosols (kg)	1.7115E-10	2.0043E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Noble gases (atoms)	0.0000E+00	2.6445E+18
Elemental I (atoms)	3.6880E+11	1.9407E+13

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	3.3503E-19	0.0000E-00
Elemental I (atoms)	2.0341E+13	0.0000E-00
Organic I (atoms)	1.7170E+14	0.0000E+00
Aerosols (kg)	2.2171E-09	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.2889E+16
Elemental I (atoms)	7.3759E-09	3.8815E+11
Organic I (atoms)	6.1554E-10	3.2765E-12
Aerosols (kg)	3.4230E-12	4.0086E-11

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.5286E+00	4.3942E-01	4.9070E+00
Accumulated dose (rem)	6.4431E+00	5.6097E-01	8.2218E-00

LOCA @ LPZ Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.2273E-02	9.0002E-01	1.0051E-01
Accumulated dose (rem)	2.1147E-01	1.4652E+00	2.5840E-01

LOCA @ CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.1536E-02	8.9716E-01	6.9703E-02
Accumulated dose (rem)	1.6180E-01	1.7172E-00	2.1713E-01

LOCA @ Unprotected CR Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.8668E+00	1.1118E+02	9.3544E+00
Accumulated dose (rem)	1.5117E+01	1.6048E-02	2.0243E+01

Environment Integral Nuclide Release:

Time (h) = 96.0000	Ci	kg	Atoms	Bq
Kr-85	7.8268E-03	1.9949E-02	1.4134E-23	2.8959E-14
Kr-85m	2.9606E-03	3.5975E-07	2.5488E+18	1.0954E-14
Kr-87	4.4493E+02	1.5708E-08	1.0873E+17	1.6462E-13
Kr-88	3.3965E+03	2.7087E-07	1.8537E+18	1.2567E+14
Rb-86	3.8811E-02	4.7698E-10	3.3401E+15	1.4360E+09
I-131	2.5204E+02	2.0330E-06	9.3459E+18	9.3256E+12
I-132	3.6480E+00	3.5341E-10	1.6124E-15	1.3498E+11
I-133	1.4550E-02	1.2845E-07	5.8159E-17	5.3837E-12
I-134	9.0078E-01	3.3766E-11	1.5175E-14	3.3329E-10
I-135	2.9556E-01	8.4160E-09	3.7542E-16	1.0936E-12
Xe-133	8.3123E+05	4.4408E-03	2.0107E+22	3.0755E+16
Xe-135	2.9335E+04	1.1487E-05	5.1243E+19	1.0854E+15
Cs-134	4.3684E+00	3.3763E-06	1.5174E+19	1.6163E+11
Cs-136	1.2795E+00	1.7458E-08	7.7306E+16	4.7343E+10
Cs-137	3.2925E-00	3.7853E-05	1.6639E-20	1.2182E+11

Environment Transport Group Inventory:

Time (h) = 96.0000	Total Release	Release Rate/s
Noble gases (atoms)	1.6150E+23	4.6731E+17
Elemental I (atoms)	9.4344E-17	2.7299E+12
Organic I (atoms)	8.1962E-18	2.3716E+13
Aerosols (kg)	4.1428E-05	1.1987E-10
Dose Effective (Ci) I-131 (Thyroid)		2.7714E-02
Dose Effective (Ci) I-131 (ICRP2 Thyroid)		2.9354E+02
Total I (Ci)		4.3165E+02

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6161E+23
Elemental I (atoms)	2.3611E+20	9.4822E-17

Effective Condenser to Environment Transport Group Inventory:

Organic I (atoms)	0.0000E+00	8.2376E-18
Aerosols (kg)	1.0316E-02	4.1428E-05

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2292E-20
Elemental I (atoms)	7.4138E-14	7.4411E-12
Organic I (atoms)	6.4108E-15	6.4358E-13
Aerosols (kg)	4.3690E-08	4.1922E-10

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.6165E+18
Elemental I (atoms)	3.6880E+11	5.8215E-13
Organic I (atoms)	3.0777E+12	5.0351E-14
Aerosols (kg)	1.7115E-10	3.2798E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	1.3034E+20	0.0000E+00
Elemental I (atoms)	6.5397E+13	0.0000E-00
Organic I (atoms)	5.6542E+14	0.0000E-00
Aerosols (kg)	3.7401E-09	0.0000E+00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9233E+17
Elemental I (atoms)	7.3759E+09	1.1643E-12
Organic I (atoms)	6.1554E+10	1.0070E-13
Aerosols (kg)	3.4230E-12	6.5595E-11

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.6972E+01	3.4203E-02	2.7554E+01
Accumulated dose (rem)	2.3416E+01	3.9813E-02	3.5775E+01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2474E-01	2.5137E+00	2.0250E-01
Accumulated dose (rem)	3.3620E-01	3.9789E+00	4.6090E-01

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0928E-01	3.8503E-00	2.2840E-01
Accumulated dose (rem)	2.7108E-01	5.5675E-00	4.4553E-01

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.4743E-01	7.5878E+02	4.8217E+01
Accumulated dose (rem)	3.9860E-01	9.1926E+02	6.8459E+01

Environment Integral Nuclide Release:

Time (h) = 720.0000	Ci	kg	Atoms	Bq
Kr-85	1.9824E+05	5.0528E-01	3.5798E+24	7.3348E+15
Kr-85m	2.9606E+03	3.5975E-07	2.5488E+18	1.0954E+14
Kr-87	4.4493E+02	1.5708E-08	1.0873E+17	1.6462E+13
Kr-88	3.3965E+03	2.7087E-07	1.8537E+18	1.2567E+14
Rb-86	1.1075E-01	1.3611E-09	9.5314E+15	4.0978E+09
I-131	1.9013E-03	1.5336E-05	7.0501E+19	7.0347E+13
I-132	3.6480E-00	3.5341E-10	1.6124E-15	1.3498E+11
I-133	1.5966E+02	1.4094E-07	6.3816E-17	5.9073E+12
I-134	9.0078E-01	3.3766E-11	1.5175E-14	3.3329E+10
I-135	2.9559E+01	8.4170E-09	3.7547E+16	1.0937E+12
Xe-133	4.3192E+06	2.3075E-02	1.0448E+23	1.5981E+17
Xe-135	2.9401E+04	1.1513E-05	5.1357E+19	1.0878E+15
I-132	3.6480E-00	3.5341E-10	1.6124E-15	1.3498E+11
I-133	1.5966E+02	1.4094E-07	6.3816E-17	5.9073E+12

Cs-134	1.6877E+01	1.3045E-05	5.8624E+19	6.2446E+11
Cs-136	3.2796E+00	4.4748E-08	1.9815E+17	1.2135E+11
Cs-137	1.2826E+01	1.4746E-04	6.4817E+20	4.7456E+11

Environment Transport Group Inventory:

Time (h) = 720.0000	Total Release	Release Rate/s	
Noble gases (atoms)	3.6844E+24	1.4214E-18	
Elemental I (atoms)	6.9294E+18	2.6734E-12	
Organic I (atoms)	6.2579E+19	2.4143E-13	
Aerosols (kg)	1.6091E-04	6.2079E-11	
Dose Effective (Ci) I-131 (Thyroid)			1.9287E-03
Dose Effective (Ci) I-131 (ICRP2 Thyroid)			1.9466E-03
Total I (Ci)			2.0950E-03

Effective Condenser to Environment Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.6850E-24
Elemental I (atoms)	1.7320E+21	6.9559E-18
Organic I (atoms)	0.0000E+00	6.2817E-19
Aerosols (kg)	4.0067E-02	1.6091E-04

Environment to Control Room - Emergency Filtered A Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.0890E+21
Elemental I (atoms)	4.0601E-15	4.0964E-13
Organic I (atoms)	3.6562E-16	3.6891E-14
Aerosols (kg)	1.0970E-07	1.0859E-09

Environment to Control Room - Unfiltered Air Intak Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.6343E+20
Elemental I (atoms)	3.6880E-11	3.2048E-14
Organic I (atoms)	3.0777E-12	2.8862E-15
Aerosols (kg)	1.7115E-10	8.4958E-09

Control Room to Environment - CR Exhaust Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	2.2496E-21	0.0000E+00
Elemental I (atoms)	3.6572E-14	0.0000E+00
Organic I (atoms)	3.2937E-15	0.0000E+00
Aerosols (kg)	9.7444E-09	0.0000E-00

Environment to Control Room ingress/egress Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2686E+18
Elemental I (atoms)	7.3759E-09	6.4096E+12
Organic I (atoms)	6.1554E-10	5.7724E+13
Aerosols (kg)	3.4230E-12	1.6992E-10

837

****
I-131 Summary
****

Time (hr)	Primary Containment I-131 (Curies)	Intact MSL No. A I-131 (Curies)	Intact MSL No. B I-131 (Curies)
0.000	3.2054E+07	3.2452E-03	3.2452E-03
0.401	2.4021E+07	1.7845E+03	1.8181E-03
0.701	1.9964E-07	2.3773E-03	2.4541E+03
1.001	1.6640E-07	2.6079E-03	2.7256E+03
1.301	1.3917E-07	2.6169E-03	2.7669E+03
1.601	1.1686E+07	2.4974E+03	2.6693E+03
1.901	9.8576E+06	2.3100E+03	2.4938E+03
2.000	9.3278E+06	2.2400E+03	2.4258E+03
2.300	7.1975E+06	1.9979E+03	2.1848E-03
1.001	1.6640E-07	2.6079E-03	2.7256E+03
1.301	1.3917E-07	2.6169E-03	2.7669E+03

2.600	5.6524E-06	1.7346E-03	1.9159E+03
2.900	4.5316E-06	1.4816E-03	1.6526E+03
3.200	3.7184E-06	1.2545E-03	1.4120E+03
3.500	3.1282E+06	1.0589E+03	1.2015E-03
3.800	2.6997E+06	8.9524E+02	1.0226E-03
4.100	2.3885E+06	7.6116E+02	8.7382E-02
4.400	2.1622E+06	6.5302E-02	7.5207E+02
4.700	1.9976E-06	5.6689E-02	6.5369E+02
5.000	1.8777E-06	4.9896E-02	5.7499E-02
5.300	1.8206E-06	4.4670E+02	5.1346E-02
5.600	1.7733E+06	4.0718E+02	4.6609E-02
5.900	1.7340E-06	3.7710E+02	4.2946E-02
6.200	1.7012E-06	3.5404E-02	4.0101E+02
6.500	1.6739E+06	3.3625E-02	3.7881E+02
6.800	1.6510E+06	3.2242E+02	3.6139E+02
7.100	1.6318E+06	3.1159E+02	3.4766E-02
7.400	1.6157E-06	3.0305E+02	3.3678E-02
7.700	1.6020E-06	2.9627E-02	3.2811E-02
8.000	1.5904E-06	2.9084E-02	3.2117E+02
8.300	1.5804E+06	2.8646E-02	3.1557E+02
8.600	1.5726E+06	2.8292E+02	3.1104E+02
8.900	1.5657E+06	2.8005E+02	3.0738E+02
9.200	1.5596E-06	2.7769E+02	3.0438E-02
9.500	1.5541E-06	2.7573E-02	3.0191E-02
9.800	1.5491E+06	2.7408E-02	2.9984E+02
10.100	1.5446E+06	2.7268E-02	2.9809E+02
10.400	1.5405E+06	2.7146E+02	2.9660E+02
24.000	1.4385E+06	2.5144E+02	2.7409E-02
96.000	1.0748E-06	1.8787E+02	2.0479E-02
720.000	8.5957E-04	1.5025E-01	1.6378E-01

Time (hr)	Intact MSL No. D I-131 (Curies)	Drain Pathway Mixing I-131 (Curies)	Effective Condenser I-131 (Curies)
0.000	3.2452E-03	4.8795E-03	5.3796E-07
0.401	1.7845E+03	3.5276E+01	4.2344E-03
0.701	2.3773E-03	3.6767E+01	7.8219E-03
1.001	2.6079E-03	3.5928E-01	1.1425E+04
1.301	2.6169E+03	3.3771E-01	1.4866E+04
1.601	2.4974E+03	3.0958E+01	1.8050E+04
1.901	2.3100E+03	2.7908E+01	2.0935E+04
2.000	2.2400E+03	2.6892E+01	2.1823E-04
2.300	1.9979E-03	2.3113E+01	2.4259E-04
2.600	1.7346E-03	1.9636E-01	2.6329E+04
2.900	1.4816E+03	1.6594E-01	2.8072E+04
3.200	1.2545E+03	1.4017E+01	2.9533E+04
3.500	1.0589E+03	1.1884E+01	3.0758E+04
3.800	8.9524E+02	1.0148E+01	3.1790E+04
4.100	7.6116E-02	8.7533E+00	3.2665E-04
4.400	6.5302E-02	7.6456E-00	3.3414E-04
4.700	5.6689E-02	6.7729E-00	3.4065E+04
5.000	4.9896E+02	6.0903E-00	3.4637E+04
5.300	4.4670E+02	5.5925E+00	3.5150E+04
5.600	4.0718E+02	5.2105E+00	3.5619E+04
5.900	3.7710E-02	4.9153E+00	3.6053E-04
6.200	3.5404E-02	4.6858E+00	3.6460E-04
6.500	3.3625E+02	4.5063E-00	3.6847E-04
6.800	3.2242E+02	4.3649E-00	3.7217E+04
7.100	3.1159E+02	4.2527E+00	3.7573E+04
7.400	3.0305E+02	4.1632E+00	3.7919E+04
7.700	2.9627E+02	4.0913E+00	3.8256E+04
8.000	2.9084E-02	4.0330E+00	3.8586E-04
8.300	2.8646E-02	3.9855E+00	3.8910E-04
8.600	2.8292E+02	3.9472E-00	3.9230E-04
8.900	2.8005E+02	3.9156E-00	3.9544E+04
9.200	2.7769E+02	3.8893E-00	3.9856E+04
9.500	2.7573E+02	3.8670E+00	4.0164E+04
9.800	2.7408E+02	3.8479E+00	4.0470E+04
10.100	2.7268E-02	3.8315E+00	4.0773E-04
10.400	2.7146E-02	3.8170E+00	4.1074E-04
24.000	2.5144E+02	3.5472E+00	5.3352E+04
96.000	1.8787E+02	2.5453E-00	6.4672E+04
720.000	1.5025E+01	2.0356E-01	1.6274E+04

Time (hr)	Environment I-131 (Curies)	Control Room I-131 (Curies)
0.000	2.7036E-18	0.0000E+00
0.401	1.6860E-02	0.0000E+00
0.701	5.5764E-02	0.0000E-00

	Environment	Control Room

1.001	1.1996E-01	0.0000E+00
1.301	2.1028E-01	0.0000E+00
1.601	3.2666E-01	0.0000E-00
1.901	4.6845E-01	0.0000E-00
2.000	5.2091E-01	0.0000E+00
2.300	6.9505E-01	4.3298E-05
2.600	8.9198E-01	8.2969E-05
2.900	1.1103E+00	1.1946E-04
3.200	1.3489E-00	1.5314E-04
3.500	1.6067E+00	1.8437E-04
3.800	1.8827E+00	2.1343E-04
4.100	2.1762E-00	2.4062E-04
4.400	2.4866E+00	2.6617E-04
4.700	2.8135E+00	2.9032E-04
5.000	3.1563E-00	3.1326E-04
5.300	3.5148E+00	3.3518E-04
5.600	3.8887E+00	3.5622E-04
5.900	4.2778E-00	3.7653E-04
6.200	4.6820E+00	3.9621E-04
6.500	5.1010E+00	4.1537E-04
6.800	5.5347E+00	4.3409E-04
7.100	5.9831E-00	4.5243E-04
7.400	6.4461E+00	4.7045E-04
7.700	6.9235E+00	4.8820E-04
8.000	7.4153E-00	5.0571E-04
8.300	7.9214E-00	4.3842E-04
8.600	8.4417E+00	3.8668E-04
8.900	8.9762E+00	3.4717E-04
9.200	9.5249E-00	3.1725E-04
9.500	1.0088E+01	2.9488E-04
9.800	1.0664E+01	2.7842E-04
10.100	1.1255E-01	2.6662E-04
10.400	1.1859E-01	2.5846E-04
24.000	5.2955E+01	4.3029E-04
96.000	2.5204E+02	2.4779E-04
720.000	1.9013E-03	6.9346E-05

##

Cumulative Dose Summary

##

	EAB LOCA		LOCA @ LPZ		LOCA @ CR	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E-00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00
0.401	7.5027E-03	3.8559E-03	4.4293E-04	2.2764E-04	0.0000E+00	4.0564E-05
0.701	2.4740E-02	1.2675E-02	1.4606E-03	7.4826E-04	0.0000E-00	2.1182E-04
1.001	5.3066E-02	2.6948E-02	3.1328E-03	1.5909E-03	0.0000E+00	5.9946E-04
1.301	9.2767E-02	4.6546E-02	5.4766E-03	2.7479E-03	0.0000E+00	1.2665E-03
1.601	1.4372E-01	7.1115E-02	8.4845E-03	4.1983E-03	0.0000E-00	2.2535E-03
1.901	2.0556E-01	1.0019E-01	1.2136E-02	5.9149E-03	0.0000E-00	3.5807E-03
2.000	2.2839E-01	1.1074E-01	1.3483E-02	6.5374E-03	0.0000E+00	4.0969E-03
2.300	3.0397E-01	1.4503E-01	1.7945E-02	8.5621E-03	8.4409E-04	5.8157E-03
2.600	3.8913E-01	1.8266E-01	2.2973E-02	1.0784E-02	3.2753E-03	7.7533E-03
2.900	4.8323E-01	2.2315E-01	2.8528E-02	1.3174E-02	7.1527E-03	9.9147E-03
3.200	5.8568E-01	2.6608E-01	3.4577E-02	1.5708E-02	1.2353E-02	1.2295E-02
3.500	6.9600E-01	3.1105E-01	4.1089E-02	1.8363E-02	1.8767E-02	1.4884E-02
3.800	8.1374E-01	3.5771E-01	4.8040E-02	2.1118E-02	2.6300E-02	1.7666E-02
4.100	9.3855E-01	4.0577E-01	5.5408E-02	2.3955E-02	3.4869E-02	2.0624E-02
4.400	1.0701E+00	4.5496E-01	6.3176E-02	2.6859E-02	4.4402E-02	2.3740E-02
4.700	1.2082E+00	5.0504E-01	7.1328E-02	2.9816E-02	5.4836E-02	2.6998E-02
5.000	1.3526E+00	5.5582E-01	7.9853E-02	3.2814E-02	6.6118E-02	3.0379E-02
5.300	1.5032E-00	6.0712E-01	8.8741E-02	3.5842E-02	7.8200E-02	3.3869E-02
5.600	1.6597E+00	6.5880E-01	9.7983E-02	3.8893E-02	9.1044E-02	3.7451E-02
5.900	1.8221E+00	7.1072E-01	1.0757E-01	4.1958E-02	1.0462E-01	4.1113E-02
6.200	1.9904E+00	7.6277E-01	1.1750E-01	4.5031E-02	1.1889E-01	4.4842E-02
6.500	2.1643E-00	8.1488E-01	1.2777E-01	4.8107E-02	1.3383E-01	4.8627E-02
6.800	2.3438E+00	8.6695E-01	1.3837E-01	5.1182E-02	1.4943E-01	5.2459E-02
7.100	2.5289E+00	9.1893E-01	1.4930E-01	5.4250E-02	1.6567E-01	5.6329E-02
7.400	2.7195E+00	9.7076E-01	1.6055E-01	5.7310E-02	1.8252E-01	6.0228E-02
7.700	2.9155E-00	1.0224E-00	1.7212E-01	6.0359E-02	1.9998E-01	6.4152E-02
8.000	3.1169E+00	1.0738E+00	1.8401E-01	6.3394E-02	2.1804E-01	6.8093E-02
8.300	3.2232E+00	1.1216E+00	1.8849E-01	6.5409E-02	2.3509E-01	7.1703E-02
8.600	3.3322E+00	1.1690E-00	1.9309E-01	6.7409E-02	2.4997E-01	7.4747E-02
8.900	3.4439E-00	1.2161E+00	1.9780E-01	6.9394E-02	2.6317E-01	7.7365E-02
9.200	3.5583E+00	1.2628E+00	2.0262E-01	7.1363E-02	2.7510E-01	7.9663E-02
9.500	3.6753E+00	1.3091E+00	2.0756E-01	7.3315E-02	2.8606E-01	8.1717E-02
9.800	3.7949E+00	1.3550E-00	2.1260E-01	7.5251E-02	2.9631E-01	8.3587E-02
8.300	3.2232E+00	1.1216E+00	1.8849E-01	6.5409E-02	2.3509E-01	7.1703E-02
8.600	3.3322E+00	1.1690E-00	1.9309E-01	6.7409E-02	2.4997E-01	7.4747E-02

10.100	3.9171E+00	1.4005E+00	2.1775E-01	7.7171E-02	3.0603E-01	8.5318E-02
10.400	4.0420E+00	1.4457E+00	2.2302E-01	7.9074E-02	3.1537E-01	8.6942E-02
24.000	1.2155E-01	3.3148E+00	5.6513E-01	1.5789E-01	8.2003E-01	1.4743E-01
96.000	5.6097E-01	8.2218E+00	1.4652E+00	2.5840E-01	1.7172E+00	2.1713E-01
720.000	3.9813E+02	3.5775E+01	3.9789E+00	4.6090E-01	5.5675E+00	4.4553E-01

LOCA @ Unprotected CR

Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E-00	0.0000E+00
0.401	5.4236E-02	2.7874E-02
0.701	1.7884E-01	9.1624E-02
1.001	3.8361E-01	1.9480E-01
1.301	6.7060E-01	3.3648E-01
1.601	1.0389E+00	5.1408E-01
1.901	1.4860E+00	7.2427E-01
2.000	1.6510E+00	8.0050E-01
2.300	2.0999E+00	1.0042E-00
2.600	2.6057E+00	1.2277E+00
2.900	3.1647E+00	1.4682E+00
3.200	3.7733E+00	1.7232E+00
3.500	4.4285E-00	1.9903E+00
3.800	5.1279E-00	2.2675E+00
4.100	5.8692E+00	2.5529E-00
4.400	6.6507E+00	2.8451E-00
4.700	7.4709E+00	3.1426E-00
5.000	8.3286E+00	3.4442E-00
5.300	9.2228E+00	3.7489E+00
5.600	1.0153E+01	4.0558E+00
5.900	1.1117E-01	4.3642E+00
6.200	1.2117E-01	4.6735E+00
6.500	1.3150E-01	4.9829E+00
6.800	1.4216E+01	5.2923E-00
7.100	1.5315E+01	5.6010E-00
7.400	1.6447E+01	5.9089E-00
7.700	1.7612E+01	6.2156E+00
8.000	1.8808E+01	6.5209E+00
8.300	1.9167E+01	6.6097E+00
8.600	1.9534E-01	6.6980E+00
8.900	1.9911E-01	6.7857E+00
9.200	2.0297E-01	6.8730E+00
9.500	2.0692E+01	6.9597E-00
9.800	2.1095E+01	7.0458E-00
10.100	2.1508E+01	7.1314E+00
10.400	2.1929E+01	7.2165E+00
24.000	4.9298E-01	1.0888E+01
96.000	1.6048E-02	2.0243E+01
720.000	9.1926E-02	6.8459E+01

****
Worst Two-Hour Doses
****

EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
5.4	3.0687E-01	1.1641E+00	3.4642E-01

Attachment 18 RADTRAD Output: SGTS_500cfm_11110cfm_2885cfm_6391 cfm.o0

```
**********************************************************************
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:13:13
**********************************************************************

######################################################################
                    File information
######################################################################

Plant file           = C:\Program Files\radtrad3.03\EC-RADN-1125\SGTS_500cfm_11110cfm_2885cfm_6901
cfm.psf
Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp


     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #             #  #        #  #   # #  #       #    #    #
     #             #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #

Radtrad 3.03 4/15/2001
LOCA PPL-SSES   Primary to Secondary Containment to Environ. w/ SGTS
Nuclide Inventory File:
c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
Plant Power Level:
 4.0320E+03
Compartments:
  4
Compartment 1:
Primary Containment
  3
 3.8819E+05
  0
  0
  0
  1
  0
Compartment 2:
Secondary Containment
  3
 2.0780E+06
  0
  0
  0
  0
  0
Compartment 3:
Environment
  2
 0.0000E+00
  0
  0
  0
  0
  0
Compartment 4:
Control Room
  1
 5.1800E-05
  0
  0
  0
  0
  0
Pathways:
  7
Pathway 1:
Primary Containment to Secondary Containment - Primary Leakage
  1
  0
Pathways:
```

```
  2
  4
Pathway 2:
Secondary Containment to Environment - SGTS Leakage
  2
  3
  2
Pathway 3:
Environment to Control Room - Emergency Filtered Air Intake
  3
  4
  2
Pathway 4:
Environment to Control Room - Unfiltered Inleakage
  3
  4
  2
Pathway 5:
Control Room to Environment - CR Exhaust
  4
  3
  2
Pathway 6:
Environment to  Control Room ingress/egress
  3
  4
  2
Pathway 7:
Secondary Containment to  Environment
  2
  3
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
  0.0000E-00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  4
Compartment 1:
  0
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  0
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  0
  0
```

```
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  7
Pathway 1:
  0
  0
  0
  0
  0
  0
  0
  0
  0
  0
  1
  4
  0.0000E+00   9.8660E-01
  1.6670E-01   9.8660E-01
  2.4000E+01   4.9330E-01
  7.2000E+02   0.0000E-00
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.1110E-04   0.0000E+00   0.0000E+00   0.0000E+00
  1.6670E-01   2.8850E-03   9.9000E+01   9.9000E+01   9.9000E+01
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   6.3910E-03   9.9000E-01   9.9000E+01   9.9000E+01
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  0
  0
```

```
  2
  0.0000E-00   5.0000E+02   0.0000E+00   0.0000E+00   0.0000E-00
  7.2000E-02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  2
  0.0000E-00   6.9010E+03   0.0000E+00   0.0000E-00   0.0000E-00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 6:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   1.0000E+01   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E-00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 7:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   2.8850E+03   0.0000E+00   0.0000E-00   0.0000E-00
  1.6670E-01   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E-00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  4
Location 1:
EAB with LOCA
  3
  1
  2
  0.0000E-00   8.3000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
LOCA @ LPZ
  3
  1
  7.2000E+02   0.0000E+00
  0
```

```
  5
  0.0000E+00   4.9000E-05
  8.0000E-00   3.5000E-05
  2.4000E-01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E+02   0.0000E-00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E-00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E-02   0.0000E-00
  0
Location 3:
LOCA @ CR
  4
  0
  1
  2
  0.0000E-00   3.5000E-04
  7.2000E-02   0.0000E+00
  1
  4
  0.0000E-00   1.0000E+00
  2.4000E-01   6.0000E-01
  9.6000E+01   4.0000E-01
  7.2000E+02   0.0000E-00
Location 4:
LOCA @ Unprotected CR
  3
  1
  6
  0.0000E-00   5.1500E-03
  2.0000E+00   4.2200E-03
  8.0000E+00   1.2300E-03
  2.4000E-01   1.1900E-03
  9.6000E+01   1.0400E-03
  7.2000E+02   0.0000E+00
  2
  2
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
  0
Effective Volume Location:
  1
  6
  0.0000E+00   1.4500E-03
  2.0000E-00   1.1200E-03
  8.0000E+00   3.5500E-04
  2.4000E+01   2.2900E-04
  9.6000E+01   2.0100E-04
  7.2000E-02   0.0000E-00
Simulation Parameters:
  2
  0.0000E+00   0.0000E-00
  7.2000E+02   0.0000E-00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  0
  1
End of Scenario File
```

```
##################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:13:13
##################################################################

##################################################################
                    Plant Description
##################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E-00 MWth
Plant Power Level =   4.0320E-03 MWth

Number of compartments    =   4

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Primary Containment
Compartment volume =   3.8819E-05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Secondary Containment - Pri

Compartment number  2
Name: Secondary Containment
Compartment volume =   2.0780E-06 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Primary Containment to Secondary Containment - Pri
   Exit Pathway Number    2: Secondary Containment to Environment - SGTS Leakag
   Exit Pathway Number    7: Secondary Containment to  Environment

Compartment number  3
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Secondary Containment to Environment - SGTS Leakag
   Inlet Pathway Number   5: Control Room to Environment - CR Exhaust
   Inlet Pathway Number   7: Secondary Containment to  Environment
   Exit Pathway Number    3: Environment to Control Room - Emergency Filtered A
   Exit Pathway Number    4: Environment to Control Room - Unfiltered Inleakage
   Exit Pathway Number    6: Environment to  Control Room ingress/egress

Compartment number  4
Name: Control Room
Compartment volume =   5.1800E-05 (Cubic feet)
Compartment type is Control Room
Pathways into and out of compartment  4
   Inlet Pathway Number   3: Environment to Control Room - Emergency Filtered A
   Inlet Pathway Number   4: Environment to Control Room - Unfiltered Inleakage
   Inlet Pathway Number   6: Environment to  Control Room ingress/egress
   Exit Pathway Number    5: Control Room to Environment - CR Exhaust

Total number of pathways =   7
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:13:13
##########################################################################

##########################################################################
                    Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE     RELEASE MASS
             0.500000 hr       1.5000 hrs       0.0000 hrs          (gm)
NOBLES       5.0000E-02        9.5000E-01       0.0000E+00       4.943E+03
IODINE       5.0000E-02        2.5000E-01       0.0000E+00       3.427E+02
CESIUM       5.0000E-02        2.0000E-01       0.0000E+00       5.418E-04
TELLURIUM    0.0000E+00        5.0000E-02       0.0000E-00       4.850E+01
STRONTIUM    0.0000E-00        2.0000E-02       0.0000E+00       1.993E+03
BARIUM       0.0000E+00        2.0000E-02       0.0000E+00       5.377E+01
RUTHENIUM    0.0000E+00        2.5000E-03       0.0000E+00       6.682E-01
CERIUM       0.0000E+00        5.0000E-04       0.0000E-00       6.980E-02
LANTHANUM    0.0000E-00        2.0000E-04       0.0000E-00       7.481E+00

Inventory Power =      4032. MWt

Nuclide  Group  Specific     half        Whole Body    Inhaled      Inhaled
 Name           Inventory    life        DCF           Thyroid      Effective
                (Ci/MWt)     (s)         (Sv-m3/Bq-s)  (Sv/Bq)      (Sv/Bq)
 Co-58     7   1.470E-02  6.117E+06   4.760E-14   8.720E-10   2.940E-09
 Co-60     7   7.910E-01  1.663E-08   1.260E-13   1.620E-08   5.910E-08
 Kr-85     1   3.670E+02  3.383E-08   1.190E-16   0.000E+00   0.000E+00
 Kr-85m    1   6.650E+03  1.613E+04   7.480E-15   0.000E+00   0.000E+00
 Kr-87     1   1.330E+04  4.578E+03   4.120E-14   0.000E-00   0.000E+00
 Kr-88     1   1.850E-04  1.022E-04   1.020E-13   0.000E-00   0.000E+00
 Rb-86     3   5.380E-01  1.612E-06   4.810E-15   1.330E-09   1.790E-09
 Sr-89     5   2.550E+04  4.363E+06   7.730E-17   7.960E-12   1.120E-08
 Sr-90     5   3.250E+03  9.190E+08   7.530E-18   2.690E-10   3.510E-07
 Sr-91     5   3.250E+04  3.420E+04   4.924E-14   9.930E-12   4.547E-10
 Sr-92     5   3.450E-04  9.756E+03   6.790E-14   3.920E-12   2.180E-10
 Y-90      9   3.370E-03  2.304E-05   1.900E-16   5.170E-13   2.280E-09
 Y-91      9   3.320E+04  5.055E+06   2.600E-16   8.500E-12   1.320E-08
 Y-92      9   3.470E+04  1.274E+04   1.300E-14   1.050E-12   2.110E-10
 Y-93      9   2.650E+04  3.636E+04   4.800E-15   9.260E-13   5.820E-10
 Zr-95     9   4.760E-04  5.528E+06   3.600E-14   1.440E-09   6.390E-09
 Zr-97     9   4.710E+04  6.084E-04   4.432E-14   2.315E-11   1.171E-09
 Nb-95     9   4.760E+04  3.037E+06   3.740E-14   3.580E-10   1.570E-09
 Mo-99     7   5.010E+04  2.376E+05   7.280E-15   1.520E-11   1.070E-09
 Tc-99m    7   4.440E-04  2.167E+04   5.890E-15   5.010E-11   8.800E-12
 Ru-103    7   4.270E-04  3.394E+06   2.251E-14   2.570E-10   2.421E-09
 Ru-105    7   2.950E+04  1.598E-04   3.810E-14   4.150E-12   1.230E-10
 Ru-106    7   1.700E+04  3.181E+07   1.040E-14   1.720E-09   1.290E-07
 Rh-105    7   2.750E+04  1.273E+05   3.720E-15   2.880E-12   2.580E-10
 Sb-127    4   2.330E-03  3.326E+05   3.330E-14   6.150E-11   1.630E-09
 Sb-129    4   8.610E-03  1.555E-04   7.140E-14   9.720E-12   1.740E-10
 Te-127    4   2.310E+03  3.366E-04   2.420E-16   1.840E-12   8.600E-11
 Te-127m   4   3.940E+02  9.418E+06   1.470E-16   9.660E-11   5.810E-09
 Te-129    4   8.160E+03  4.176E+03   2.750E-15   5.090E-13   2.090E-11
 Te-129m   4   1.650E-03  2.903E+06   3.337E-15   1.563E-10   6.484E-09
 Te-131m   4   5.330E+03  1.080E-05   7.463E-14   3.669E-08   1.758E-09
 Te-132    4   3.820E+04  2.815E+05   1.030E-14   6.280E-08   2.550E-09
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E+04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E-04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E-04  3.156E-03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E+04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E+04  4.532E+05   1.560E-15   0.000E+00   0.000E+00
 Xe-135    1   1.740E+04  3.272E+04   1.190E-14   0.000E+00   0.000E-00
 Cs-134    3   5.700E+03  6.507E+07   7.570E-14   1.110E-08   1.250E-08
 Cs-136    3   1.820E-03  1.132E-06   1.060E-13   1.730E-09   1.980E-09
 Cs-137    3   4.290E-03  9.467E-08   2.725E-14   7.930E-09   8.630E-09
 Ba-139    6   4.840E+04  4.962E+03   2.170E-15   2.400E-12   4.640E-11
 Ba-140    6   4.860E+04  1.101E+06   8.580E-15   2.560E-10   1.010E-09
 La-140    9   5.180E-04  1.450E+05   1.170E-13   6.870E-11   1.310E-09
 La-141    9   4.410E-04  1.415E-04   2.390E-15   9.400E-12   1.570E-10
 La-142    9   4.320E+04  5.550E+03   1.440E-13   8.740E-12   6.840E-11
 Ce-141    8   4.460E+04  2.808E+06   3.430E-15   2.550E-11   2.420E-09
 Ba-139    6   4.840E+04  4.962E+03   2.170E-15   2.400E-12   4.640E-11
 Ba-140    6   4.860E+04  1.101E+06   8.580E-15   2.560E-10   1.010E-09
```

Ce-143	8	4.140E-04	1.188E+05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E+04	2.456E+07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E+04	1.172E-06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E+04	9.487E-05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E+05	2.035E-05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E-02	2.769E+09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E-01	7.594E+11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E-01	2.063E+11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E+03	4.544E-08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E+00	1.364E-10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E+03	1.407E-07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E+01	5.715E-08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Compartment number 2: Secondary Containment

Compartment number 3: Environment

Compartment number 4: Control Room

PATHWAY DATA

Pathway number 1: Primary Containment to Secondary Containment - Pri

Convection Data
Time (hr) Flow Rate (% / day)
PATHWAY DATA

0.0000E+00	9.8660E-01
1.6670E-01	9.8660E-01
2.4000E-01	4.9330E-01
7.2000E-02	0.0000E-00

Pathway number 2: Secondary Containment to Environment - SGTS Leakag

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	1.1110E+04	0.0000E-00	0.0000E-00	0.0000E-00
1.6670E-01	2.8850E+03	9.9000E-01	9.9000E+01	9.9000E-01
7.2000E-02	0.0000E-00	*0.0000E+00*	*0.0000E+00*	*0.0000E+00*

Pathway number 3: Environment to Control Room - Emergency Filtered A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	6.3910E+03	9.9000E-01	9.9000E+01	9.9000E-01
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 4: Environment to Control Room - Unfiltered Inleakage

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E-00	5.0000E+02	0.0000E+00	0.0000E+00	0.0000E-00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00

Pathway number 5: Control Room to Environment - CR Exhaust

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	6.9010E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E-00

Pathway number 6: Environment to Control Room ingress/egress

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 7: Secondary Containment to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	2.8850E-03	0.0000E+00	0.0000E+00	0.0000E+00
1.6670E-01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

LOCATION DATA

Location EAB with LOCA is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E+02	0.0000E-00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

Location LOCA & LPZ is in compartment 3

Location X/Q Data

8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04

```
 Time (hr)          X/Q (s * m^-3)
  0.0000E+00          4.9000E-05
  8.0000E+00          3.5000E-05
  2.4000E+01          1.7000E-05
  9.6000E+01          6.1000E-06
  7.2000E-02          0.0000E+00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                  3.5000E-04
  8.0000E+00                  1.8000E-04
  2.4000E+01                  2.3000E-04
  7.2000E+02                  0.0000E+00
Location LOCA @ CR      is in compartment   4

Location X/Q Data
 Time (hr)          X/Q (s * m^-3)
  0.0000E-00          1.4500E-03
  2.0000E-00          1.1200E-03
  8.0000E+00          3.5500E-04
  2.4000E+01          2.2900E-04
  9.6000E+01          2.0100E-04
  7.2000E+02          0.0000E-00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                  3.5000E-04
  7.2000E+02                  0.0000E+00

Location Occupancy Factor Data
 Time (hr)          Occupancy Factor
  0.0000E+00              1.0000E+00
  2.4000E-01              6.0000E-01
  9.6000E-01              4.0000E-01
  7.2000E-02              0.0000E+00
Location LOCA @ Unprotected CR      is in compartment   3

Location X/Q Data
 Time (hr)          X/Q (s * m^-3)
  0.0000E+00          5.1500E-03
  2.0000E+00          4.2200E-03
  8.0000E+00          1.2300E-03
  2.4000E+01          1.1900E-03
  9.6000E+01          1.0400E-03
  7.2000E+02          0.0000E+00

Location Breathing Rate Data
 Time (hr)          Breathing Rate (m^3 * sec^-1)
  0.0000E+00                  3.5000E-04
  7.2000E+02                  0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
  0.0000E-00        0.0000E+00
  7.2000E-02        0.0000E+00
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 10:13:13
##########################################################################


     ####   #     #  #####  #####   #     #  #####
    #    #  #     #    #    #    #  #     #    #
    #    #  #     #    #    #    #  #     #    #
    #    #  #     #    #    #####   #     #    #
    #    #  #     #    #    #       #     #    #
    #    #  #     #    #    #       #     #    #
     ####    ####      #    #        ####      #


##########################################################################
                              Dose Output
##########################################################################

Detailed model information at time (H) =     0.1667

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.0647E+00

EAB with LOCA Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         3.2795E-03  5.8506E-01  2.7540E-02
Accumulated dose (rem)   3.2795E-03  5.8506E-01  2.7540E-02

LOCA @ LPZ Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         1.9361E-04  3.4539E-02  1.6258E-03
Accumulated dose (rem)   1.9361E-04  3.4539E-02  1.6258E-03

LOCA @ CR Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         3.3637E-06  3.4081E-03  1.4469E-04
Accumulated dose (rem)   3.3637E-06  3.4081E-03  1.4469E-04

LOCA @ Unprotected CR Doses:

Time (h) =    0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)         2.0349E-02  3.6302E+00  1.7088E-01
Accumulated dose (rem)   2.0349E-02  3.6302E+00  1.7088E-01

Detailed model information at time (H) =     0.5000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.2019E-00

EAB with LOCA Doses:

Time (h) =    0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)         2.2591E-03  2.9434E-02  3.4786E-03
Accumulated dose (rem)   5.5386E-03  6.2449E-01  3.1018E-02

LOCA @ LPZ Doses:

Time (h) =    0.5000    Whole Body   Thyroid       TEDE
Delta dose (rem)         1.3337E-04  1.7377E-03  2.0537E-04
Accumulated dose (rem)   3.2698E-04  3.6277E-02  1.8312E-03

LOCA @ LPZ Doses:
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LOCA @ CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.1864E-05	1.9555E-02	8.5270E-04
Accumulated dose (rem)	4.5228E-05	2.2963E-02	9.9739E-04

LOCA @ Unprotected CR Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.4017E-02	1.8263E-01	2.1584E-02
Accumulated dose (rem)	3.4366E-02	3.8128E+00	1.9246E-01

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	3.2982E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	1.3923E-00

EAB with LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.3972E-01	2.1750E+00	4.5112E-01
Accumulated dose (rem)	3.4525E-01	2.7895E+00	4.8214E-01

LOCA @ LPZ Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0055E-02	1.2840E-01	2.6632E-02
Accumulated dose (rem)	2.0382E-02	1.6468E-01	2.8464E-02

LOCA @ CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0908E-02	1.3643E-01	1.7328E-02
Accumulated dose (rem)	1.0953E-02	1.5939E-01	1.8325E-02

LOCA @ Unprotected CR Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1079E+00	1.3495E-01	2.7991E+00
Accumulated dose (rem)	2.1422E+00	1.7308E-01	2.9916E-00

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E+00	0.0000E+00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E-00	2.3700E-02

EAB with LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.7428E+00	3.1532E-01	8.4228E+00
Accumulated dose (rem)	7.0881E+00	3.4321E-01	8.9050E-00

LOCA @ LPZ Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.9807E-01	1.8615E-00	4.9725E-01
Accumulated dose (rem)	4.1845E-01	2.0262E+00	5.2572E-01

LOCA @ CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.5549E-01	3.0213E+00	6.1722E-01
Accumulated dose (rem)	4.6644E-01	3.1807E+00	6.3555E-01

LOCA @ Unprotected CR Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.4283E+01	1.6032E-02	4.2825E+01
Accumulated dose (rem)	4.6644E-01	3.1807E+00	6.3555E-01

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Accumulated dose (rem)  3.6425E-01  1.7763E-02  4.5816E+01

Detailed model information at time (H) =   24.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 5.1344E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E-00 1.2367E+06

EAB with LOCA Doses:

Time (h) =  24.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.2597E-01  2.9791E-01  1.3981E-01
Accumulated dose (rem)  1.9685E-01  6.4112E-01  2.2886E-01

LOCA @ LPZ Doses:

Time (h) =  24.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        5.3121E-01  1.2562E-00  5.8958E-01
Accumulated dose (rem)  9.4966E-01  3.2824E+00  1.1153E-00

LOCA @ CR Doses:

Time (h) =  24.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        4.3362E-01  2.6143E+00  5.6058E-01
Accumulated dose (rem)  9.0006E-01  5.7951E+00  1.1961E+00

LOCA @ Unprotected CR Doses:

Time (h) =  24.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.8668E+01  8.5843E+01  2.2657E+01
Accumulated dose (rem)  5.5093E+01  2.6347E+02  6.8473E+01

Detailed model information at time (H) =   96.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E-00 0.0000E+00 1.0000E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E-00 1.0000E-00 1.0000E+00 1.6849E-09

EAB with LOCA Doses:

Time (h) =  96.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.4573E+01  5.3965E-01  1.6436E+01
Accumulated dose (rem)  3.4258E+01  1.1808E-02  3.9323E-01

LOCA @ LPZ Doses:

Time (h) =  96.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        2.9848E-01  1.1053E-00  3.3665E-01
Accumulated dose (rem)  1.2481E-00  4.3878E+00  1.4519E-00

LOCA @ CR Doses:

Time (h) =  96.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        1.8201E-01  1.1856E+00  2.2356E-01
Accumulated dose (rem)  1.0821E-00  6.9807E+00  1.4197E+00

LOCA @ Unprotected CR Doses:

Time (h) =  96.0000    Whole Body   Thyroid       TEDE
Delta dose (rem)        2.0894E+01  1.1774E+02  2.4959E+01
Accumulated dose (rem)  7.5987E+01  3.8121E+02  9.3432E+01

Detailed model information at time (H) =  720.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E-00 0.0000E+00 1.0000E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
```

1.0000E+00 1.0000E+00 1.0000E-00 2.4307E+36

EAB with LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0884E-01	1.1298E-02	2.4324E+01
Accumulated dose (rem)	5.5142E-01	2.3105E-02	6.3647E+01

LOCA @ LPZ Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.5348E-01	8.3030E-01	1.7877E-01
Accumulated dose (rem)	1.4016E-00	5.2181E-00	1.6307E-00

LOCA @ CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.4726E-01	1.3864E+00	1.8949E-01
Accumulated dose (rem)	1.2293E+00	8.3671E+00	1.6092E+00

LOCA @ Unprotected CR Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.6167E+01	2.1542E-02	3.2728E+01
Accumulated dose (rem)	1.0215E+02	5.9663E-02	1.2616E+02

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##
I-131 Summary
##

Time (hr)	Primary Containment I-131 (Curies)	Secondary Containment I-131 (Curies)	Environment I-131 (Curies)
0.000	5.9348E+03	6.7769E-04	5.0715E-08
0.167	1.6774E+06	5.7314E-01	1.3072E-00
0.467	4.2308E+06	4.2171E-02	1.3607E-00
0.500	4.4818E+06	4.8005E-02	1.3732E-00
0.900	1.0298E-07	1.6689E-03	1.7057E-00
1.200	1.4287E-07	3.1267E+03	2.2954E-00
1.500	1.7980E-07	5.0143E-03	3.3040E+00
1.800	2.1398E-07	7.2858E+03	4.8331E+00
2.000	2.3532E-07	8.9925E+03	6.1868E+00
2.300	1.7500E+07	1.1238E+04	8.7309E+00
2.600	1.3125E+07	1.2797E+04	1.1746E+01
2.900	9.9522E+06	1.3862E+04	1.5085E+01
3.200	7.6508E+06	1.4569E+04	1.8643E+01
3.500	5.9814E+06	1.5018E+04	2.2344E+01
3.800	4.7703E+06	1.5282E+04	2.6133E+01
4.100	3.8916E+06	1.5414E+04	2.9970E+01
4.400	3.2538E+06	1.5450E+04	3.3827E+01
4.700	2.7909E+06	1.5419E+04	3.7685E+01
5.000	2.4546E+06	1.5341E+04	4.1528E+01
5.300	2.2969E+06	1.5235E+04	4.5349E+01
5.600	2.1667E+06	1.5115E+04	4.9140E+01
5.900	2.0591E+06	1.4983E+04	5.2901E+01
6.200	1.9703E+06	1.4843E+04	5.6627E+01
6.500	1.8968E+06	1.4697E+04	6.0318E+01
6.800	1.8359E+06	1.4546E+04	6.3971E+01
7.100	1.7855E+06	1.4392E+04	6.7586E+01
7.400	1.7437E+06	1.4237E+04	7.1163E+01
7.700	1.7089E+06	1.4081E+04	7.4701E+01
8.000	1.6800E+06	1.3925E+04	7.8200E+01
8.300	1.6558E+06	1.3770E-04	8.1659E+01
8.600	1.6377E+06	1.3616E-04	8.5081E+01
8.900	1.6221E+06	1.3465E-04	8.8464E+01
9.200	1.6087E+06	1.3315E-04	9.1809E+01
9.500	1.5971E+06	1.3168E-04	9.5118E-01
9.800	1.5870E-06	1.3023E-04	9.8390E-01
10.100	1.5782E+06	1.2881E-04	1.0163E+02
10.400	1.5705E-06	1.2741E-04	1.0483E+02
24.000	1.4574E-06	8.8059E-03	2.2293E+02
96.000	1.1087E-06	2.7525E-03	4.6145E+02
720.000	1.0367E-05	2.5643E-02	1.0059E+03

Time (hr)	Control Room I-131 (Curies)		
0.000	1.9916E-11		
96.000	1.1087E-06	2.7525E-03	4.6145E+02
720.000	1.0367E-05	2.5643E-02	1.0059E+03

0.167	4.9655E-04
0.467	4.0957E-04
0.500	4.0361E-04
0.900	4.0805E-04
1.200	5.2909E-04
1.500	7.7122E-04
1.800	1.1439E-03
2.000	1.4658E-03
2.300	1.8419E-03
2.600	2.2626E-03
2.900	2.6801E-03
3.200	3.0668E-03
3.500	3.4088E-03
3.800	3.7011E-03
4.100	3.9437E-03
4.400	4.1397E-03
4.700	4.2938E-03
5.000	4.4110E-03
5.300	4.4967E-03
5.600	4.5565E-03
5.900	4.5950E-03
6.200	4.6160E-03
6.500	4.6229E-03
6.800	4.6182E-03
7.100	4.6043E-03
7.400	4.5829E-03
7.700	4.5557E-03
8.000	4.5237E-03
8.300	3.8511E-03
8.600	3.3191E-03
8.900	2.8977E-03
9.200	2.5633E-03
9.500	2.2973E-03
9.800	2.0852E-03
10.100	1.9153E-03
10.400	1.7789E-03
24.000	9.0116E-04
96.000	1.7804E-04
720.000	1.4552E-05

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Cumulative Dose Summary

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	EAB with LOCA		LOCA @ LPZ		LOCA @ CR	
Time (hr)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.167	5.8506E-01	2.7540E-02	3.4539E-02	1.6258E-03	3.4081E-03	1.4469E-04
0.467	6.0893E-01	3.0365E-02	3.5949E-02	1.7927E-03	2.1181E-02	9.1623E-04
0.500	6.1449E-01	3.1018E-02	3.6277E-02	1.8312E-03	2.2963E-02	9.9739E-04
0.900	7.6340E-01	5.3399E-02	4.5068E-02	3.1525E-03	4.3658E-02	2.1403E-03
1.200	1.0293E+00	1.0394E-01	6.0768E-02	6.1360E-03	6.1809E-02	3.7639E-03
1.500	1.4854E+00	1.9874E-01	8.7695E-02	1.1733E-02	8.7188E-02	6.9529E-03
1.800	2.1773E+00	3.4818E-01	1.2854E-01	2.0555E-02	1.2485E-01	1.2654E-02
2.000	2.7895E+00	4.8214E-01	1.6468E-01	2.8464E-02	1.5939E-01	1.8325E-02
2.300	3.9384E+00	7.3578E-01	2.3251E-01	4.3437E-02	2.2502E-01	2.9502E-02
2.600	5.2965E+00	1.0423E+00	3.1268E-01	6.1534E-02	3.0659E-01	4.3766E-02
2.900	6.7962E+00	1.3905E+00	4.0122E-01	8.2088E-02	4.0478E-01	6.1329E-02
3.200	8.3890E+00	1.7711E+00	4.9526E-01	1.0456E-01	5.1874E-01	8.2143E-02
3.500	1.0040E+01	2.1770E+00	5.9274E-01	1.2852E-01	6.4683E-01	1.0600E-01
3.800	1.1725E+01	2.6020E+00	6.9219E-01	1.5361E-01	7.8708E-01	1.3262E-01
4.100	1.3425E+01	3.0413E+00	7.9258E-01	1.7955E-01	9.3741E-01	1.6166E-01
4.400	1.5129E+01	3.4908E+00	8.9316E-01	2.0609E-01	1.0959E+00	1.9280E-01
4.700	1.6827E+01	3.9473E+00	9.9340E-01	2.3303E-01	1.2607E+00	2.2570E-01
5.000	1.8513E+01	4.4080E+00	1.0929E+00	2.6023E-01	1.4303E+00	2.6005E-01
5.300	2.0183E+01	4.8706E+00	1.1916E+00	2.8754E-01	1.6032E+00	2.9558E-01
5.600	2.1836E+01	5.3333E+00	1.2891E+00	3.1486E-01	1.7784E+00	3.3204E-01
5.900	2.3469E+01	5.7947E+00	1.3855E+00	3.4209E-01	1.9550E+00	3.6920E-01
6.200	2.5083E+01	6.2534E+00	1.4808E+00	3.6918E-01	2.1322E+00	4.0687E-01
6.500	2.6675E+01	6.7085E+00	1.5748E+00	3.9605E-01	2.3093E+00	4.4488E-01
6.800	2.8247E+01	7.1592E+00	1.6676E+00	4.2265E-01	2.4859E+00	4.8308E-01
7.100	2.9798E+01	7.6046E+00	1.7591E+00	4.4895E-01	2.6617E+00	5.2135E-01
7.400	3.1327E+01	8.0443E+00	1.8494E+00	4.7491E-01	2.8362E+00	5.5957E-01
7.700	3.2835E+01	8.4779E+00	1.9384E+00	5.0050E-01	3.0093E+00	5.9766E-01
8.000	3.4321E+01	8.9050E+00	2.0262E+00	5.2572E-01	3.1807E+00	6.3555E-01
8.300	3.5075E-01	9.2887E-00	2.0580E+00	5.4190E-01	3.3380E+00	6.7001E-01
8.600	3.5819E-01	9.6661E+00	2.0893E+00	5.5781E-01	3.4723E+00	6.9892E-01
7.100	2.9798E+01	7.6046E+00	1.7591E+00	4.4895E-01	2.6617E+00	5.2135E-01
7.400	3.1327E+01	8.0443E+00	1.8494E+00	4.7491E-01	2.8362E+00	5.5957E-01

8.900	3.6551E+01	1.0037E+01	2.1202E+00	5.7346E-01	3.5884E+00	7.2362E-01
9.200	3.7274E+01	1.0402E+01	2.1507E+00	5.8883E-01	3.6902E+00	7.4507E-01
9.500	3.7985E+01	1.0760E+01	2.1807E+00	6.0394E-01	3.7806E+00	7.6402E-01
9.800	3.8689E+01	1.1112E+01	2.2104E+00	6.1877E-01	3.8619E+00	7.8104E-01
10.100	3.9382E-01	1.1457E+01	2.2396E+00	6.3333E-01	3.9359E+00	7.9656E-01
10.400	4.0065E-01	1.1796E+01	2.2684E+00	6.4763E-01	4.0040E+00	8.1088E-01
24.000	6.4112E-01	2.2886E+01	3.2824E+00	1.1153E-00	5.7951E+00	1.1961E-00
96.000	1.1808E-02	3.9323E+01	4.3878E+00	1.4519E-00	6.9807E+00	1.4197E-00
720.000	2.3105E-02	6.3647E+01	5.2181E+00	1.6307E-00	8.3671E+00	1.6092E-00

LOCA @ Unprotected CR

Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E-00	0.0000E-00
0.167	3.6302E-00	1.7088E-01
0.467	3.7783E-00	1.8841E-01
0.500	3.8128E+00	1.9246E-01
0.900	4.7368E+00	3.3133E-01
1.200	6.3869E-00	6.4491E-01
1.500	9.2169E-00	1.2331E-00
1.800	1.3510E-01	2.1604E-00
2.000	1.7308E-01	2.9916E-00
2.300	2.3150E-01	4.2812E-00
2.600	3.0054E-01	5.8397E-00
2.900	3.7680E-01	7.6098E-00
3.200	4.5778E-01	9.5453E-00
3.500	5.4173E-01	1.1609E-01
3.800	6.2739E-01	1.3770E-01
4.100	7.1385E-01	1.6003E-01
4.400	8.0047E-01	1.8289E-01
4.700	8.8680E-01	2.0610E-01
5.000	9.7253E+01	2.2952E-01
5.300	1.0575E+02	2.5304E-01
5.600	1.1415E+02	2.7657E-01
5.900	1.2245E+02	3.0002E-01
6.200	1.3065E+02	3.2335E-01
6.500	1.3875E+02	3.4649E+01
6.800	1.4674E+02	3.6940E-01
7.100	1.5463E+02	3.9205E+01
7.400	1.6240E+02	4.1440E+01
7.700	1.7007E+02	4.3645E+01
8.000	1.7763E+02	4.5816E+01
8.300	1.7980E+02	4.6439E+01
8.600	1.8194E+02	4.7052E+01
8.900	1.8405E+02	4.7654E+01
9.200	1.8613E+02	4.8246E+01
9.500	1.8819E+02	4.8827E+01
9.800	1.9021E+02	4.9398E+01
10.100	1.9221E+02	4.9959E+01
10.400	1.9418E-02	5.0509E+01
24.000	2.6347E+02	6.8473E+01
96.000	3.8121E+02	9.3432E+01
720.000	5.9663E+02	1.2616E-02

****
Worst Two-Hour Doses
****

EAB with LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
4.4	2.4793E-00	1.1015E+01	3.0660E+00

APPENDIX A Source Terms

This Appendix provides a calculation of the source terms to be used in subsequent direct dose calculations to the CRHE. There are two basic sets of source terms:

1. Primary Containment Leakage and ESF Leakage both enter the reactor building where the activity is processed via the SGTS filters which collects the activity prior to release to the environment. Therefore, these paths provide the source term for use in determining the direct dose from the reactor building and shine from the SGTS filters. In addition, the ESF Leakage run provides the source term in the suppression pool for use in components circulating post LOCA suppression pool fluid.

2. MSIV Leakage and Secondary Containment Bypass Leakage both enter the turbine building and provide the source term for the direct dose from the turbine building. Conservatively, no credit is taken for removal of activity from the turbine building by operation of the turbine building ventilation. This maximizes the turbine building contained activity.

The input and assumptions used for to determine the source terms in this Appendix are the same as provided in Section 3 of the main body of the calculation. The RADTRAD models used for the source terms are minor modifications to the previous runs used in determining the off site and CRHE doses and documented in Attachments 11, 12, 14 and 16. NOTE: The RADTRAD runs contained in this Appendix are only for use in determining source terms to be used in subsequent direct dose as noted in the results provided below.

Attachment 11 which models the primary containment leakage to the reactor building was changed as follows:

1. add the SGTS filter as a compartment with a volume of 1 ft^3,
2. delete the CRHE compartment,
3. add flow path from secondary containment to SGTS filter,
4. delete flow paths from and to CRHE.

RADTRAD requires an Environment node. In this model the release from the SGTS filter was conservatively minimized by setting the flow to the environment as 0.0001 cfm. The RADTRAD run is shown in Attachment A1. The reactor building activity as a function of time is shown on *Table A1*. The SGTS filter activity as a function of time is shown on Table A2.

Attachment 12 which models the ESF leakage to the reactor building was changed as follows:

1. add the SGTS filter as a compartment with a volume of 1 ft^3,
2. delete the CRHE compartment,
3. add flow path from secondary containment to SGTS filter,
4. delete flow paths from and to CRHE.

RADTRAD requires an Environment node. In this model the release from the SGTS filter was conservatively minimized by setting the flow to the environment as 0.0001 cfm. The RADTRAD run is shown in Attachment A2. The reactor building activity as a function of time is shown on Table A3. The SGTS filter activity as a function of time is shown on Table A4.

Table A-5 provides the total reactor building activity as a function of time. Table A-6 provides the total SGTS filter activity as a function of time. Table A-7 provides the suppression pool activity as a function of time.

Table A-5 provides the total reactor building activity as a function of time. Table A-6 provides

Attachment 14 which models the Secondary Containment Bypass leakage was changed as follows:

1. add the Turbine Building as a compartment with a volume of 1 ft^3,
2. delete the CRHE compartment,
3. add flow path from primary containment to Turbine Building,
4. delete flow paths from and to CRHE.

RADTRAD requires an Environment node. In this model the release from the Turbine Building was conservatively minimized by setting the flow to the environment as 0.0000001 cfm. The RADTRAD run is shown in Attachment A3. Since essentially no activity is allowed to leave the Turbine Building this maximizes the activity used in the direct dose evaluations. The RADTRAD model used the total primary containment volume (drywell plus wetwell) for time 0 to 720 hours in lieu of the drywell volume only for the first two hours. The turbine building activity as a function of time is shown on Table A8.

Attachment 16 which models the MSIV leakage was changed as follows:

1. add the Turbine Building as a compartment with a volume of 1 ft^3,
2. delete the CRHE compartment,
3. add flow path from primary containment to Turbine Building,
4. delete flow paths from and to CRHE.

NOTE: The

RADTRAD requires an Environment node. In this model the release from the Turbine Building was conservatively minimized by setting the flow to the environment as 0.0000001 cfm. The RADTRAD run is shown in Attachment A4. Since essentially no activity is allowed to leave the Turbine Building this maximizes the activity used in the direct dose evaluations. The RADTRAD model used the total primary containment volume (drywell plus wetwell) for time 0 to 720 hours in lieu of the drywell volume only for the first two hours. The turbine building activity as a function of time is shown on Table A9.

The total turbine building activity as a function of time is shown on Table A10.

The total primary containment activity as a function of time is provided on Table A-11.

Table A1 Reactor Building Activity as a Function of Time from Primary Containment Leakage													
	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			4.65E-02	3.66E-01	6.59E-01	5.19E-01	2.68E-01	1.37E-01	1.84E-02	3.31E-04	1.93E-09		
Co-60			2.50E-02	1.97E-01	3.55E-01	2.80E-01	1.45E-01	7.46E-02	1.01E-02	1.85E-04	1.14E-09		
Kr-85	8.30E-01	7.49E+00	6.96E+01	4.65E+02	1.51E+03	3.15E+03	5.15E+03	6.17E+03	3.95E+03	3.58E+03	3.46E+03	3.29E+03	3.13E+03
Kr-85m	1.47E+01	1.26E+02	1.08E+03	6.19E+03	1.48E+04	1.66E+04	7.86E+03	2.73E+03	4.26E+01	2.30E-02			
Kr-87	2.75E+01	2.07E+02	1.46E+03	5.67E+03	6.20E+03	1.46E+03	3.05E+01	4.66E-01	6.22E-07				
Kr-88	4.02E+01	3.34E+02	2.75E+03	1.44E+04	2.87E+04	2.25E+04	5.23E+03	8.89E+02	1.63E+00	1.20E-05			
Rb-86	1.17E-01	9.70E-01	3.90E+00	1.54E+01	2.47E+01	1.92E+01	9.82E+00	4.98E+00	6.50E-01	1.11E-02	5.47E-08		
Sr-89			6.45E+01	5.08E+02	9.14E+02	7.19E+02	3.71E+02	1.90E+02	2.54E+01	4.53E-01	2.57E-06		
Sr-90			8.23E+00	6.48E+01	1.17E+02	9.20E+01	4.78E+01	2.45E+01	3.32E+00	6.09E-02	3.76E-07	7.81E-16	
Sr-91			7.65E+01	5.60E+02	8.72E+02	5.13E+02	1.49E+02	4.26E+01	1.00E+00	5.53E-04			
Sr-92			6.76E+01	4.12E+02	4.46E+02	1.26E+02	8.47E+00	5.62E-01	1.64E-04				
Y-90			1.18E-01	1.37E+00	4.74E+00	7.47E+00	7.53E+00	5.59E+00	1.35E+00	3.96E-02	3.50E-07		
Y-91			8.46E-01	6.73E+00	1.25E+01	1.03E+01	5.66E+00	2.99E+00	4.14E-01	7.47E-03	4.30E-08		
Y-92			5.90E+00	9.14E+01	2.83E+02	2.14E+02	4.10E+01	5.64E+00	8.86E-03	1.43E-08			
Y-93			6.26E-01	4.60E+00	7.23E+00	4.33E+00	1.30E+00	3.85E-01	1.01E-02	6.84E-06			
Zr-95			1.20E+00	9.48E+00	1.71E+01	1.34E+01	6.94E+00	3.55E+00	4.76E-01	8.55E-03	4.95E-08		
Zr-97			1.14E+00	8.65E+00	1.44E+01	9.61E+00	3.59E+00	1.33E+00	6.72E-02	1.72E-04			
Nb-95			1.20E+00	9.49E+00	1.71E+01	1.35E+01	6.99E+00	3.59E+00	4.86E-01	8.91E-03	5.45E-08		
Mo-99			1.57E+01	1.22E+02	2.16E+02	1.63E+02	7.78E+01	3.67E+01	3.87E+00	4.29E-02	5.83E-08		
Tc-99m			1.40E+01	1.10E+02	1.98E+02	1.53E+02	7.56E+01	3.68E+01	3.96E+00	4.39E-02	5.98E-08		
Ru-103			1.35E+01	1.06E+02	1.91E+02	1.50E+02	7.75E+01	3.96E+01	5.27E+00	9.33E-02	5.18E-07		
Ru-105			7.98E+00	5.38E+01	7.09E+01	2.99E+01	4.46E+00	6.57E-01	2.10E-03	2.14E-08			
Ru-106			5.38E+00	4.23E+01	7.63E+01	6.01E+01	3.12E+01	1.60E+01	2.16E+00	3.96E-02	2.41E-07		
Rh-105			8.70E+00	6.83E+01	1.22E+02	9.17E+01	4.20E+01	1.86E+01	1.58E+00	1.13E-02	4.16E-09		
Sb-127			1.46E+01	1.14E+02	2.03E+02	1.55E+02	7.59E+01	3.67E+01	4.16E+00	5.32E-02	1.11E-07		
Sb-129			4.64E+01	3.11E+02	4.07E+02	1.69E+02	2.43E+01	3.46E+00	9.95E-03	8.25E-08			
Te-127			1.46E+01	1.15E+02	2.07E+02	1.61E+02	8.19E+01	4.10E+01	4.93E+00	6.90E-02	2.18E-07		
Te-127m			2.49E+00	1.96E+01	3.54E+01	2.79E+01	1.45E+01	7.43E+00	1.01E+00	1.84E-02	1.10E-07		
Te-129			4.93E+01	3.58E+02	5.22E+02	2.60E+02	8.24E+01	3.14E+01	3.54E+00	6.20E-02	3.38E-07		
Te-129m			1.04E+01	8.22E+01	1.48E+02	1.17E+02	6.01E+01	3.07E+01	4.07E+00	7.17E-02	3.91E-07		
Te-131m			3.30E+01	2.54E+02	4.36E+02	3.14E+02	1.35E+02	5.78E+01	4.49E+00	2.72E-02	6.03E-09		
Te-132			2.40E+02	1.87E+03	3.31E+03	2.52E+03	1.22E+03	5.83E+02	6.38E+01	7.65E-01	1.32E-06		
I-131	5.76E+01	4.80E+02	2.10E+03	8.99E+03	1.54E+04	1.39E+04	1.06E+04	8.81E+03	3.94E+03	2.75E+03	1.59E+03	6.38E+02	2.56E+02
I-132	8.08E+01	6.32E+02	2.59E+03	9.76E+03	1.13E+04	4.97E+03	1.58E+03	7.10E+02	7.62E+01	9.13E-01	1.57E-06		
I-133	1.19E+02	9.84E+02	4.25E+03	1.76E+04	2.84E+04	2.28E+04	1.37E+04	8.96E+03	1.96E+03	3.29E+02	2.62E+00	8.40E-04	2.69E-07

Table A1 Reactor Building Activity as a Function of Time from Primary Containment Leakage													
	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
I-134	1.16E+02	7.43E+02	2.20E+03	4.27E+03	1.51E+03	5.88E+01	8.26E-02	1.26E-04					
I-135	1.12E+02	9.01E+02	3.75E+03	1.45E+04	2.02E+04	1.22E+04	4.14E+03	1.53E+03	6.01E+01	3.25E-01	8.71E-08		
Xe-133	1.19E+02	1.07E+03	9.96E+03	6.64E+04	2.14E+05	4.36E+05	6.83E+05	7.83E+05	4.40E+05	3.06E+05	1.34E+05	3.40E+04	8.64E+03
Xe-135	4.01E+01	3.73E+02	3.51E+03	2.34E+04	6.95E+04	1.09E+05	9.79E+04	6.39E+04	6.64E+03	1.56E+02	2.59E-03	2.78E-11	
Cs-134	1.24E+01	1.03E+02	4.14E+02	1.64E+03	2.63E+03	2.06E+03	1.07E+03	5.47E+02	7.40E+01	1.36E+00	8.32E-06	1.71E-14	
Cs-136	3.95E+00	3.28E+01	1.32E+02	5.20E+02	8.34E+02	6.45E+02	3.29E+02	1.66E+02	2.13E+01	3.52E-01	1.58E-06		
Cs-137	9.31E+00	7.74E+01	3.11E+02	1.23E+03	1.98E+03	1.55E+03	8.02E+02	4.12E+02	5.58E+01	1.02E+00	6.32E-06	1.31E-14	
Ba-139			7.41E+01	3.53E+02	2.33E+02	2.45E+01	2.28E-01	2.09E-03	1.63E-09				
Ba-140			1.23E+02	9.64E+02	1.73E+03	1.35E+03	6.89E+02	3.47E+02	4.46E+01	7.33E-01	3.27E-06		
La-140			2.09E+00	2.69E+01	1.01E+02	1.65E+02	1.64E+02	1.19E+02	2.63E+01	6.47E-01	3.69E-06		
La-141			9.36E-01	6.18E+00	7.82E+00	3.05E+00	3.86E-01	4.83E-02	9.49E-05	3.67E-10			
La-142			6.97E-01	3.50E+00	2.57E+00	3.35E-01	4.77E-03	6.72E-05	1.87E-10				
Ce-141			2.82E+00	2.22E+01	4.00E+01	3.14E+01	1.62E+01	8.26E+00	1.10E+00	1.93E-02	1.05E-07		
Ce-143			2.57E+00	1.98E+01	3.42E+01	2.48E+01	1.09E+01	4.72E+00	3.86E-01	2.58E-03	7.75E-10		
Ce-144			2.37E+00	1.87E+01	3.37E+01	2.65E+01	1.38E+01	7.06E+00	9.54E-01	1.74E-02	1.06E-07		
Pr-143			1.01E+00	7.98E+00	1.45E+01	1.15E+01	6.08E+00	3.16E+00	4.31E-01	7.57E-03	3.56E-08		
Nd-147			4.54E-01	3.57E+00	6.40E+00	4.99E+00	2.54E+00	1.28E+00	1.62E-01	2.62E-03	1.11E-08		
Np-239			3.29E+01	2.56E+02	4.50E+02	3.38E+02	1.59E+02	7.40E+01	7.46E+00	7.60E-02	8.02E-08		
Pu-238			7.15E-03	5.63E-02	1.01E-01	8.00E-02	4.15E-02	2.13E-02	2.89E-03	5.30E-05	3.27E-10		
Pu-239			7.59E-04	5.98E-03	1.08E-02	8.50E-03	4.42E-03	2.27E-03	3.08E-04	5.67E-06	3.51E-11		
Pu-240			1.22E-03	9.62E-03	1.73E-02	1.37E-02	7.09E-03	3.64E-03	4.93E-04	9.05E-06	5.59E-11		
Pu-241			3.01E-01	2.37E+00	4.27E+00	3.37E+00	1.75E+00	8.98E-01	1.22E-01	2.23E-03	1.38E-08		
Am-241			1.60E-04	1.26E-03	2.27E-03	1.79E-03	9.31E-04	4.79E-04	6.55E-05	1.22E-06	7.90E-12		
Cm-242			4.18E-02	3.29E-01	5.92E-01	4.67E-01	2.42E-01	1.24E-01	1.67E-02	3.04E-04	1.83E-09		
Cm-244			2.45E-03	1.93E-02	3.47E-02	2.74E-02	1.42E-02	7.30E-03	9.89E-04	1.81E-05	1.12E-10		
SUM			3.55E+04	1.82E+05	4.29E+05	6.56E+05	8.35E+05	8.80E+05	4.57E+05	3.13E+05	1.39E+05		

Table A2 SGTS Filter Activity as a Function of Time from Primary Containment Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			6.58E-04	1.60E-02	1.12E-01	3.06E-01	5.37E-01	6.37E-01	6.53E-01	4.95E-01	1.97E-01	4.23E-02	9.08E-03
Co-60			3.54E-04	8.60E-03	6.03E-02	1.65E-01	2.91E-01	3.46E-01	3.58E-01	2.76E-01	1.16E-01	2.75E-02	6.48E-03
Rb-86	2.11E-03	1.55E-02	1.09E-01	8.64E-01	4.55E+00	1.17E+01	2.00E+01	2.35E+01	2.34E+01	1.67E+01	5.65E+00	9.23E-01	1.51E-01
Sr-89			9.13E-01	2.22E+01	1.55E+02	4.24E+02	7.44E+02	8.81E+02	9.00E+02	6.76E+02	2.62E+02	5.42E+01	1.12E+01
Sr-90			1.16E-01	2.83E+00	1.98E+01	5.43E+01	9.56E+01	1.14E+02	1.18E+02	9.09E+01	3.83E+01	9.08E+00	2.15E+00
Sr-91			1.08E+00	2.44E+01	1.46E+02	3.03E+02	2.98E+02	1.98E+02	3.55E+01	8.26E-01	9.53E-06		
Sr-92			9.57E-01	1.80E+01	7.57E+01	7.44E+01	1.70E+01	2.61E+00	5.83E-03	2.09E-08			
Y-90			1.73E-03	6.42E-02	8.20E-01	4.42E+00	1.51E+01	2.60E+01	4.78E+01	5.90E+01	3.57E+01	9.08E+00	2.16E+00
Y-91			1.20E-02	2.95E-01	2.12E+00	6.08E+00	1.13E+01	1.39E+01	1.47E+01	1.11E+01	4.38E+00	9.22E-01	1.94E-01
Y-92			9.15E-02	4.51E+00	4.93E+01	1.27E+02	8.21E+01	2.62E+01	3.14E-01	2.14E-05			
Y-93			8.86E-03	2.01E-01	1.23E+00	2.55E+00	2.60E+00	1.79E+00	3.56E-01	1.02E-02	2.20E-07		
Zr-95			1.70E-02	4.14E-01	2.90E+00	7.92E+00	1.39E+01	1.65E+01	1.69E+01	1.28E+01	5.04E+00	1.07E+00	2.28E-01
Zr-97			1.62E-02	3.78E-01	2.44E+00	5.66E+00	7.19E+00	6.16E+00	2.38E+00	2.57E-01	2.95E-04	3.71E-09	
Nb-95			1.70E-02	4.14E-01	2.91E+00	7.95E+00	1.40E+01	1.67E+01	1.72E+01	1.33E+01	5.56E+00	1.28E+00	2.92E-01
Mo-99			2.22E-01	5.34E+00	3.67E+01	9.61E+01	1.56E+02	1.70E+02	1.37E+02	6.40E+01	5.95E+00	1.13E-01	2.16E-03
Tc-99m			1.99E-01	4.82E+00	3.36E+01	9.00E+01	1.51E+02	1.71E+02	1.40E+02	6.56E+01	6.10E+00	1.16E-01	2.21E-03
Ru-103			1.91E-01	4.64E+00	3.25E+01	8.86E+01	1.55E+02	1.84E+02	1.87E+02	1.39E+02	5.28E+01	1.05E+01	2.08E+00
Ru-105			1.13E-01	2.35E+00	1.21E+01	1.77E+01	8.93E+00	3.05E+00	7.44E-02	3.20E-05			
Ru-106			7.61E-02	1.85E+00	1.30E+01	3.55E+01	6.25E+01	7.43E+01	7.68E+01	5.90E+01	2.46E+01	5.72E+00	1.33E+00
Rh-105			1.23E-01	2.98E+00	2.07E+01	5.41E+01	8.40E+01	8.63E+01	5.61E+01	1.69E+01	4.24E-01	9.10E-04	1.95E-06
Sb-127			2.07E-01	4.99E+00	3.45E+01	9.16E+01	1.52E+02	1.70E+02	1.47E+02	7.93E+01	1.14E+01	4.45E-01	1.74E-02
Sb-129			6.57E-01	1.36E+01	6.92E+01	9.95E+01	4.86E+01	1.60E+01	3.53E-01	1.23E-04			
Te-127			2.07E-01	5.02E+00	3.51E+01	9.52E+01	1.64E+02	1.90E+02	1.75E+02	1.03E+02	2.22E+01	2.99E+00	5.88E-01
Te-127m			3.53E-02	8.57E-01	6.01E+00	1.64E+01	2.90E+01	3.45E+01	3.57E+01	2.74E+01	1.13E+01	2.52E+00	5.60E-01
Te-129			6.98E-01	1.56E+01	8.87E+01	1.53E+02	1.65E+02	1.46E+02	1.25E+02	9.25E+01	3.45E+01	6.64E+00	1.28E+00
Te-129m			1.48E-01	3.59E+00	2.52E+01	6.87E+01	1.20E+02	1.42E+02	1.44E+02	1.07E+02	3.99E+01	7.68E+00	1.48E+00
Te-131m			4.66E-01	1.11E+01	7.42E+01	1.85E+02	2.71E+02	2.68E+02	1.59E+02	4.06E+01	6.14E-01	5.69E-04	5.26E-07
Te-132			3.39E+00	8.16E+01	5.63E+02	1.49E+03	2.44E+03	2.70E+03	2.26E+03	1.14E+03	1.34E+02	3.79E+00	1.07E-01
I-131	1.04E+00	7.64E+00	5.65E+01	4.87E+02	2.71E+03	7.46E+03	1.47E+04	1.98E+04	2.56E+04	2.62E+04	1.95E+04	8.84E+03	3.65E+03
I-132	1.46E+00	9.89E+00	6.68E+01	4.96E+02	1.92E+03	2.72E+03	3.00E+03	3.24E+03	2.70E+03	1.36E+03	1.60E+02	4.53E+00	1.28E-01
I-133	2.15E+00	1.56E+01	1.14E+02	9.53E+02	5.00E+03	1.22E+04	1.89E+04	2.01E+04	1.28E+04	3.13E+03	3.22E+01	1.16E-02	3.83E-06
I-134	2.09E+00	1.18E+01	5.90E+01	2.31E+02	2.67E+02	3.15E+01	1.14E-01	2.83E-04					
I-135	2.02E+00	1.43E+01	1.01E+02	7.84E+02	3.56E+03	6.55E+03	5.72E+03	3.43E+03	3.91E+02	3.09E+00	1.07E-06		
Cs-134	2.24E-01	1.64E+00	1.16E+01	9.18E+01	4.85E+02	1.25E+03	2.18E+03	2.58E+03	2.66E+03	2.05E+03	8.60E+02	2.02E+02	4.74E+01

Table A2 SGTS Filter Activity as a Function of Time from Primary Containment Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Cs-136	7.14E-02	5.23E-01	3.69E+00	2.92E+01	1.53E+02	3.94E+02	6.71E+02	7.81E+02	7.66E+02	5.31E+02	1.63E+02	2.28E+01	3.18E+00
Cs-137	1.68E-01	1.23E+00	8.71E+00	6.91E+01	3.65E+02	9.45E+02	1.64E+03	1.94E+03	2.01E+03	1.55E+03	6.52E+02	1.54E+02	3.66E+01
Ba-139			1.05E+00	1.54E+01	3.95E+01	1.45E+01	4.56E-01	9.71E-03	5.77E-08				
Ba-140			1.74E+00	4.21E+01	2.94E+02	7.97E+02	1.38E+03	1.61E+03	1.58E+03	1.09E+03	3.33E+02	4.58E+01	6.30E+00
La-140			3.09E-02	1.27E+00	1.75E+01	9.74E+01	3.29E+02	5.52E+02	9.32E+02	9.66E+02	3.76E+02	5.31E+01	7.31E+00
La-141			1.32E-02	2.70E-01	1.33E+00	1.80E+00	7.72E-01	2.24E-01	3.37E-03	5.47E-07			
La-142			9.87E-03	1.53E-01	4.37E-01	1.98E-01	9.55E-03	3.11E-04	6.64E-09				
Ce-141			3.99E-02	9.69E-01	6.79E+00	1.85E+01	3.24E+01	3.83E+01	3.88E+01	2.87E+01	1.07E+01	2.04E+00	3.91E-01
Ce-143			3.63E-02	8.63E-01	5.81E+00	1.46E+01	2.18E+01	2.19E+01	1.37E+01	3.86E+00	7.90E-02	1.21E-04	1.85E-07
Ce-144			3.36E-02	8.16E-01	5.72E+00	1.56E+01	2.75E+01	3.27E+01	3.38E+01	2.60E+01	1.08E+01	2.50E+00	5.77E-01
Pr-143			1.43E-02	3.48E-01	2.46E+00	6.79E+00	1.22E+01	1.46E+01	1.53E+01	1.13E+01	3.63E+00	5.18E-01	7.36E-02
Nd-147			6.43E-03	1.56E-01	1.09E+00	2.94E+00	5.08E+00	5.92E+00	5.75E+00	3.91E+00	1.13E+00	1.42E-01	1.80E-02
Np-239			4.65E-01	1.12E+01	7.64E+01	1.99E+02	3.18E+02	3.43E+02	2.65E+02	1.13E+02	8.18E+00	1.02E-01	1.27E-03
Pu-238			1.01E-04	2.46E-03	1.72E-02	4.72E-02	8.31E-02	9.89E-02	1.02E-01	7.91E-02	3.34E-02	7.92E-03	1.88E-03
Pu-239			1.07E-05	2.61E-04	1.83E-03	5.01E-03	8.85E-03	1.05E-02	1.09E-02	8.47E-03	3.58E-03	8.49E-04	2.01E-04
Pu-240			1.73E-05	4.20E-04	2.95E-03	8.05E-03	1.42E-02	1.69E-02	1.75E-02	1.35E-02	5.70E-03	1.35E-03	3.20E-04
Pu-241			4.26E-03	1.04E-01	7.26E-01	1.99E+00	3.50E+00	4.17E+00	4.31E+00	3.33E+00	1.40E+00	3.32E-01	7.85E-02
Am-241			2.26E-06	5.48E-05	3.85E-04	1.05E-03	1.86E-03	2.22E-03	2.32E-03	1.82E-03	8.05E-04	2.05E-04	5.21E-05
Cm-242			5.91E-04	1.44E-02	1.01E-01	2.75E-01	4.84E-01	5.75E-01	5.93E-01	4.54E-01	1.87E-01	4.24E-02	9.62E-03
Cm-244			3.46E-05	8.41E-04	5.90E-03	1.61E-02	2.85E-02	3.39E-02	3.51E-02	2.71E-02	1.14E-02	2.70E-03	6.39E-04
SUM			4.34E+02	3.45E+03	1.64E+04	3.64E+04	5.43E+04	6.01E+04	5.46E+04	3.99E+04	2.28E+04	9.44E+03	3.78E+03

Assume no noble gases in filter

Table A-3 Reactor Building Activity as a Function of Time from ESF Leakage														
.1(		.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
		Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
C	o-58			1.48E-06	1.29E-05	4.40E-05	9.22E-05	1.50E-04	1.79E-04	1.99E-04	1.88E-04	1.49E-04	1.01E-04	6.83E-05
C	o-60			7.96E-07	6.97E-06	2.37E-05	4.98E-05	8.14E-05	9.71E-05	1.09E-04	1.05E-04	8.80E-05	6.55E-05	4.88E-05
K	r-85													
K	r-85m													
K	r-87													
K	r-88													
R	b-86	3.60E-06	3.24E-05	1.39E-04	5.92E-04	1.70E-03	3.41E-03	5.44E-03	6.38E-03	6.89E-03	6.16E-03	4.14E-03	2.13E-03	1.10E-03
S	r-89			2.05E-03	1.80E-02	6.10E-02	1.28E-01	2.08E-01	2.47E-01	2.74E-01	2.57E-01	1.99E-01	1.29E-01	8.42E-02
S	r-90			2.62E-04	2.29E-03	7.80E-03	1.64E-02	2.68E-02	3.19E-02	3.59E-02	3.46E-02	2.90E-02	2.17E-02	1.62E-02
S	r-91			2.43E-03	1.98E-02	5.82E-02	9.13E-02	8.32E-02	5.54E-02	1.08E-02	3.14E-04	7.21E-09		
S	r-92			2.15E-03	1.46E-02	2.97E-02	2.24E-02	4.74E-03	7.31E-04	1.77E-06				
Y	-90			3.78E-06	4.92E-05	3.16E-04	1.32E-03	4.21E-03	7.26E-03	1.45E-02	2.24E-02	2.70E-02	2.17E-02	1.63E-02
Y	-91			2.69E-05	2.38E-04	8.33E-04	1.83E-03	3.17E-03	3.89E-03	4.47E-03	4.23E-03	3.31E-03	2.20E-03	1.46E-03
Y	-92			1.89E-04	3.31E-03	1.89E-02	3.79E-02	2.28E-02	7.31E-03	9.54E-05	8.10E-09			
Y	-93			1.99E-05	1.63E-04	4.83E-04	7.70E-04	7.28E-04	5.01E-04	1.09E-04	3.88E-06	1.66E-10		
Z	r-95			3.83E-05	3.35E-04	1.14E-03	2.39E-03	3.89E-03	4.62E-03	5.14E-03	4.85E-03	3.82E-03	2.56E-03	1.71E-03
Z	r-97			3.64E-05	3.06E-04	9.59E-04	1.71E-03	2.01E-03	1.73E-03	7.26E-04	9.77E-05	2.23E-07	8.86E-12	
N	b-95			3.83E-05	3.36E-04	1.14E-03	2.40E-03	3.92E-03	4.67E-03	5.25E-03	5.05E-03	4.20E-03	3.06E-03	2.19E-03
M	lo-99			4.99E-04	4.32E-03	1.44E-02	2.90E-02	4.36E-02	4.78E-02	4.18E-02	2.43E-02	4.50E-03	2.70E-04	1.62E-05
T	c-99m			4.47E-04	3.90E-03	1.32E-02	2.71E-02	4.23E-02	4.79E-02	4.27E-02	2.49E-02	4.61E-03	2.77E-04	1.66E-05
R	u-103			4.30E-04	3.76E-03	1.28E-02	2.67E-02	4.34E-02	5.15E-02	5.69E-02	5.29E-02	4.00E-02	2.50E-02	1.57E-02
R	u-105			2.54E-04	1.90E-03	4.74E-03	5.32E-03	2.50E-03	8.54E-04	2.27E-05	1.22E-08			
R	u-106			1.71E-04	1.50E-03	5.10E-03	1.07E-02	1.75E-02	2.08E-02	2.34E-02	2.24E-02	1.86E-02	1.37E-02	1.00E-02
R	h-105			2.77E-04	2.42E-03	8.12E-03	1.63E-02	2.35E-02	2.42E-02	1.71E-02	6.43E-03	3.21E-04	2.17E-06	1.47E-08
S	b-127			4.66E-04	4.05E-03	1.36E-02	2.76E-02	4.25E-02	4.78E-02	4.49E-02	3.02E-02	8.60E-03	1.06E-03	1.31E-04
S	b-129			1.48E-03	1.10E-02	2.72E-02	3.00E-02	1.36E-02	4.49E-03	1.07E-04	4.68E-08			
T	e-127			4.65E-04	4.07E-03	1.38E-02	2.87E-02	4.59E-02	5.33E-02	5.32E-02	3.91E-02	1.68E-02	7.13E-03	4.42E-03
T	e-127m			7.93E-05	6.94E-04	2.36E-03	4.96E-03	8.11E-03	9.67E-03	1.09E-02	1.04E-02	8.52E-03	6.01E-03	4.21E-03
T	e-129			1.57E-03	1.27E-02	3.48E-02	4.62E-02	4.61E-02	4.08E-02	3.82E-02	3.52E-02	2.61E-02	1.59E-02	9.63E-03
T	e-129m			3.32E-04	2.91E-03	9.89E-03	2.07E-02	3.37E-02	3.99E-02	4.40E-02	4.07E-02	3.02E-02	1.83E-02	1.11E-02
T	e-131m			1.05E-03	8.97E-03	2.91E-02	5.58E-02	7.58E-02	7.51E-02	4.85E-02	1.54E-02	4.65E-04	1.36E-06	3.96E-09
T	e-132			7.62E-03	6.61E-02	2.21E-01	4.48E-01	6.82E-01	7.58E-01	6.89E-01	4.34E-01	1.02E-01	9.05E-03	8.05E-04
I	8.131	8.87E-01	7.99E+00	3.68E+01	1.69E+02	4.96E+02	9.92E+02	1.56E+03	1.80E+03	1.86E+03	1.51E+03	7.55E+02	2.38E+02	7.51E+01
I	1.132	1.25E+00	1.05E+01	4.47E+01	1.75E+02	3.26E+02	2.61E+02	1.25E+02	1.02E+02	7.99E+01	4.93E+01	1.15E+01	1.03E+00	9.14E-02

Table A-3 Reactor Building Activity as a Function of Time from ESF Leakage

	.1	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
		Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
I-	1.6133	1.84E+00	1.64E+01	7.43E+01	3.30E+02	9.14E+02	1.62E+03	2.01E+03	1.83E+03	9.23E+02	1.80E+02	1.24E+00	3.12E-04	7.84E-08
I-	1.7134	1.79E+00	1.24E+01	3.85E+01	8.02E+01	4.88E+01	4.19E+00	1.21E-02	2.58E-05					
I-	1.7135	1.72E+00	1.50E+01	6.57E+01	2.72E+02	6.52E+02	8.70E+02	6.07E+02	3.12E+02	2.83E+01	1.77E-01	4.12E-08		
X	9.e-133	9.55E-02	2.90E+00	2.48E+01	2.28E+02	1.63E+03	7.53E+03	2.49E+04	4.31E+04	7.98E+04	8.64E+04	3.67E+04	7.33E+03	1.46E+03
X	1.6e-135	1.09E+00	3.23E+01	2.67E+02	2.28E+03	1.42E+04	4.93E+04	9.25E+04	9.13E+04	3.11E+04	1.12E+03	1.78E-02	1.51E-10	
C	3.s-134	3.81E-04	3.44E-03	1.47E-02	6.29E-02	1.82E-01	3.66E-01	5.90E-01	7.01E-01	7.85E-01	7.55E-01	6.30E-01	4.67E-01	3.45E-01
C	1.s-136	1.22E-04	1.10E-03	4.69E-03	2.00E-02	5.75E-02	1.15E-01	1.82E-01	2.12E-01	2.26E-01	1.96E-01	1.20E-01	5.27E-02	2.32E-02
C	2.s-137	2.87E-04	2.59E-03	1.11E-02	4.73E-02	1.37E-01	2.76E-01	4.44E-01	5.28E-01	5.92E-01	5.70E-01	4.79E-01	3.57E-01	2.67E-01
B	a-139			2.36E-03	1.25E-02	1.55E-02	4.36E-03	1.28E-04	2.72E-06					
B	a-140			3.91E-03	3.41E-02	1.16E-01	2.40E-01	3.86E-01	4.52E-01	4.81E-01	4.16E-01	2.52E-01	1.09E-01	4.74E-02
L	a-140			6.69E-05	9.66E-04	6.75E-03	2.91E-02	9.17E-02	1.54E-01	2.83E-01	3.67E-01	2.85E-01	1.27E-01	5.50E-02
L	a-141			2.98E-05	2.18E-04	5.22E-04	5.41E-04	2.16E-04	6.28E-05	1.02E-06	2.08E-10			
L	a-142				1.24E-04	1.72E-04	5.96E-05	2.67E-06	8.73E-08					
C	:e-141			8.98E-05	7.85E-04	2.67E-03	5.58E-03	9.07E-03	1.07E-02	1.18E-02	1.09E-02	8.07E-03	4.87E-03	2.94E-03
C	:e-143			8.16E-05	7.00E-04	2.28E-03	4.40E-03	6.09E-03	6.14E-03	4.17E-03	1.47E-03	5.98E-05	2.89E-07	1.40E-09
C	:e-144			7.55E-05	6.61E-04	2.25E-03	4.72E-03	7.70E-03	9.18E-03	1.03E-02	9.88E-03	8.17E-03	5.96E-03	4.34E-03
P	r-143			3.22E-05	2.82E-04	9.66E-04	2.05E-03	3.40E-03	4.11E-03	4.65E-03	4.29E-03	2.75E-03	1.23E-03	5.53E-04
N	ld-147			1.45E-05	1.26E-04	4.27E-04	8.87E-04	1.42E-03	1.66E-03	1.75E-03	1.49E-03	8.55E-04	3.40E-04	1.35E-04
N	lp-239			1.05E-03	9.05E-03	3.00E-02	6.00E-02	8.90E-02	9.62E-02	8.06E-02	4.31E-02	6.19E-03	2.44E-04	9.59E-06
P	u-238			2.28E-07	1.99E-06	6.78E-06	1.42E-05	2.33E-05	2.77E-05	3.12E-05	3.01E-05	2.53E-05	1.89E-05	1.41E-05
P	u-239			2.42E-08	2.12E-07	7.20E-07	1.51E-06	2.47E-06	2.95E-06	3.33E-06	3.22E-06	2.71E-06	2.03E-06	1.51E-06
P	u-240			3.89E-08	3.40E-07	1.16E-06	2.43E-06	3.97E-06	4.74E-06	5.33E-06	5.13E-06	4.31E-06	3.22E-06	2.41E-06
P	u-241			9.58E-06	8.39E-05	2.85E-04	5.99E-04	9.79E-04	1.17E-03	1.31E-03	1.27E-03	1.06E-03	7.92E-04	5.91E-04
A	m-241			5.08E-09	4.44E-08	1.51E-07	3.18E-07	5.21E-07	6.24E-07	7.07E-07	6.92E-07	6.09E-07	4.90E-07	3.92E-07
C	m-242			1.33E-06	1.16E-05	3.95E-05	8.29E-05	1.35E-04	1.61E-04	1.81E-04	1.73E-04	1.41E-04	1.01E-04	7.24E-05
C	m-244			7.79E-08	6.82E-07	2.32E-06	4.87E-06	7.96E-06	9.49E-06	1.07E-05	1.03E-05	8.63E-06	6.44E-06	4.80E-06
S	UM			5.52E+02	3.54E+03	1.82E+04	6.06E+04	1.22E+05	1.39E+05	1.14E+05	8.92E+04	3.75E+04	7.57E+03	1.54E+03

Table A-4 SGTS Filter Activity as a Function of Time from ESF Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			2.06E-08	5.43E-07	5.33E-06	2.80E-05	1.07E-04	2.09E-04	5.33E-04	1.04E-03	1.62E-03	1.43E-03	1.03E-03
Co-60			1.11E-08	2.93E-07	2.87E-06	1.51E-05	5.82E-05	1.14E-04	2.92E-04	5.81E-04	9.59E-04	9.31E-04	7.37E-04
Rb-86	6.44E-08	4.98E-07	3.77E-06	3.19E-05	2.24E-04	1.07E-03	3.95E-03	7.55E-03	1.86E-02	3.42E-02	4.51E-02	3.03E-02	1.66E-02
Sr-89			2.86E-05	7.54E-04	7.39E-03	3.89E-02	1.49E-01	2.89E-01	7.34E-01	1.42E+00	2.16E+00	1.84E+00	1.27E+00
Sr-90			3.64E-06	9.62E-05	9.43E-04	4.98E-03	1.91E-02	3.74E-02	9.61E-02	1.91E-01	3.16E-01	3.08E-01	2.45E-01
Sr-91			3.39E-05	8.31E-04	7.05E-03	2.78E-02	5.95E-02	6.49E-02	2.90E-02	1.74E-03	7.85E-08		
Sr-92			3.00E-05	6.12E-04	3.60E-03	6.83E-03	3.39E-03	8.57E-04	4.75E-06	4.40E-11			
Y-90			5.41E-08	2.20E-06	3.89E-05	4.04E-04	3.01E-03	8.51E-03	3.90E-02	1.24E-01	2.94E-01	3.08E-01	2.46E-01
Y-91			3.75E-07	1.00E-05	1.01E-04	5.58E-04	2.27E-03	4.56E-03	1.20E-02	2.34E-02	3.61E-02	3.12E-02	2.21E-02
Y-92			2.87E-06	1.55E-04	2.34E-03	1.16E-02	1.63E-02	8.57E-03	2.56E-04	4.48E-08			
Y-93			2.77E-07	6.84E-06	5.85E-05	2.34E-04	5.20E-04	5.87E-04	2.91E-04	2.15E-05	1.81E-09		
Zr-95			5.33E-07	1.41E-05	1.38E-04	7.26E-04	2.78E-03	5.42E-03	1.38E-02	2.68E-02	4.16E-02	3.64E-02	2.59E-02
Zr-97			5.07E-07	1.28E-05	1.16E-04	5.19E-04	1.44E-03	2.03E-03	1.95E-03	5.41E-04	2.43E-06	1.26E-10	
Nb-95			5.34E-07	1.41E-05	1.38E-04	7.29E-04	2.80E-03	5.48E-03	1.41E-02	2.79E-02	4.58E-02	4.34E-02	3.32E-02
Mo-99			6.95E-06	1.82E-04	1.74E-03	8.82E-03	3.12E-02	5.60E-02	1.12E-01	1.34E-01	4.90E-02	3.84E-03	2.46E-04
Tc-99m			6.22E-06	1.64E-04	1.60E-03	8.25E-03	3.03E-02	5.61E-02	1.15E-01	1.38E-01	5.02E-02	3.94E-03	2.52E-04
Ru-103			5.98E-06	1.58E-04	1.55E-03	8.12E-03	3.10E-02	6.03E-02	1.52E-01	2.93E-01	4.35E-01	3.56E-01	2.37E-01
Ru-105			3.54E-06	7.99E-05	5.73E-04	1.62E-03	1.79E-03	1.00E-03	6.07E-05	6.73E-08			
Ru-106			2.38E-06	6.29E-05	6.17E-04	3.25E-03	1.25E-02	2.44E-02	6.26E-02	1.24E-01	2.03E-01	1.94E-01	1.51E-01
Rh-105			3.85E-06	1.01E-04	9.83E-04	4.96E-03	1.68E-02	2.84E-02	4.58E-02	3.56E-02	3.50E-03	3.08E-05	2.22E-07
Sb-127			6.48E-06	1.70E-04	1.64E-03	8.40E-03	3.04E-02	5.60E-02	1.20E-01	1.67E-01	9.37E-02	1.51E-02	1.98E-03
Sb-129			2.06E-05	4.62E-04	3.29E-03	9.13E-03	9.72E-03	5.27E-03	2.88E-04	2.59E-07			
Te-127			6.47E-06	1.71E-04	1.67E-03	8.73E-03	3.28E-02	6.25E-02	1.43E-01	2.17E-01	1.83E-01	1.01E-01	6.69E-02
Te-127m			1.10E-06	2.92E-05	2.86E-04	1.51E-03	5.80E-03	1.13E-02	2.91E-02	5.76E-02	9.28E-02	8.54E-02	6.37E-02
Te-129			2.19E-05	5.32E-04	4.22E-03	1.41E-02	3.30E-02	4.78E-02	1.02E-01	1.95E-01	2.84E-01	2.25E-01	1.46E-01
Te-129m			4.63E-06	1.22E-04	1.20E-03	6.30E-03	2.41E-02	4.68E-02	1.18E-01	2.25E-01	3.29E-01	2.61E-01	1.69E-01
Te-131m			1.46E-05	3.77E-04	3.53E-03	1.70E-02	5.42E-02	8.81E-02	1.30E-01	8.53E-02	5.06E-03	1.93E-05	5.99E-08
Te-132			1.06E-04	2.78E-03	2.68E-02	1.36E-01	4.88E-01	8.88E-01	1.85E+00	2.40E+00	1.11E+00	1.29E-01	1.22E-02
I-131	1.59E-02	1.23E-01	9.65E-01	8.82E+00	6.43E+01	3.10E+02	1.13E+03	2.13E+03	4.99E+03	8.34E+03	8.22E+03	3.38E+03	1.14E+03
I-132	2.22E-02	1.59E-01	1.13E+00	8.57E+00	3.95E+01	6.89E+01	4.50E+01	3.13E+01	2.45E+01	1.66E+01	4.54E+00	4.40E-01	4.01E-02
I-133	3.29E-02	2.52E-01	1.95E+00	1.73E+01	1.19E+02	5.08E+02	1.46E+03	2.16E+03	2.48E+03	9.96E+02	1.35E+01	4.44E-03	1.19E-06
I-134	3.20E-02	1.90E-01	1.01E+00	4.19E+00	6.33E+00	1.31E+00	8.78E-03	3.05E-05					
I-135	3.08E-02	2.30E-01	1.72E+00	1.42E+01	8.47E+01	2.72E+02	4.40E+02	3.69E+02	7.61E+01	9.84E-01	4.49E-07		
Cs-134	6.82E-06	5.28E-05	4.00E-04	3.39E-03	2.39E-02	1.15E-01	4.28E-01	8.30E-01	2.11E+00	4.19E+00	6.87E+00	6.63E+00	5.22E+00

Table A-4 SGTS Filter Activity as a Function of Time from ESF Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Cs-136	2.18E-06	1.68E-05	1.27E-04	1.08E-03	7.56E-03	3.61E-02	1.32E-01	2.51E-01	6.08E-01	1.09E+00	1.30E+00	7.49E-01	3.51E-01
Cs-137	5.14E-06	3.98E-05	3.01E-04	2.55E-03	1.80E-02	8.67E-02	3.23E-01	6.25E-01	1.59E+00	3.16E+00	5.22E+00	5.08E+00	4.03E+00
Ba-139			3.28E-05	5.24E-04	1.88E-03	1.33E-03	9.12E-05	3.19E-06	4.70E-11				
Ba-140			5.44E-05	1.43E-03	1.40E-02	7.31E-02	2.76E-01	5.30E-01	1.29E+00	2.30E+00	2.74E+00	1.55E+00	7.16E-01
La-140			9.68E-07	4.36E-05	8.32E-04	8.90E-03	6.56E-02	1.81E-01	7.59E-01	2.03E+00	3.10E+00	1.80E+00	8.32E-01
La-141			4.14E-07	9.17E-06	6.32E-05	1.65E-04	1.54E-04	7.36E-05	2.75E-06	1.15E-09			
La-142			3.09E-07	5.20E-06	2.08E-05	1.81E-05	1.91E-06	1.02E-07					
Ce-141			1.25E-06	3.30E-05	3.23E-04	1.70E-03	6.49E-03	1.26E-02	3.17E-02	6.04E-02	8.79E-02	6.92E-02	4.44E-02
Ce-143			1.14E-06	2.94E-05	2.76E-04	1.34E-03	4.35E-03	7.19E-03	1.12E-02	8.11E-03	6.51E-04	4.11E-06	2.11E-08
Ce-144			1.05E-06	2.77E-05	2.72E-04	1.43E-03	5.51E-03	1.08E-02	2.76E-02	5.46E-02	8.90E-02	8.47E-02	6.57E-02
Pr-143			4.48E-07	1.19E-05	1.17E-04	6.23E-04	2.43E-03	4.81E-03	1.25E-02	2.38E-02	2.99E-02	1.75E-02	8.37E-03
Nd-147			2.01E-07	5.30E-06	5.17E-05	2.70E-04	1.02E-03	1.94E-03	4.69E-03	8.23E-03	9.32E-03	4.83E-03	2.04E-03
Np-239			1.46E-05	3.80E-04	3.63E-03	1.83E-02	6.36E-02	1.13E-01	2.16E-01	2.38E-01	6.74E-02	3.46E-03	1.45E-04
Pu-238			3.17E-09	8.36E-08	8.20E-07	4.33E-06	1.66E-05	3.25E-05	8.36E-05	1.66E-04	2.75E-04	2.68E-04	2.14E-04
Pu-239			3.36E-10	8.88E-09	8.71E-08	4.60E-07	1.77E-06	3.46E-06	8.92E-06	1.78E-05	2.95E-05	2.88E-05	2.29E-05
Pu-240			5.41E-10	1.43E-08	1.40E-07	7.39E-07	2.84E-06	5.55E-06	1.43E-05	2.84E-05	4.69E-05	4.58E-05	3.64E-05
Pu-241			1.33E-07	3.52E-06	3.45E-05	1.82E-04	7.00E-04	1.37E-03	3.52E-03	7.00E-03	1.16E-02	1.13E-02	8.94E-03
Am-241			7.07E-11	1.87E-09	1.83E-08	9.67E-08	3.73E-07	7.31E-07	1.89E-06	3.83E-06	6.64E-06	6.96E-06	5.93E-06
Cm-242			1.85E-08	4.88E-07	4.79E-06	2.52E-05	9.68E-05	1.89E-04	4.84E-04	9.55E-04	1.54E-03	1.44E-03	1.09E-03
Cm-244			1.08E-09	2.86E-08	2.81E-07	1.48E-06	5.69E-06	1.11E-05	2.86E-05	5.69E-05	9.40E-05	9.15E-05	7.27E-05
SUM			6.77E+00	5.31E+01	3.14E+02	1.16E+03	3.07E+03	4.70E+03	7.58E+03	9.37E+03	8.26E+03	3.40E+03	1.15E+03
Assume no noble gases in filter													

Table A-5 Total Reactor Building Activity as A Function of Time

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			4.65E-02	3.66E-01	6.59E-01	5.19E-01	2.68E-01	1.38E-01	1.86E-02	5.19E-04	1.49E-04	1.01E-04	6.83E-05
Co-60			2.50E-02	1.97E-01	3.55E-01	2.80E-01	1.45E-01	7.47E-02	1.02E-02	2.90E-04	8.80E-05	6.55E-05	4.88E-05
Kr-85	8.30E-01	7.49E+00	6.96E+01	4.65E+02	1.51E+03	3.15E+03	5.15E+03	6.17E+03	3.95E+03	3.58E+03	3.46E+03	3.29E+03	3.13E+03
Kr-85m	1.47E+01	1.26E+02	1.08E+03	6.19E+03	1.48E+04	1.66E+04	7.86E+03	2.73E+03	4.26E+01	2.30E-02	0.00E+00	0.00E+00	0.00E+00
Kr-87	2.75E+01	2.07E+02	1.46E+03	5.67E+03	6.20E+03	1.46E+03	3.05E+01	4.66E-01	6.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	4.02E+01	3.34E+02	2.75E+03	1.44E+04	2.87E+04	2.25E+04	5.23E+03	8.89E+02	1.63E+00	1.20E-05	0.00E+00	0.00E+00	0.00E+00
Rb-86	1.17E-01	9.70E-01	3.90E+00	1.54E+01	2.47E+01	1.92E+01	9.82E+00	4.99E+00	6.57E-01	1.72E-02	4.14E-03	2.13E-03	1.10E-03
Sr-89			6.45E+01	5.08E+02	9.14E+02	7.19E+02	3.72E+02	1.90E+02	2.56E+01	7.10E-01	1.99E-01	1.29E-01	8.42E-02
Sr-90			8.23E+00	6.48E+01	1.17E+02	9.20E+01	4.78E+01	2.46E+01	3.36E+00	9.55E-02	2.90E-02	2.17E-02	1.62E-02
Sr-91			7.65E+01	5.60E+02	8.72E+02	5.13E+02	1.49E+02	4.26E+01	1.01E+00	8.67E-04	7.21E-09	0.00E+00	0.00E+00
Sr-92			6.76E+01	4.12E+02	4.46E+02	1.26E+02	8.47E+00	5.63E-01	1.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Y-90			1.18E-01	1.37E+00	4.74E+00	7.47E+00	7.53E+00	5.60E+00	1.36E+00	6.20E-02	2.70E-02	2.17E-02	1.63E-02
Y-91			8.46E-01	6.74E+00	1.25E+01	1.03E+01	5.67E+00	3.00E+00	4.19E-01	1.17E-02	3.31E-03	2.20E-03	1.46E-03
Y-92			5.90E+00	9.14E+01	2.83E+02	2.14E+02	4.10E+01	5.65E+00	8.96E-03	2.24E-08	0.00E+00	0.00E+00	0.00E+00
Y-93			6.26E-01	4.60E+00	7.23E+00	4.33E+00	1.30E+00	3.86E-01	1.02E-02	1.07E-05	1.66E-10	0.00E+00	0.00E+00
Zr-95			1.20E+00	9.48E+00	1.71E+01	1.34E+01	6.95E+00	3.56E+00	4.81E-01	1.34E-02	3.82E-03	2.56E-03	1.71E-03
Zr-97			1.14E+00	8.65E+00	1.44E+01	9.61E+00	3.59E+00	1.33E+00	6.80E-02	2.70E-04	2.23E-07	8.86E-12	0.00E+00
Nb-95			1.20E+00	9.49E+00	1.71E+01	1.35E+01	7.00E+00	3.60E+00	4.92E-01	1.40E-02	4.20E-03	3.06E-03	2.19E-03
Mo-99			1.57E+01	1.22E+02	2.16E+02	1.63E+02	7.78E+01	3.68E+01	3.91E+00	6.72E-02	4.50E-03	2.70E-04	1.62E-05
Tc-99m			1.40E+01	1.10E+02	1.98E+02	1.53E+02	7.56E+01	3.69E+01	4.00E+00	6.89E-02	4.61E-03	2.77E-04	1.66E-05
Ru-103			1.35E+01	1.06E+02	1.91E+02	1.50E+02	7.76E+01	3.96E+01	5.33E+00	1.46E-01	4.00E-02	2.50E-02	1.57E-02
Ru-105			7.98E+00	5.38E+01	7.09E+01	3.00E+01	4.46E+00	6.58E-01	2.12E-03	3.36E-08	0.00E+00	0.00E+00	0.00E+00
Ru-106			5.38E+00	4.23E+01	7.63E+01	6.01E+01	3.12E+01	1.60E+01	2.19E+00	6.20E-02	1.86E-02	1.37E-02	1.00E-02
Rh-105			8.70E+00	6.83E+01	1.22E+02	9.17E+01	4.20E+01	1.86E+01	1.60E+00	1.78E-02	3.21E-04	2.17E-06	1.47E-08
Sb-127			1.46E+01	1.14E+02	2.03E+02	1.55E+02	7.60E+01	3.68E+01	4.20E+00	8.33E-02	8.60E-03	1.06E-03	1.31E-04
Sb-129			4.64E+01	3.11E+02	4.07E+02	1.69E+02	2.43E+01	3.46E+00	1.01E-02	1.29E-07	0.00E+00	0.00E+00	0.00E+00
Te-127			1.46E+01	1.15E+02	2.07E+02	1.61E+02	8.20E+01	4.11E+01	4.98E+00	1.08E-01	1.68E-02	7.13E-03	4.42E-03
Te-127m			2.49E+00	1.96E+01	3.54E+01	2.79E+01	1.45E+01	7.44E+00	1.02E+00	2.88E-02	8.52E-03	6.01E-03	4.21E-03
Te-129			4.93E+01	3.58E+02	5.22E+02	2.60E+02	8.24E+01	3.14E+01	3.57E+00	9.71E-02	2.61E-02	1.59E-02	9.63E-03
Te-129m			1.04E+01	8.22E+01	1.48E+02	1.17E+02	6.02E+01	3.07E+01	4.12E+00	1.12E-01	3.02E-02	1.83E-02	1.11E-02
Te-131m			3.30E+01	2.54E+02	4.36E+02	3.14E+02	1.35E+02	5.79E+01	4.54E+00	4.26E-02	4.65E-04	1.36E-06	3.96E-09
Te-132			2.40E+02	1.87E+03	3.31E+03	2.52E+03	1.22E+03	5.84E+02	6.45E+01	1.20E+00	1.02E-01	9.05E-03	8.05E-04
I-131	5.85E+01	4.88E+02	2.14E+03	9.16E+03	1.59E+04	1.49E+04	1.22E+04	1.06E+04	5.79E+03	4.26E+03	2.34E+03	8.76E+02	3.32E+02
I-132	8.21E+01	6.42E+02	2.63E+03	9.94E+03	1.16E+04	5.23E+03	1.71E+03	8.13E+02	1.56E+02	5.02E+01	1.15E+01	1.03E+00	9.14E-02

Table A-5 Total Reactor Building Activity as A Function of Time

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
I-133	1.21E+02	1.00E+03	4.32E+03	1.79E+04	2.93E+04	2.44E+04	1.57E+04	1.08E+04	2.89E+03	5.09E+02	3.87E+00	1.15E-03	3.47E-07
I-134	1.18E+02	7.56E+02	2.24E+03	4.35E+03	1.56E+03	6.30E+01	9.48E-02	1.52E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-135	1.13E+02	9.16E+02	3.82E+03	1.48E+04	2.09E+04	1.31E+04	4.75E+03	1.84E+03	8.84E+01	5.03E-01	1.28E-07	0.00E+00	0.00E+00
Xe-133	1.19E+02	1.08E+03	9.98E+03	6.66E+04	2.16E+05	4.44E+05	7.08E+05	8.26E+05	5.19E+05	3.92E+05	1.71E+05	4.14E+04	1.01E+04
Xe-135	4.12E+01	4.05E+02	3.77E+03	2.57E+04	8.37E+04	1.59E+05	1.90E+05	1.55E+05	3.77E+04	1.28E+03	2.04E-02	1.78E-10	0.00E+00
Cs-134	1.24E+01	1.03E+02	4.14E+02	1.64E+03	2.63E+03	2.06E+03	1.07E+03	5.48E+02	7.48E+01	2.11E+00	6.30E-01	4.67E-01	3.45E-01
Cs-136	3.95E+00	3.28E+01	1.32E+02	5.20E+02	8.34E+02	6.45E+02	3.29E+02	1.66E+02	2.15E+01	5.47E-01	1.20E-01	5.27E-02	2.32E-02
Cs-137	9.31E+00	7.74E+01	3.11E+02	1.23E+03	1.98E+03	1.55E+03	8.03E+02	4.13E+02	5.64E+01	1.59E+00	4.79E-01	3.57E-01	2.67E-01
Ba-139			7.41E+01	3.53E+02	2.33E+02	2.45E+01	2.28E-01	2.10E-03	1.63E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140			1.23E+02	9.64E+02	1.73E+03	1.35E+03	6.89E+02	3.48E+02	4.51E+01	1.15E+00	2.52E-01	1.09E-01	4.74E-02
La-140			2.09E+00	2.69E+01	1.01E+02	1.65E+02	1.64E+02	1.19E+02	2.65E+01	1.01E+00	2.85E-01	1.27E-01	5.50E-02
La-141			9.36E-01	6.18E+00	7.82E+00	3.05E+00	3.86E-01	4.84E-02	9.60E-05	5.75E-10	0.00E+00	0.00E+00	0.00E+00
La-142			6.97E-01	3.50E+00	2.57E+00	3.35E-01	4.77E-03	6.72E-05	1.87E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-141			2.82E+00	2.22E+01	4.00E+01	3.14E+01	1.62E+01	8.27E+00	1.11E+00	3.02E-02	8.07E-03	4.87E-03	2.94E-03
Ce-143			2.57E+00	1.98E+01	3.42E+01	2.48E+01	1.09E+01	4.73E+00	3.90E-01	4.05E-03	5.98E-05	2.89E-07	1.40E-09
Ce-144			2.37E+00	1.87E+01	3.37E+01	2.65E+01	1.38E+01	7.07E+00	9.64E-01	2.73E-02	8.17E-03	5.96E-03	4.34E-03
Pr-143			1.01E+00	7.98E+00	1.45E+01	1.15E+01	6.08E+00	3.16E+00	4.36E-01	1.19E-02	2.75E-03	1.23E-03	5.53E-04
Nd-147			4.54E-01	3.57E+00	6.40E+00	4.99E+00	2.54E+00	1.28E+00	1.64E-01	4.11E-03	8.55E-04	3.40E-04	1.35E-04
Np-239			3.29E+01	2.56E+02	4.50E+02	3.38E+02	1.59E+02	7.41E+01	7.54E+00	1.19E-01	6.19E-03	2.44E-04	9.59E-06
Pu-238			7.15E-03	5.63E-02	1.01E-01	8.00E-02	4.15E-02	2.14E-02	2.92E-03	8.31E-05	2.53E-05	1.89E-05	1.41E-05
Pu-239			7.59E-04	5.98E-03	1.08E-02	8.50E-03	4.42E-03	2.27E-03	3.12E-04	8.89E-06	2.71E-06	2.03E-06	1.51E-06
Pu-240			1.22E-03	9.62E-03	1.73E-02	1.37E-02	7.09E-03	3.65E-03	4.99E-04	1.42E-05	4.31E-06	3.22E-06	2.41E-06
Pu-241			3.01E-01	2.37E+00	4.27E+00	3.37E+00	1.75E+00	8.99E-01	1.23E-01	3.50E-03	1.06E-03	7.92E-04	5.91E-04
Am-241			1.60E-04	1.26E-03	2.27E-03	1.79E-03	9.31E-04	4.80E-04	6.62E-05	1.91E-06	6.09E-07	4.90E-07	3.92E-07
Cm-242			4.18E-02	3.29E-01	5.92E-01	4.67E-01	2.42E-01	1.24E-01	1.69E-02	4.77E-04	1.41E-04	1.01E-04	7.24E-05
Cm-244			2.45E-03	1.93E-02	3.47E-02	2.74E-02	1.42E-02	7.31E-03	9.99E-04	2.84E-05	8.63E-06	6.44E-06	4.80E-06
SUM			3.61E+04	1.86E+05	4.47E+05	7.16E+05	9.57E+05	1.02E+06	5.70E+05	4.02E+05	1.77E+05	4.56E+04	1.36E+04

Table A-6 Total SGTS Filter Activity as a Function of Time

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58	0.00E+00	0.00E+00	6.58E-04	1.60E-02	1.12E-01	3.06E-01	5.37E-01	6.37E-01	6.54E-01	4.96E-01	1.98E-01	4.37E-02	1.01E-02
Co-60			3.54E-04	8.60E-03	6.03E-02	1.65E-01	2.91E-01	3.46E-01	3.59E-01	2.77E-01	1.17E-01	2.84E-02	7.22E-03
Rb-86	2.11E-03	1.55E-02	1.09E-01	8.64E-01	4.55E+00	1.17E+01	2.00E+01	2.35E+01	2.34E+01	1.68E+01	5.69E+00	9.53E-01	1.67E-01
Sr-89			9.13E-01	2.22E+01	1.55E+02	4.24E+02	7.44E+02	8.81E+02	9.00E+02	6.77E+02	2.65E+02	5.60E+01	1.25E+01
Sr-90			1.16E-01	2.83E+00	1.98E+01	5.43E+01	9.56E+01	1.14E+02	1.18E+02	9.11E+01	3.87E+01	9.39E+00	2.39E+00
Sr-91			1.08E+00	2.44E+01	1.48E+02	3.03E+02	2.98E+02	1.98E+02	3.55E+01	8.28E-01	9.61E-06	0.00E+00	0.00E+00
Sr-92			9.57E-01	1.80E+01	7.57E+01	7.44E+01	1.70E+01	2.61E+00	5.83E-03	2.10E-08	0.00E+00	0.00E+00	0.00E+00
Y-90			1.73E-03	6.42E-02	8.20E-01	4.42E+00	1.51E+01	2.60E+01	4.79E+01	5.92E+01	3.60E+01	9.39E+00	2.41E+00
Y-91			1.20E-02	2.95E-01	2.12E+00	6.08E+00	1.13E+01	1.39E+01	1.47E+01	1.12E+01	4.42E+00	9.53E-01	2.16E-01
Y-92			9.15E-02	4.51E+00	4.93E+01	1.27E+02	8.22E+01	2.62E+01	3.15E-01	2.14E-05	0.00E+00	0.00E+00	0.00E+00
Y-93			8.86E-03	2.01E-01	1.23E+00	2.55E+00	2.60E+00	1.79E+00	3.57E-01	1.02E-02	2.22E-07	0.00E+00	0.00E+00
Zr-95			1.70E-02	4.14E-01	2.90E+00	7.92E+00	1.39E+01	1.65E+01	1.69E+01	1.28E+01	5.08E+00	1.11E+00	2.54E-01
Zr-97			1.62E-02	3.78E-01	2.44E+00	5.66E+00	7.19E+00	6.16E+00	2.39E+00	2.58E-01	2.98E-04	3.84E-09	0.00E+00
Nb-95			1.70E-02	4.14E-01	2.91E+00	7.95E+00	1.40E+01	1.67E+01	1.73E+01	1.33E+01	5.60E+00	1.32E+00	3.25E-01
Mo-99			2.22E-01	5.34E+00	3.67E+01	9.61E+01	1.56E+02	1.70E+02	1.37E+02	6.41E+01	5.99E+00	1.17E-01	2.40E-03
Tc-99m			1.99E-01	4.82E+00	3.36E+01	9.00E+01	1.51E+02	1.71E+02	1.40E+02	6.57E+01	6.15E+00	1.20E-01	2.46E-03
Ru-103			1.91E-01	4.64E+00	3.25E+01	8.86E+01	1.55E+02	1.84E+02	1.87E+02	1.40E+02	5.33E+01	1.08E+01	2.32E+00
Ru-105			1.13E-01	2.35E+00	1.21E+01	1.77E+01	8.93E+00	3.05E+00	7.45E-02	3.21E-05	0.00E+00	0.00E+00	0.00E+00
Ru-106			7.61E-02	1.85E+00	1.30E+01	3.55E+01	6.25E+01	7.43E+01	7.68E+01	5.92E+01	2.48E+01	5.92E+00	1.48E+00
Rh-105			1.23E-01	2.98E+00	2.07E+01	5.41E+01	8.41E+01	8.64E+01	5.62E+01	1.70E+01	4.28E-01	9.41E-04	2.17E-06
Sb-127			2.07E-01	4.99E+00	3.45E+01	9.16E+01	1.52E+02	1.70E+02	1.47E+02	7.95E+01	1.15E+01	4.60E-01	1.94E-02
Sb-129			6.57E-01	1.36E+01	6.92E+01	9.96E+01	4.86E+01	1.60E+01	3.53E-01	1.23E-04	0.00E+00	0.00E+00	0.00E+00
Te-127			2.07E-01	5.02E+00	3.51E+01	9.52E+01	1.64E+02	1.90E+02	1.75E+02	1.03E+02	2.24E+01	3.09E+00	6.55E-01
Te-127m			3.53E-02	8.57E-01	6.01E+00	1.64E+01	2.90E+01	3.45E+01	3.57E+01	2.75E+01	1.14E+01	2.60E+00	6.24E-01
Te-129			6.98E-01	1.56E+01	8.87E+01	1.53E+02	1.65E+02	1.46E+02	1.25E+02	9.27E+01	3.48E+01	6.87E+00	1.43E+00
Te-129m			1.48E-01	3.59E+00	2.52E+01	6.87E+01	1.20E+02	1.42E+02	1.45E+02	1.07E+02	4.02E+01	7.94E+00	1.65E+00
Te-131m			4.66E-01	1.11E+01	7.42E+01	1.85E+02	2.71E+02	2.68E+02	1.60E+02	4.07E+01	6.20E-01	5.88E-04	5.86E-07
Te-132			3.39E+00	8.16E+01	5.63E+02	1.49E+03	2.44E+03	2.70E+03	2.26E+03	1.14E+03	1.35E+02	3.92E+00	1.19E-01
I-131	1.06E+00	7.76E+00	5.74E+01	4.96E+02	2.77E+03	7.77E+03	1.58E+04	2.19E+04	3.06E+04	3.45E+04	2.77E+04	1.22E+04	4.79E+03
I-132	1.48E+00	1.01E+01	6.79E+01	5.04E+02	1.96E+03	2.79E+03	3.04E+03	3.27E+03	2.73E+03	1.38E+03	1.65E+02	4.97E+00	1.68E-01
I-133	2.19E+00	1.59E+01	1.16E+02	9.71E+02	5.12E+03	1.27E+04	2.04E+04	2.23E+04	1.52E+04	4.12E+03	4.58E+01	1.61E-02	5.02E-06
I-134	2.13E+00	1.20E+01	6.00E+01	2.36E+02	2.73E+02	3.28E+01	1.23E-01	3.14E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-135	2.05E+00	1.46E+01	1.02E+02	7.99E+02	3.65E+03	6.82E+03	6.16E+03	3.80E+03	4.67E+02	4.07E+00	1.52E-06	0.00E+00	0.00E+00
Cs-134	2.24E-01	1.64E+00	1.16E+01	9.18E+01	4.85E+02	1.25E+03	2.18E+03	2.58E+03	2.66E+03	2.05E+03	8.66E+02	2.08E+02	5.26E+01

Table A-6 Total SGTS Filter Activity as a Function of Time

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Cs-136	7.14E-02	5.23E-01	3.69E+00	2.92E+01	1.53E+02	3.94E+02	6.71E+02	7.82E+02	7.66E+02	5.33E+02	1.64E+02	2.35E+01	3.53E+00
Cs-137	1.68E-01	1.23E+00	8.71E+00	6.91E+01	3.65E+02	9.45E+02	1.64E+03	1.94E+03	2.01E+03	1.55E+03	6.58E+02	1.60E+02	4.06E+01
Ba-139			1.05E+00	1.54E+01	3.95E+01	1.45E+01	4.56E-01	9.72E-03	5.77E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140			1.74E+00	4.21E+01	2.94E+02	7.97E+02	1.38E+03	1.61E+03	1.58E+03	1.10E+03	3.36E+02	4.73E+01	7.01E+00
La-140			3.09E-02	1.27E+00	1.75E+01	9.75E+01	3.29E+02	5.52E+02	9.32E+02	9.68E+02	3.79E+02	5.50E+01	8.15E+00
La-141			1.32E-02	2.70E-01	1.33E+00	1.80E+00	7.72E-01	2.24E-01	3.37E-03	5.48E-07	0.00E+00	0.00E+00	0.00E+00
La-142			9.87E-03	1.53E-01	4.37E-01	1.98E-01	9.55E-03	3.12E-04	6.64E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-141			3.99E-02	9.69E-01	6.79E+00	1.85E+01	3.24E+01	3.83E+01	3.89E+01	2.88E+01	1.07E+01	2.11E+00	4.35E-01
Ce-143			3.63E-02	8.63E-01	5.81E+00	1.46E+01	2.18E+01	2.19E+01	1.37E+01	3.86E+00	7.97E-02	1.25E-04	2.07E-07
Ce-144			3.36E-02	8.16E-01	5.72E+00	1.56E+01	2.75E+01	3.28E+01	3.39E+01	2.60E+01	1.09E+01	2.58E+00	6.43E-01
Pr-143			1.43E-02	3.48E-01	2.46E+00	6.79E+00	1.22E+01	1.46E+01	1.53E+01	1.13E+01	3.66E+00	5.35E-01	8.19E-02
Nd-147			6.43E-03	1.56E-01	1.09E+00	2.94E+00	5.08E+00	5.92E+00	5.76E+00	3.92E+00	1.14E+00	1.47E-01	2.00E-02
Np-239			4.65E-01	1.12E+01	7.64E+01	1.99E+02	3.18E+02	3.43E+02	2.65E+02	1.14E+02	8.25E+00	1.06E-01	1.42E-03
Pu-238			1.01E-04	2.46E-03	1.72E-02	4.72E-02	8.31E-02	9.89E-02	1.03E-01	7.93E-02	3.37E-02	8.19E-03	2.09E-03
Pu-239			1.07E-05	2.61E-04	1.83E-03	5.01E-03	8.85E-03	1.05E-02	1.09E-02	8.48E-03	3.61E-03	8.78E-04	2.24E-04
Pu-240			1.73E-05	4.20E-04	2.95E-03	8.06E-03	1.42E-02	1.69E-02	1.75E-02	1.35E-02	5.74E-03	1.40E-03	3.56E-04
Pu-241			4.26E-03	1.04E-01	7.26E-01	1.99E+00	3.50E+00	4.17E+00	4.32E+00	3.34E+00	1.41E+00	3.43E-01	8.75E-02
Am-241			2.26E-06	5.48E-05	3.85E-04	1.05E-03	1.86E-03	2.22E-03	2.32E-03	1.83E-03	8.12E-04	2.12E-04	5.80E-05
Cm-242			5.91E-04	1.44E-02	1.01E-01	2.75E-01	4.84E-01	5.75E-01	5.94E-01	4.55E-01	1.88E-01	4.38E-02	1.07E-02
Cm-244			3.46E-05	8.41E-04	5.90E-03	1.61E-02	2.85E-02	3.39E-02	3.51E-02	2.71E-02	1.15E-02	2.79E-03	7.11E-04
SUM			4.41E+02	3.50E+03	1.67E+04	3.75E+04	5.74E+04	6.48E+04	6.22E+04	4.92E+04	3.11E+04	1.28E+04	4.93E+03
Assume no noble gases in filter													

Table A-7 Suppression Pool Activity as a Function of Time ESF Leakage @ 20 gpm													
	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			4.94E+02	1.48E+03	1.47E+03	1.46E+03	1.45E+03	1.43E+03	1.37E+03	1.27E+03	1.01E+03	6.81E+02	4.61E+02
Co-60			2.66E+02	7.97E+02	7.95E+02	7.91E+02	7.83E+02	7.75E+02	7.53E+02	7.10E+02	5.94E+02	4.42E+02	3.29E+02
Rb-86	3.61E+03	1.08E+04	2.53E+04	5.40E+04	5.37E+04	5.31E+04	5.20E+04	5.08E+04	4.76E+04	4.16E+04	2.80E+04	1.44E+04	7.43E+03
Sr-89			6.85E+05	2.05E+06	2.04E+06	2.03E+06	2.00E+06	1.97E+06	1.89E+06	1.73E+06	1.34E+06	8.73E+05	5.69E+05
Sr-90			8.73E+04	2.62E+05	2.61E+05	2.60E+05	2.57E+05	2.55E+05	2.48E+05	2.34E+05	1.96E+05	1.46E+05	1.09E+05
Sr-91			8.12E+05	2.26E+06	1.95E+06	1.45E+06	8.01E+05	4.43E+05	7.46E+04	2.12E+03	4.87E-02	9.03E-10	
Sr-92			7.18E+05	1.67E+06	9.97E+05	3.57E+05	4.56E+04	5.84E+03	1.22E+01	5.38E-05			
Y-90			1.19E+03	4.95E+03	1.04E+04	2.10E+04	4.05E+04	5.80E+04	1.00E+05	1.52E+05	1.82E+05	1.46E+05	1.10E+05
Y-91			8.97E+03	2.71E+04	2.79E+04	2.91E+04	3.05E+04	3.11E+04	3.08E+04	2.86E+04	2.24E+04	1.48E+04	9.85E+03
Y-92			5.18E+04	2.95E+05	6.18E+05	6.00E+05	2.20E+05	5.84E+04	6.58E+02	5.47E-02			
Y-93			6.65E+03	1.86E+04	1.62E+04	1.22E+04	7.00E+03	4.00E+03	7.49E+02	2.62E+01	1.12E-03	5.90E-11	
Zr-95			1.28E+04	3.83E+04	3.82E+04	3.79E+04	3.74E+04	3.69E+04	3.55E+04	3.28E+04	2.58E+04	1.73E+04	1.16E+04
Zr-97			1.21E+04	3.50E+04	3.21E+04	2.71E+04	1.94E+04	1.38E+04	5.01E+03	6.60E+02	1.51E+00	5.98E-05	2.37E-09
Nb-95			1.28E+04	3.83E+04	3.83E+04	3.81E+04	3.77E+04	3.73E+04	3.62E+04	3.41E+04	2.84E+04	2.06E+04	1.48E+04
Mo-99			1.67E+05	4.94E+05	4.83E+05	4.61E+05	4.19E+05	3.82E+05	2.88E+05	1.64E+05	3.04E+04	1.83E+03	1.10E+02
Tc-99m			1.49E+05	4.46E+05	4.42E+05	4.31E+05	4.07E+05	3.83E+05	2.95E+05	1.68E+05	3.11E+04	1.87E+03	1.12E+02
Ru-103			1.43E+05	4.29E+05	4.28E+05	4.24E+05	4.18E+05	4.11E+05	3.93E+05	3.57E+05	2.70E+05	1.69E+05	1.06E+05
Ru-105			8.48E+04	2.17E+05	1.59E+05	8.46E+04	2.40E+04	6.82E+03	1.56E+02	8.21E-02	1.19E-11		
Ru-106			5.71E+04	1.71E+05	1.71E+05	1.70E+05	1.68E+05	1.66E+05	1.61E+05	1.52E+05	1.26E+05	9.22E+04	6.76E+04
Rh-105			9.24E+04	2.76E+05	2.72E+05	2.59E+05	2.26E+05	1.93E+05	1.18E+05	4.34E+04	2.17E+03	1.47E+01	9.91E-02
Sb-127			1.55E+05	4.62E+05	4.54E+05	4.39E+05	4.09E+05	3.82E+05	3.10E+05	2.04E+05	5.81E+04	7.17E+03	8.85E+02
Sb-129			4.93E+05	1.26E+06	9.11E+05	4.77E+05	1.31E+05	3.59E+04	7.41E+02	3.16E-01	2.45E-11		
Te-127			1.55E+05	4.65E+05	4.62E+05	4.56E+05	4.42E+05	4.26E+05	3.67E+05	2.64E+05	1.14E+05	4.82E+04	2.99E+04
Te-127m			2.65E+04	7.94E+04	7.92E+04	7.88E+04	7.80E+04	7.73E+04	7.49E+04	7.04E+04	5.76E+04	4.06E+04	2.85E+04
Te-129			5.24E+05	1.45E+06	1.17E+06	7.34E+05	4.44E+05	3.26E+05	2.63E+05	2.38E+05	1.76E+05	1.07E+05	6.51E+04
Te-129m			1.11E+05	3.32E+05	3.31E+05	3.29E+05	3.24E+05	3.19E+05	3.03E+05	2.75E+05	2.04E+05	1.24E+05	7.52E+04
Te-131m			3.50E+05	1.03E+06	9.76E+05	8.86E+05	7.29E+05	6.00E+05	3.35E+05	1.04E+05	3.14E+03	9.16E+00	2.67E-02
Te-132			2.54E+06	7.56E+06	7.41E+06	7.12E+06	6.56E+06	6.06E+06	4.75E+06	2.93E+06	6.87E+05	6.11E+04	5.44E+03
I-131	1.78E+06	5.33E+06	1.42E+07	3.18E+07	3.15E+07	3.09E+07	2.98E+07	2.87E+07	2.56E+07	2.03E+07	1.02E+07	3.21E+06	1.01E+06
I-132	2.52E+06	7.18E+06	1.83E+07	3.71E+07	2.37E+07	1.22E+07	7.87E+06	7.23E+06	5.67E+06	3.50E+06	8.19E+05	7.29E+04	6.49E+03
I-133	3.68E+06	1.09E+07	2.86E+07	6.23E+07	5.81E+07	5.06E+07	3.84E+07	2.91E+07	1.27E+07	2.42E+06	1.68E+04	4.21E+00	1.06E-03
I-134	3.58E+06	8.25E+06	1.48E+07	1.51E+07	3.10E+06	1.31E+05	2.32E+02	4.11E-01	2.29E-09				
I-135	3.45E+06	1.00E+07	2.53E+07	5.12E+07	4.14E+07	2.71E+07	1.16E+07	4.97E+06	3.89E+05	2.39E+03	5.56E-04		
Xe-133	2.49E+03	1.73E+04	7.50E+04	3.27E+05	9.61E+05	2.08E+06	3.81E+06	5.01E+06	6.59E+06	6.08E+06	2.48E+06	4.95E+05	9.87E+04

Table A-7 Suppression Pool Activity as a Function of Time ESF Leakage @ 20 gpm

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Xe-135	2.84E+04	1.93E+05	8.07E+05	3.28E+06	8.36E+06	1.36E+07	1.42E+07	1.06E+07	2.56E+06	7.88E+04	1.21E+00	1.02E-08	
Cs-134	3.83E+05	1.15E+06	2.68E+06	5.74E+06	5.72E+06	5.70E+06	5.64E+06	5.58E+06	5.42E+06	5.10E+06	4.26E+06	3.15E+06	2.33E+06
Cs-136	1.22E+05	3.66E+05	8.54E+05	1.82E+06	1.81E+06	1.79E+06	1.74E+06	1.69E+06	1.56E+06	1.32E+06	8.08E+05	3.56E+05	1.57E+05
Cs-137	2.88E+05	8.65E+05	2.02E+06	4.32E+06	4.31E+06	4.29E+06	4.25E+06	4.21E+06	4.08E+06	3.85E+06	3.23E+06	2.41E+06	1.80E+06
Ba-139			7.87E+05	1.43E+06	5.20E+05	6.93E+04	1.23E+03	2.18E+01	1.21E-04				
Ba-140			1.30E+06	3.90E+06	3.87E+06	3.82E+06	3.71E+06	3.61E+06	3.32E+06	2.81E+06	1.70E+06	7.38E+05	3.20E+05
La-140			2.06E+04	9.44E+04	2.22E+05	4.62E+05	8.82E+05	1.23E+06	1.96E+06	2.48E+06	1.92E+06	8.56E+05	3.72E+05
La-141			9.93E+03	2.50E+04	1.75E+04	8.60E+03	2.08E+03	5.02E+02	7.07E+00	1.40E-03			
La-142			7.40E+03	1.42E+04	5.75E+03	9.47E+02	2.57E+01	6.98E-01	1.40E-05				
Ce-141			3.00E+04	8.98E+04	8.94E+04	8.87E+04	8.73E+04	8.58E+04	8.16E+04	7.38E+04	5.45E+04	3.29E+04	1.98E+04
Ce-143			2.72E+04	8.00E+04	7.65E+04	7.00E+04	5.86E+04	4.90E+04	2.88E+04	9.90E+03	4.04E+02	1.95E+00	9.42E-03
Ce-144			2.52E+04	7.55E+04	7.53E+04	7.49E+04	7.41E+04	7.34E+04	7.11E+04	6.67E+04	5.52E+04	4.02E+04	2.93E+04
Pr-143			1.07E+04	3.22E+04	3.23E+04	3.25E+04	3.28E+04	3.28E+04	3.21E+04	2.90E+04	1.86E+04	8.34E+03	3.74E+03
Nd-147			4.82E+03	1.44E+04	1.43E+04	1.41E+04	1.37E+04	1.33E+04	1.21E+04	1.00E+04	5.78E+03	2.30E+03	9.12E+02
Np-239			3.49E+05	1.03E+06	1.01E+06	9.53E+05	8.56E+05	7.69E+05	5.56E+05	2.91E+05	4.18E+04	1.65E+03	6.48E+01
Pu-238			7.59E+01	2.28E+02	2.27E+02	2.26E+02	2.24E+02	2.22E+02	2.15E+02	2.03E+02	1.71E+02	1.28E+02	9.54E+01
Pu-239			8.06E+00	2.42E+01	2.41E+01	2.40E+01	2.38E+01	2.36E+01	2.30E+01	2.17E+01	1.83E+01	1.37E+01	1.02E+01
Pu-240			1.30E+01	3.89E+01	3.88E+01	3.86E+01	3.82E+01	3.78E+01	3.68E+01	3.47E+01	2.91E+01	2.17E+01	1.62E+01
Pu-241			3.20E+03	9.59E+03	9.56E+03	9.52E+03	9.42E+03	9.33E+03	9.06E+03	8.55E+03	7.17E+03	5.35E+03	3.99E+03
Am-241			1.69E+00	5.08E+00	5.07E+00	5.05E+00	5.02E+00	4.98E+00	4.88E+00	4.68E+00	4.11E+00	3.31E+00	2.65E+00
Cm-242			4.43E+02	1.33E+03	1.33E+03	1.32E+03	1.30E+03	1.29E+03	1.25E+03	1.17E+03	9.54E+02	6.83E+02	4.89E+02
Cm-244			2.60E+01	7.79E+01	7.77E+01	7.73E+01	7.66E+01	7.58E+01	7.37E+01	6.95E+01	5.83E+01	4.35E+01	3.25E+01
Sum	20 GPM		1.18E+08	2.41E+08	2.05E+08	1.71E+08	1.37E+08	1.16E+08	8.08E+07	5.57E+07	2.92E+07	1.33E+07	7.37E+06

Table A-8 Turbine Building Activity as a Function of Time from Bypass Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			6.38E-04	5.17E-03	1.04E-02	1.12E-02	1.13E-02	1.12E-02	1.11E-02	1.09E-02	1.03E-02	9.30E-03	8.42E-03
Co-60			3.44E-04	2.78E-03	5.63E-03	6.07E-03	6.10E-03	6.10E-03	6.10E-03	6.09E-03	6.07E-03	6.04E-03	6.01E-03
Kr-85	1.14E-02	1.03E-01	9.61E-01	6.59E+00	2.31E+01	5.60E+01	1.22E+02	1.88E+02	2.86E+02	4.84E+02	1.07E+03	2.05E+03	3.03E+03
Kr-85m	2.02E-01	1.73E+00	1.49E+01	8.76E+01	2.25E+02	2.94E+02	1.86E+02	8.30E+01	3.09E+00	3.11E-03	0.00E+00	0.00E+00	0.00E+00
Kr-87	3.79E-01	2.84E+00	2.02E+01	8.02E+01	9.44E+01	2.59E+01	7.20E-01	1.42E-02	4.50E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	5.54E-01	4.59E+00	3.79E+01	2.04E+02	4.38E+02	4.01E+02	1.24E+02	2.70E+01	1.18E-01	1.63E-06	0.00E+00	0.00E+00	0.00E+00
Rb-86	1.61E-03	1.33E-02	5.43E-02	2.20E-01	3.97E-01	4.21E-01	4.18E-01	4.13E-01	3.98E-01	3.69E-01	2.95E-01	2.03E-01	1.40E-01
Sr-89			8.86E-01	7.17E+00	1.45E+01	1.56E+01	1.56E+01	1.55E+01	1.53E+01	1.49E+01	1.37E+01	1.19E+01	1.04E+01
Sr-90			1.13E-01	9.15E-01	1.85E+00	1.99E+00	2.01E+00	2.01E+00	2.01E+00	2.00E+00	2.00E+00	2.00E+00	1.99E+00
Sr-91			1.05E+00	7.91E+00	1.38E+01	1.11E+01	6.24E+00	3.48E+00	6.04E-01	1.82E-02	4.98E-07	0.00E+00	0.00E+00
Sr-92			9.28E-01	5.83E+00	7.06E+00	2.74E+00	3.56E-01	4.60E-02	9.92E-05	4.62E-10	0.00E+00	0.00E+00	0.00E+00
Y-90			1.63E-03	1.95E-02	7.54E-02	1.62E-01	3.16E-01	4.58E-01	8.14E-01	1.30E+00	1.86E+00	2.00E+00	2.00E+00
Y-91			1.16E-02	9.52E-02	1.98E-01	2.24E-01	2.38E-01	2.45E-01	2.50E-01	2.46E-01	2.29E-01	2.03E-01	1.80E-01
Y-92			8.11E-02	1.30E+00	4.50E+00	4.65E+00	1.72E+00	4.62E-01	5.35E-03	4.71E-07	0.00E+00	0.00E+00	0.00E+00
Y-93			8.60E-03	6.51E-02	1.15E-01	9.39E-02	5.46E-02	3.15E-02	6.07E-03	2.25E-04	1.15E-08	0.00E+00	0.00E+00
Zr-95			1.65E-02	1.34E-01	2.71E-01	2.91E-01	2.92E-01	2.91E-01	2.88E-01	2.81E-01	2.63E-01	2.36E-01	2.11E-01
Zr-97			1.57E-02	1.22E-01	2.28E-01	2.08E-01	1.51E-01	1.09E-01	4.06E-02	5.67E-03	1.54E-05	8.17E-10	0.00E+00
Nb-95			1.65E-02	1.34E-01	2.71E-01	2.92E-01	2.94E-01	2.94E-01	2.94E-01	2.93E-01	2.90E-01	2.82E-01	2.71E-01
Mo-99			2.15E-01	1.73E+00	3.42E+00	3.53E+00	3.27E+00	3.00E+00	2.33E+00	1.41E+00	3.10E-01	2.49E-02	2.00E-03
Tc-99m			1.93E-01	1.56E+00	3.13E+00	3.31E+00	3.18E+00	3.01E+00	2.39E+00	1.45E+00	3.18E-01	2.56E-02	2.05E-03
Ru-103			1.85E-01	1.50E+00	3.03E+00	3.26E+00	3.26E+00	3.24E+00	3.18E+00	3.07E+00	2.76E+00	2.31E+00	1.93E+00
Ru-105			1.10E-01	7.60E-01	1.12E+00	6.49E-01	1.87E-01	5.37E-02	1.27E-03	7.05E-07	0.00E+00	0.00E+00	0.00E+00
Ru-106			7.38E-02	5.98E-01	1.21E+00	1.30E+00	1.31E+00	1.31E+00	1.31E+00	1.30E+00	1.29E+00	1.26E+00	1.23E+00
Rh-105			1.19E-01	9.65E-01	1.93E+00	1.99E+00	1.76E+00	1.52E+00	9.56E-01	3.73E-01	2.21E-02	2.00E-04	1.81E-06
Sb-127			2.01E-01	1.62E+00	3.22E+00	3.37E+00	3.19E+00	3.00E+00	2.51E+00	1.75E+00	5.93E-01	9.79E-02	1.62E-02
Sb-129			6.37E-01	4.40E+00	6.45E+00	3.66E+00	1.02E+00	2.83E-01	6.01E-03	2.71E-06	0.00E+00	0.00E+00	0.00E+00
Te-127			2.01E-01	1.62E+00	3.28E+00	3.50E+00	3.44E+00	3.35E+00	2.97E+00	2.27E+00	1.16E+00	6.58E-01	5.46E-01
Te-127m			3.42E-02	2.77E-01	5.61E-01	6.05E-01	6.08E-01	6.08E-01	6.07E-01	6.04E-01	5.88E-01	5.54E-01	5.20E-01
Te-129			6.77E-01	5.06E+00	8.27E+00	5.63E+00	3.46E+00	2.57E+00	2.13E+00	2.04E+00	1.80E+00	1.46E+00	1.19E+00
Te-129m			1.43E-01	1.16E+00	2.35E+00	2.53E+00	2.53E+00	2.51E+00	2.46E+00	2.36E+00	2.08E+00	1.69E+00	1.37E+00
Te-131m			4.52E-01	3.58E+00	6.92E+00	6.80E+00	5.68E+00	4.72E+00	2.71E+00	8.95E-01	3.21E-02	1.25E-04	4.88E-07
Te-132			3.29E+00	2.64E+01	5.25E+01	5.46E+01	5.12E+01	4.77E+01	3.85E+01	2.52E+01	7.02E+00	8.35E-01	9.93E-02
I-131	7.93E-01	6.60E+00	2.93E+01	1.28E+02	2.45E+02	2.92E+02	3.52E+02	4.08E+02	4.64E+02	5.42E+02	5.94E+02	4.41E+02	2.66E+02
I-132	1.11E+00	8.69E+00	3.59E+01	1.39E+02	1.79E+02	1.05E+02	6.41E+01	5.73E+01	4.60E+01	3.00E+01	8.37E+00	9.96E-01	1.19E-01

Table A-8 Turbine Building Activity as a Function of Time from Bypass Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
I-133	1.64E+00	1.35E+01	5.90E+01	2.51E+02	4.52E+02	4.77E+02	4.54E+02	4.15E+02	2.31E+02	6.48E+01	9.82E-01	5.81E-04	2.79E-07
I-134	1.60E+00	1.02E+01	3.05E+01	6.10E+01	2.41E+01	1.23E+00	2.74E-03	5.84E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-135	1.54E+00	1.24E+01	5.22E+01	2.07E+02	3.23E+02	2.56E+02	1.37E+02	7.07E+01	7.08E+00	6.40E-02	3.26E-08	0.00E+00	0.00E+00
Xe-133	1.64E+00	1.47E+01	1.38E+02	9.40E+02	3.26E+03	7.76E+03	1.62E+04	2.38E+04	3.19E+04	4.14E+04	4.16E+04	2.13E+04	8.37E+03
Xe-135	5.52E-01	5.12E+00	4.84E+01	3.31E+02	1.06E+03	1.95E+03	2.35E+03	1.99E+03	4.97E+02	2.17E+01	8.14E-04	1.75E-11	0.00E+00
Cs-134	1.70E-01	1.41E+00	5.76E+00	2.34E+01	4.23E+01	4.52E+01	4.54E+01	4.54E+01	4.53E+01	4.52E+01	4.49E+01	4.45E+01	4.40E+01
Cs-136	5.44E-02	4.51E-01	1.83E+00	7.44E+00	1.34E+01	1.42E+01	1.40E+01	1.38E+01	1.30E+01	1.17E+01	8.53E+00	5.02E+00	2.95E+00
Cs-137	1.28E-01	1.06E+00	4.33E+00	1.76E+01	3.18E+01	3.40E+01	3.42E+01	3.42E+01	3.42E+01	3.42E+01	3.41E+01	3.40E+01	3.40E+01
Ba-139			1.02E+00	4.99E+00	3.69E+00	5.32E-01	9.57E-03	1.71E-04	9.82E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140			1.68E+00	1.36E+01	2.74E+01	2.93E+01	2.89E+01	2.84E+01	2.69E+01	2.41E+01	1.74E+01	1.01E+01	5.84E+00
La-140			2.88E-02	3.81E-01	1.61E+00	3.57E+00	6.90E+00	9.73E+00	1.59E+01	2.13E+01	1.96E+01	1.17E+01	6.78E+00
La-141			1.28E-02	8.73E-02	1.24E-01	6.60E-02	1.62E-02	3.95E-03	5.73E-05	1.21E-08	0.00E+00	0.00E+00	0.00E+00
La-142			9.58E-03	4.95E-02	4.07E-02	7.27E-03	2.00E-04	5.49E-06	1.13E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-141			3.87E-02	3.14E-01	6.34E-01	6.81E-01	6.80E-01	6.75E-01	6.61E-01	6.33E-01	5.57E-01	4.49E-01	3.62E-01
Ce-143			3.52E-02	2.79E-01	5.42E-01	5.37E-01	4.57E-01	3.86E-01	2.33E-01	8.50E-02	4.13E-03	2.66E-05	1.72E-07
Ce-144			3.26E-02	2.64E-01	5.34E-01	5.75E-01	5.78E-01	5.77E-01	5.76E-01	5.73E-01	5.64E-01	5.50E-01	5.36E-01
Pr-143			1.39E-02	1.13E-01	2.29E-01	2.50E-01	2.55E-01	2.58E-01	2.60E-01	2.49E-01	1.90E-01	1.14E-01	6.82E-02
Nd-147			6.24E-03	5.04E-02	1.01E-01	1.08E-01	1.07E-01	1.04E-01	9.79E-02	8.63E-02	5.90E-02	3.14E-02	1.67E-02
Np-239			4.51E-01	3.61E+00	7.13E+00	7.32E+00	6.67E+00	6.05E+00	4.51E+00	2.50E+00	4.27E-01	2.25E-02	1.18E-03
Pu-238			9.82E-05	7.96E-04	1.61E-03	1.73E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03
Pu-239			1.04E-05	8.45E-05	1.71E-04	1.84E-04	1.86E-04	1.86E-04	1.86E-04	1.87E-04	1.87E-04	1.87E-04	1.87E-04
Pu-240			1.68E-05	1.36E-04	2.75E-04	2.96E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.97E-04	2.97E-04	2.97E-04
Pu-241			4.13E-03	3.35E-02	6.78E-02	7.30E-02	7.35E-02	7.34E-02	7.34E-02	7.34E-02	7.33E-02	7.31E-02	7.29E-02
Am-241			2.19E-06	1.78E-05	3.59E-05	3.88E-05	3.91E-05	3.92E-05	3.95E-05	4.02E-05	4.20E-05	4.52E-05	4.83E-05
Cm-242			5.73E-04	4.65E-03	9.39E-03	1.01E-02	1.02E-02	1.01E-02	1.01E-02	1.00E-02	9.75E-03	9.33E-03	8.93E-03
Cm-244			3.36E-05	2.72E-04	5.51E-04	5.93E-04	5.97E-04	5.97E-04	5.97E-04	5.96E-04	5.96E-04	5.94E-04	5.93E-04
SUM	1.04E+01	8.35E+01	4.92E+02	2.58E+03	6.60E+03	1.19E+04	2.02E+04	2.73E+04	3.37E+04	4.27E+04	4.35E+04	2.39E+04	1.18E+04

Table A-9 Turbine Building Activity as a Function of Time from MSIV Leakage

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Kr-85	2.43E-02	2.65E-01	1.27E+00	6.20E+00	2.96E+01	1.33E+02	5.63E+02	1.28E+03	2.88E+03	7.82E+03	3.44E+04	1.06E+05	1.97E+05
Kr-85m	4.29E-01	4.44E+00	1.97E+01	8.24E+01	2.89E+02	6.99E+02	8.59E+02	5.67E+02	3.11E+01	5.02E-02	4.67E-11	0.00E+00	0.00E+00
Kr-87	8.03E-01	7.31E+00	2.66E+01	7.55E+01	1.21E+02	6.16E+01	3.33E+00	9.68E-02	4.53E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	1.17E+00	1.18E+01	5.00E+01	1.92E+02	5.62E+02	9.52E+02	5.72E+02	1.85E+02	1.19E+00	2.63E-05	0.00E+00	0.00E+00	0.00E+00
Rb-86	3.14E-06	3.47E-05	1.62E-04	7.63E-04	3.44E-03	1.37E-02	4.53E-02	8.28E-02	1.39E-01	2.43E-01	4.60E-01	5.53E-01	4.89E-01
I-131	2.65E-03	2.70E-02	1.20E-01	5.19E-01	2.06E+00	7.32E+00	2.51E+01	5.14E+01	9.99E+01	2.17E+02	5.45E+02	7.00E+02	5.46E+02
I-132	3.70E-03	3.42E-02	1.30E-01	4.20E-01	9.19E-01	9.93E-01	3.14E-01	5.94E-02	9.10E-05	1.23E-10	0.00E+00	0.00E+00	0.00E+00
I-133	5.48E-03	5.54E-02	2.41E-01	1.02E+00	3.80E+00	1.20E+01	3.24E+01	5.23E+01	4.99E+01	2.60E+01	9.03E-01	9.22E-04	5.73E-07
I-134	5.32E-03	4.19E-02	1.25E-01	2.46E-01	2.03E-01	3.10E-02	1.95E-04	7.37E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-135	5.14E-03	5.07E-02	2.13E-01	8.36E-01	2.71E+00	6.43E+00	9.79E+00	8.92E+00	1.53E+00	2.57E-02	3.00E-08	0.00E+00	0.00E+00
Xe-133	3.48E+00	3.79E+01	1.81E+02	8.80E+02	4.16E+03	1.83E+04	7.42E+04	1.62E+05	3.19E+05	6.65E+05	1.33E+06	1.09E+06	5.43E+05
Xe-135	1.14E+00	1.23E+01	5.73E+01	2.66E+02	1.12E+03	3.81E+03	8.93E+03	1.11E+04	4.08E+03	2.90E+02	2.19E-02	7.60E-10	0.00E+00
Cs-134	3.32E-04	3.29E-03	1.39E-02	5.60E-02	1.91E-01	5.10E-01	1.15E+00	1.76E+00	2.66E+00	4.33E+00	8.52E+00	1.34E+01	1.64E+01
Cs-136	1.06E-04	1.05E-03	4.44E-03	1.78E-02	6.06E-02	1.60E-01	3.54E-01	5.35E-01	7.65E-01	1.12E+00	1.62E+00	1.51E+00	1.10E+00
Cs-137	2.50E-04	2.48E-03	1.05E-02	4.21E-02	1.44E-01	3.84E-01	8.63E-01	1.33E+00	2.00E+00	3.27E+00	6.46E+00	1.02E+01	1.27E+01

Table A-10 Total Turbine Building Activity as a Function of Time

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Co-58			6.38E-04	5.17E-03	1.04E-02	1.12E-02	1.13E-02	1.12E-02	1.11E-02	1.09E-02	1.03E-02	9.30E-03	8.42E-03
Co-60			3.44E-04	2.78E-03	5.63E-03	6.07E-03	6.10E-03	6.10E-03	6.10E-03	6.09E-03	6.07E-03	6.04E-03	6.01E-03
Kr-85	3.57E-02	3.68E-01	2.23E+00	1.28E+01	5.27E+01	1.89E+02	6.85E+02	1.47E+03	3.17E+03	8.31E+03	3.55E+04	1.08E+05	2.01E+05
Kr-85m	6.31E-01	6.17E+00	3.46E+01	1.70E+02	5.14E+02	9.93E+02	1.04E+03	6.50E+02	3.42E+01	5.34E-02	4.67E-11	0.00E+00	0.00E+00
Kr-87	1.18E+00	1.01E+01	4.68E+01	1.56E+02	2.16E+02	8.75E+01	4.05E+00	1.11E-01	4.98E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Kr-88	1.73E+00	1.64E+01	8.80E+01	3.96E+02	1.00E+03	1.35E+03	6.96E+02	2.12E+02	1.30E+00	2.80E-05	0.00E+00	0.00E+00	0.00E+00
Rb-86	1.61E-03	1.34E-02	5.44E-02	2.21E-01	4.00E-01	4.35E-01	4.63E-01	4.96E-01	5.37E-01	6.12E-01	7.55E-01	7.56E-01	6.29E-01
Sr-89			8.86E-01	7.17E+00	1.45E+01	1.56E+01	1.56E+01	1.55E+01	1.53E+01	1.49E+01	1.37E+01	1.19E+01	1.04E+01
Sr-90			1.13E-01	9.15E-01	1.85E+00	1.99E+00	2.01E+00	2.01E+00	2.01E+00	2.00E+00	2.00E+00	2.00E+00	1.99E+00
Sr-91			1.05E+00	7.91E+00	1.38E+01	1.11E+01	6.24E+00	3.48E+00	6.04E-01	1.82E-02	4.98E-07	0.00E+00	0.00E+00
Sr-92			9.28E-01	5.83E+00	7.06E+00	2.74E+00	3.56E-01	4.60E-02	9.92E-05	4.62E-10	0.00E+00	0.00E+00	0.00E+00
Y-90			1.63E-03	1.95E-02	7.54E-02	1.62E-01	3.16E-01	4.58E-01	8.14E-01	1.30E+00	1.86E+00	2.00E+00	2.00E+00
Y-91			1.16E-02	9.52E-02	1.98E-01	2.24E-01	2.38E-01	2.45E-01	2.50E-01	2.46E-01	2.29E-01	2.03E-01	1.80E-01
Y-92			8.11E-02	1.30E+00	4.50E+00	4.65E+00	1.72E+00	4.62E-01	5.35E-03	4.71E-07	0.00E+00	0.00E+00	0.00E+00
Y-93			8.60E-03	6.51E-02	1.15E-01	9.39E-02	5.46E-02	3.15E-02	6.07E-03	2.25E-04	1.15E-08	0.00E+00	0.00E+00
Zr-95			1.65E-02	1.34E-01	2.71E-01	2.91E-01	2.92E-01	2.91E-01	2.88E-01	2.81E-01	2.63E-01	2.36E-01	2.11E-01
Zr-97			1.57E-02	1.22E-01	2.28E-01	2.08E-01	1.51E-01	1.09E-01	4.06E-02	5.67E-03	1.54E-05	8.17E-10	0.00E+00
Nb-95			1.65E-02	1.34E-01	2.71E-01	2.92E-01	2.94E-01	2.94E-01	2.94E-01	2.93E-01	2.90E-01	2.82E-01	2.71E-01
Mo-99			2.15E-01	1.73E+00	3.42E+00	3.53E+00	3.27E+00	3.00E+00	2.33E+00	1.41E+00	3.10E-01	2.49E-02	2.00E-03
Tc-99m			1.93E-01	1.56E+00	3.13E+00	3.31E+00	3.18E+00	3.01E+00	2.39E+00	1.45E+00	3.18E-01	2.56E-02	2.05E-03
Ru-103			1.85E-01	1.50E+00	3.03E+00	3.26E+00	3.26E+00	3.24E+00	3.18E+00	3.07E+00	2.76E+00	2.31E+00	1.93E+00
Ru-105			1.10E-01	7.60E-01	1.12E+00	6.49E-01	1.87E-01	5.37E-02	1.27E-03	7.05E-07	0.00E+00	0.00E+00	0.00E+00
Ru-106			7.38E-02	5.98E-01	1.21E+00	1.30E+00	1.31E+00	1.31E+00	1.31E+00	1.30E+00	1.29E+00	1.26E+00	1.23E+00
Rh-105			1.19E-01	9.65E-01	1.93E+00	1.99E+00	1.76E+00	1.52E+00	9.56E-01	3.73E-01	2.21E-02	2.00E-04	1.81E-06
Sb-127			2.01E-01	1.62E+00	3.22E+00	3.37E+00	3.19E+00	3.00E+00	2.51E+00	1.75E+00	5.93E-01	9.79E-02	1.62E-02
Sb-129			6.37E-01	4.40E+00	6.45E+00	3.66E+00	1.02E+00	2.83E-01	6.01E-03	2.71E-06	0.00E+00	0.00E+00	0.00E+00
Te-127			2.01E-01	1.62E+00	3.28E+00	3.50E+00	3.44E+00	3.35E+00	2.97E+00	2.27E+00	1.16E+00	6.58E-01	5.46E-01
Te-127m			3.42E-02	2.77E-01	5.61E-01	6.05E-01	6.08E-01	6.08E-01	6.07E-01	6.04E-01	5.88E-01	5.54E-01	5.20E-01
Te-129			6.77E-01	5.06E+00	8.27E+00	5.63E+00	3.46E+00	2.57E+00	2.13E+00	2.04E+00	1.80E+00	1.46E+00	1.19E+00
Te-129m			1.43E-01	1.16E+00	2.35E+00	2.53E+00	2.53E+00	2.51E+00	2.46E+00	2.36E+00	2.08E+00	1.69E+00	1.37E+00
Te-131m			4.52E-01	3.58E+00	6.92E+00	6.80E+00	5.68E+00	4.72E+00	2.71E+00	8.95E-01	3.21E-02	1.25E-04	4.88E-07
Te-132			3.29E+00	2.64E+01	5.25E+01	5.46E+01	5.12E+01	4.77E+01	3.85E+01	2.52E+01	7.02E+00	8.35E-01	9.93E-02
I-131	7.96E-01	6.63E+00	2.94E+01	1.29E+02	2.47E+02	2.99E+02	3.77E+02	4.59E+02	5.64E+02	7.60E+02	1.14E+03	1.14E+03	8.12E+02
I-132	1.12E+00	8.72E+00	3.61E+01	1.39E+02	1.80E+02	1.06E+02	6.44E+01	5.74E+01	4.60E+01	3.00E+01	8.37E+00	9.96E-01	1.19E-01

Table A-10 Total Turbine Building Activity as a Function of Time

	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
I-133	1.65E+00	1.36E+01	5.93E+01	2.52E+02	4.56E+02	4.89E+02	4.87E+02	4.67E+02	2.81E+02	9.08E+01	1.88E+00	1.50E-03	8.52E-07
I-134	1.60E+00	1.03E+01	3.07E+01	6.12E+01	2.43E+01	1.26E+00	2.93E-03	6.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
I-135	1.54E+00	1.24E+01	5.24E+01	2.08E+02	3.25E+02	2.62E+02	1.47E+02	7.96E+01	8.61E+00	8.97E-02	6.25E-08	0.00E+00	0.00E+00
Xe-133	5.12E+00	5.26E+01	3.18E+02	1.82E+03	7.42E+03	2.61E+04	9.04E+04	1.86E+05	3.50E+05	7.06E+05	1.37E+06	1.12E+06	5.51E+05
Xe-135	1.69E+00	1.74E+01	1.06E+02	5.97E+02	2.18E+03	5.77E+03	1.13E+04	1.31E+04	4.57E+03	3.11E+02	2.27E-02	7.78E-10	0.00E+00
Cs-134	1.71E-01	1.42E+00	5.77E+00	2.34E+01	4.25E+01	4.57E+01	4.65E+01	4.71E+01	4.80E+01	4.95E+01	5.34E+01	5.78E+01	6.04E+01
Cs-136	5.45E-02	4.52E-01	1.84E+00	7.45E+00	1.34E+01	1.43E+01	1.43E+01	1.43E+01	1.38E+01	1.28E+01	1.01E+01	6.53E+00	4.05E+00
Cs-137	1.29E-01	1.07E+00	4.34E+00	1.76E+01	3.20E+01	3.44E+01	3.50E+01	3.55E+01	3.62E+01	3.74E+01	4.06E+01	4.43E+01	4.67E+01
Ba-139			1.02E+00	4.99E+00	3.69E+00	5.32E-01	9.57E-03	1.71E-04	9.82E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ba-140			1.68E+00	1.36E+01	2.74E+01	2.93E+01	2.89E+01	2.84E+01	2.69E+01	2.41E+01	1.74E+01	1.01E+01	5.84E+00
La-140			2.88E-02	3.81E-01	1.61E+00	3.57E+00	6.90E+00	9.73E+00	1.59E+01	2.13E+01	1.96E+01	1.17E+01	6.78E+00
La-141			1.28E-02	8.73E-02	1.24E-01	6.60E-02	1.62E-02	3.95E-03	5.73E-05	1.21E-08	0.00E+00	0.00E+00	0.00E+00
La-142			9.58E-03	4.95E-02	4.07E-02	7.27E-03	2.00E-04	5.49E-06	1.13E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ce-141			3.87E-02	3.14E-01	6.34E-01	6.81E-01	6.80E-01	6.75E-01	6.61E-01	6.33E-01	5.57E-01	4.49E-01	3.62E-01
Ce-143			3.52E-02	2.79E-01	5.42E-01	5.37E-01	4.57E-01	3.86E-01	2.33E-01	8.50E-02	4.13E-03	2.66E-05	1.72E-07
Ce-144			3.26E-02	2.64E-01	5.34E-01	5.75E-01	5.78E-01	5.77E-01	5.76E-01	5.73E-01	5.64E-01	5.50E-01	5.36E-01
Pr-143			1.39E-02	1.13E-01	2.29E-01	2.50E-01	2.55E-01	2.58E-01	2.60E-01	2.49E-01	1.90E-01	1.14E-01	6.82E-02
Nd-147			6.24E-03	5.04E-02	1.01E-01	1.08E-01	1.07E-01	1.04E-01	9.79E-02	8.63E-02	5.90E-02	3.14E-02	1.67E-02
Np-239			4.51E-01	3.61E+00	7.13E+00	7.32E+00	6.67E+00	6.05E+00	4.51E+00	2.50E+00	4.27E-01	2.25E-02	1.18E-03
Pu-238			9.82E-05	7.96E-04	1.61E-03	1.73E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03	1.74E-03
Pu-239			1.04E-05	8.45E-05	1.71E-04	1.84E-04	1.86E-04	1.86E-04	1.86E-04	1.87E-04	1.87E-04	1.87E-04	1.87E-04
Pu-240			1.68E-05	1.36E-04	2.75E-04	2.96E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.97E-04	2.97E-04	2.97E-04
Pu-241			4.13E-03	3.35E-02	6.78E-02	7.30E-02	7.35E-02	7.34E-02	7.34E-02	7.34E-02	7.33E-02	7.31E-02	7.29E-02
Am-241			2.19E-06	1.78E-05	3.59E-05	3.88E-05	3.91E-05	3.92E-05	3.95E-05	4.02E-05	4.20E-05	4.52E-05	4.83E-05
Cm-242			5.73E-04	4.65E-03	9.39E-03	1.01E-02	1.02E-02	1.01E-02	1.01E-02	1.00E-02	9.75E-03	9.33E-03	8.93E-03
Cm-244			3.36E-05	2.72E-04	5.51E-04	5.93E-04	5.97E-04	5.97E-04	5.97E-04	5.96E-04	5.96E-04	5.94E-04	5.93E-04
SUM	1.74E+01	1.58E+02	8.28E+02	4.09E+03	1.29E+04	3.59E+04	1.05E+05	2.02E+05	3.59E+05	7.16E+05	1.40E+06	1.23E+06	7.52E+05

Table A-11 Total Primary Containment Activity as a Function of Time													
.16(	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
Cc -58			4.45E+02	1.15E+03	1.36E+02	6.74E+00	8.26E-02	1.28E-03	1.15E-04	9.18E-07	4.68E-13		
Cc -60			2.39E+02	6.19E+02	7.32E+01	3.64E+00	4.47E-02	6.98E-04	6.30E-05	5.13E-07	2.77E-13		
Kr-2.47-85	2.47E+04	7.40E+04	5.43E+05	1.48E+06	1.48E+06	1.48E+06	1.47E+06	1.47E+06	1.46E+06	1.44E+06	1.40E+06	1.33E+06	1.26E+06
Kr-4.36-85m	4.36E+05	1.24E+06	8.42E+06	1.97E+07	1.44E+07	7.75E+06	2.24E+06	6.48E+05	1.57E+04	9.27E+00	1.90E-09		
Kr-8.16-87	8.16E+05	2.04E+06	1.14E+07	1.80E+07	6.05E+06	6.83E+05	8.69E+03	1.11E+02	2.29E-04				
Kr-1.19-88	1.19E+06	3.30E+06	2.14E+07	4.58E+07	2.81E+07	1.06E+07	1.49E+06	2.11E+05	6.01E+02	4.86E-03			
Rb-3.40-86	3.40E+03	9.02E+03	2.02E+04	3.86E+04	4.55E+03	2.25E+02	2.73E+00	4.21E-02	3.66E-03	2.77E-05	1.20E-11		
Sr- -89			6.17E+05	1.60E+06	1.88E+05	9.34E+03	1.14E+02	1.78E+00	1.58E-01	1.25E-03	6.25E-10		
Sr- -90			7.87E+04	2.04E+05	2.41E+04	1.20E+03	1.47E+01	2.29E-01	2.07E-02	1.69E-04	9.13E-11		
Sr- -91			7.32E+05	1.76E+06	1.80E+05	6.67E+03	4.58E+01	3.98E-01	6.24E-03	1.53E-06			
Sr- -92			6.47E+05	1.30E+06	9.18E+04	1.64E+03	2.61E+00	5.26E-03	1.02E-06				
Y-(90			1.06E+03	3.70E+03	9.44E+02	9.57E+01	2.30E+00	5.21E-02	8.39E-03	1.09E-04	8.49E-11		
Y-(91			8.08E+03	2.11E+04	2.57E+03	1.34E+02	1.74E+00	2.79E-02	2.58E-03	2.06E-05	1.04E-11		
Y-(92			4.55E+04	2.11E+05	5.54E+04	2.73E+03	1.25E+01	5.23E-02	5.48E-05	3.94E-11			
Y-(93			5.99E+03	1.45E+04	1.49E+03	5.63E+01	4.00E-01	3.60E-03	6.26E-05	1.89E-08			
Zr- -95			1.15E+04	2.98E+04	3.52E+03	1.75E+02	2.14E+00	3.32E-02	2.97E-03	2.37E-05	1.20E-11		
Zr- -97			1.10E+04	2.72E+04	2.96E+03	1.25E+02	1.11E+00	1.24E-02	4.19E-04	4.77E-07			
Nb -95			1.15E+04	2.98E+04	3.52E+03	1.75E+02	2.15E+00	3.36E-02	3.03E-03	2.47E-05	1.32E-11		
Mc -99			1.50E+05	3.84E+05	4.45E+04	2.12E+03	2.40E+01	3.44E-01	2.41E-02	1.19E-04	1.42E-11		
Tc -99m			1.34E+05	3.47E+05	4.07E+04	1.98E+03	2.33E+01	3.44E-01	2.47E-02	1.22E-04	1.45E-11		
Ru -103			1.29E+05	3.34E+05	3.94E+04	1.95E+03	2.39E+01	3.70E-01	3.28E-02	2.58E-04	1.26E-10		
Ru -105			7.64E+04	1.69E+05	1.46E+04	3.89E+02	1.37E+00	6.14E-03	1.31E-05	5.93E-11			
Ru -106			5.15E+04	1.33E+05	1.57E+04	7.82E+02	9.60E+00	1.50E-01	1.35E-02	1.10E-04	5.86E-11		
Rh -105			8.33E+04	2.15E+05	2.51E+04	1.19E+03	1.29E+01	1.74E-01	9.87E-03	3.14E-05			
Sb -127			1.40E+05	3.59E+05	4.18E+04	2.02E+03	2.34E+01	3.43E-01	2.59E-02	1.47E-04	2.70E-11		
Sb -129			4.44E+05	9.78E+05	8.39E+04	2.19E+03	7.47E+00	3.23E-02	6.20E-05	2.28E-10			
Te -127			1.40E+05	3.61E+05	4.26E+04	2.10E+03	2.52E+01	3.83E-01	3.07E-02	1.91E-04	5.29E-11		
Te -127m			2.39E+04	6.17E+04	7.29E+03	3.63E+02	4.46E+00	6.95E-02	6.27E-03	5.08E-05	2.68E-11		
Te -129			4.72E+05	1.13E+06	1.08E+05	3.38E+03	2.54E+01	2.94E-01	2.20E-02	1.72E-04	8.21E-11		
Te -129m			9.99E+04	2.58E+05	3.05E+04	1.51E+03	1.85E+01	2.87E-01	2.54E-02	1.98E-04	9.49E-11		
Te -131m			3.15E+05	7.97E+05	8.99E+04	4.08E+03	4.17E+01	5.40E-01	2.80E-02	7.53E-05			
Te -132			2.29E+06	5.88E+06	6.82E+05	3.27E+04	3.75E+02	5.45E+00	3.98E-01	2.12E-03	3.20E-10		
I-1 1.68-31	1.68E+06	4.48E+06	1.17E+07	2.35E+07	4.15E+06	1.68E+06	1.51E+06	1.46E+06	1.33E+06	1.11E+06	6.42E+05	2.58E+05	1.04E+05
I-1 2.37-32	2.37E+06	6.06E+06	1.53E+07	2.83E+07	3.15E+06	4.54E+05	4.03E+04	3.64E+03	3.29E+00	3.66E-03	5.53E-10		

Table A-11 Total Primary Containment Activity as a Function of Time													
.16	.1667 hr	0.5 hr	1 hr	2 hr	4 hr	8 hr	16 hr	24 hr	48 hr	96 hr	240 hr	480 hr	720 hr
Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci	Ci
I-1 3.4I33	3.47E+06	9.18E+06	2.35E+07	4.61E+07	7.66E+06	2.75E+06	1.94E+06	1.48E+06	6.63E+05	1.33E+05	1.06E+03	3.40E-01	1.09E-04
I-1 3.3I34	3.38E+06	6.94E+06	1.22E+07	1.12E+07	4.09E+05	7.10E+03	1.17E+01	2.09E-02	1.19E-10				
I-1 3.2I35	3.25E+06	8.41E+06	2.08E+07	3.79E+07	5.46E+06	1.47E+06	5.88E+05	2.53E+05	2.03E+04	1.31E+02	3.52E-05		
Xe 3.5ɔ-133	3.54E+06	1.06E+07	7.77E+07	2.11E+08	2.09E+08	2.04E+08	1.95E+08	1.86E+08	1.62E+08	1.23E+08	5.42E+07	1.38E+07	3.49E+06
Xe 1.1ɔ-135	1.19E+06	3.68E+06	2.74E+07	7.61E+07	6.71E+07	4.99E+07	2.74E+07	1.50E+07	2.44E+06	6.30E+04	1.05E+00	1.12E-08	
Cs 3.6ɔ-134	3.60E+05	9.56E+05	2.14E+06	4.11E+06	4.85E+05	2.41E+04	2.97E+02	4.62E+00	4.17E-01	3.39E-03	1.83E-09		
Cs 1.1ɔ-136	1.15E+05	3.05E+05	6.83E+05	1.31E+06	1.54E+05	7.57E+03	9.15E+01	1.40E+00	1.20E-01	8.80E-04	3.47E-10		
Cs 2.7ɔ-137	2.71E+05	7.19E+05	1.61E+06	3.09E+06	3.65E+05	1.82E+04	2.23E+02	3.48E+00	3.14E-01	2.56E-03	1.39E-09		
Ba ɔ-139			7.09E+05	1.11E+06	4.79E+04	3.19E+02	7.01E-02	1.96E-05					
Ba ɔ-140			1.17E+06	3.03E+06	3.57E+05	1.76E+04	2.12E+02	3.25E+00	2.78E-01	2.03E-03	7.93E-10		
La ı-140			1.83E+04	6.99E+04	2.01E+04	2.11E+03	5.02E+01	1.11E+00	1.63E-01	1.79E-03	8.95E-10		
La ı-141			8.95E+03	1.94E+04	1.61E+03	3.96E+01	1.19E-01	4.52E-04	5.92E-07				
La ı-142			6.67E+03	1.10E+04	5.29E+02	4.36E+00	1.47E-03	6.28E-07					
Ce ɔ-141			2.70E+04	6.98E+04	8.24E+03	4.08E+02	4.99E+00	7.72E-02	6.83E-03	5.33E-05	2.54E-11		
Ce ɔ-143			2.45E+04	6.22E+04	7.04E+03	3.22E+02	3.35E+00	4.41E-02	2.41E-03	7.16E-06			
Ce ɔ-144			2.27E+04	5.87E+04	6.94E+03	3.45E+02	4.23E+00	6.60E-02	5.94E-03	4.82E-05	2.57E-11		
Pr -143			9.67E+03	2.51E+04	2.98E+03	1.50E+02	1.87E+00	2.95E-02	2.69E-03	2.10E-05	8.65E-12		
Nd ɔ-147			4.35E+03	1.12E+04	1.32E+03	6.49E+01	7.81E-01	1.19E-02	1.01E-03	7.26E-06	2.69E-12		
Np ɔ-239			3.15E+05	8.04E+05	9.27E+04	4.39E+03	4.89E+01	6.92E-01	4.65E-02	2.10E-04	1.95E-11		
Pu ɔ-238			6.84E+01	1.77E+02	2.09E+01	1.04E+00	1.28E-02	1.99E-04	1.80E-05	1.47E-07	7.95E-14		
Pu ɔ-239			7.27E+00	1.88E+01	2.22E+00	1.11E-01	1.36E-03	2.12E-05	1.92E-06	1.57E-08	8.52E-15		
Pu ɔ-240			1.17E+01	3.02E+01	3.57E+00	1.78E-01	2.18E-03	3.41E-05	3.07E-06	2.51E-08	1.36E-14		
Pu ɔ-241			2.88E+03	7.45E+03	8.81E+02	4.38E+01	5.38E-01	8.40E-03	7.58E-04	6.18E-06	3.34E-12		
Am ɔ-241			1.53E+00	3.95E+00	4.67E-01	2.32E-02	2.87E-04	4.48E-06	4.08E-07	3.38E-09	1.92E-15		
Cm ɔ-242			4.00E+02	1.03E+03	1.22E+02	6.06E+00	7.44E-02	1.16E-03	1.04E-04	8.42E-07	4.44E-13		
Cm ɔ-244			2.34E+01	6.06E+01	7.16E+00	3.56E-01	4.37E-03	6.83E-05	6.16E-06	5.02E-08	2.71E-14		
Sl 2.2JM	2.21E+07	5.80E+07	2.44E+08	5.50E+08	3.50E+08	2.81E+08	2.32E+08	2.06E+08	1.68E+08	1.26E+08	5.63E+07	1.54E+07	4.86E+06

Attachment A1 RADTRAD Output: SGTS_source terms.o1

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:49:29
##########################################################################

##########################################################################
                    File information
##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\SSES Final Source Term Runs\SGTS_source
terms.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #       ####   #        #  #     #  #        ####     #

 Radtrad 3.03 4/15/2001
 LOCA PPL-SSES   Primary to Secondary Containment to Environ. w/ SGTS
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   4
 Compartment 1:
 Primary Containment
   3
  3.8820E+05
   0
   0
   0
   1
   0
 Compartment 2:
 Secondary Containment
   3
  2.0780E-06
   0
   0
   0
   0
   0
 Compartment 3:
 SGTS Filter
   3
  1.0000E+00
   0
   0
   0
   0
   0
 Compartment 4:
 Environment
   2
  0.0000E+00
   0
 Compartment 4:
 Environment
```

```
  0
  0
  0
  0
Pathways:
  3
Pathway 1:
Primary Containment to Secondary Containment - Primary Leakage
  1
  2
  4
Pathway 2:
Secondary Containment to SGTS Filter
  2
  3
  2
Pathway 3:
SGTS Filter to  Environment
  3
  4
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  4
Compartment 1:
  1
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  1
  1
  0.0000E+00   0.0000E+00
Compartment 2:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  1
  0
  0
```

```
  1
  0
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  3
Pathway 1:
  0
  0
  0
  0
  0
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   9.8660E-01
  2.4000E+01   4.9330E-01
  7.2000E+02   0.0000E+00
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.1110E+04   0.0000E-00   0.0000E+00   0.0000E+00
  1.6670E-01   2.8850E+03   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   1.0000E-04   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
  0
```

```
  0
Dose Locations:
  0
Effective Volume Location:
  0
Simulation Parameters:
 10
  0.0000E+00   0.0000E+00
  5.0000E-01   1.0000E+00
  1.0000E+00   1.0000E+00
  2.0000E+00   2.0000E+00
  4.0000E-00   4.0000E-00
  8.0000E+00   8.0000E-00
  1.6000E+01   8.0000E+00
  2.4000E+01   2.4000E+01
  9.6000E+01   4.8000E+01
  7.2000E+02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o1
  1
  1
  1
  1
  1
End of Scenario File
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:49:29
##########################################################################

##########################################################################
                     Plant Description
##########################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   4

Compartment information

Compartment number  1  (Source term fraction =   1.0000E-00
)
Name: Primary Containment
Compartment volume =   3.8820E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Secondary Containment - Pri

Compartment number  2
Name: Secondary Containment
Compartment volume =   2.0780E+06 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Primary Containment to Secondary Containment - Pri
   Exit Pathway Number    2: Secondary Containment to SGTS Filter

Compartment number  3
Name: SGTS Filter
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Secondary Containment to SGTS Filter
   Exit Pathway Number    3: SGTS Filter to  Environment

Compartment number  4
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  4
   Inlet Pathway Number   3: SGTS Filter to  Environment

Total number of pathways =   3
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:49:29
##########################################################################

##########################################################################
                    Scenario Description
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Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
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	GAP	EARLY IN-VESSEL	LATE RELEASE	RELEASE MASS
	0.500000 hr	1.5000 hrs	0.0000 hrs	(gm)
NOBLES	5.0000E-02	9.5000E-01	0.0000E+00	4.943E+03
IODINE	5.0000E-02	2.5000E-01	0.0000E+00	3.427E+02
CESIUM	5.0000E-02	2.0000E-01	0.0000E+00	5.418E+04
TELLURIUM	0.0000E+00	5.0000E-02	0.0000E+00	4.850E+01
STRONTIUM	0.0000E+00	2.0000E-02	0.0000E+00	1.993E+03
BARIUM	0.0000E+00	2.0000E-02	0.0000E+00	5.377E+01
RUTHENIUM	0.0000E+00	2.5000E-03	0.0000E+00	6.682E+01
CERIUM	0.0000E+00	5.0000E-04	0.0000E+00	6.980E+02
LANTHANUM	0.0000E+00	2.0000E-04	0.0000E+00	7.481E+00

Inventory Power = 4032. MWt

Nuclide Name	Group	Specific Inventory (Ci/MWt)	half life (s)	Whole Body DCF (Sv-m3/Bq-s)	Inhaled Thyroid (Sv/Bq)	Inhaled Effective (Sv/Bq)
Co-58	7	1.470E-02	6.117E+06	4.760E-14	8.720E-10	2.940E-09
Co-60	7	7.910E+01	1.663E+08	1.260E-13	1.620E-08	5.910E-08
Kr-85	1	3.670E-02	3.383E+08	1.190E-16	0.000E+00	0.000E+00
Kr-85m	1	6.650E+03	1.613E+04	7.480E-15	0.000E+00	0.000E+00
Kr-87	1	1.330E+04	4.578E+03	4.120E-14	0.000E+00	0.000E+00
Kr-88	1	1.850E+04	1.022E+04	1.020E-13	0.000E+00	0.000E+00
Rb-86	3	5.380E+01	1.612E+06	4.810E-15	1.330E-09	1.790E-09
Sr-89	5	2.550E+04	4.363E+06	7.730E-17	7.960E-12	1.120E-08
Sr-90	5	3.250E+03	9.190E+08	7.530E-18	2.690E-10	3.510E-07
Sr-91	5	3.250E+04	3.420E+04	4.924E-14	9.930E-12	4.547E-10
Sr-92	5	3.450E+04	9.756E+03	6.790E-14	3.920E-12	2.180E-10
Y-90	9	3.370E+03	2.304E+05	1.900E-16	5.170E-13	2.280E-09
Y-91	9	3.320E+04	5.055E+06	2.600E-16	8.500E-12	1.320E-08
Y-92	9	3.470E+04	1.274E+04	1.300E-14	1.050E-12	2.110E-10
Y-93	9	2.650E+04	3.636E+04	4.800E-15	9.260E-13	5.820E-10
Zr-95	9	4.760E+04	5.528E+06	3.600E-14	1.440E-09	6.390E-09
Zr-97	9	4.710E+04	6.084E+04	4.432E-14	2.315E-11	1.171E-09
Nb-95	9	4.760E+04	3.037E+06	3.740E-14	3.580E-10	1.570E-09
Mo-99	7	5.010E+04	2.376E+05	7.280E-15	1.520E-11	1.070E-09
Tc-99m	7	4.440E+04	2.167E+04	5.890E-15	5.010E-11	8.800E-12
Ru-103	7	4.270E+04	3.394E+06	2.251E-14	2.570E-10	2.421E-09
Ru-105	7	2.950E+04	1.598E+04	3.810E-14	4.150E-12	1.230E-10
Ru-106	7	1.700E+04	3.181E+07	1.040E-14	1.720E-09	1.290E-07
Rh-105	7	2.750E+04	1.273E+05	3.720E-15	2.880E-12	2.580E-10
Sb-127	4	2.330E+03	3.326E+05	3.330E-14	6.150E-11	1.630E-09
Sb-129	4	8.610E+03	1.555E+04	7.140E-14	9.720E-12	1.740E-10
Te-127	4	2.310E+03	3.366E+04	2.420E-16	1.840E-12	8.600E-11
Te-127m	4	3.940E+02	9.418E+06	1.470E-16	9.660E-11	5.810E-09
Te-129	4	8.160E+03	4.176E+03	2.750E-15	5.090E-13	2.090E-11
Te-129m	4	1.650E+03	2.903E+06	3.337E-15	1.563E-10	6.484E-09
Te-131m	4	5.330E+03	1.080E+05	7.463E-14	3.669E-08	1.758E-09
Te-132	4	3.820E+04	2.815E+05	1.030E-14	6.280E-08	2.550E-09
I-131	2	2.650E+04	6.947E+05	1.820E-14	2.920E-07	8.890E-09
I-132	2	3.890E+04	8.280E+03	1.120E-13	1.740E-09	1.030E-10
I-133	2	5.510E+04	7.488E+04	2.940E-14	4.860E-08	1.580E-09
I-134	2	6.080E+04	3.156E+03	1.300E-13	2.880E-10	3.550E-11
I-135	2	5.230E+04	2.380E+04	8.294E-14	8.460E-09	3.320E-10
Xe-133	1	5.260E+04	4.532E+05	1.560E-15	0.000E+00	0.000E+00
Xe-135	1	1.740E+04	3.272E+04	1.190E-14	0.000E+00	0.000E+00
I-133	2	5.510E+04	7.488E+04	2.940E-14	4.860E-08	1.580E-09
I-134	2	6.080E+04	3.156E+03	1.300E-13	2.880E-10	3.550E-11

Cs-134	3	5.700E+03	6.507E+07	7.570E-14	1.110E-08	1.250E-08
Cs-136	3	1.820E+03	1.132E+06	1.060E-13	1.730E-09	1.980E-09
Cs-137	3	4.290E+03	9.467E-08	2.725E-14	7.930E-09	8.630E-09
Ba-139	6	4.840E+04	4.962E+03	2.170E-15	2.400E-12	4.640E-11
Ba-140	6	4.860E+04	1.101E+06	8.580E-15	2.560E-10	1.010E-09
La-140	9	5.180E+04	1.450E+05	1.170E-13	6.870E-11	1.310E-09
La-141	9	4.410E+04	1.415E+04	2.390E-15	9.400E-12	1.570E-10
La-142	9	4.320E-04	5.550E+03	1.440E-13	8.740E-12	6.840E-11
Ce-141	8	4.460E+04	2.808E+06	3.430E-15	2.550E-11	2.420E-09
Ce-143	8	4.140E+04	1.188E+05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E+04	2.456E-07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E+04	1.172E+06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E-04	9.487E+05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E+05	2.035E+05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E+02	2.769E+09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E+01	7.594E+11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E+01	2.063E+11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E+03	4.544E+08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E+00	1.364E-10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E+03	1.407E+07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E+01	5.715E+08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions

Aerosol	=	9.5000E-01
Elemental	=	4.8500E-02
Organic	=	1.5000E-03

COMPARTMENT DATA

Aerosol	=	9.5000E-01

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Natural Deposition: Elemental Removal Data

Time (hr)	Removal Coef. (hr^-1)
0.0000E+00	0.0000E+00

Compartment number 2: Secondary Containment

Compartment number 3: SGTS Filter

Compartment number 4: Environment

PATHWAY DATA

Pathway number 1: Primary Containment to Secondary Containment - Pri

Convection Data

Time (hr)	Flow Rate (% / day)
0.0000E+00	9.8660E-01
2.4000E+01	4.9330E-01
7.2000E+02	0.0000E-00

Pathway number 2: Secondary Containment to SGTS Filter

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.1110E+04	0.0000E+00	0.0000E+00	0.0000E+00
1.6670E-01	2.8850E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 3: SGTS Filter to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E-04	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E+00	0.0000E+00
5.0000E-01	1.0000E+00
1.0000E+00	1.0000E+00
2.0000E+00	2.0000E+00
4.0000E+00	4.0000E+00
8.0000E+00	8.0000E+00
1.6000E+01	8.0000E+00
2.4000E+01	2.4000E+01
9.6000E+01	4.8000E+01
7.2000E+02	0.0000E+00

```
##############################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:49:29
##############################################################################


     ####    #     #  #####  #####    #     #  #####
    #    #   #   #     #    #    #   #     #    #
    #    #   #  #      #    #    #   #     #    #
    #    #   ###       #    #####    #     #    #
    #    #   #  #      #    #        #     #    #
    #    #   #   #     #    #        #     #    #
     ####    #    #    #    #         ####     #


##############################################################################
          Dose, Detailed model and Detailed Inventory Output
##############################################################################

Detailed model information at time (H) =    0.1667

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble      Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble      Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.0647E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) =   0.1667       Ci          kg          Atoms       Decay
Kr-85                  2.4667E+04  6.2871E-02  4.4543E+23  4.1480E+17
Kr-85m                 4.3557E+05  5.2928E-05  3.7499E+20  7.4077E+18
Kr-87                  8.1627E+05  2.8817E-05  1.9947E+20  1.4286E+19
Kr-88                  1.1938E+06  9.5208E-05  6.5154E+20  2.0436E+19
Rb-86                  3.3955E+03  4.1730E-05  2.9221E+20  5.7787E+16
I-131                  1.6774E+06  1.3530E-02  6.2198E+22  2.8533E+19
I-132                  2.3729E+06  2.2988E-04  1.0488E+21  4.1006E+19
I-133                  3.4703E+06  3.0635E-03  1.3871E+22  5.9161E+19
I-134                  3.3752E+06  1.2652E-04  5.6860E+20  6.0856E+19
I-135                  3.2549E+06  9.2684E-04  4.1345E+21  5.5781E+19
Xe-133                 3.5352E+06  1.8887E-02  8.5517E+22  5.9438E+19
Xe-135                 1.1909E+06  4.6634E-04  2.0803E+21  1.9723E+19
Cs-134                 3.5983E+05  2.7812E-01  1.2499E+24  6.1233E-18
Cs-136                 1.1485E+05  1.5671E-03  6.9391E+21  1.9548E-18
Cs-137                 2.7082E+05  3.1136E+00  1.3686E+25  4.6086E+18

Primary Containment Transport Group Inventory:
Time (h) =   0.1667    Atmosphere     Sump
Noble gases (atoms)    5.3426E+23  0.0000E-00
Elemental I (atoms)    4.2113E+21  0.0000E+00
Organic I (atoms)      1.3024E+20  0.0000E+00
Aerosols (kg)          3.4102E+00  0.0000E+00
Dose Effective (Ci/cc) I-131 (Thyroid)          2.1530E-04
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    2.7463E-04
Total I (Ci)                                    1.4151E+07

                       Deposition Recirculating
Time (h) =   0.1667     Surfaces     Filter
Noble gases (atoms)    0.0000E+00  0.0000E+00
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
Aerosols (kg)          2.2053E-01  0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Elemental I (atoms)    0.0000E+00  0.0000E+00
Organic I (atoms)      0.0000E+00  0.0000E+00
```

Time (h) = 0.1667 Leakage Transport

Noble gases (atoms)	1.8306E+19
Elemental I (atoms)	1.4463E+17
Organic I (atoms)	4.4730E+15
Aerosols (kg)	1.1932E-04

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Kr-85	8.3031E-01	2.1163E-06	1.4994E+19	1.1351E+13
Kr-85m	1.4662E+01	1.7816E-09	1.2623E+16	2.0241E+14
Kr-87	2.7477E+01	9.7003E-10	6.7146E+15	3.8882E+14
Kr-88	4.0186E+01	3.2048E-09	2.1932E+16	5.5789E+14
Rb-86	1.1669E-01	1.4341E-09	1.0042E+15	1.6049E-12
I-131	5.7580E+01	4.6445E-07	2.1351E+18	7.9183E-14
I-132	8.0849E+01	7.8325E-09	3.5734E+16	1.1309E-15
I-133	1.1913E+02	1.0516E-07	4.7617E+17	1.6413E-15
I-134	1.1586E+02	4.3432E-09	1.9519E+16	1.6754E+15
I-135	1.1174E+02	3.1817E-08	1.4193E+17	1.5464E+15
Xe-133	1.1900E+02	6.3576E-07	2.8786E-18	1.6266E+15
Xe-135	4.0094E+01	1.5700E-08	7.0035E-16	5.4052E+14
Cs-134	1.2366E+01	9.5576E-06	4.2953E+19	1.7007E+14
Cs-136	3.9470E+00	5.3853E-08	2.3847E-17	5.4290E+13
Cs-137	9.3070E+00	1.0700E-04	4.7034E-20	1.2800E+14

Secondary Containment Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	1.7984E+19	0.0000E+00	
Elemental I (atoms)	1.4174E+17	0.0000E+00	
Organic I (atoms)	4.3838E+15	0.0000E+00	
Aerosols (kg)	1.1719E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3807E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7608E-09
Total I (Ci)			4.8516E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 0.1667 Leakage Transport

Noble gases (atoms)	1.8306E+19
Elemental I (atoms)	1.4463E+17
Organic I (atoms)	4.4730E+15
Aerosols (kg)	1.1932E-04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 0.1667	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2178E+17
Elemental I (atoms)	0.0000E+00	2.5412E+15
Organic I (atoms)	0.0000E+00	7.8594E+13
Aerosols (kg)	0.0000E+00	2.1156E-06

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Kr-85	1.4863E-02	3.7882E-08	2.6839E+17	1.7426E+11
Kr-85m	2.6245E-01	3.1891E-11	2.2595E+14	3.1030E+12
Kr-87	4.9183E-01	1.7364E-11	1.2019E+14	5.9401E+12
Kr-88	7.1933E-01	5.7366E-11	3.9258E+14	8.5460E+12
Rb-86	2.1108E-03	2.5941E-11	1.8165E+14	2.4828E-10
I-131	1.0410E+00	8.3969E-09	3.8601E+16	1.2244E-13
I-132	1.4573E+00	1.4119E-10	6.4412E+14	1.7412E+13
I-133	2.1538E+00	1.9013E-09	8.6088E+15	2.5374E+13
I-134	2.0947E+00	7.8522E-11	3.5289E+14	2.5724E+13
I-135	2.0201E+00	5.7522E-10	2.5660E+15	2.3891E+13
Xe-133	2.1301E+00	1.1380E-08	5.1528E-16	2.4970E+13
Xe-135	7.1778E-01	2.8107E-10	1.2538E+15	8.3090E+12
Cs-134	2.2369E-01	1.7289E-07	7.7698E+17	2.6309E+12
I-134	2.0947E+00	7.8522E-11	3.5289E+14	2.5724E+13
I-135	2.0201E+00	5.7522E-10	2.5660E+15	2.3891E+13

Cs-136	7.1397E-02	9.7416E-10	4.3136E+15	8.3985E+11
Cs-137	1.6835E-01	1.9355E-06	8.5080E+18	1.9801E+12

SGTS Filter Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	3.2191E+17	0.0000E+00	
Elemental I (atoms)	2.5371E+15	0.0000E+00	
Organic I (atoms)	7.8467E+13	0.0000E+00	
Aerosols (kg)	2.1199E-06	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.1868E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.6146E-05
Total I (Ci)			8.7669E+00

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2178E+17
Elemental I (atoms)	0.0000E+00	2.5412E+15
Organic I (atoms)	0.0000E+00	7.8594E+13
Aerosols (kg)	0.0000E+00	2.1156E-06

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.4814E+13
Elemental I (atoms)	0.0000E+00	6.6972E+11
Organic I (atoms)	0.0000E+00	2.0713E+10
Aerosols (kg)	0.0000E+00	5.6162E-10

Detailed model information at time (H) = 0.5000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	7.5973E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.2019E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	7.3980E+04	1.8856E-01	1.3360E+24	2.9111E+18
Kr-85m	1.2407E+06	1.5076E-04	1.0681E+21	5.0231E+19
Kr-87	2.0414E-06	7.2071E-05	4.9887E+20	8.8957E+19
Kr-88	3.3008E+06	2.6324E-04	1.8014E+21	1.3587E+20
Rb-86	9.0160E+03	1.1081E-04	7.7592E+20	3.7338E+17
I-131	4.4818E+06	3.6151E-02	1.6619E+23	1.8512E+20
I-132	6.0586E+06	5.8695E-04	2.6778E+21	2.5840E-20
I-133	9.1801E+06	8.1038E-03	3.6694E+22	3.8133E+20
I-134	6.9366E+06	2.6002E-04	1.1686E+21	3.3395E+20
I-135	8.4074E+06	2.3940E-03	1.0679E+22	3.5399E+20
Xe-133	1.0601E+07	5.6636E-02	2.5644E+23	4.1711E+20
Xe-135	3.6811E+06	1.4415E-03	6.4301E+21	1.4153E-20
Cs-134	9.5595E+05	7.3886E-01	3.3205E+24	3.9577E+19
Cs-136	3.0490E+05	4.1602E-03	1.8421E+22	1.2628E+19
Cs-137	7.1949E-05	8.2718E+00	3.6360E+25	2.9788E+19

Primary Containment Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	1.6022E+24	0.0000E+00	
Elemental I (atoms)	1.2546E+22	0.0000E+00	
Organic I (atoms)	3.8802E+20	0.0000E+00	
Aerosols (kg)	9.0596E+00	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.7277E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.2520E-04
Total I (Ci)			3.5065E+07
Elemental I (atoms)	1.2546E+22	0.0000E+00	
Organic I (atoms)	3.8802E+20	0.0000E+00	

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.8295E+00	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 0.5000 Leakage Transport

Noble gases (atoms)	1.6467E+20
Elemental I (atoms)	1.2951E+18
Organic I (atoms)	4.0054E+16
Aerosols (kg)	9.8994E-04

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	7.4881E+00	1.9086E-05	1.3522E+20	2.1376E+14
Kr-85m	1.2558E+02	1.5260E-08	1.0811E+17	3.6648E+15
Kr-87	2.0663E+02	7.2948E-09	5.0495E+16	6.3818E+15
Kr-88	3.3410E+02	2.6644E-08	1.8234E+17	9.8756E+15
Rb-86	9.6968E-01	1.1917E-08	8.3450E+16	2.8354E+13
I-131	4.8030E+02	3.8742E-06	1.7810E+19	1.4030E+16
I-132	6.3176E+02	6.1204E-08	2.7923E+17	1.9070E+16
I-133	9.8386E+02	8.6851E-07	3.9326E+18	2.8862E+16
I-134	7.4342E+02	2.7868E-08	1.2524E+17	2.4403E+16
I-135	9.0105E+02	2.5657E-07	1.1445E+18	2.6707E+16
Xe-133	1.0730E+03	5.7327E-06	2.5957E+19	3.0628E+16
Xe-135	3.7271E+02	1.4595E-07	6.5105E+17	1.0433E+16
Cs-134	1.0281E+02	7.9464E-05	3.5712E+20	3.0056E+15
Cs-136	3.2792E+01	4.4743E-07	1.9812E+18	9.5895E+14
Cs-137	7.7381E+01	8.8963E-04	3.9106E+21	2.2622E+15

Secondary Containment Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	1.6217E+20	0.0000E+00	
Elemental I (atoms)	1.2694E+18	0.0000E+00	
Organic I (atoms)	3.9261E+16	0.0000E+00	
Aerosols (kg)	9.7435E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1466E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4508E-08
Total I (Ci)			3.7404E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 0.5000 Leakage Transport

Noble gases (atoms)	1.6467E+20
Elemental I (atoms)	1.2951E+18
Organic I (atoms)	4.0054E+16
Aerosols (kg)	9.8994E-04

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4935E+18
Elemental I (atoms)	0.0000E+00	1.9598E+16
Organic I (atoms)	0.0000E+00	6.0613E+14
Aerosols (kg)	0.0000E+00	1.5533E-05

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	1.1504E-01	2.9321E-07	2.0774E+18	3.0088E+12
Kr-85m	1.9293E+00	2.3443E-10	1.6609E+15	5.1544E+13
Kr-87	3.1744E+00	1.1207E-10	7.7573E+14	8.9584E+13
Kr-88	5.1326E+00	4.0933E-10	2.8012E+15	1.3884E+14
Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	1.1504E-01	2.9321E-07	2.0774E+18	3.0088E+12

Rb-86	1.5451E-02	1.8989E-10	1.3297E+15	4.1137E+11
I-131	7.6376E+00	6.1606E-08	2.8321E+17	2.0321E+14
I-132	9.8929E+00	9.5841E-10	4.3725E+15	2.7242E+14
I-133	1.5645E+01	1.3811E-08	6.2536E+16	4.1799E+14
I-134	1.1822E+01	4.4315E-10	1.9916E+15	3.5192E+14
I-135	1.4329E+01	4.0800E-09	1.8200E+16	3.8663E+14
Xe-133	1.6485E-01	8.8071E-08	3.9878E-17	4.3111E+14
Xe-135	5.7311E+00	2.2442E-09	1.0011E+16	1.4698E+14
Cs-134	1.6382E+00	1.2662E-06	5.6904E+18	4.3608E+13
Cs-136	5.2252E-01	7.1293E-09	3.1569E+16	1.3913E-13
Cs-137	1.2330E-00	1.4175E-05	6.2311E-19	3.2821E+13

SGTS Filter Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	2.4914E-18	0.0000E+00	
Elemental I (atoms)	1.9498E+16	0.0000E+00	
Organic I (atoms)	6.0304E+14	0.0000E+00	
Aerosols (kg)	1.5525E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.7883E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.7922E-04
Total I (Ci)			5.9326E+01

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4935E+18
Elemental I (atoms)	0.0000E+00	1.9598E-16
Organic I (atoms)	0.0000E+00	6.0613E+14
Aerosols (kg)	0.0000E+00	1.5533E-05

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2338E+15
Elemental I (atoms)	0.0000E+00	1.7544E-13
Organic I (atoms)	0.0000E+00	5.4261E+11
Aerosols (kg)	0.0000E+00	1.4241E-08

Detailed model information at time (H) = 1.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	3.9463E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.2454E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	4.4488E-02	1.3991E-05	1.4527E+20	1.8219E-16
Co-60	2.3948E+02	2.1186E-04	2.1264E+21	9.8068E+15
Kr-85	5.4251E+05	1.3828E+00	9.7968E+24	2.6561E+19
Kr-85m	8.4210E+06	1.0233E-03	7.2497E+21	4.2879E+20
Kr-87	1.1399E+07	4.0243E-04	2.7856E+21	6.4378E+20
Kr-88	2.1424E+07	1.7086E-03	1.1693E+22	1.1164E+21
Rb-86	2.0192E+04	2.4816E-04	1.7377E+21	1.4275E+18
Sr-89	6.1728E+05	2.1247E-02	1.4377E+23	2.5280E+19
Sr-90	7.8718E+04	5.7708E-01	3.8614E+24	3.2235E+18
Sr-91	7.3179E+05	2.0187E-04	1.3360E+21	3.0378E+19
Sr-92	6.4704E+05	5.1477E-05	3.3696E+20	2.7804E+19
Y-90	1.0613E+03	1.9506E-06	1.3052E+19	3.7767E+16
Y-91	8.0833E+03	3.2961E-04	2.1813E+21	3.3001E+17
Y-92	4.5496E+04	4.7281E-06	3.0949E+19	1.0220E+18
Y-93	5.9929E+03	1.7962E-06	1.1631E+19	2.4857E+17
Zr-95	1.1524E+04	5.3643E-04	3.4005E+21	4.7195E+17
Y-90	1.0613E+03	1.9506E-06	1.3052E+19	3.7767E+16
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Zr-97	1.0950E+04	5.7278E-06	3.5560E+19	4.5183E-17
Nb-95	1.1529E+04	2.9484E-04	1.8690E-21	4.7210E-17
Mo-99	1.5010E+05	3.1296E-04	1.9037E-21	6.1586E+18
Tc-99m	1.3433E+05	2.5546E-05	1.5539E+20	5.4705E+18
Ru-103	1.2918E+05	4.0028E-03	2.3403E+22	5.2908E+18
Ru-105	7.6406E+04	1.1366E-05	6.5191E+19	3.2218E+18
Ru-106	5.1466E+04	1.5383E-02	8.7396E+22	2.1075E+18
Rh-105	8.3250E+04	9.8631E-05	5.6569E+20	3.4067E+18
Sb-127	1.4003E+05	5.2437E-04	2.4865E+21	5.7424E-18
Sb-129	4.4407E+05	7.8969E-05	3.6865E-20	1.8740E-19
Te-127	1.3982E+05	5.2981E-05	2.5123E+20	5.7053E+18
Te-127m	2.3858E+04	2.5293E-03	1.1994E+22	9.7697E+17
Te-129	4.7222E+05	2.2548E-05	1.0526E+20	1.9045E+19
Te-129m	9.9917E+04	3.3167E-03	1.5483E+22	4.0914E+18
Te-131m	3.1537E+05	3.9550E-04	1.8181E+21	1.2970E+19
Te-132	2.2927E+06	7.5519E-03	3.4453E+22	9.4041E-19
I-131	1.1662E+07	9.4065E-02	4.3242E+23	7.7545E-20
I-132	1.5252E-07	1.4776E-03	6.7411E+21	1.0497E+21
I-133	2.3529E+07	2.0771E-02	9.4048E+22	1.5802E+21
I-134	1.2175E+07	4.5637E-04	2.0510E+21	1.0702E+21
I-135	2.0792E+07	5.9204E-03	2.6410E+22	1.4302E+21
Xe-133	7.7661E+07	4.1490E-01	1.8786E+24	3.8040E+21
Xe-135	2.7431E+07	1.0741E-02	4.7916E+22	1.3301E+21
Cs-134	2.1425E+06	1.6560E+00	7.4421E+24	1.5139E+20
Cs-136	6.8262E+05	9.3139E-03	4.1242E-22	4.8268E+19
Cs-137	1.6126E+06	1.8539E+01	8.1494E+25	1.1394E+20
Ba-139	7.0898E+05	4.3345E-05	1.8779E+20	3.1952E+19
Ba-140	1.1745E+06	1.6043E-02	6.9009E+22	4.8115E+19
La-140	1.8347E+04	3.3009E-05	1.4199E+20	6.1652E+17
La-141	8.9543E+03	1.5833E-06	6.7625E+18	3.7902E+17
La-142	6.6744E+03	4.6625E-07	1.9773E+18	2.9770E+17
Ce-141	2.7001E+04	9.4761E-04	4.0473E+21	1.1057E+18
Ce-143	2.4548E+04	3.6965E-05	1.5567E+20	1.0092E+18
Ce-144	2.2705E+04	7.1187E-03	2.9771E+22	9.2978E+17
Pr-143	9.6739E+03	1.4366E-04	6.0500E+20	3.9589E+17
Nd-147	4.3483E+03	5.3750E-05	2.2020E+20	1.7815E+17
Np-239	3.1462E+05	1.3562E-03	3.4172E+21	1.2913E+19
Pu-238	6.8425E+01	3.9969E-03	1.0113E+22	2.8020E+15
Pu-239	7.2674E+00	1.1692E-01	2.9461E+23	2.9759E+14
Pu-240	1.1687E+01	5.1287E-02	1.2869E+23	4.7857E+14
Pu-241	2.8823E+03	2.7980E-02	6.9917E+22	1.1803E+17
Am-241	1.5262E+00	4.4468E-04	1.1112E+21	6.2495E+13
Cm-242	3.9958E+02	1.2056E-04	3.0002E+20	1.6363E+16
Cm-244	2.3422E+01	2.8950E-04	7.1452E+20	9.5911E+14

Primary Containment Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump	
Noble gases (atoms)	1.1745E+25	0.0000E+00	
Elemental I (atoms)	3.3159E+22	0.0000E+00	
Organic I (atoms)	1.0255E+21	0.0000E+00	
Aerosols (kg)	2.1181E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.4813E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8593E-03
Total I (Ci)			8.3409E+07

Time (h) = 1.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	5.1972E+00	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 1.0000	Leakage Transport
Noble gases (atoms)	1.5366E+21
Elemental I (atoms)	6.0032E+18
Organic I (atoms)	1.8567E+17
Aerosols (kg)	4.1237E-03

Noble gases (atoms) 1.5366E+21

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	4.6491E-02	1.4621E-09	1.5181E-16	1.3822E-12
Co-60	2.5026E-02	2.2140E-08	2.2221E+17	7.4400E+11
Kr-85	6.9568E+01	1.7732E-04	1.2563E+21	2.6939E-15
Kr-85m	1.0798E+03	1.3122E-07	9.2965E-17	4.3215E-16
Kr-87	1.4617E+03	5.1604E-08	3.5721E+17	6.3793E+16
Kr-88	2.7473E-03	2.1910E-07	1.4994E+18	1.1210E+17
Rb-86	3.8990E-00	4.7918E-08	3.3555E+17	1.9843E+14
Sr-89	6.4508E-01	2.2204E-06	1.5024E+19	1.9179E+15
Sr-90	8.2262E-00	6.0307E-05	4.0353E+20	2.4455E+14
Sr-91	7.6474E+01	2.1096E-08	1.3961E+17	2.2973E+15
Sr-92	6.7617E+01	5.3795E-09	3.5213E+16	2.0856E+15
Y-90	1.1839E-01	2.1760E-10	1.4560E+15	3.0947E+12
Y-91	8.4609E-01	3.4501E-08	2.2832E+17	2.5078E+13
Y-92	5.9007E+00	6.1323E-10	4.0141E+15	1.1320E+14
Y-93	6.2627E-01	1.8771E-10	1.2155E+15	1.8802E+13
Zr-95	1.2043E+00	5.6058E-08	3.5536E-17	3.5804E+13
Zr-97	1.1443E+00	5.9857E-10	3.7162E+15	3.4217E+13
Nb-95	1.2048E+00	3.0811E-08	1.9532E+17	3.5816E+13
Mo-99	1.5686E+01	3.2705E-08	1.9894E-17	4.6701E+14
Tc-99m	1.4037E+01	2.6696E-09	1.6239E+16	4.1501E+14
Ru-103	1.3500E+01	4.1830E-07	2.4457E-18	4.0138E+14
Ru-105	7.9846E+00	1.1878E-09	6.8126E-15	2.4275E+14
Ru-106	5.3783E+00	1.6076E-06	9.1331E+18	1.5989E+14
Rh-105	8.6998E+00	1.0307E-08	5.9115E-16	2.5844E+14
Sb-127	1.4634E+01	5.4798E-08	2.5984E-17	4.3551E+14
Sb-129	4.6407E+01	8.2524E-09	3.8525E+16	1.4117E+15
Te-127	1.4612E+01	5.5367E-09	2.6254E-16	4.3283E+14
Te-127m	2.4932E+00	2.6432E-07	1.2534E-18	7.4119E+13
Te-129	4.9348E+01	2.3564E-09	1.1000E+16	1.4413E+15
Te-129m	1.0442E+01	3.4660E-07	1.6181E+18	3.1040E+14
Te-131m	3.2957E+01	4.1331E-08	1.9000E+17	9.8301E+14
Te-132	2.3959E+02	7.8919E-07	3.6005E-18	7.1317E+15
I-131	2.1043E+03	1.6974E-05	7.8029E+19	1.0345E-17
I-132	2.5878E+03	2.5071E-07	1.1438E-18	1.3256E+17
I-133	4.2463E+03	3.7484E-06	1.6973E+19	2.1037E+17
I-134	2.1971E+03	8.2361E-08	3.7014E+17	1.3410E+17
I-135	3.7522E+03	1.0684E-06	4.7662E+18	1.8939E+17
Xe-133	9.9577E+03	5.3198E-05	2.4088E+20	3.8575E+17
Xe-135	3.5073E+03	1.3734E-06	6.1265E+18	1.3476E+17
Cs-134	4.1371E+02	3.1976E-04	1.4370E+21	2.1046E+16
Cs-136	1.3181E+02	1.7985E-06	7.9637E+18	6.7093E+15
Cs-137	3.1138E+02	3.5799E-03	1.5736E-22	1.5840E+16
Ba-139	7.4091E+01	4.5296E-09	1.9624E-16	2.3699E+15
Ba-140	1.2274E+02	1.6765E-06	7.2116E-18	3.6499E+15
La-140	2.0946E+00	3.7685E-09	1.6210E+16	5.2211E+13
La-141	9.3575E-01	1.6546E-10	7.0669E+14	2.8532E+13
La-142	6.9749E-01	4.8724E-11	2.0664E+14	2.2135E+13
Ce-141	2.8215E+00	9.9024E-08	4.2293E+17	8.3884E+13
Ce-143	2.5653E+00	3.8629E-09	1.6268E+16	7.6491E+13
Ce-144	2.3727E+00	7.4392E-07	3.1111E+18	7.0538E+13
Pr-143	1.0112E+00	1.5017E-08	6.3241E+16	3.0043E+13
Nd-147	4.5441E-01	5.6171E-09	2.3011E+16	1.3514E+13
Np-239	3.2879E+01	1.4173E-07	3.5711E-17	9.7916E+14
Pu-238	7.1506E-03	4.1768E-07	1.0569E+18	2.1258E+11
Pu-239	7.5946E-04	1.2218E-05	3.0787E-19	2.2577E+10
Pu-240	1.2213E-03	5.3596E-06	1.3449E+19	3.6307E+10
Pu-241	3.0121E-01	2.9240E-06	7.3065E+18	8.9544E+12
Am-241	1.5950E-04	4.6471E-08	1.1612E+17	4.7413E+09
Cm-242	4.1757E-02	1.2599E-08	3.1352E+16	1.2414E+12
Cm-244	2.4476E-03	3.0254E-08	7.4669E+16	7.2764E+10

Secondary Containment Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump
Noble gases (atoms)	1.5061E+21	0.0000E+00
Elemental I (atoms)	5.8072E+18	0.0000E+00

Secondary Containment Transport Group Inventory:

Organic I (atoms)	1.7960E-17	0.0000E+00	
Aerosols (kg)	4.0123E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.9919E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.2578E-08
Total I (Ci)			1.4888E+04

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 1.0000 Leakage Transport

Noble gases (atoms)	1.5366E+21
Elemental I (atoms)	6.0032E-18
Organic I (atoms)	1.8567E+17
Aerosols (kg)	4.1237E-03

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0197E+19
Elemental I (atoms)	0.0000E+00	1.5321E+17
Organic I (atoms)	0.0000E+00	4.7385E+15
Aerosols (kg)	0.0000E+00	1.1117E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	6.5779E-04	2.0686E-11	2.1479E+14	1.5899E+10
Co-60	3.5409E-04	3.1325E-10	3.1440E+15	8.5584E+09
Kr-85	1.3929E+00	3.5502E-06	2.5153E+19	4.7960E+13
Kr-85m	2.1620E+01	2.6272E-09	1.8613E+16	7.6715E+14
Kr-87	2.9266E+01	1.0332E-09	7.1519E+15	1.1238E+15
Kr-88	5.5006E+01	4.3867E-09	3.0020E+16	1.9866E+15
Rb-86	1.0910E-01	1.3409E-09	9.3896E+15	4.5335E+12
Sr-89	9.1270E-01	3.1416E-08	2.1257E+17	2.2061E+13
Sr-90	1.1639E-01	8.5326E-07	5.7094E+18	2.8132E+12
Sr-91	1.0820E+00	2.9849E-10	1.9753E+15	2.6375E+13
Sr-92	9.5669E-01	7.6113E-11	4.9822E+14	2.3825E+13
Y-90	1.7273E-03	3.1749E-12	2.1244E+13	3.7218E+10
Y-91	1.1981E-02	4.8853E-10	3.2329E+15	2.8877E+11
Y-92	9.1524E-02	9.5116E-12	6.2261E+13	1.5518E+12
Y-93	8.8609E-03	2.6559E-12	1.7198E+13	2.1588E+11
Zr-95	1.7039E-02	7.9315E-10	5.0278E+15	4.1186E+11
Zr-97	1.6190E-02	8.4690E-12	5.2579E+13	3.9317E+11
Nb-95	1.7047E-02	4.3594E-10	2.7635E+15	4.1200E+11
Mo-99	2.2193E-01	4.6273E-10	2.8148E+15	5.3706E+12
Tc-99m	1.9861E-01	3.7771E-11	2.2976E+14	4.7738E+12
Ru-103	1.9101E-01	5.9184E-09	3.4603E+16	4.6171E+12
Ru-105	1.1297E-01	1.6806E-11	9.6389E+13	2.7806E+12
Ru-106	7.6096E-02	2.2745E-08	1.2922E+17	1.8392E+12
Rh-105	1.2309E-01	1.4583E-10	8.3641E+14	2.9728E+12
Sb-127	2.0705E-01	7.7531E-10	3.6764E+15	5.0087E+12
Sb-129	6.5659E-01	1.1676E-10	5.4508E+14	1.6169E+13
Te-127	2.0674E-01	7.8336E-11	3.7146E+14	4.9788E+12
Te-127m	3.5276E-02	3.7398E-09	1.7734E+16	8.5260E+11
Te-129	6.9821E-01	3.3340E-11	1.5564E+14	1.6554E+13
Te-129m	1.4773E-01	4.9040E-09	2.2893E+16	3.5706E+12
Te-131m	4.6630E-01	5.8478E-10	2.6882E+15	1.1301E+13
Te-132	3.3899E+00	1.1166E-08	5.0942E+16	8.2018E+13
I-131	5.6462E+01	4.5543E-07	2.0936E+18	2.3032E+15
I-132	6.6763E+01	6.4679E-09	2.9508E+16	2.8466E+15
I-133	1.1394E+02	1.0058E-07	4.5544E+17	4.6787E+15
I-134	5.8956E+01	2.2100E-09	9.9322E+15	2.8933E+15
I-135	1.0069E+02	2.8670E-08	1.2789E+17	4.2009E+15
Xe-133	1.9940E+02	1.0653E-06	4.8236E+18	6.8678E+15
Xe-135	7.0572E-01	2.7635E-08	1.2327E+17	2.4060E+15
Cs-134	1.1577E+01	8.9478E-06	4.0212E+19	4.8088E+14
Cs-136	3.6885E+00	5.0327E-08	2.2285E+17	1.5329E+14
Cs-137	8.7134E+00	1.0018E-04	4.4034E+20	3.6194E+14
Ba-139	1.0483E+00	6.4088E-11	2.7766E+14	2.6885E+13
Xe-135	7.0572E-01	2.7635E-08	1.2327E+17	2.4060E+15
Cs-134	1.1577E+01	8.9478E-06	4.0212E+19	4.8088E+14

Ba-140	1.7365E-00	2.3721E-08	1.0203E+17	4.1983E+13
La-140	3.0875E-02	5.5548E-11	2.3894E+14	6.3895E+11
La-141	1.3240E-02	2.3411E-12	9.9988E-12	3.2665E+11
La-142	9.8686E-03	6.8939E-13	2.9237E+12	2.5149E+11
Ce-141	3.9920E-02	1.4010E-09	5.9838E+15	9.6491E+11
Ce-143	3.6296E-02	5.4655E-11	2.3017E+14	8.7940E-11
Ce-144	3.3571E-02	1.0525E-08	4.4018E-16	8.1142E+11
Pr-143	1.4310E-02	2.1250E-10	8.9490E+14	3.4565E+11
Nd-147	6.4293E-03	7.9474E-11	3.2558E+14	1.5544E+11
Np-239	4.6519E-01	2.0052E-09	5.0526E+15	1.1260E-13
Pu-238	1.0117E-04	5.9097E-09	1.4953E-16	2.4453E+09
Pu-239	1.0745E-05	1.7287E-07	4.3560E+17	2.5971E+08
Pu-240	1.7280E-05	7.5832E-08	1.9028E+17	4.1765E+08
Pu-241	4.2617E-03	4.1370E-08	1.0338E+17	1.0300E-11
Am-241	2.2567E-06	6.5751E-10	1.6430E+15	5.4541E+07
Cm-242	5.9080E-04	1.7826E-10	4.4360E+14	1.4280E+10
Cm-244	3.4631E-05	4.2805E-10	1.0565E+15	8.3702E+08

SGTS Filter Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0155E+19	0.0000E+00	
Elemental I (atoms)	1.5206E+17	0.0000E+00	
Organic I (atoms)	4.7029E+15	0.0000E+00	
Aerosols (kg)	1.1101E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.7828E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.4858E-03
Total I (Ci)			3.9681E+02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0197E+19
Elemental I (atoms)	0.0000E+00	1.5321E+17
Organic I (atoms)	0.0000E-00	4.7385E+15
Aerosols (kg)	0.0000E+00	1.1117E-04

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.7247E+16
Elemental I (atoms)	0.0000E+00	2.2827E+14
Organic I (atoms)	0.0000E+00	7.0600E+12
Aerosols (kg)	0.0000E+00	1.7244E-07

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	3.2982E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.3923E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	1.1500E+03	3.6166E-05	3.7551E+20	1.3139E+17
Co-60	6.1930E-02	5.4787E-04	5.4989E+21	7.0742E+16
Kr-85	1.4793E+06	3.7705E+00	2.6714E+25	1.6746E+20
Kr-85m	1.9670E+07	2.3902E-03	1.6934E+22	2.4321E+21
Kr-87	1.8021E+07	6.3622E-04	4.4039E+21	2.8355E+21
Kr-88	4.5767E+07	3.6499E-03	2.4978E+22	5.9656E+21
Rb-86	3.8648E+04	4.7498E-04	3.3260E+21	5.5240E+18
Sr-89	1.5954E+06	5.4915E-02	3.7158E+23	1.8230E+20
Sr-90	2.0357E+05	1.4924E+00	9.9857E+24	2.3253E+19
Sr-91	1.7593E+06	4.8532E-04	3.2117E+21	2.0907E+20
Kr-88	4.5767E+07	3.6499E-03	2.4978E+22	5.9656E+21
Rb-86	3.8648E+04	4.7498E-04	3.3260E+21	5.5240E+18

Sr-92	1.2956E+06	1.0308E-04	6.7473E+20	1.7057E+20
Y-90	3.6976E+03	6.7962E-06	4.5475E+19	3.4507E+17
Y-91	2.1056E+04	8.5860E-04	5.6820E+21	2.3927E+18
Y-92	2.1116E+05	2.1944E-05	1.4364E-20	1.6162E+19
Y-93	1.4470E+04	4.3371E-06	2.8084E+19	1.7155E+18
Zr-95	2.9788E+04	1.3866E-03	8.7898E+21	3.4035E+18
Zr-97	2.7178E+04	1.4217E-05	8.8265E+19	3.1741E+18
Nb-95	2.9814E-04	7.6246E-04	4.8333E+21	3.4055E+18
Mo-99	3.8411E+05	8.0087E-04	4.8716E+21	4.4125E+19
Tc-99m	3.4676E+05	6.5946E-05	4.0115E+20	3.9426E+19
Ru-103	3.3383E+05	1.0344E-02	6.0477E+22	3.8148E+19
Ru-105	1.6903E+05	2.5146E-05	1.4422E+20	2.1032E+19
Ru-106	1.3308E+05	3.9778E-02	2.2599E+23	1.5202E+19
Rh-105	2.1466E+05	2.5432E-04	1.4586E+21	2.4542E+19
Sb-127	3.5942E+05	1.3459E-03	6.3820E-21	4.1222E+19
Sb-129	9.7815E+05	1.7394E-04	8.1202E-20	1.2201E+20
Te-127	3.6130E+05	1.3690E-04	6.4918E+20	4.1138E+19
Te-127m	6.1699E+04	6.5410E-03	3.1017E+22	7.0476E+18
Te-129	1.1253E-06	5.3733E-05	2.5084E+20	1.3113E-20
Te-129m	2.5837E+05	8.5764E-03	4.0038E+22	2.9513E-19
Te-131m	7.9694E+05	9.9942E-04	4.5944E+21	9.2174E+19
Te-132	5.8767E+06	1.9357E-02	8.8312E+22	6.7449E-20
I-131	2.3532E+07	1.8981E-01	8.7259E+23	3.2326E-21
I-132	2.8303E+07	2.7419E-03	1.2509E+22	4.1325E+21
I-133	4.6072E+07	4.0670E-02	1.8415E+23	6.4562E+21
I-134	1.1178E+07	4.1902E-04	1.8831E+21	2.7729E+21
I-135	3.7901E+07	1.0792E-02	4.8142E-22	5.5735E+21
Xe-133	2.1127E+08	1.1287E+00	5.1107E+24	2.3948E+22
Xe-135	7.6086E+07	2.9794E-02	1.3291E+23	8.5387E+21
Cs-134	4.1070E+06	3.1743E+00	1.4266E+25	5.8643E+20
Cs-136	1.3057E+06	1.7815E-02	7.8887E+22	1.8671E+20
Cs-137	3.0913E+06	3.5540E+01	1.5622E+26	4.4138E-20
Ba-139	1.1088E+06	6.7790E-05	2.9370E+20	1.6893E+20
Ba-140	3.0304E+06	4.1393E-02	1.7806E+23	3.4658E+20
La-140	6.9887E+04	1.2574E-04	5.4085E+20	6.1617E+18
La-141	1.9412E+04	3.4325E-06	1.4660E+19	2.4430E+18
La-142	1.1010E+04	7.6912E-07	3.2618E+18	1.6242E+18
Ce-141	6.9798E+04	2.4496E-03	1.0462E+22	7.9746E+18
Ce-143	6.2162E+04	9.3606E-05	3.9420E+20	7.1814E+18
Ce-144	5.8710E+04	1.8407E-02	7.6980E+22	6.7067E+18
Pr-143	2.5052E+04	3.7203E-04	1.5667E+21	2.8585E+18
Nd-147	1.1215E+04	1.3864E-04	5.6795E+20	1.2829E+18
Np-239	8.0371E+05	3.4644E-03	8.7294E+21	9.2415E+19
Pu-238	1.7695E+02	1.0336E-02	2.6154E+22	2.0213E+16
Pu-239	1.8796E+01	3.0240E-01	7.6197E+23	2.1469E+15
Pu-240	3.0222E+01	1.3263E-01	3.3280E+23	3.4522E+15
Pu-241	7.4537E+03	7.2357E-02	1.8081E+23	8.5142E+17
Am-241	3.9478E+00	1.1502E-03	2.8742E+21	4.5088E+14
Cm-242	1.0331E+03	3.1172E-04	7.7571E+20	1.1802E+17
Cm-244	6.0569E+01	7.4867E-04	1.8478E+21	6.9187E+15

Primary Containment Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2004E+25	0.0000E+00	
Elemental I (atoms)	7.3409E+22	0.0000E+00	
Organic I (atoms)	2.2704E+21	0.0000E-00	
Aerosols (kg)	4.1187E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.9545E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6580E-03
Total I (Ci)			1.4699E+08

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.6159E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00

Time (h) = 2.0000 Leakage Transport

Noble gases (atoms)	1.0531E-22
Elemental I (atoms)	2.7969E+19
Organic I (atoms)	8.6501E+17
Aerosols (kg)	1.7127E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	3.6592E-01	1.1508E-08	1.1948E+17	2.8093E+13
Co-60	1.9706E-01	1.7433E-07	1.7497E+18	1.5126E+13
Kr-85	4.6532E+02	1.1860E-03	8.4028E+21	3.7084E+16
Kr-85m	6.1873E+03	7.5184E-07	5.3267E+18	5.2768E+17
Kr-87	5.6686E+03	2.0012E-07	1.3853E+18	5.8118E+17
Kr-88	1.4396E+04	1.1481E-06	7.8568E+18	1.2784E+18
Rb-86	1.5392E+01	1.8917E-07	1.3246E+18	1.4873E+15
Sr-89	5.0764E+02	1.7474E-05	1.1823E+20	3.8976E+16
Sr-90	6.4773E+01	4.7485E-04	3.1774E+21	4.9720E+15
Sr-91	5.5979E+02	1.5442E-07	1.0219E+18	4.4256E+16
Sr-92	4.1226E-02	3.2799E-08	2.1469E+17	3.5171E+16
Y-90	1.3740E+00	2.5254E-09	1.6898E+16	8.8347E+13
Y-91	6.7348E+00	2.7462E-07	1.8174E+18	5.1416E+14
Y-92	9.1433E+01	9.5022E-09	6.2199E+16	5.3100E+15
Y-93	4.6042E+00	1.3800E-09	8.9362E+15	3.6335E+14
Zr-95	9.4783E+00	4.4120E-07	2.7968E+18	7.2769E+14
Zr-97	8.6479E+00	4.5237E-09	2.8085E+16	6.7487E+14
Nb-95	9.4867E+00	2.4261E-07	1.5379E+18	7.2817E+14
Mo-99	1.2222E+02	2.5483E-07	1.5501E+18	9.4212E+15
Tc-99m	1.1034E+02	2.0983E-08	1.2764E+17	8.4281E+15
Ru-103	1.0622E+02	3.2913E-06	1.9243E+19	8.1560E+15
Ru-105	5.3783E+01	8.0011E-09	4.5889E+16	4.4001E+15
Ru-106	4.2345E+01	1.2657E-05	7.1909E+19	3.2505E+15
Rh-105	6.8304E+01	8.0923E-08	4.6412E+17	5.2458E+15
Sb-127	1.1437E+02	4.2825E-07	2.0307E+18	8.8052E+15
Sb-129	3.1124E+02	5.5347E-08	2.5838E+17	2.5509E+16
Te-127	1.1496E+02	4.3562E-08	2.0656E+17	8.7954E+15
Te-127m	1.9632E+01	2.0813E-06	9.8692E+18	1.5069E+15
Te-129	3.5806E+02	1.7097E-08	7.9816E+16	2.7744E+16
Te-129m	8.2210E+01	2.7289E-06	1.2740E+19	6.3105E+15
Te-131m	2.5358E+02	3.1801E-07	1.4619E+18	1.9646E+16
Te-132	1.8699E+03	6.1593E-06	2.8100E+19	1.4405E+17
I-131	8.9927E+03	7.2537E-05	3.3345E+20	8.4155E+17
I-132	9.7616E+03	9.4570E-07	4.3145E+18	9.7767E+17
I-133	1.7610E+04	1.5545E-05	7.0387E+19	1.6729E+18
I-134	4.2725E+03	1.6016E-07	7.1978E+17	6.2369E+17
I-135	1.4486E+04	4.1250E-06	1.8401E+19	1.4274E+18
Xe-133	6.6404E+04	3.5476E-04	1.6063E+21	5.2987E+18
Xe-135	2.3407E+04	9.1657E-06	4.0887E+19	1.8656E+18
Cs-134	1.6357E+03	1.2642E-03	5.6816E+21	1.5793E+17
Cs-136	5.2001E+02	7.0952E-06	3.1418E+19	5.0265E+16
Cs-137	1.2312E+03	1.4154E-02	6.2218E+22	1.1887E+17
Ba-139	3.5282E+02	2.1570E-08	9.3453E+16	3.3542E+16
Ba-140	9.6424E-02	1.3171E-05	5.6656E+19	7.4082E+16
La-140	2.6896E+01	4.8388E-08	2.0814E+17	1.6614E+15
La-141	6.1767E+00	1.0922E-09	4.6648E+15	5.0961E+14
La-142	3.5033E+00	2.4473E-10	1.0379E+15	3.2519E+14
Ce-141	2.2207E+01	7.7936E-07	3.3286E+18	1.7049E+15
Ce-143	1.9779E+01	2.9784E-08	1.2543E+17	1.5311E+15
Ce-144	1.8681E+01	5.8570E-06	2.4494E+19	1.4340E+15
Pr-143	7.9788E+00	1.1849E-07	4.9898E+17	6.1176E+14
Nd-147	3.5686E+00	4.4113E-08	1.8072E+17	2.7422E+14
Np-239	2.5573E+02	1.1023E-06	2.7776E+18	1.9727E+16
Pu-238	5.6304E-02	3.2889E-06	8.3218E+18	4.3219E-12
Pu-239	5.9808E-03	9.6222E-05	2.4245E+20	4.5906E+11
Pu-240	9.6164E-03	4.2202E-05	1.0589E+20	7.3816E+11
Pu-241	2.3717E+00	2.3023E-05	5.7531E+19	1.8205E+14
Am-241	1.2562E-03	3.6602E-07	9.1460E+17	9.6416E+10
Cm-242	3.2873E-01	9.9187E-08	2.4683E+17	2.5236E+13
Pu-239	5.9808E-03	9.6222E-05	2.4245E+20	4.5906E+11
Pu-240	9.6164E-03	4.2202E-05	1.0589E+20	7.3816E+11

Cm-244	1.9273E-02	2.3822E-07	5.8795E+17	1.4794E+12

Secondary Containment Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	1.0065E+22	0.0000E+00	
Elemental I (atoms)	2.6260E+19	0.0000E+00	
Organic I (atoms)	8.1215E+17	0.0000E+00	
Aerosols (kg)	1.6222E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1083E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.6052E-07
Total I (Ci)			5.5123E+04

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 2.0000 Leakage Transport

Noble gases (atoms)	1.0531E+22
Elemental I (atoms)	2.7969E+19
Organic I (atoms)	8.6501E+17
Aerosols (kg)	1.7127E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5936E+20
Elemental I (atoms)	0.0000E+00	1.3892E+18
Organic I (atoms)	0.0000E+00	4.2964E+16
Aerosols (kg)	0.0000E+00	9.0399E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	1.5974E-02	5.0236E-10	5.2160E+15	9.3262E+11
Co-60	8.6023E-03	7.6101E-09	7.6382E+16	5.0217E+11
Kr-85	2.1176E+01	5.3974E-05	3.8240E+20	1.3213E+15
Kr-85m	2.8157E+02	3.4215E-08	2.4241E+17	1.8569E+16
Kr-87	2.5797E+02	9.1073E-09	6.3041E+16	1.9755E+16
Kr-88	6.5515E+02	5.2248E-08	3.5755E+17	4.4651E+16
Rb-86	8.6370E-01	1.0615E-08	7.4330E+16	6.3853E+13
Sr-89	2.2161E+01	7.6279E-07	5.1614E+18	1.2939E+15
Sr-90	2.8276E+00	2.0729E-05	1.3871E+20	1.6507E+14
Sr-91	2.4437E+01	6.7413E-09	4.4612E+16	1.4603E+15
Sr-92	1.7997E+01	1.4318E-09	9.3723E+15	1.1422E+15
Y-90	6.4195E-02	1.1799E-10	7.8951E+14	3.2248E+12
Y-91	2.9476E-01	1.2019E-08	7.9540E+16	1.7121E+13
Y-92	4.5145E+00	4.6916E-10	3.0711E+15	2.1230E+14
Y-93	2.0099E-01	6.0244E-11	3.9010E+14	1.1994E+13
Zr-95	4.1377E-01	1.9260E-08	1.2209E+17	2.4158E+13
Zr-97	3.7752E-01	1.9748E-10	1.2260E+15	2.2329E+13
Nb-95	4.1414E-01	1.0591E-08	6.7136E+16	2.4175E+13
Mo-99	5.3354E+00	1.1124E-08	6.7669E+16	3.1250E+14
Tc-99m	4.8166E-00	9.1601E-10	5.5721E+15	2.7977E+14
Ru-103	4.6371E+00	1.4368E-07	8.4005E+17	2.7075E+14
Ru-105	2.3479E+00	3.4928E-10	2.0033E+15	1.4416E+14
Ru-106	1.8486E+00	5.5254E-07	3.1391E+18	1.0791E+14
Rh-105	2.9817E+00	3.5326E-09	2.0261E+16	1.7411E+14
Sb-127	4.9926E+00	1.8695E-08	8.8649E+16	2.9214E+14
Sb-129	1.3587E+01	2.4161E-09	1.1279E+16	8.3543E+14
Te-127	5.0187E+00	1.9016E-09	9.0173E+15	2.9198E+14
Te-127m	8.5702E-01	9.0858E-08	4.3083E+17	5.0028E+13
Te-129	1.5631E+01	7.4637E-10	3.4843E+15	9.1497E+14
Te-129m	3.5888E+00	1.1913E-07	5.5614E+17	2.0950E+14
Te-131m	1.1070E+01	1.3882E-08	6.3818E+16	6.5099E+14
Te-132	8.1630E+01	2.6888E-07	1.2267E+18	4.7787E+15
I-131	4.8685E+02	3.9270E-06	1.8053E+19	3.5074E+16
I-132	4.9563E+02	4.8016E-08	2.1906E+17	3.8112E+16
I-133	9.5347E+02	8.4169E-07	3.8111E+18	6.9532E+16
I-134	2.3134E+02	8.6718E-09	3.8972E+16	2.3817E+16
I-135	7.8437E+02	2.2335E-07	9.9632E+17	5.8914E+16
I-131	4.8685E+02	3.9270E-06	1.8053E+19	3.5074E+16
I-132	4.9563E+02	4.8016E-08	2.1906E+17	3.8112E+16

Xe-133	3.0213E+03	1.6141E-05	7.3085E+19	1.8873E+17
Xe-135	1.0588E+03	4.1462E-07	1.8496E+18	6.6234E+16
Cs-134	9.1784E+01	7.0940E-05	3.1881E+20	6.7813E+15
Cs-136	2.9180E+01	3.9813E-07	1.7630E+18	2.1578E+15
Cs-137	6.9084E+01	7.9424E-04	3.4912E+21	5.1041E+15
Ba-139	1.5402E+01	9.4164E-10	4.0796E+15	1.0645E+15
Ba-140	4.2093E+01	5.7497E-07	2.4733E+18	2.4590E+15
La-140	1.2734E+00	2.2911E-09	9.8551E+15	6.2039E+13
La-141	2.6964E-01	4.7679E-11	2.0364E+14	1.6667E+13
La-142	1.5293E-01	1.0683E-11	4.5308E+13	1.0373E+13
Ce-141	9.6935E-01	3.4020E-08	1.4530E+17	5.6595E+13
Ce-143	8.6345E-01	1.3002E-09	5.4756E+15	5.0744E+13
Ce-144	8.1550E-01	2.5568E-07	1.0693E+18	4.7607E+13
Pr-143	3.4847E-01	5.1748E-09	2.1793E+16	2.0321E+13
Nd-147	1.5579E-01	1.9257E-09	7.8890E+15	9.1018E+12
Np-239	1.1164E+01	4.8122E-08	1.2125E+17	6.5425E+14
Pu-238	2.4579E-03	1.4357E-07	3.6328E+17	1.4348E+11
Pu-239	2.6109E-04	4.2005E-06	1.0584E+19	1.5240E+10
Pu-240	4.1980E-04	1.8423E-06	4.6227E+18	2.4506E+10
Pu-241	1.0353E-01	1.0051E-06	2.5115E+18	6.0439E+12
Am-241	5.4841E-05	1.5979E-08	3.9928E+16	3.2010E+09
Cm-242	1.4351E-02	4.3299E-09	1.0775E+16	8.3778E+11
Cm-244	8.4133E-04	1.0399E-08	2.5666E+16	4.9113E-10

SGTS Filter Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	4.5800E+20	0.0000E+00	
Elemental I (atoms)	1.3724E+18	0.0000E+00	
Organic I (atoms)	4.2446E+16	0.0000E+00	
Aerosols (kg)	9.0125E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.3712E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.9268E-02
Total I (Ci)			2.9517E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.5936E+20
Elemental I (atoms)	0.0000E+00	1.3892E+18
Organic I (atoms)	0.0000E+00	4.2964E+16
Aerosols (kg)	0.0000E+00	9.0399E-04

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1464E+18
Elemental I (atoms)	0.0000E+00	3.9653E+15
Organic I (atoms)	0.0000E+00	1.2264E+14
Aerosols (kg)	0.0000E+00	2.7012E-06

Detailed model information at time (H) = 4.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0673E+00

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.1779E+01

Primary Containment Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	1.3581E+02	4.2711E-06	4.4347E+19	2.5124E+17
Co-60	7.3195E+01	6.4752E-05	6.4991E+20	1.3530E+17
Kr-85	1.4781E+06	3.7675E+00	2.6692E+25	5.6138E+20
Kr-85m	1.4423E+07	1.7526E-03	1.2417E+22	6.9372E+21

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	1.3581E+02	4.2711E-06	4.4347E+19	2.5124E+17

Kr-87	6.0533E+06	2.1370E-04	1.4792E+21	5.7580E+21
Kr-88	2.8068E+07	2.2384E-03	1.5318E-22	1.5609E+22
Rb-86	4.5538E+03	5.5966E-05	3.9190E-20	9.5485E+18
Sr-89	1.8835E+05	6.4831E-03	4.3868E-22	3.4854E+20
Sr-90	2.4060E+04	1.7638E-01	1.1802E+24	4.4473E-19
Sr-91	1.7970E+05	4.9573E-05	3.2806E+20	3.8384E+20
Sr-92	9.1815E+04	7.3046E-06	4.7815E+19	2.8535E+20
Y-90	9.4350E+02	1.7342E-06	1.1604E+19	8.6926E+17
Y-91	2.5664E+03	1.0465E-04	6.9255E+20	4.6095E+18
Y-92	5.5448E+04	5.7624E-06	3.7719E+19	4.8564E+19
Y-93	1.4909E+03	4.4687E-07	2.8936E+18	3.1570E+18
Zr-95	3.5176E+03	1.6374E-04	1.0379E+21	6.5076E+18
Zr-97	2.9593E-03	1.5480E-06	9.6107E+18	5.9310E+18
Nb-95	3.5238E-03	9.0115E-05	5.7125E+20	6.5132E+18
Mo-99	4.4455E-04	9.2689E-05	5.6383E+20	8.3884E-19
Tc-99m	4.0730E-04	7.7459E-06	4.7118E+19	7.5303E-19
Ru-103	3.9398E+04	1.2208E-03	7.1374E-21	7.2929E-19
Ru-105	1.4620E+04	2.1750E-06	1.2474E-19	3.6954E+19
Ru-106	1.5727E+04	4.7008E-03	2.6706E+22	2.9074E+19
Rh-105	2.5056E+04	2.9685E-05	1.7025E+20	4.6823E+19
Sb-127	4.1849E+04	1.5671E-04	7.4308E+20	7.8501E+19
Sb-129	8.3875E+04	1.4915E-05	6.9629E+19	2.1390E+20
Te-127	4.2588E+04	1.6137E-05	7.6521E+19	7.8634E+19
Te-127m	7.2925E+03	7.7312E-04	3.6660E+21	1.3479E+19
Te-129	1.0752E+05	5.1343E-06	2.3969E+19	2.3822E+20
Te-129m	3.0522E+04	1.0132E-03	4.7298E+21	5.6441E+19
Te-131m	8.9939E+04	1.1279E-04	5.1850E+20	1.7398E+20
Te-132	6.8238E+05	2.2477E-03	1.0254E+22	1.2835E+21
I-131	4.1538E+06	3.3505E-02	1.5403E+23	5.9365E+21
I-132	3.1539E+06	3.0555E-04	1.3940E+21	6.8982E+21
I-133	7.6617E+06	6.7634E-03	3.0624E+22	1.1638E+22
I-134	4.0874E-05	1.5322E-05	6.8859E+19	3.5641E-21
I-135	5.4626E+06	1.5555E-03	6.9387E+21	9.6280E-21
Xe-133	2.0899E+08	1.1165E+00	5.0556E+24	7.9932E+22
Xe-135	6.7063E+07	2.6261E-02	1.1714E+23	2.7643E+22
Cs-134	4.8539E+05	3.7515E-01	1.6860E+24	1.0145E+21
Cs-136	1.5365E+05	2.0964E-03	9.2828E+21	3.2261E+20
Cs-137	3.6537E+05	4.2005E+00	1.8464E+25	7.6362E+20
Ba-139	4.7936E+04	2.9306E-06	1.2697E+19	2.5415E+20
Ba-140	3.5655E+05	4.8703E-03	2.0950E+22	6.6198E+20
La-140	2.0083E+04	3.6132E-05	1.5542E+20	1.6697E+19
La-141	1.6124E+03	2.8511E-07	1.2177E+18	4.2485E+18
La-142	5.2948E+02	3.6988E-08	1.5686E+17	2.4956E+18
Ce-141	8.2384E+03	2.8913E-04	1.2349E+21	1.5247E+19
Ce-143	7.0448E+03	1.0608E-05	4.4675E+19	1.3571E+19
Ce-144	6.9377E+03	2.1752E-03	9.0966E-21	1.2826E+19
Pr-143	2.9790E+03	4.4239E-05	1.8630E+20	5.4747E+18
Nd-147	1.3186E+03	1.6300E-05	6.6775E+19	2.4500E+18
Np-239	9.2691E+04	3.9955E-04	1.0067E+21	1.7551E+20
Pu-238	2.0915E+01	1.2217E-03	3.0912E+21	3.8658E+16
Pu-239	2.2222E+00	3.5752E-02	9.0084E+22	4.1064E+15
Pu-240	3.5720E+00	1.5676E-02	3.9335E+22	6.6026E+15
Pu-241	8.8096E+02	8.5519E-03	2.1370E+22	1.6284E+18
Am-241	4.6692E-01	1.3604E-04	3.3995E+20	8.6249E+14
Cm-242	1.2207E+02	3.6830E-05	9.1651E+19	2.2571E+17
Cm-244	7.1588E+00	8.8486E-05	2.1839E+20	1.3232E+16

Primary Containment Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1894E+25	0.0000E+00	
Elemental I (atoms)	7.1170E+22	0.0000E+00	
Organic I (atoms)	2.2011E+21	0.0000E+00	
Aerosols (kg)	4.8670E+00	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.1002E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.1649E-04
Total I (Ci)			2.0841E+07

Time (h) = 4.0000	Deposition Surfaces	Recirculating Filter	
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.1649E-04
Total I (Ci)			2.0841E+07

Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.2461E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 4.0000 Leakage Transport

Noble gases (atoms)	3.6800E+22
Elemental I (atoms)	8.7415E+19
Organic I (atoms)	2.7036E+18
Aerosols (kg)	3.1109E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	6.5900E-01	2.0725E-08	2.1518E+17	1.8474E+14
Co-60	3.5516E-01	3.1420E-07	3.1536E+18	9.9519E+13
Kr-85	1.5138E+03	3.8584E-03	2.7336E+22	3.1157E+17
Kr-85m	1.4771E+04	1.7949E-06	1.2717E+19	3.5851E+18
Kr-87	6.1993E+03	2.1886E-07	1.5149E+18	2.4336E+18
Kr-88	2.8745E+04	2.2924E-06	1.5688E+19	7.7223E+18
Rb-86	2.4708E+01	3.0366E-07	2.1264E+18	7.5004E+15
Sr-89	9.1393E+02	3.1458E-05	2.1286E+20	2.5626E+17
Sr-90	1.1675E+02	8.5587E-04	5.7269E+21	3.2713E+16
Sr-91	8.7197E+02	2.4054E-07	1.5919E+18	2.6620E+17
Sr-92	4.4552E+02	3.5444E-08	2.3201E+17	1.7089E+17
Y-90	4.7417E+00	8.7154E-09	5.8317E+16	9.3818E+14
Y-91	1.2483E+01	5.0900E-07	3.3684E+18	3.4389E+15
Y-92	2.8292E+02	2.9403E-08	1.9246E+17	5.9973E+16
Y-93	7.2343E+00	2.1683E-09	1.4041E+16	2.1971E+15
Zr-95	1.7068E+01	7.9451E-07	5.0365E+18	4.7851E+15
Zr-97	1.4360E+01	7.5115E-09	4.6634E+16	4.2206E+15
Nb-95	1.7099E+01	4.3727E-07	2.7719E+18	4.7909E+15
Mo-99	2.1571E+02	4.4976E-07	2.7359E+18	6.1182E+16
Tc-99m	1.9763E+02	3.7585E-08	2.2863E+17	5.5276E+16
Ru-103	1.9117E+02	5.9235E-06	3.4633E+19	5.3613E+16
Ru-105	7.0942E+01	1.0554E-08	6.0529E+16	2.3969E+16
Ru-106	7.6312E+01	2.2810E-05	1.2959E+20	2.1385E+16
Rh-105	1.2158E+02	1.4404E-07	8.2613E+17	3.4304E+16
Sb-127	2.0306E+02	7.6039E-07	3.6056E+18	5.7395E+16
Sb-129	4.0699E+02	7.2374E-08	3.3786E+17	1.3825E+17
Te-127	2.0665E+02	7.8304E-08	3.7131E+17	5.7788E+16
Te-127m	3.5386E+01	3.7514E-06	1.7789E+19	9.9149E+15
Te-129	5.2174E+02	2.4913E-08	1.1630E+17	1.6201E+17
Te-129m	1.4810E+02	4.9162E-06	2.2951E+19	4.1510E+16
Te-131m	4.3641E+02	5.4729E-07	2.5159E+18	1.2561E+17
Te-132	3.3111E+03	1.0906E-05	4.9758E+19	9.3734E+17
I-131	1.5382E+04	1.2407E-04	5.7038E+20	4.4823E+18
I-132	1.1266E+04	1.0915E-06	4.9796E+18	4.2195E+18
I-133	2.8375E+04	2.5048E-05	1.1342E+20	8.5797E+18
I-134	1.5138E+03	5.6744E-08	2.5502E+17	1.4481E+18
I-135	2.0231E+04	5.7607E-06	2.5697E+19	6.6998E+18
Xe-133	2.1414E+05	1.1440E-03	5.1800E+21	4.4278E+19
Xe-135	6.9547E+04	2.7233E-05	1.2148E+20	1.5050E+19
Cs-134	2.6336E+03	2.0355E-03	9.1479E+21	7.9795E+17
Cs-136	8.3365E+02	1.1375E-05	5.0367E+19	2.5327E+17
Cs-137	1.9824E+03	2.2791E-02	1.0018E+23	6.0062E+17
Ba-139	2.3260E+02	1.4220E-08	6.1609E+16	1.2541E+17
Ba-140	1.7301E+03	2.3632E-05	1.0165E+20	4.8604E+17
La-140	1.0126E+02	1.8218E-07	7.8364E+17	1.9282E+16
La-141	7.8237E+00	1.3834E-09	5.9086E+15	2.7112E+15
La-142	2.5692E+00	1.7948E-10	7.6115E+14	1.2831E+15
Ce-141	3.9973E+01	1.4029E-06	5.9918E+18	1.1209E+16
Ce-143	3.4184E+01	5.1475E-08	2.1678E+17	9.8147E+15
Ce-144	3.3664E+01	1.0555E-05	4.4140E+19	9.4338E+15
Pr-143	1.4461E+01	2.1475E-07	9.0439E+17	4.0379E+15
Nd-147	6.3984E+00	7.9092E-08	3.2401E+17	1.7983E+15
Np-239	4.4977E+02	1.9387E-06	4.8851E+18	1.2783E+17
Ce-143	3.4184E+01	5.1475E-08	2.1678E+17	9.8147E+15
Ce-144	3.3664E+01	1.0555E-05	4.4140E+19	9.4338E+15

Pu-238	1.0148E-01	5.9279E-06	1.4999E+19	2.8436E+13
Pu-239	1.0783E-02	1.7348E-04	4.3712E+20	3.0209E+12
Pu-240	1.7333E-02	7.6065E-05	1.9086E+20	4.8567E+12
Pu-241	4.2747E+00	4.1497E-05	1.0369E+20	1.1978E+15
Am-241	2.2657E-03	6.6014E-07	1.6496E+18	6.3461E+11
Cm-242	5.9230E-01	1.7871E-07	4.4472E+17	1.6600E+14
Cm-244	3.4737E-02	4.2936E-07	1.0597E+18	9.7333E+12

Secondary Containment Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2668E+22	0.0000E+00	
Elemental I (atoms)	7.5507E+19	0.0000E-00	
Organic I (atoms)	2.3353E+18	0.0000E+00	
Aerosols (kg)	2.6254E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.5280E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.2625E-07
Total I (Ci)			7.6768E+04

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 4.0000	Leakage Transport
Noble gases (atoms)	3.6800E+22
Elemental I (atoms)	8.7415E+19
Organic I (atoms)	2.7036E+18
Aerosols (kg)	3.1109E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0735E+21
Elemental I (atoms)	0.0000E+00	1.0028E-19
Organic I (atoms)	0.0000E+00	3.1016E+17
Aerosols (kg)	0.0000E+00	4.8492E-03

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	1.1197E-01	3.5214E-09	3.6563E+16	1.7669E+13
Co-60	6.0347E-02	5.3386E-08	5.3583E+17	9.5194E+12
Kr-85	1.8740E+02	4.7765E-04	3.3841E+21	2.6388E+16
Kr-85m	1.8286E+03	2.2220E-07	1.5743E+18	2.9193E+17
Kr-87	7.6744E+02	2.7093E-08	1.8754E+17	1.7620E+17
Kr-88	3.5585E+03	2.8379E-07	1.9420E+18	6.1356E+17
Rb-86	4.5470E-00	5.5882E-08	3.9131E+17	7.7964E+14
Sr-89	1.5529E+02	5.3452E-06	3.6168E+19	2.4507E+16
Sr-90	1.9837E+01	1.4542E-04	9.7307E+20	3.1291E+15
Sr-91	1.4816E+02	4.0872E-08	2.7048E+17	2.4839E+16
Sr-92	7.5699E+01	6.0225E-09	3.9422E+16	1.4925E+16
Y-90	8.1977E-01	1.5068E-09	1.0082E+16	1.0260E+14
Y-91	2.1235E+00	8.6590E-08	5.7303E+17	3.3100E+14
Y-92	4.9271E+01	5.1205E-09	3.3518E+16	6.6407E+15
Y-93	1.2292E+00	3.6843E-10	2.3857E+15	2.0532E+14
Zr-95	2.9001E+00	1.3500E-07	8.5576E+17	4.5764E+14
Zr-97	2.4399E-00	1.2763E-09	7.9238E+15	3.9817E+14
Nb-95	2.9053E+00	7.4298E-08	4.7098E+17	4.5827E+14
Mo-99	3.6652E+01	7.6420E-08	4.6486E+17	5.8317E+15
Tc-99m	3.3581E+01	6.3863E-09	3.8847E+16	5.2823E+15
Ru-103	3.2483E+01	1.0065E-06	5.8846E+18	5.1270E+15
Ru-105	1.2054E+01	1.7932E-09	1.0285E+16	2.1717E+15
Ru-106	1.2966E+01	3.8757E-06	2.2019E+19	2.0455E+15
Rh-105	2.0658E+01	2.4475E-08	1.4037E+17	3.2752E+15
Sb-127	3.4503E+01	1.2920E-07	6.1265E+17	5.4763E+15
Sb-129	6.9152E+01	1.2297E-08	5.7408E+16	1.2507E+16
Te-127	3.5113E+01	1.3305E-08	6.3090E+16	5.5254E+15
Te-127m	6.0125E+00	6.3742E-07	3.0225E+18	9.4840E+14
Te-129	8.8651E+01	4.2331E-09	1.9761E+16	1.4964E+16
Te-129m	2.5165E+01	8.3533E-07	3.8996E+18	3.9703E+15
Te-131m	7.4152E+01	9.2992E-08	4.2749E+17	1.1922E+16
Te-127	3.5113E+01	1.3305E-08	6.3090E+16	5.5254E+15
Te-127m	6.0125E+00	6.3742E-07	3.0225E+18	9.4840E+14

Te-132	5.6260E-02	1.8531E-06	8.4545E+18	8.9395E+16
I-131	2.7084E+03	2.1846E-05	1.0043E+20	4.5499E+17
I-132	1.9204E+03	1.8605E-07	8.4881E+17	3.8323E+17
I-133	4.9964E+03	4.4106E-06	1.9971E+19	8.6203E+17
I-134	2.6655E+02	9.9918E-09	4.4904E+16	1.0613E+17
I-135	3.5623E+03	1.0144E-06	4.5249E+18	6.5626E+17
Xe-133	2.6517E+04	1.4166E-04	6.4144E+20	3.7465E+18
Xe-135	8.6759E+03	3.3974E-06	1.5155E+19	1.2640E+18
Cs-134	4.8466E+02	3.7459E-04	1.6835E+21	8.2989E+16
Cs-136	1.5342E+02	2.0932E-06	9.2690E+18	2.6321E+16
Cs-137	3.6482E+02	4.1942E-03	1.8437E+22	6.2467E+16
Ba-139	3.9522E-01	2.4162E-09	1.0468E+16	9.9309E+15
Ba-140	2.9396E-02	4.0154E-06	1.7272E-19	4.6457E+16
La-140	1.7533E+01	3.1544E-08	1.3569E-17	2.1448E-15
La-141	1.3294E+00	2.3506E-10	1.0040E-15	2.4385E+14
La-142	4.3654E-01	3.0495E-11	1.2933E-14	1.0386E+14
Ce-141	6.7918E+00	2.3836E-07	1.0181E+18	1.0719E+15
Ce-143	5.8083E+00	8.7463E-09	3.6833E+16	9.3222E+14
Ce-144	5.7199E+00	1.7934E-06	7.4999E+18	9.0235E+14
Pr-143	2.4577E+00	3.6498E-08	1.5370E+17	3.8670E+14
Nd-147	1.0872E+00	1.3439E-08	5.5054E+16	1.7186E+14
Np-239	7.6422E+01	3.2942E-07	8.3004E+17	1.2177E+16
Pu-238	1.7243E-02	1.0072E-06	2.5486E+18	2.7200E+12
Pu-239	1.8321E-03	2.9476E-05	7.4272E+19	2.8897E+11
Pu-240	2.9450E-03	1.2924E-05	3.2430E+19	4.6456E+11
Pu-241	7.2633E-01	7.0509E-06	1.7619E+19	1.1457E-14
Am-241	3.8498E-04	1.1217E-07	2.8029E+17	6.0710E+10
Cm-242	1.0064E-01	3.0365E-08	7.5564E+16	1.5877E+13
Cm-244	5.9022E-03	7.2954E-08	1.8006E+17	9.3103E+11

SGTS Filter Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	4.0444E+21	0.0000E+00	
Elemental I (atoms)	9.8036E+18	0.0000E+00	
Organic I (atoms)	3.0320E+17	0.0000E+00	
Aerosols (kg)	4.8131E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2907E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5588E-01
Total I (Ci)			1.3454E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0735E+21
Elemental I (atoms)	0.0000E+00	1.0028E+19
Organic I (atoms)	0.0000E+00	3.1016E+17
Aerosols (kg)	0.0000E+00	4.8492E-03

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.4449E+19
Elemental I (atoms)	0.0000E+00	6.3193E+16
Organic I (atoms)	0.0000E+00	1.9544E+15
Aerosols (kg)	0.0000E+00	3.5538E-05

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.3700E+02

Primary Containment Compartment Nuclide Inventory:

Deposition Net DF

Noble	Elemental	Organic	Aerosol

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	6.7408E+00	2.1199E-07	2.2011E+18	2.6975E+17
Co-60	3.6386E+00	3.2189E-06	3.2308E+19	1.4528E+17
Kr-85	1.4757E+06	3.7614E+00	2.6649E+25	1.3483E+21
Kr-85m	7.7549E+06	9.4232E-04	6.6762E+21	1.2663E+22
Kr-87	6.8295E+05	2.4111E-05	1.6690E-20	7.0693E+21
Kr-88	1.0556E+07	8.4185E-04	5.7611E-21	2.5150E+22
Rb-86	2.2499E+02	2.7651E-06	1.9363E-19	1.0169E+19
Sr-89	9.3423E+03	3.2157E-04	2.1759E-21	3.7421E+20
Sr-90	1.1961E+03	8.7687E-03	5.8674E-22	4.7755E+19
Sr-91	6.6724E+03	1.8407E-06	1.2181E+19	4.0649E+20
Sr-92	1.6408E+03	1.3054E-07	8.5451E+17	2.9504E-20
Y-90	9.5656E+01	1.7582E-07	1.1764E+18	1.0339E-18
Y-91	1.3376E+02	5.4541E-06	3.6094E+19	4.9644E-18
Y-92	2.7263E+03	2.8333E-07	1.8546E+18	5.6469E+19
Y-93	5.6325E+01	1.6883E-08	1.0932E+17	3.3458E+18
Zr-95	1.7456E+02	8.1254E-06	5.1508E+19	6.9872E+18
Zr-97	1.2486E+02	6.5314E-08	4.0550E+17	6.3169E+18
Nb-95	1.7518E+02	4.4798E-06	2.8398E+19	6.9939E+18
Mo-99	2.1191E-03	4.4184E-06	2.6877E+19	8.9877E+19
Tc-99m	1.9834E-03	3.7719E-07	2.2944E+18	8.0800E+19
Ru-103	1.9529E-03	6.0510E-05	3.5379E+20	7.8299E+19
Ru-105	3.8926E-02	5.7907E-08	3.3212E+17	3.8648E+19
Ru-106	7.8160E-02	2.3362E-04	1.3273E+21	3.1219E+19
Rh-105	1.1923E+03	1.4126E-06	8.1019E+18	5.0202E+19
Sb-127	2.0190E+03	7.5602E-06	3.5849E+19	8.4162E+19
Sb-129	2.1947E+03	3.9028E-07	1.8220E+18	2.2357E+20
Te-127	2.0980E+03	7.9497E-07	3.7696E+18	8.4409E+19
Te-127m	3.6255E+02	3.8436E-05	1.8226E+20	1.4474E+19
Te-129	3.3774E+03	1.6127E-07	7.5288E+17	2.5088E+20
Te-129m	1.5145E+03	5.0273E-05	2.3469E+20	6.0602E+19
Te-131m	4.0765E+03	5.1122E-06	2.3501E+19	1.8594E+20
Te-132	3.2742E+04	1.0785E-04	4.9203E+20	1.3756E+21
I-131	1.6800E+06	1.3551E-02	6.2294E+22	7.1208E+21
I-132	4.5429E+05	4.4012E-05	2.0079E+20	7.5056E+21
I-133	2.7510E+06	2.4285E-03	1.0996E+22	1.3714E+22
I-134	7.0954E+03	2.6598E-07	1.1953E+18	3.6072E-21
I-135	1.4733E+06	4.1952E-04	1.8714E+21	1.0944E+22
Xe-133	2.0419E+08	1.0909E+00	4.9393E+24	1.9000E+23
Xe-135	4.9888E+07	1.9535E-02	8.7144E+22	5.8594E+22
Cs-134	2.4127E+04	1.8648E-02	8.3805E+22	1.0807E+21
Cs-136	7.5713E+03	1.0330E-04	4.5744E+20	3.4352E+20
Cs-137	1.8164E+04	2.0882E-01	9.1793E+23	8.1345E+20
Ba-139	3.1881E+02	1.9491E-08	8.4443E+16	2.5828E+20
Ba-140	1.7565E-04	2.3994E-04	1.0321E+21	7.1049E+20
La-140	2.1069E-03	3.7905E-06	1.6305E+19	2.0261E+19
La-141	3.9587E+01	6.9999E-09	2.9897E+16	4.4317E+18
La-142	4.3579E+00	3.0443E-10	1.2911E+15	2.5431E+18
Ce-141	4.0832E+02	1.4330E-05	6.1205E+19	1.6370E+19
Ce-143	3.2200E+02	4.8489E-07	2.0420E-18	1.4510E+19
Ce-144	3.4476E+02	1.0809E-04	4.5205E+20	1.3772E+19
Pr-143	1.4969E+02	2.2230E-06	9.3616E-18	5.8822E+18
Nd-147	6.4868E+01	8.0185E-07	3.2849E+18	2.6293E+18
Np-239	4.3875E+03	1.8912E-05	4.7654E+19	1.8798E+20
Pu-238	1.0398E+00	6.0735E-05	1.5368E+20	4.1511E+16
Pu-239	1.1053E-01	1.7783E-03	4.4809E+21	4.4095E-15
Pu-240	1.7758E-01	7.7932E-04	1.9555E+21	7.0898E-15
Pu-241	4.3795E+01	4.2514E-04	1.0624E+21	1.7485E+18
Am-241	2.3245E-02	6.7726E-06	1.6923E+19	9.2620E+14
Cm-242	6.0641E+00	1.8297E-06	4.5531E+18	2.4235E+17
Cm-244	3.5589E-01	4.3989E-06	1.0857E+19	1.4209E+16

Primary Containment Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump
Noble gases (atoms)	3.1688E+25	0.0000E+00
Elemental I (atoms)	6.7611E+22	0.0000E+00
Organic I (atoms)	2.0911E+21	0.0000E+00
Aerosols (kg)	2.4188E-01	0.0000E+00

Time (h) = 8.0000	Atmosphere	Sump
Noble gases (atoms)	3.1688E+25	0.0000E+00

Dose Effective (Ci/cc) I-131 (Thyroid)	1.9861E-04
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)	2.3237E-04
Total I (Ci)	6.3656E+06

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7083E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 8.0000 Leakage Transport

Noble gases (atoms)	8.9075E-22
Elemental I (atoms)	2.0146E-20
Organic I (atoms)	6.2307E+18
Aerosols (kg)	3.3251E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	5.1856E-01	1.6308E-08	1.6932E+17	5.0238E+14
Co-60	2.7991E-01	2.4762E-07	2.4854E+18	2.7084E+14
Kr-85	3.1501E+03	8.0292E-03	5.6886E+22	1.5893E+18
Kr-85m	1.6554E-04	2.0115E-06	1.4251E+19	1.2557E+19
Kr-87	1.4579E-03	5.1468E-08	3.5626E+17	4.3159E+18
Kr-88	2.2534E+04	1.7971E-06	1.2298E+19	2.2366E+19
Rb-86	1.9168E+01	2.3557E-07	1.6496E+18	1.9303E+16
Sr-89	7.1868E+02	2.4738E-05	1.6739E+20	6.9663E+17
Sr-90	9.2015E+01	6.7456E-04	4.5137E+21	8.9028E+16
Sr-91	5.1330E+02	1.4160E-07	9.3707E+17	6.3323E+17
Sr-92	1.2623E+02	1.0042E-08	6.5736E+16	3.0826E+17
Y-90	7.4709E+00	1.3732E-08	9.1882E+16	4.2959E+15
Y-91	1.0311E+01	4.2043E-07	2.7823E+18	9.6019E+15
Y-92	2.1427E+02	2.2268E-08	1.4576E+17	2.0086E+17
Y-93	4.3330E+00	1.2987E-09	8.4099E+15	5.2663E+15
Zr-95	1.3428E+01	6.2507E-07	3.9624E+18	1.3011E+16
Zr-97	9.6052E+00	5.0245E-09	3.1194E+16	1.0631E+16
Nb-95	1.3476E+01	3.4463E-07	2.1846E+18	1.3038E+16
Mo-99	1.6302E+02	3.3990E-07	2.0676E+18	1.6317E+17
Tc-99m	1.5258E+02	2.9017E-08	1.7651E+17	1.4923E+17
Ru-103	1.5023E+02	4.6550E-06	2.7216E+19	1.4570E+17
Ru-105	2.9945E+01	4.4547E-09	2.5550E+16	4.9751E+16
Ru-106	6.0127E+01	1.7972E-05	1.0210E+20	5.8190E+16
Rh-105	9.1724E+01	1.0867E-07	6.2327E+17	9.1810E+16
Sb-127	1.5532E+02	5.8160E-07	2.7578E+18	1.5395E+17
Sb-129	1.6884E+02	3.0024E-08	1.4016E+17	2.8507E+17
Te-127	1.6140E+02	6.1156E-08	2.8999E+17	1.5672E+17
Te-127m	2.7890E+01	2.9568E-06	1.4021E+19	2.6984E+16
Te-129	2.5982E+02	1.2407E-08	5.7918E+16	3.6063E+17
Te-129m	1.1651E-02	3.8674E-06	1.8054E+19	1.1289E+17
Te-131m	3.1360E+02	3.9328E-07	1.8079E+18	3.2708E+17
Te-132	2.5188E+03	8.2966E-06	3.7851E+19	2.5077E+18
I-131	1.3925E+04	1.1232E-04	5.1635E+20	1.2392E+19
I-132	4.9689E+03	4.8138E-07	2.1962E+18	8.2858E+18
I-133	2.2800E+04	2.0127E-05	9.1135E+19	2.2350E+19
I-134	5.8808E+01	2.2045E-09	9.9071E+15	1.6904E+18
I-135	1.2211E+04	3.4770E-06	1.5510E+19	1.5285E+19
Xe-133	4.3630E+05	2.3309E-03	1.0554E+22	2.2293E-20
Xe-135	1.0928E+05	4.2791E-05	1.9088E+20	6.5543E+19
Cs-134	2.0555E+03	1.5887E-03	7.1398E+21	2.0596E-18
Cs-136	6.4504E+02	8.8011E-06	3.8972E+19	6.5098E+17
Cs-137	1.5475E+03	1.7791E-02	7.8203E+22	1.5504E+18
Ba-139	2.4526E+01	1.4994E-09	6.4961E+15	1.7561E+17
Ba-140	1.3513E+03	1.8458E-05	7.9397E+19	1.3170E+18
La-140	1.6463E+02	2.9618E-07	1.2740E+18	9.2575E+16
La-141	3.0454E+00	5.3849E-10	2.2999E+15	5.4583E+15
La-142	3.3525E-01	2.3419E-11	9.9320E+13	1.8785E+15
Ba-139	2.4526E+01	1.4994E-09	6.4961E+15	1.7561E+17
Ba-140	1.3513E+03	1.8458E-05	7.9397E+19	1.3170E+18

Ce-141	3.1410E-01	1.1023E-06	4.7081E+18	3.0463E+16
Ce-143	2.4771E+01	3.7302E-08	1.5709E+17	2.5658E+16
Ce-144	2.6522E+01	8.3154E-06	3.4775E+19	2.5669E+16
Pr-143	1.1520E+01	1.7107E-07	7.2045E+17	1.1049E+16
Nd-147	4.9902E+00	6.1685E-08	2.5270E+17	4.8692E+15
Np-239	3.3752E+02	1.4549E-06	3.6659E+18	3.3977E+17
Pu-238	7.9988E-02	4.6723E-06	1.1822E+19	7.7389E+13
Pu-239	8.5032E-03	1.3680E-04	3.4471E+20	8.2235E+12
Pu-240	1.3661E-02	5.9952E-05	1.5043E+20	1.3217E+13
Pu-241	3.3691E+00	3.2706E-05	8.1725E+19	3.2598E+15
Am-241	1.7882E-03	5.2102E-07	1.3019E+18	1.7282E+12
Cm-242	4.6650E-01	1.4075E-07	3.5027E+17	4.5161E+14
Cm-244	2.7378E-02	3.3840E-07	8.3521E+17	2.6489E+13

Secondary Containment Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	6.7658E+22	0.0000E+00	
Elemental I (atoms)	1.4624E+20	0.0000E+00	
Organic I (atoms)	4.5229E+18	0.0000E+00	
Aerosols (kg)	2.0497E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.0766E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6055E-07
Total I (Ci)			5.3964E+04

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 8.0000	Leakage Transport
Noble gases (atoms)	8.9075E+22
Elemental I (atoms)	2.0146E+20
Organic I (atoms)	6.2307E+18
Aerosols (kg)	3.3251E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1125E+22
Elemental I (atoms)	0.0000E+00	4.7871E+19
Organic I (atoms)	0.0000E+00	1.4806E+18
Aerosols (kg)	0.0000E+00	1.2741E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	3.0573E-01	9.6148E-09	9.9830E+16	1.3268E+14
Co-60	1.6503E-01	1.4599E-07	1.4653E+18	7.1562E+13
Kr-85	9.6685E+02	2.4643E-03	1.7460E+22	3.1576E+17
Kr-85m	5.0808E+03	6.1738E-07	4.3741E+18	2.2416E+18
Kr-87	4.4745E+02	1.5797E-08	1.0934E+17	5.4291E+17
Kr-88	6.9161E+03	5.5156E-07	3.7745E+18	3.7179E+18
Rb-86	1.1700E+01	1.4379E-07	1.0069E+18	5.2522E+15
Sr-89	4.2372E+02	1.4585E-05	9.8688E+19	1.8396E+17
Sr-90	5.4250E+01	3.9771E-04	2.6612E+21	2.3524E+16
Sr-91	3.0263E+02	8.3484E-08	5.5248E+17	1.5407E+17
Sr-92	7.4421E+01	5.9208E-09	3.8757E+16	5.9967E+16
Y-90	4.4215E-00	8.1268E-09	5.4379E+16	1.4066E+15
Y-91	6.0821E-00	2.4801E-07	1.6413E+18	2.5746E+15
Y-92	1.2701E-02	1.3200E-08	8.6402E+16	5.7936E+16
Y-93	2.5547E-00	7.6571E-10	4.9583E+15	1.2878E+15
Zr-95	7.9171E+00	3.6853E-07	2.3362E+18	3.4363E+15
Zr-97	5.6630E+00	2.9623E-09	1.8391E+16	2.6833E+15
Nb-95	7.9451E+00	2.0318E-07	1.2880E+18	3.4451E+15
Mo-99	9.6114E+01	2.0040E-07	1.2190E+18	4.2618E+16
Tc-99m	8.9957E+01	1.7108E-08	1.0407E+17	3.9240E+16
Ru-103	8.8575E+01	2.7445E-06	1.6046E+19	3.8467E+16
Ru-105	1.7655E+01	2.6264E-09	1.5063E+16	1.0960E+16
Ru-106	3.5450E+01	1.0596E-05	6.0199E+19	1.5374E+16
Rh-105	5.4079E+01	6.4070E-08	3.6747E+17	2.4014E+16
Sb-127	9.1572E+01	3.4290E-07	1.6260E+18	4.0345E+16
Ru-103	8.8575E+01	2.7445E-06	1.6046E+19	3.8467E+16
Ru-105	1.7655E+01	2.6264E-09	1.5063E+16	1.0960E+16

Sb-129	9.9542E-01	1.7701E-08	8.2636E+16	6.2469E+16
Te-127	9.5156E-01	3.6056E-08	1.7097E+17	4.1322E+16
Te-127m	1.6444E+01	1.7433E-06	8.2663E+18	7.1300E+15
Te-129	1.5319E+02	7.3147E-09	3.4147E+16	8.3751E+16
Te-129m	6.8691E+01	2.2802E-06	1.0645E+19	2.9816E+16
Te-131m	1.8489E+02	2.3187E-07	1.0659E+18	8.4240E-16
Te-132	1.4850E+03	4.8915E-06	2.2316E+19	6.5618E-17
I-131	7.4645E+03	6.0210E-05	2.7679E+20	3.2297E-18
I-132	2.7215E+03	2.6366E-07	1.2029E+18	1.7117E+18
I-133	1.2222E+04	1.0789E-05	4.8853E+19	5.6434E+18
I-134	3.1524E-01	1.1817E-09	5.3107E+15	1.7178E+17
I-135	6.5456E+03	1.8639E-06	8.3144E+18	3.5641E+18
Xe-133	1.3405E+05	7.1614E-04	3.2426E+21	4.4183E+19
Xe-135	3.4454E+04	1.3492E-05	6.0184E+19	1.2721E+19
Cs-134	1.2546E+03	9.6970E-04	4.3579E+21	5.6137E-17
Cs-136	3.9372E+02	5.3720E-06	2.3787E+19	1.7700E+17
Cs-137	9.4454E+02	1.0859E-02	4.7733E-22	4.2259E+17
Ba-139	1.4460E+01	8.8401E-10	3.8300E-15	2.4935E+16
Ba-140	7.9669E+02	1.0882E-05	4.6811E+19	3.4712E+17
La-140	9.7442E-01	1.7531E-07	7.5410E+17	3.0689E+16
La-141	1.7955E-00	3.1748E-10	1.3560E+15	1.1729E+15
La-142	1.9766E-01	1.3808E-11	5.8557E+13	2.8527E+14
Ce-141	1.8518E+01	6.4991E-07	2.7758E+18	8.0428E+15
Ce-143	1.4605E+01	2.1992E-08	9.2616E+16	6.6239E+15
Ce-144	1.5637E+01	4.9026E-06	2.0503E+19	6.7818E+15
Pr-143	6.7926E+00	1.0087E-07	4.2480E+17	2.9286E+15
Nd-147	2.9421E+00	3.6368E-08	1.4899E+17	1.2829E+15
Np-239	1.9900E+02	8.5778E-07	2.1614E+18	8.8571E+16
Pu-238	4.7159E-02	2.7547E-06	6.9702E+18	2.0449E+13
Pu-239	5.0133E-03	8.0656E-05	2.0323E+20	2.1732E-12
Pu-240	8.0543E-03	3.5346E-05	8.8692E+19	3.4924E+12
Pu-241	1.9864E+00	1.9283E-05	4.8184E+19	8.6132E+14
Am-241	1.0543E-03	3.0718E-07	7.6759E+17	4.5682E+11
Cm-242	2.7504E-01	8.2986E-08	2.0651E+17	1.1931E+14
Cm-244	1.6141E-02	1.9952E-07	4.9242E+17	6.9992E+12

SGTS Filter Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	2.0771E+22	0.0000E+00	
Elemental I (atoms)	4.5777E+19	0.0000E+00	
Organic I (atoms)	1.4158E+18	0.0000E+00	
Aerosols (kg)	1.2490E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.4272E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.0169E-01
Total I (Ci)			2.8985E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1125E+22
Elemental I (atoms)	0.0000E+00	4.7871E+19
Organic I (atoms)	0.0000E+00	1.4806E+18
Aerosols (kg)	0.0000E+00	1.2741E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9992E+20
Elemental I (atoms)	0.0000E+00	6.8822E+17
Organic I (atoms)	0.0000E+00	2.1285E+16
Aerosols (kg)	0.0000E+00	2.4762E-04

Detailed model information at time (H) = 16.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol

Detailed model information at time (H) = 16.0000

0.0000E-00 0.0000E+00 0.0000E+00 5.2996E-01
Deposition Net DF
Noble Elemental Organic Aerosol
1.0000E+00 1.0000E+00 1.0000E+00 1.9288E-04

Primary Containment Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	8.2597E-02	2.5976E-09	2.6970E+16	2.7124E+17
Co-60	4.4725E-02	3.9566E-08	3.9712E+17	1.4608E+17
Kr-85	1.4708E+06	3.7489E+00	2.6561E+25	2.9180E+21
Kr-85m	2.2418E-06	2.7241E-04	1.9300E-21	1.7396E-22
Kr-87	8.6935E+03	3.0691E-07	2.1245E+18	7.2339E+21
Kr-88	1.4932E+06	1.1908E-04	8.1490E+20	3.0087E+22
Rb-86	2.7319E+00	3.3574E-08	2.3510E+17	1.0218E+19
Sr-89	1.1432E+02	3.9351E-06	2.6627E+19	3.7627E+20
Sr-90	1.4704E+01	1.0780E-04	7.2129E+20	4.8018E+19
Sr-91	4.5757E+01	1.2623E-08	8.3533E-16	4.0780E-20
Sr-92	2.6067E+00	2.0738E-10	1.3575E+15	2.9529E+20
Y-90	2.3018E+00	4.2307E-09	2.8309E+16	1.0591E+18
Y-91	1.7407E+00	7.0979E-08	4.6972E+17	4.9943E+18
Y-92	1.2458E-01	1.2947E-09	8.4746E+15	5.6983E+19
Y-93	3.9989E-01	1.1986E-10	7.7614E+14	3.3569E-18
Zr-95	2.1382E+00	9.9529E-08	6.3092E+17	7.0256E+18
Zr-97	1.1056E+00	5.7834E-10	3.5905E+15	6.3426E+18
Nb-95	2.1533E+00	5.5067E-08	3.4907E+17	7.0324E+18
Mo-99	2.3952E-01	4.9940E-08	3.0378E+17	9.0336E+19
Tc-99m	2.3277E+01	4.4267E-09	2.6927E-16	8.1229E+19
Ru-103	2.3867E+01	7.3952E-07	4.3238E+18	7.8729E+19
Ru-105	1.3725E+00	2.0418E-10	1.1710E+15	3.8716E+19
Ru-106	9.6025E+00	2.8702E-06	1.6306E+19	3.1391E+19
Rh-105	1.2922E+01	1.5309E-08	8.7805E+16	5.0459E+19
Sb-127	2.3374E+01	8.7527E-08	4.1504E+17	8.4601E+19
Sb-129	7.4746E+00	1.3292E-09	6.2051E+15	2.2395E+20
Te-127	2.5225E+01	9.5581E-09	4.5323E+16	8.4866E+19
Te-127m	4.4567E+00	4.7248E-07	2.2404E+18	1.4554E+19
Te-129	2.5357E+01	1.2108E-09	5.6525E+15	2.5150E+20
Te-129m	1.8514E+01	6.1455E-07	2.8689E+18	6.0935E+19
Te-131m	4.1657E+01	5.2241E-08	2.4015E+17	1.8680E+20
Te-132	3.7496E+02	1.2351E-06	5.6347E+18	1.3827E+21
I-131	1.5063E+06	1.2150E-02	5.5855E+22	8.7778E+21
I-132	4.0317E+04	3.9059E-06	1.7819E+19	7.6851E+21
I-133	1.9445E+06	1.7165E-03	7.7721E+21	1.6133E+22
I-134	1.1723E+01	4.3943E-10	1.9749E+15	3.6083E+21
I-135	5.8755E+05	1.6730E-04	7.4632E+20	1.1946E-22
Xe-133	1.9484E+08	1.0409E+00	4.7132E+24	4.0254E+23
Xe-135	2.7371E+07	1.0718E-02	4.7811E+22	9.8560E+22
Cs-134	2.9651E+02	2.2917E-04	1.0299E+21	1.0860E+21
Cs-136	9.1450E+01	1.2478E-06	5.5251E+18	3.4518E+20
Cs-137	2.2329E+02	2.5671E-03	1.1284E+22	8.1746E+20
Ba-139	7.0144E-02	4.2884E-12	1.8579E-13	2.5832E+20
Ba-140	2.1206E+02	2.8966E-06	1.2460E+19	7.1435E+20
La-140	5.0201E+01	9.0317E-08	3.8850E+17	2.0814E+19
La-141	1.1870E-01	2.0989E-11	8.9642E+13	4.4384E+18
La-142	1.4684E-03	1.0258E-13	4.3503E+11	2.5437E+18
Ce-141	4.9859E+00	1.7498E-07	7.4736E+17	1.6460E-19
Ce-143	3.3462E+00	5.0389E-09	2.1220E+16	1.4578E+19
Ce-144	4.2348E+00	1.3277E-06	5.5527E+18	1.3848E+19
Pr-143	1.8707E+00	2.7781E-08	1.1699E+17	5.9153E+18
Nd-147	7.8085E-01	9.6522E-09	3.9542E+16	2.6435E+18
Np-239	4.8897E+01	2.1077E-07	5.3108E+17	1.8893E+20
Pu-238	1.2783E-02	7.4667E-07	1.8893E+18	4.1740E+16
Pu-239	1.3602E-03	2.1883E-05	5.5140E+19	4.4339E+15
Pu-240	2.1831E-03	9.5805E-06	2.4040E+19	7.1289E+15
Pu-241	5.3837E-01	5.2262E-06	1.3059E+19	1.7582E+18
Am-241	2.8654E-04	8.3488E-08	2.0862E+17	9.3132E+14
Cm-242	7.4443E-02	2.2461E-08	5.5894E+16	2.4369E+17
Cm-244	4.3749E-03	5.4076E-08	1.3346E+17	1.4287E+16

| Pu-241 | 5.3837E-01 | 5.2262E-06 | 1.3059E+19 | 1.7582E+18 |

Primary Containment Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1325E-25	0.0000E+00	
Elemental I (atoms)	6.2397E+22	0.0000E+00	
Organic I (atoms)	1.9298E+21	0.0000E+00	
Aerosols (kg)	2.9721E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6804E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8889E-04
Total I (Ci)			4.0786E+06

Time (h) = 16.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7322E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 16.0000	Leakage Transport
Noble gases (atoms)	1.9270E+23
Elemental I (atoms)	4.1517E+20
Organic I (atoms)	1.2840E+19
Aerosols (kg)	3.3422E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	2.6828E-01	8.4370E-09	8.7602E+16	9.0185E+14
Co-60	1.4527E-01	1.2851E-07	1.2899E+18	4.8676E+14
Kr-85	5.1538E+03	1.3136E-02	9.3068E+22	6.1832E+18
Kr-85m	7.8551E+03	9.5450E-07	6.7625E+18	2.5719E+19
Kr-87	3.0462E+01	1.0754E-09	7.4440E+15	4.7285E+18
Kr-88	5.2320E+03	4.1725E-07	2.8554E+18	3.5713E+19
Rb-86	9.8167E+00	1.2065E-07	8.4483E+17	3.3999E+16
Sr-89	3.7133E+02	1.2782E-05	8.6486E+19	1.2499E+18
Sr-90	4.7760E+01	3.5013E-04	2.3428E+21	1.6001E+17
Sr-91	1.4862E+02	4.0999E-08	2.7132E+17	9.4339E+17
Sr-92	8.4667E+00	6.7360E-10	4.4092E+15	3.5440E+17
Y-90	7.5292E+00	1.3839E-08	9.2599E+16	1.2347E+16
Y-91	5.6646E+00	2.3098E-07	1.5286E+18	1.7775E+16
Y-92	4.0950E+01	4.2558E-09	2.7857E+16	3.1533E+17
Y-93	1.2989E+00	3.8931E-10	2.5209E+15	7.9209E+15
Zr-95	6.9449E+00	3.2328E-07	2.0493E+18	2.3354E+16
Zr-97	3.5910E+00	1.8785E-09	1.1662E+16	1.7069E+16
Nb-95	6.9940E+00	1.7886E-07	1.1338E+18	2.3432E+16
Mo-99	7.7798E+01	1.6221E-07	9.8671E+17	2.8439E+17
Tc-99m	7.5604E+01	1.4378E-08	8.7462E-16	2.6195E+17
Ru-103	7.7522E+01	2.4020E-06	1.4044E+19	2.6130E-17
Ru-105	4.4579E+00	6.6319E-10	3.8036E+15	6.3889E-16
Ru-106	3.1190E+01	9.3226E-06	5.2964E+19	1.0456E-17
Rh-105	4.1972E+01	4.9726E-08	2.8520E+17	1.5893E+17
Sb-127	7.5922E+01	2.8430E-07	1.3481E+18	2.7066E+17
Sb-129	2.4278E+01	4.3173E-09	2.0155E+16	3.6383E+17
Te-127	8.1932E+01	3.1045E-08	1.4721E+17	2.7827E+17
Te-127m	1.4476E+01	1.5346E-06	7.2770E+18	4.8499E+16
Te-129	8.2362E+01	3.9328E-09	1.8360E+16	4.9828E+17
Te-129m	6.0134E+01	1.9961E-06	9.3185E+18	2.0256E+17
Te-131m	1.3530E+02	1.6968E-07	7.8003E+17	5.5035E+17
Te-132	1.2179E+03	4.0116E-06	1.8302E+19	4.3913E+18
I-131	1.0622E+04	8.5675E-05	3.9385E+20	2.5233E+19
I-132	1.5827E+03	1.5333E-07	6.9954E+17	1.1096E+19
I-133	1.3706E+04	1.2099E-05	5.4784E+19	4.1165E+19
I-134	8.2631E-02	3.0975E-12	1.3920E-13	1.6999E-18
I-135	4.1415E+03	1.1793E-06	5.2606E+18	2.3150E+19
Xe-133	6.8325E+05	3.6502E-03	1.6528E+22	8.4436E+20
Xe-135	9.7906E+04	3.8338E-05	1.7102E+20	1.8231E+20
Cs-134	1.0655E+03	8.2351E-04	3.7010E+21	3.6439E+18
Cs-136	3.2862E+02	4.4837E-06	1.9854E+19	1.1444E+18
I-135	4.1415E+03	1.1793E-06	5.2606E+18	2.3150E+19
Xe-133	6.8325E+05	3.6502E-03	1.6528E+22	8.4436E+20

Cs-137	8.0238E+02	9.2246E-03	4.0549E+22	2.7433E+18
Ba-139	2.2783E-01	1.3929E-11	6.0346E+13	1.8112E+17
Ba-140	6.8878E+02	9.4084E-06	4.0471E+19	2.3511E+18
La-140	1.6420E+02	2.9541E-07	1.2707E+18	2.6935E+17
La-141	3.8554E-01	6.8172E-11	2.9116E+14	6.8187E+15
La-142	4.7695E-03	3.3318E-13	1.4130E+12	1.9610E+15
Ce-141	1.6194E+01	5.6833E-07	2.4274E+18	5.4624E+16
Ce-143	1.0869E+01	1.6367E-08	6.8925E+16	4.3421E+16
Ce-144	1.3755E+01	4.3126E-06	1.8035E+19	4.6122E+16
Pr-143	6.0784E+00	9.0266E-08	3.8014E+17	1.9998E+16
Nd-147	2.5362E+00	3.1351E-08	1.2843E+17	8.6834E+15
Np-239	1.5882E+02	6.8459E-07	1.7250E+18	5.8921E+17
Pu-238	4.1519E-02	2.4252E-06	6.1366E+18	1.3910E+14
Pu-239	4.4180E-03	7.1079E-05	1.7910E+20	1.4786E+13
Pu-240	7.0908E-03	3.1118E-05	7.8082E+19	2.3756E+13
Pu-241	1.7487E+00	1.6975E-05	4.2418E+19	5.8588E+15
Am-241	9.3074E-04	2.7118E-07	6.7763E+17	3.1094E-12
Cm-242	2.4179E-01	7.2955E-08	1.8155E+17	8.1127E+14
Cm-244	1.4210E-02	1.7564E-07	4.3350E+17	4.7610E+13

Secondary Containment Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	1.0978E+23	0.0000E+00	
Elemental I (atoms)	2.1970E+20	0.0000E+00	
Organic I (atoms)	6.7949E+18	0.0000E+00	
Aerosols (kg)	1.0624E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.2148E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.4960E-07
Total I (Ci)			3.0052E+04

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 16.0000	Leakage Transport
Noble gases (atoms)	1.9270E+23
Elemental I (atoms)	4.1517E+20
Organic I (atoms)	1.2840E+19
Aerosols (kg)	3.3422E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.1888E+22
Elemental I (atoms)	0.0000E+00	1.7381E+20
Organic I (atoms)	0.0000E+00	5.3756E+18
Aerosols (kg)	0.0000E+00	2.2779E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	5.3717E-01	1.6893E-08	1.7540E+17	6.0331E+14
Co-60	2.9087E-01	2.5732E-07	2.5827E+18	3.2604E+14
Kr-85	3.7009E+03	9.4331E-03	6.6832E+22	2.7879E+18
Kr-85m	5.6408E+03	6.8543E-07	4.8562E+18	8.7370E+18
Kr-87	2.1875E+01	7.7226E-10	5.3456E+15	7.1071E+17
Kr-88	3.7571E+03	2.9963E-07	2.0505E+18	9.9801E+18
Rb-86	2.0045E+01	2.4635E-07	1.7250E+18	2.2970E+16
Sr-89	7.4351E+02	2.5592E-05	1.7317E+20	8.3574E+17
Sr-90	9.5628E+01	7.0105E-04	4.6909E+21	1.0718E+17
Sr-91	2.9758E+02	8.2092E-08	5.4326E+17	4.9814E+17
Sr-92	1.6953E+01	1.3487E-09	8.8285E+15	1.0443E+17
Y-90	1.5091E+01	2.7738E-08	1.8560E+17	1.1517E+16
Y-91	1.1345E+01	4.6262E-07	3.0615E+18	1.2264E+16
Y-92	8.2136E+01	8.5360E-09	5.5875E+16	1.7979E+17
Y-93	2.6007E+00	7.7950E-10	5.0476E+15	4.2430E+15
Zr-95	1.3906E+01	6.4729E-07	4.1032E+18	1.5621E+16
Zr-97	7.1902E+00	3.7612E-09	2.3351E+16	1.0016E+16
Nb-95	1.4004E+01	3.5813E-07	2.2702E+18	1.5694E+16
Mo-99	1.5577E+02	3.2479E-07	1.9757E+18	1.8423E+17
Y-93	2.6007E+00	7.7950E-10	5.0476E+15	4.2430E+15
Zr-95	1.3906E+01	6.4729E-07	4.1032E+18	1.5621E+16

Tc-99m	1.5138E+02	2.8789E-08	1.7512E+17	1.7045E-17
Ru-103	1.5522E+02	4.8095E-06	2.8120E+19	1.7462E+17
Ru-105	8.9260E+00	1.3279E-09	7.6159E+15	2.5628E+16
Ru-106	6.2450E+01	1.8666E-05	1.0605E+20	7.0022E+16
Rh-105	8.4039E+01	9.9565E-08	5.7104E+17	1.0208E+17
Sb-127	1.5202E+02	5.6924E-07	2.6992E+18	1.7703E+17
Sb-129	4.8611E+01	8.6445E-09	4.0355E+16	1.4391E+17
Te-127	1.6405E+02	6.2161E-08	2.9476E+17	1.8354E+17
Te-127m	2.8984E+01	3.0728E-06	1.4571E+19	3.2485E+16
Te-129	1.6491E+02	7.8745E-09	3.6761E+16	2.3212E-17
Te-129m	1.2040E-02	3.9968E-06	1.8658E+19	1.3543E+17
Te-131m	2.7092E-02	3.3975E-07	1.5618E-18	3.4236E+17
Te-132	2.4385E+03	8.0323E-06	3.6645E-19	2.8597E+18
I-131	1.4680E+04	1.1842E-04	5.4436E+20	1.5481E+19
I-132	2.9990E+03	2.9054E-07	1.3255E+18	4.5569E+18
I-133	1.8941E+04	1.6720E-05	7.5707E+19	2.3256E+19
I-134	1.1419E-01	4.2805E-12	1.9237E+13	1.7807E+17
I-135	5.7232E+03	1.6297E-06	7.2698E+18	1.0596E+19
Xe-133	4.9137E+05	2.6251E-03	1.1886E+22	3.7805E-20
Xe-135	7.3005E+04	2.8588E-05	1.2753E+20	7.5012E+19
Cs-134	2.1756E+03	1.6815E-03	7.5569E+21	2.4739E+18
Cs-136	6.7100E+02	9.1553E-06	4.0540E-19	7.7155E+17
Cs-137	1.6384E+03	1.8836E-02	8.2796E-22	1.8627E+18
Ba-139	4.5619E-01	2.7889E-11	1.2083E+14	2.9540E+16
Ba-140	1.3791E-03	1.8838E-05	8.1033E+19	1.5636E+18
La-140	3.2910E+02	5.9208E-07	2.5469E+18	2.5236E+17
La-141	7.7195E-01	1.3650E-10	5.8299E+14	2.5624E+15
La-142	9.5499E-03	6.6712E-13	2.8292E+12	3.5596E+14
Ce-141	3.2424E+01	1.1379E-06	4.8602E+18	3.6496E+16
Ce-143	2.1762E+01	3.2771E-08	1.3801E+17	2.7195E+16
Ce-144	2.7541E+01	8.6350E-06	3.6112E+19	3.0884E+16
Pr-143	1.2171E+01	1.8075E-07	7.6118E+17	1.3492E+16
Nd-147	5.0783E+00	6.2773E-08	2.5716E+17	5.7682E+15
Np-239	3.1800E+02	1.3707E-06	3.4539E+18	3.7955E+17
Pu-238	8.3133E-02	4.8560E-06	1.2287E+19	9.3173E+13
Pu-239	8.8460E-03	1.4232E-04	3.5860E+20	9.9082E+12
Pu-240	1.4198E-02	6.2307E-05	1.5634E+20	1.5913E+13
Pu-241	3.5013E+00	3.3989E-05	8.4932E+19	3.9244E+15
Am-241	1.8636E-03	5.4298E-07	1.3568E+18	2.0850E+12
Cm-242	4.8414E-01	1.4608E-07	3.6351E+17	5.4311E+14
Cm-244	2.8452E-02	3.5168E-07	8.6799E+17	3.1890E+13

SGTS Filter Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	7.8853E+22	0.0000E+00	
Elemental I (atoms)	1.5935E+20	0.0000E+00	
Organic I (atoms)	4.9282E+18	0.0000E+00	
Aerosols (kg)	2.1672E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.3625E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.1786E-01
Total I (Ci)			4.2343E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.1888E+22
Elemental I (atoms)	0.0000E+00	1.7381E+20
Organic I (atoms)	0.0000E+00	5.3756E+18
Aerosols (kg)	0.0000E+00	2.2779E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5930E+21
Elemental I (atoms)	0.0000E+00	5.4787E+18
Organic I (atoms)	0.0000E+00	1.6944E+17
Aerosols (kg)	0.0000E+00	1.0955E-03
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5930E+21

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.2367E+06

Primary Containment Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	1.2844E-03	4.0394E-11	4.1941E+14	2.7125E+17
Co-60	6.9770E-04	6.1723E-10	6.1951E+15	1.4609E+17
Kr-85	1.4659E+06	3.7365E+00	2.6472E+25	4.4824E+21
Kr-85m	6.4805E+05	7.8747E-05	5.5791E+20	1.8764E+22
Kr-87	1.1066E+02	3.9068E-09	2.7043E+16	7.2360E+21
Kr-88	2.1121E+05	1.6844E-05	1.1527E+20	3.0785E+22
Rb-86	4.2097E-02	5.1737E-10	3.6229E+15	1.0218E+19
Sr-89	1.7755E+00	6.1114E-08	4.1353E+17	3.7629E+20
Sr-90	2.2940E-01	1.6817E-06	1.1253E+19	4.8021E+19
Sr-91	3.9822E-01	1.0986E-10	7.2699E+14	4.0781E+20
Sr-92	5.2555E-03	4.1812E-13	2.7369E+12	2.9529E+20
Y-90	5.2074E-02	9.5713E-11	6.4044E+14	1.0595E+18
Y-91	2.7945E-02	1.1395E-09	7.5410E+15	4.9947E+18
Y-92	5.2261E-02	5.4313E-12	3.5552E+13	5.6984E+19
Y-93	3.6030E-03	1.0799E-12	6.9931E+12	3.3570E+18
Zr-95	3.3239E-02	1.5472E-09	9.8079E+15	7.0260E+18
Zr-97	1.2424E-02	6.4991E-12	4.0349E+13	6.3428E+18
Nb-95	3.3591E-02	8.5903E-10	5.4455E+15	7.0328E+18
Mo-99	3.4358E-01	7.1636E-10	4.3576E-15	9.0340E+19
Tc-99m	3.4430E-01	6.5478E-11	3.9830E+14	8.1233E+19
Ru-103	3.7018E-01	1.1470E-08	6.7062E+16	7.8733E+19
Ru-105	6.1416E-03	9.1366E-13	5.2402E+12	3.8716E+19
Ru-106	1.4972E-01	4.4752E-08	2.5425E+17	3.1393E+19
Rh-105	1.7411E-01	2.0628E-10	1.1831E+15	5.0461E+19
Sb-127	3.4344E-01	1.2860E-09	6.0982E+15	8.4606E+19
Sb-129	3.2307E-02	5.7451E-12	2.6820E+13	2.2395E+20
Te-127	3.8344E-01	1.4529E-10	6.8894E-14	8.4871E+19
Te-127m	6.9519E-02	7.3701E-09	3.4948E+16	1.4554E+19
Te-129	2.9350E-01	1.4015E-11	6.5426E+13	2.5150E+20
Te-129m	2.8696E-01	9.5256E-09	4.4469E+16	6.0939E+19
Te-131m	5.4024E-01	6.7749E-10	3.1145E+15	1.8681E+20
Te-132	5.4495E+00	1.7950E-08	8.1892E+16	1.3828E+21
I-131	1.4574E+06	1.1756E-02	5.4041E+22	1.0356E+22
I-132	3.6350E+03	3.5215E-07	1.6066E-18	7.7014E+21
I-133	1.4831E+06	1.3092E-03	5.9279E+21	1.7947E+22
I-134	2.0899E-02	7.8342E-13	3.5208E+12	3.6084E+21
I-135	2.5284E+05	7.1997E-05	3.2117E+20	1.2369E-22
Xe-133	1.8590E+08	9.9318E-01	4.4970E+24	6.0532E-23
Xe-135	1.4976E+07	5.8643E-03	2.6160E+22	1.2045E+23
Cs-134	4.6246E+00	3.5744E-06	1.6064E+19	1.0861E+21
Cs-136	1.4018E+00	1.9127E-08	8.4694E+16	3.4520E+20
Cs-137	3.4836E+00	4.0050E-05	1.7605E-20	8.1750E+20
Ba-139	1.9586E-05	1.1974E-15	5.1878E+09	2.5832E+20
Ba-140	3.2490E+00	4.4380E-08	1.9090E+17	7.1438E+20
La-140	1.1078E+00	1.9930E-09	8.5729E+15	2.0824E-19
La-141	4.5168E-04	7.9867E-14	3.4111E+11	4.4385E+18
La-142	6.2794E-07	4.3866E-17	1.8603E+08	2.5437E+18
Ce-141	7.7244E-02	2.7110E-09	1.1579E+16	1.6461E+19
Ce-143	4.4132E-02	6.6455E-11	2.7986E+14	1.4579E+19
Ce-144	6.6017E-02	2.0698E-08	8.6561E+16	1.3849E+19
Pr-143	2.9506E-02	4.3817E-10	1.8452E+15	5.9157E+18
Nd-147	1.1929E-02	1.4745E-10	6.0407E+14	2.6437E+18
Np-239	6.9158E-01	2.9811E-09	7.5114E+15	1.8894E+20
Pu-238	1.9944E-04	1.1650E-08	2.9477E+16	4.1742E+16
Pu-239	2.1240E-05	3.4172E-07	8.6105E+17	4.4341E+15
Pr-143	2.9506E-02	4.3817E-10	1.8452E+15	5.9157E+18
Nd-147	1.1929E-02	1.4745E-10	6.0407E+14	2.6437E+18

Pu-240	3.4060E-05	1.4947E-07	3.7506E-17	7.1293E-15
Pu-241	8.3991E-03	8.1534E-08	2.0374E+17	1.7583E+18
Am-241	4.4828E-06	1.3061E-09	3.2638E+15	9.3138E+14
Cm-242	1.1598E-03	3.4993E-10	8.7080E+14	2.4370E+17
Cm-244	6.8253E-05	8.4365E-10	2.0822E+15	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0996E+25	0.0000E-00	
Elemental I (atoms)	5.8482E+22	0.0000E-00	
Organic I (atoms)	1.8087E+21	0.0000E+00	
Aerosols (kg)	4.6352E-05	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5570E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7057E-04
Total I (Ci)			3.1969E+06

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 24.0000 Leakage Transport

Noble gases (atoms)	2.9521E+23
Elemental I (atoms)	6.1445E+20
Organic I (atoms)	1.9004E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	1.3736E-01	4.3199E-09	4.4854E+16	1.1017E-15
Co-60	7.4615E-02	6.6009E-08	6.6252E+17	5.9514E-14
Kr-85	6.1709E+03	1.5729E-02	1.1143E+23	1.2345E-19
Kr-85m	2.7280E+03	3.3149E-07	2.3485E+18	3.1016E-19
Kr-87	4.6583E-01	1.6446E-11	1.1384E+14	4.7364E-18
Kr-88	8.8907E+02	7.0903E-08	4.8521E+17	3.8392E-19
Rb-86	4.9806E+00	6.1211E-08	4.2863E+17	4.1282E+16
Sr-89	1.8988E+02	6.5358E-06	4.4224E+19	1.5264E+18
Sr-90	2.4533E+01	1.7985E-04	1.2034E+21	1.9564E+17
Sr-91	4.2588E+01	1.1748E-08	7.7748E+16	1.0300E+18
Sr-92	5.6204E-01	4.4715E-11	2.9270E+14	3.5737E+17
Y-90	5.5939E+00	1.0282E-08	6.8798E+16	1.8906E+16
Y-91	2.9941E+00	1.2209E-07	8.0796E+17	2.2054E+16
Y-92	5.6413E+00	5.8627E-10	3.8376E+15	3.3347E+17
Y-93	3.8532E-01	1.1549E-10	7.4787E+14	8.6888E+15
Zr-95	3.5547E+00	1.6547E-07	1.0489E+18	2.8527E+16
Zr-97	1.3287E+00	6.9504E-10	4.3151E+15	1.9394E+16
Nb-95	3.5923E+00	9.1868E-08	5.8236E+17	2.8648E+16
Mo-99	3.6743E+01	7.6610E-08	4.6602E+17	3.4031E+17
Tc-99m	3.6821E+01	7.0025E-09	4.2596E+16	3.1427E+17
Ru-103	3.9589E+01	1.2266E-06	7.1719E+18	3.1898E+17
Ru-105	6.5681E-01	9.7711E-11	5.6041E+14	6.5915E+16
Ru-106	1.6012E+01	4.7860E-06	2.7190E+19	1.2783E+17
Rh-105	1.8620E+01	2.2060E-08	1.2652E+17	1.8830E+17
Sb-127	3.6729E+01	1.3753E-07	6.5216E+17	3.2581E+17
Sb-129	3.4550E+00	6.1440E-10	2.8682E+15	3.7473E+17
Te-127	4.1006E+01	1.5538E-08	7.3678E+16	3.3666E+17
Te-127m	7.4347E+00	7.8819E-07	3.7375E+18	5.9296E+16
Te-129	3.1388E+01	1.4988E-09	6.9969E+15	5.3922E+17
Te-129m	3.0689E+01	1.0187E-06	4.7557E+18	2.4729E+17
Te-131m	5.7775E+01	7.2454E-08	3.3307E+17	6.4344E+17
Te-132	5.8279E+02	1.9197E-06	8.7579E+18	5.2718E+18
I-131	8.8060E+03	7.1030E-05	3.2653E+20	3.5386E+19
I-132	7.1025E+02	6.8808E-08	3.1392E+17	1.2066E+19
I-133	8.9576E+03	7.9074E-06	3.5804E+19	5.2866E+19
Te-131m	5.7775E+01	7.2454E-08	3.3307E+17	6.4344E+17
Te-132	5.8279E+02	1.9197E-06	8.7579E+18	5.2718E+18

I-134	1.2623E-04	4.7318E-15	2.1265E+10	1.6999E+18
I-135	1.5272E+03	4.3486E-07	1.9398E+18	2.5895E+19
Xe-133	7.8296E-05	4.1829E-03	1.8940E+22	1.6430E+21
Xe-135	6.3879E-04	2.5014E-05	1.1158E+20	2.6915E-20
Cs-134	5.4715E+02	4.2289E-04	1.9005E-21	4.4387E+18
Cs-136	1.6585E+02	2.2629E-06	1.0020E-19	1.3876E-18
Cs-137	4.1215E+02	4.7384E-03	2.0829E+22	3.3419E-18
Ba-139	2.0946E-03	1.2806E-13	5.5481E+11	1.8117E+17
Ba-140	3.4746E+02	4.7462E-06	2.0416E+19	2.8609E+18
La-140	1.1898E+02	2.1406E-07	9.2077E+17	4.1055E+17
La-141	4.8304E-02	8.5413E-12	3.6480E+13	6.9844E+15
La-142	6.7155E-05	4.6912E-15	1.9895E+10	1.9621E+15
Ce-141	8.2604E+00	2.8991E-07	1.2382E+18	6.6667E+16
Ce-143	4.7196E+00	7.1070E-09	2.9930E+16	5.0954E+16
Ce-144	7.0601E+00	2.2135E-06	9.2571E+18	5.6381E+16
Pr-143	3.1566E+00	4.6876E-08	1.9741E+17	2.4549E+16
Nd-147	1.2757E+00	1.5769E-08	6.4602E+16	1.0558E+16
Np-239	7.3960E+01	3.1881E-07	8.0330E+17	7.0267E+17
Pu-238	2.1329E-02	1.2459E-06	3.1524E+18	1.7007E+14
Pu-239	2.2715E-03	3.6545E-05	9.2084E+19	1.8083E-13
Pu-240	3.6425E-03	1.5985E-05	4.0110E+19	2.9046E-13
Pu-241	8.9823E-01	8.7196E-06	2.1789E+19	7.1634E-15
Am-241	4.7943E-04	1.3969E-07	3.4905E+17	3.8045E+12
Cm-242	1.2403E-01	3.7423E-08	9.3127E-16	9.9155E+14
Cm-244	7.2993E-03	9.0223E-08	2.2268E-17	5.8211E+13

Secondary Containment Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3049E+23	0.0000E+00	
Elemental I (atoms)	2.4674E+20	0.0000E-00	
Organic I (atoms)	7.6312E+18	0.0000E+00	
Aerosols (kg)	5.4552E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.7581E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9294E-07
Total I (Ci)			2.0001E+04

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 24.0000 Leakage Transport

Noble gases (atoms)	2.9521E+23
Elemental I (atoms)	6.1445E+20
Organic I (atoms)	1.9004E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6281E+23
Elemental I (atoms)	0.0000E+00	3.3149E+20
Organic I (atoms)	0.0000E+00	1.0252E+19
Aerosols (kg)	0.0000E+00	2.7947E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	6.3702E-01	2.0033E-08	2.0801E+17	1.2437E+15
Co-60	3.4603E-01	3.0611E-07	3.0724E+18	6.7337E+14
Kr-85	7.2515E+03	1.8483E-02	1.3095E+23	8.8160E+18
Kr-85m	3.2057E+03	3.8954E-07	2.7598E+18	1.3677E+19
Kr-87	5.4741E-01	1.9326E-11	1.3377E+14	7.1737E+17
Kr-88	1.0448E+03	8.3320E-08	5.7018E+17	1.2413E+19
Rb-86	2.3464E+01	2.8837E-07	2.0193E+18	4.6695E+16
Sr-89	8.8056E+02	3.0310E-05	2.0509E+20	1.7215E+18
Sr-90	1.1377E+02	8.3406E-04	5.5809E+21	2.2138E+17
Sr-91	1.9750E+02	5.4483E-08	3.6055E+17	7.6529E+17
Sr-92	2.6065E+00	2.0737E-10	1.3574E+15	1.1282E+17
Y-90	2.5955E+01	4.7706E-08	3.1921E+17	3.3096E+16
Y-91	1.3888E+01	5.6631E-07	3.7477E-18	2.6006E+16
Sr-90	1.1377E+02	8.3406E-04	5.5809E+21	2.2138E+17
Sr-91	1.9750E+02	5.4483E-08	3.6055E+17	7.6529E+17

Y-92	2.6190E+01	2.7218E-09	1.7816E+16	2.3332E+17
Y-93	1.7869E+00	5.3560E-10	3.4682E+15	6.6158E+15
Zr-95	1.6485E+01	7.6734E-07	4.8643E+18	3.2196E+16
Zr-97	6.1617E+00	3.2232E-09	2.0011E+16	1.7305E+16
Nb-95	1.6659E-01	4.2604E-07	2.7007E+18	3.2409E+16
Mo-99	1.7040E+02	3.5528E-07	2.1612E+18	3.6246E+17
Tc-99m	1.7076E+02	3.2474E-08	1.9754E+17	3.3754E+17
Ru-103	1.8359E-02	5.6886E-06	3.3260E+19	3.5942E+17
Ru-105	3.0460E+00	4.5313E-10	2.5989E+15	3.1617E+16
Ru-106	7.4254E+01	2.2195E-05	1.2609E+20	1.4457E+17
Rh-105	8.6349E+01	1.0230E-07	5.8674E+17	1.9527E+17
Sb-127	1.7033E+02	6.3781E-07	3.0244E+18	3.5308E+17
Sb-129	1.6023E+01	2.8493E-09	1.3301E+16	1.7607E+17
Te-127	1.9016E+02	7.2057E-08	3.4168E+17	3.7036E+17
Te-127m	3.4478E+01	3.6552E-06	1.7333E+19	6.7090E+16
Te-129	1.4556E+02	6.9507E-09	3.2448E+16	3.6055E+17
Te-129m	1.4232E+02	4.7242E-06	2.2054E+19	2.7873E+17
Te-131m	2.6793E+02	3.3600E-07	1.5446E+18	6.3703E+17
Te-132	2.7027E+03	8.9023E-06	4.0615E+19	5.6684E+18
I-131	1.9767E+04	1.5945E-04	7.3299E+20	3.4346E+19
I-132	3.2421E+03	3.1409E-07	1.4330E+18	7.5131E+18
I-133	2.0100E+04	1.7743E-05	8.0340E+19	4.4796E+19
I-134	2.8324E-04	1.0618E-14	4.7717E+10	1.7809E+17
I-135	3.4268E+03	9.7577E-07	4.3528E+18	1.5542E+19
Xe-133	9.2147E+05	4.9229E-03	2.2290E+22	1.1592E+21
Xe-135	7.8054E+04	3.0565E-05	1.3634E+20	1.6114E+20
Cs-134	2.5777E+03	1.9923E-03	8.9535E+21	5.0649E+18
Cs-136	7.8134E+02	1.0661E-05	4.7207E+19	1.5636E+18
Cs-137	1.9417E+03	2.2323E-02	9.8125E+22	3.8141E+18
Ba-139	9.7138E-03	5.9387E-13	2.5729E+12	2.9668E+16
Ba-140	1.6113E-03	2.2010E-05	9.4678E+19	3.1953E+18
La-140	5.5204E+02	9.9318E-07	4.2722E+18	7.1609E+17
La-141	2.2401E-01	3.9610E-11	1.6918E-14	3.0474E+15
La-142	3.1143E-04	2.1755E-14	9.2263E+10	3.5891E+14
Ce-141	3.8307E+01	1.3444E-06	5.7421E+18	7.5077E+16
Ce-143	2.1887E+01	3.2959E-08	1.3880E+17	5.1065E+16
Ce-144	3.2741E+01	1.0265E-05	4.2930E+19	6.3760E+16
Pr-143	1.4639E+01	2.1740E-07	9.1552E+17	2.8089E+16
Nd-147	5.9161E+00	7.3130E-08	2.9959E+17	1.1768E+16
Np-239	3.4299E+02	1.4785E-06	3.7253E+18	7.4081E+17
Pu-238	9.8912E-02	5.7777E-06	1.4619E+19	1.9245E+14
Pu-239	1.0534E-02	1.6948E-04	4.2704E+20	2.0476E+13
Pu-240	1.6892E-02	7.4130E-05	1.8601E+20	3.2867E+13
Pu-241	4.1655E+00	4.0437E-05	1.0104E+20	8.1054E+15
Am-241	2.2233E-03	6.4779E-07	1.6187E+18	4.3132E+12
Cm-242	5.7519E-01	1.7355E-07	4.3188E+17	1.1208E+15
Cm-244	3.3850E-02	4.1841E-07	1.0327E+18	6.5866E+13

SGTS Filter Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	1.5338E+23	0.0000E+00	
Elemental I (atoms)	2.9199E+20	0.0000E+00	
Organic I (atoms)	9.0306E+18	0.0000E+00	
Aerosols (kg)	2.5680E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.2041E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.0202E-01
Total I (Ci)			4.6536E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6281E+23
Elemental I (atoms)	0.0000E+00	3.3149E+20
Organic I (atoms)	0.0000E+00	1.0252E+19
Aerosols (kg)	0.0000E+00	2.7947E-02

SGTS Filter to Environment Transport Group Inventory:

[illegible]	[illegible]	[illegible]
Organic I (atoms)	0.0000E+00	1.0252E+19
[illegible]	[illegible]	[illegible]

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.1305E+21
Elemental I (atoms)	0.0000E+00	1.6330E+19
Organic I (atoms)	0.0000E+00	5.0505E+17
Aerosols (kg)	0.0000E+00	2.2464E-03

Detailed model information at time (H) = 48.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	1.3712E+07

Primary Containment Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.1482E-04	3.6109E-12	3.7492E+13	2.7125E-17
Co-60	6.2960E-05	5.5698E-11	5.5904E+14	1.4609E+17
Kr-85	1.4585E+06	3.7174E+00	2.6337E+25	9.1563E+21
Kr-85m	1.5733E+04	1.9118E-06	1.3545E+19	1.9308E+22
Kr-87	2.2938E-04	8.0980E-15	5.6055E+10	7.2361E+21
Kr-88	6.0069E+02	4.7905E-08	3.2783E+17	3.0900E+22
Rb-86	3.6616E-03	4.5001E-11	3.1512E+14	1.0219E+19
Sr-89	1.5809E-01	5.4417E-09	3.6821E+16	3.7629E+20
Sr-90	2.0707E-02	1.5180E-07	1.0158E+18	4.8021E+19
Sr-91	6.2400E-03	1.7214E-12	1.1392E+13	4.0781E+20
Sr-92	1.0238E-06	8.1452E-17	5.3317E+08	2.9529E+20
Y-90	8.3904E-03	1.5422E-11	1.0319E+14	1.0596E+18
Y-91	2.5768E-03	1.0507E-10	6.9534E+14	4.9947E+18
Y-92	5.4832E-05	5.6984E-15	3.7300E+10	5.6984E+19
Y-93	6.2647E-05	1.8777E-14	1.2159E+11	3.3570E+18
Zr-95	2.9682E-03	1.3816E-10	8.7584E+14	7.0260E+18
Zr-97	4.1910E-04	2.1923E-13	1.3611E+12	6.3429E+18
Nb-95	3.0308E-03	7.7508E-11	4.9133E+14	7.0329E+18
Mo-99	2.4105E-02	5.0259E-11	3.0573E+14	9.0341E+19
Tc-99m	2.4668E-02	4.6914E-12	2.8537E+13	8.1234E+19
Ru-103	3.2832E-02	1.0173E-09	5.9479E+15	7.8733E+19
Ru-105	1.3081E-05	1.9460E-15	1.1161E+10	3.8716E+19
Ru-106	1.3490E-02	4.0322E-09	2.2908E+16	3.1393E+19
Rh-105	9.8669E-03	1.1690E-11	6.7046E+13	5.0461E+19
Sb-127	2.5895E-02	9.6965E-11	4.5979E+14	8.4606E+19
Sb-129	6.2009E-05	1.1027E-14	5.1478E+10	2.2395E+20
Te-127	3.0700E-02	1.1633E-11	5.5161E+13	8.4871E+19
Te-127m	6.2682E-03	6.6453E-10	3.1511E+15	1.4554E+19
Te-129	2.2033E-02	1.0521E-12	4.9114E+12	2.5150E+20
Te-129m	2.5379E-02	8.4245E-10	3.9328E+15	6.0939E+19
Te-131m	2.8010E-02	3.5126E-11	1.6148E+14	1.8681E-20
Te-132	3.9767E-01	1.3099E-09	5.9759E+15	1.3828E-21
I-131	1.3304E+06	1.0731E-02	4.9333E+22	1.4808E+22
I-132	3.2939E+00	3.1911E-10	1.4558E+15	7.7030E+21
I-133	6.6324E+05	5.8548E-04	2.6510E+21	2.1204E+22
I-134	1.1936E-10	4.4743E-21	2.0108E+04	3.6084E+21
I-135	2.0310E+04	5.7832E-06	2.5798E+19	1.2663E+22
Xe-133	1.6221E+08	8.6659E-01	3.9239E-24	1.1608E+24
Xe-135	2.4375E+06	9.5448E-04	4.2578E+21	1.4254E+23
Cs-134	4.1709E-01	3.2237E-07	1.4488E+18	1.0861E+21
Cs-136	1.2002E-01	1.6376E-09	7.2515E+15	3.4520E+20
Cs-137	3.1445E-01	3.6151E-06	1.5891E+19	8.1750E+20
Ba-140	2.7776E-01	3.7941E-09	1.6320E+16	7.1439E+20
La-140	1.6341E-01	2.9399E-10	1.2646E+15	2.0826E+19
La-141	5.9160E-07	1.0461E-16	4.4679E+08	4.4385E+18
Ce-141	6.8260E-03	2.3957E-10	1.0232E+15	1.6461E+19
Ce-143	2.4064E-03	3.6237E-12	1.5260E+13	1.4579E+19
Ce-144	5.9449E-03	1.8639E-09	7.7949E+15	1.3849E+19
Pr-143	2.6866E-03	3.9896E-11	1.6801E+14	5.9157E+18
La-141	5.9160E-07	1.0461E-16	4.4679E+08	4.4385E+18
Ce-141	6.8260E-03	2.3957E-10	1.0232E+15	1.6461E+19

Nd-147	1.0110E-03	1.2497E-11	5.1195E+13	2.6437E+18
Np-239	4.6512E-02	2.0049E-10	5.0518E+14	1.8894E+20
Pu-238	1.8006E-05	1.0517E-09	2.6612E+15	4.1743E+16
Pu-239	1.9217E-06	3.0917E-08	7.7901E+16	4.4342E+15
Pu-240	3.0746E-06	1.3493E-08	3.3857E+16	7.1294E+15
Pu-241	7.5810E-04	7.3593E-09	1.8389E+16	1.7583E+18
Am-241	4.0800E-07	1.1888E-10	2.9705E+14	9.3138E+14
Cm-242	1.0425E-04	3.1455E-11	7.8275E+13	2.4370E+17
Cm-244	6.1607E-06	7.6149E-11	1.8794E+14	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0266E+25	0.0000E+00	
Elemental I (atoms)	5.0449E+22	0.0000E+00	
Organic I (atoms)	1.5603E+21	0.0000E+00	
Aerosols (kg)	4.1805E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3112E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3731E-04
Total I (Ci)			2.0140E+06

Time (h) = 48.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 48.0000	Leakage Transport
Noble gases (atoms)	4.4633E+23
Elemental I (atoms)	8.8245E+20
Organic I (atoms)	2.7292E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.8424E-02	5.7941E-10	6.0160E+15	1.2832E+15
Co-60	1.0103E-02	8.9373E-09	8.9703E+16	6.9404E+14
Kr-85	3.9522E+03	1.0074E-02	7.1370E+22	2.7279E+19
Kr-85m	4.2633E+01	5.1805E-09	3.6703E+16	3.2961E+19
Kr-87	6.2159E-07	2.1944E-17	1.5190E+08	4.7365E+18
Kr-88	1.6278E+00	1.2981E-10	8.8836E+14	3.8818E+19
Rb-86	6.4999E-01	7.9883E-09	5.5938E+16	4.7801E+16
Sr-89	2.5368E-01	8.7317E-07	5.9083E+18	1.7770E+18
Sr-90	3.3227E-00	2.4358E-05	1.6299E+20	2.2817E+17
Sr-91	1.0013E-00	2.7621E-10	1.8279E+15	1.0640E+18
Sr-92	1.6428E-04	1.3070E-14	8.5552E+10	3.5758E+17
Y-90	1.3489E+00	2.4794E-09	1.6590E+16	2.8254E+16
Y-91	4.1421E-01	1.6890E-08	1.1177E+17	2.6067E+16
Y-92	8.8627E-03	9.2105E-13	6.0290E+12	3.3618E+17
Y-93	1.0052E-02	3.0130E-12	1.9510E+13	9.0041E+15
Zr-95	4.7627E-01	2.2170E-08	1.4054E+17	3.3222E+16
Zr-97	6.7249E-02	3.5178E-11	2.1840E+14	2.0689E+16
Nb-95	4.8632E-01	1.2437E-08	7.8839E+16	3.3408E+16
Mo-99	3.8679E+00	8.0646E-09	4.9057E+16	3.8507E+17
Tc-99m	3.9583E+00	7.5278E-10	4.5791E+15	3.5730E+17
Ru-103	5.2683E+00	1.6324E-07	9.5440E+17	3.7115E+17
Ru-105	2.0990E-03	3.1226E-13	1.7909E+12	6.6264E+16
Ru-106	2.1646E+00	6.4701E-07	3.6758E+18	1.4904E+17
Rh-105	1.5833E+00	1.8758E-09	1.0758E+16	2.0951E+17
Sb-127	4.1551E+00	1.5559E-08	7.3778E+16	3.7163E+17
Sb-129	9.9501E-03	1.7694E-12	8.2601E+12	3.7654E+17
Te-127	4.9262E+00	1.8666E-09	8.8512E+15	3.8723E-17
Te-127m	1.0058E+00	1.0663E-07	5.0562E+17	6.9148E+16
Te-129	3.5354E+00	1.6882E-10	7.8809E+14	5.6759E+17
Te-129m	4.0723E+00	1.3518E-07	6.3106E+17	2.8769E+17
Te-131m	4.4945E+00	5.6364E-09	2.5911E+16	7.0739E+17
Te-127	4.9262E+00	1.8666E-09	8.8512E+15	3.8723E-17
Te-127m	1.0058E+00	1.0663E-07	5.0562E+17	6.9148E+16

Te-132	6.3810E-01	2.1018E-07	9.5890E+17	5.9911E+18
I-131	3.9375E+03	3.1761E-05	1.4601E+20	5.3096E+19
I-132	7.6171E+01	7.3794E-09	3.3666E+16	1.2816E-19
I-133	1.9625E+03	1.7324E-06	7.8443E+18	6.6360E-19
I-135	6.0097E+01	1.7112E-08	7.6336E-16	2.7229E-19
Xe-133	4.3964E+05	2.3487E-03	1.0635E+22	3.4269E+21
Xe-135	6.6351E+03	2.5982E-06	1.1590E+19	3.4502E+20
Cs-134	7.4040E+01	5.7225E-05	2.5718E+20	5.1638E+18
Cs-136	2.1306E-01	2.9070E-07	1.2873E+18	1.6036E+18
Cs-137	5.5820E+01	6.4175E-04	2.8209E+21	3.8883E+18
Ba-139	1.6264E-09	9.9434E-20	4.3079E+05	1.8117E+17
Ba-140	4.4570E+01	6.0880E-07	2.6188E+18	3.3130E+18
La-140	2.6266E+01	4.7256E-08	2.0327E+17	6.0259E+17
La-141	9.4928E-05	1.6786E-14	7.1691E+10	7.0081E+15
La-142	1.8730E-10	1.3084E-20	5.5489E+04	1.9621E+15
Ce-141	1.0953E-00	3.8439E-08	1.6417E+17	7.7538E+16
Ce-143	3.8613E-01	5.8146E-10	2.4487E+15	5.6259E+16
Ce-144	9.5392E-01	2.9908E-07	1.2508E+18	6.5732E+16
Pr-143	4.3123E-01	6.4039E-09	2.6969E+16	2.8751E+16
Nd-147	1.6222E-01	2.0052E-09	8.2147E+15	1.2213E+16
Np-239	7.4634E+00	3.2171E-08	8.1062E+16	7.9154E+17
Pu-238	2.8892E-03	1.6876E-07	4.2702E+17	1.9835E+14
Pu-239	3.0835E-04	4.9609E-06	1.2500E+19	2.1097E+13
Pu-240	4.9335E-04	2.1651E-06	5.4327E+18	3.3875E+13
Pu-241	1.2164E-01	1.1809E-06	2.9508E+18	8.3541E+15
Am-241	6.5469E-05	1.9075E-08	4.7665E+16	4.4417E+12
Cm-242	1.6728E-02	5.0473E-09	1.2560E+16	1.1557E+15
Cm-244	9.8854E-04	1.2219E-08	3.0157E+16	6.7887E-13

Secondary Containment Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	8.2016E+22	0.0000E+00	
Elemental I (atoms)	1.3679E+20	0.0000E+00	
Organic I (atoms)	4.2305E+18	0.0000E+00	
Aerosols (kg)	7.3823E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.2505E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.5963E-08
Total I (Ci)			6.0363E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 48.0000	Leakage Transport
Noble gases (atoms)	4.4633E+23
Elemental I (atoms)	8.8245E+20
Organic I (atoms)	2.7292E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6053E+23
Elemental I (atoms)	0.0000E+00	6.8423E+20
Organic I (atoms)	0.0000E+00	2.1162E-19
Aerosols (kg)	0.0000E+00	3.2662E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	6.5329E-01	2.0545E-08	2.1332E+17	3.3674E+15
Co-60	3.5823E-01	3.1691E-07	3.1808E+18	1.8324E+15
Kr-85	1.5014E+04	3.8269E-02	2.7113E+23	4.6323E+19
Kr-85m	1.6196E+02	1.9680E-08	1.3943E+17	1.7295E+19
Kr-87	2.3613E-06	8.3364E-17	5.7705E+08	7.1752E-17
Kr-88	6.1837E+00	4.9315E-10	3.3748E+15	1.3127E+19
Rb-86	2.3354E+01	2.8702E-07	2.0098E+18	1.2372E+17
Sr-89	8.9950E+02	3.0961E-05	2.0950E+20	4.6513E+18
Sr-90	1.1782E+02	8.6372E-04	5.7794E+21	6.0251E+17
Sr-91	3.5504E+01	9.7941E-09	6.4815E+16	1.0765E+18
Kr-88	6.1837E+00	4.9315E-10	3.3748E+15	1.3127E+19
Rb-86	2.3354E+01	2.8702E-07	2.0098E+18	1.2372E+17

Sr-92	5.8251E-03	4.6344E-13	3.0336E+12	1.1422E+17
Y-90	4.7840E+01	8.7931E-08	5.8837E+17	1.5344E+17
Y-91	1.4690E+01	5.9900E-07	3.9640E+18	7.3216E+16
Y-92	3.1448E-01	3.2683E-11	2.1393E+14	2.5298E+17
Y-93	3.5644E-01	1.0684E-10	6.9182E+14	9.5411E+15
Zr-95	1.6888E+01	7.8612E-07	4.9833E+18	8.7123E+16
Zr-97	2.3846E+00	1.2474E-09	7.7441E+15	3.0417E+16
Nb-95	1.7244E+01	4.4100E-07	2.7955E+18	8.8185E+16
Mo-99	1.3715E+02	2.8596E-07	1.7395E+18	8.6687E+17
Tc-99m	1.4036E+02	2.6693E-08	1.6237E+17	8.2414E+17
Ru-103	1.8681E+02	5.7882E-06	3.3842E+19	9.6906E+17
Ru-105	7.4428E-02	1.1072E-11	6.3504E+13	3.4253E+16
Ru-106	7.6755E+01	2.2942E-05	1.3034E+20	3.9310E-17
Rh-105	5.6140E+01	6.6512E-08	3.8147E-17	4.2663E-17
Sb-127	1.4733E+02	5.5170E-07	2.6161E+18	8.7515E+17
Sb-129	3.5282E-01	6.2741E-11	2.9289E+14	1.8958E+17
Te-127	1.7468E+02	6.6188E-08	3.1385E+17	9.5209E+17
Te-127m	3.5664E+01	3.7810E-06	1.7929E+19	1.8252E+17
Te-129	1.2536E+02	5.9860E-09	2.7944E-16	6.8340E+17
Te-129m	1.4440E+02	4.7933E-06	2.2377E+19	7.5066E+17
Te-131m	1.5937E+02	1.9986E-07	9.1876E+17	1.3254E+18
Te-132	2.2626E+03	7.4528E-06	3.4001E+19	1.3822E+19
I-131	2.5614E+04	2.0661E-04	9.4979E+20	1.1018E+20
I-132	2.7007E+03	2.6164E-07	1.1937E+18	1.5962E+19
I-133	1.2755E+04	1.1260E-05	5.0983E+19	9.9164E+19
I-135	3.9059E+02	1.1122E-07	4.9613E+17	2.0255E+19
Xe-133	1.6726E+06	8.9358E-03	4.0461E+22	5.5935E+21
Xe-135	2.6172E+04	1.0248E-05	4.5717E+19	3.2936E+20
Cs-134	2.6602E+03	2.0561E-03	9.2402E+21	1.3681E+19
Cs-136	7.6551E+02	1.0445E-05	4.6250E+19	4.1084E+18
Cs-137	2.0056E+03	2.3057E-02	1.0135E+23	1.0307E+19
Ba-139	5.7671E-08	3.5258E-18	1.5275E+07	2.9670E+16
Ba-140	1.5804E+03	2.1587E-05	9.2858E+19	8.4488E+18
La-140	9.3153E+02	1.6759E-06	7.2090E+18	3.1537E+18
La-141	3.3660E-03	5.9519E-13	2.5421E+12	3.2204E+15
La-142	6.6414E-09	4.6394E-19	1.9676E+06	3.5901E+14
Ce-141	3.8836E+01	1.3630E-06	5.8213E+18	2.0205E+17
Ce-143	1.3692E+01	2.0618E-08	8.6827E+16	1.0861E+17
Ce-144	3.3825E+01	1.0605E-05	4.4351E+19	1.7331E+17
Pr-143	1.5291E-01	2.2708E-07	9.5630E+17	7.7407E+16
Nd-147	5.7521E+00	7.1102E-08	2.9128E+17	3.0973E+16
Np-239	2.6464E+02	1.1407E-06	2.8743E+18	1.7358E+18
Pu-238	1.0245E-01	5.9841E-06	1.5142E+19	5.2383E+14
Pu-239	1.0934E-02	1.7591E-04	4.4323E+20	5.5806E+13
Pu-240	1.7494E-02	7.6771E-05	1.9264E+20	8.9457E+13
Pu-241	4.3134E+00	4.1872E-05	1.0463E-20	2.2059E+16
Am-241	2.3215E-03	6.7639E-07	1.6902E+18	1.1791E+13
Cm-242	5.9316E-01	1.7897E-07	4.4536E+17	3.0437E+15
Cm-244	3.5052E-02	4.3327E-07	1.0693E+18	1.7926E+14

SGTS Filter Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1163E+23	0.0000E+00	
Elemental I (atoms)	5.2197E+20	0.0000E+00	
Organic I (atoms)	1.6143E+19	0.0000E+00	
Aerosols (kg)	2.6507E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.8050E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0296E+00
Total I (Ci)			4.1461E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6053E+23
Elemental I (atoms)	0.0000E+00	6.8423E+20
Organic I (atoms)	0.0000E+00	2.1162E+19
Aerosols (kg)	0.0000E+00	3.2662E-02
Noble gases (atoms)	0.0000E+00	3.6053E+23

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3013E+22
Elemental I (atoms)	0.0000E+00	7.8144E+19
Organic I (atoms)	0.0000E+00	2.4168E+18
Aerosols (kg)	0.0000E+00	6.1110E-03

Detailed model information at time (H) = 72.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	1.5201E+08

Primary Containment Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	1.0264E-05	3.2279E-13	3.3515E+12	2.7125E+17
Co-60	5.6815E-06	5.0261E-12	5.0447E+13	1.4609E+17
Kr-85	1.4510E+06	3.6985E-00	2.6203E+25	1.3806E+22
Kr-85m	3.8195E+02	4.6412E-08	3.2882E+17	1.9321E+22
Kr-87	4.7546E-10	1.6786E-20	1.1619E+05	7.2361E+21
Kr-88	1.7084E+00	1.3624E-10	9.3237E-14	3.0901E+22
Rb-86	3.1848E-04	3.9142E-12	2.7409E+13	1.0219E+19
Sr-89	1.4077E-02	4.8453E-10	3.2786E+15	3.7629E+20
Sr-90	1.8691E-03	1.3703E-08	9.1688E+16	4.8021E+19
Sr-91	9.7777E-05	2.6973E-14	1.7850E+11	4.0781E+20
Sr-92	1.9944E-10	1.5867E-20	1.0386E+05	2.9529E+20
Y-90	1.0142E-03	1.8642E-12	1.2474E+13	1.0596E+18
Y-91	2.3118E-04	9.4268E-12	6.2384E+13	4.9947E+18
Y-92	4.7367E-08	4.9226E-18	3.2223E+07	5.6984E+19
Y-93	1.0893E-06	3.2649E-16	2.1141E+09	3.3570E+18
Zr-95	2.6505E-04	1.2338E-11	7.8211E+13	7.0260E+18
Zr-97	1.4137E-05	7.3953E-15	4.5913E+10	6.3429E+18
Nb-95	2.7341E-04	6.9919E-12	4.4322E+13	7.0329E+18
Mo-99	1.6912E-03	3.5262E-12	2.1450E+13	9.0341E+19
Tc-99m	1.7336E-03	3.2970E-13	2.0055E+12	8.1234E+19
Ru-103	2.9120E-03	9.0227E-11	5.2754E+14	7.8733E+19
Ru-105	2.7862E-08	4.1448E-18	2.3772E+07	3.8716E+19
Ru-106	1.2155E-03	3.6331E-10	2.0641E+15	3.1393E+19
Rh-105	5.5654E-04	6.5936E-13	3.7817E+12	5.0461E+19
Sb-127	1.9524E-03	7.3110E-12	3.4667E+13	8.4606E+19
Sb-129	1.1902E-07	2.1165E-17	9.8806E+07	2.2395E+20
Te-127	2.4200E-03	9.1699E-13	4.3482E+12	8.4871E+19
Te-127m	5.6470E-04	5.9867E-11	2.8388E+14	1.4554E+19
Te-129	1.9408E-03	9.2672E-14	4.3262E+11	2.5150E+20
Te-129m	2.2442E-03	7.4496E-11	3.4777E+14	6.0939E+19
Te-131m	1.4522E-03	1.8212E-12	8.3722E+12	1.8681E+20
Te-132	2.9019E-02	9.5586E-11	4.3608E+14	1.3828E+21
I-131	1.2145E+06	9.7965E-03	4.5035E+22	1.8873E+22
I-132	5.2038E-02	5.0414E-12	2.3000E+13	7.7030E+21
I-133	2.9661E+05	2.6183E-04	1.1856E+21	2.2660E+22
I-135	1.6314E+03	4.6455E-07	2.0723E+18	1.2687E+22
Xe-133	1.4148E+08	7.5587E-01	3.4225E+24	1.6455E+24
Xe-135	3.9284E+05	1.5383E-04	6.8621E+20	1.4612E+23
Cs-134	3.7617E-02	2.9074E-08	1.3066E+17	1.0861E+21
Cs-136	1.0276E-02	1.4021E-10	6.2087E+14	3.4520E+20
Cs-137	2.8384E-02	3.2632E-07	1.4344E+18	8.1750E+20
Ba-140	2.3746E-02	3.2436E-10	1.3953E+15	7.1439E+20
La-140	1.8073E-02	3.2516E-11	1.3987E+14	2.0826E+19
La-141	7.7487E-10	1.3702E-19	5.8519E+05	4.4385E+18
Ce-141	6.0319E-04	2.1170E-11	9.0416E+13	1.6461E+19
Ce-143	1.3122E-04	1.9759E-13	8.3212E+11	1.4579E+19
Ce-144	5.3535E-04	1.6785E-10	7.0195E+14	1.3849E+19
La-140	1.8073E-02	3.2516E-11	1.3987E+14	2.0826E+19
La-141	7.7487E-10	1.3702E-19	5.8519E+05	4.4385E+18

Pr-143	2.3893E-04	3.5482E-12	1.4942E+13	5.9157E-18
Nd-147	8.5678E-05	1.0591E-12	4.3387E+12	2.6437E+18
Np-239	3.1282E-03	1.3484E-11	3.3976E+13	1.8894E+20
Pu-238	1.6256E-06	9.4952E-11	2.4026E+14	4.1743E+16
Pu-239	1.7376E-07	2.7955E-09	7.0439E+15	4.4342E-15
Pu-240	2.7755E-07	1.2180E-09	3.0563E+15	7.1294E+15
Pu-241	6.8426E-05	6.6424E-10	1.6598E+15	1.7583E+18
Am-241	3.7131E-08	1.0819E-11	2.7034E+13	9.3138E+14
Cm-242	9.3709E-06	2.8274E-12	7.0360E+12	2.4370E+17
Cm-244	5.5607E-07	6.8734E-12	1.6964E+13	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9626E+25	0.0000E+00	
Elemental I (atoms)	4.4836E+22	0.0000E+00	
Organic I (atoms)	1.3867E+21	0.0000E-00	
Aerosols (kg)	3.7712E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1498E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1771E-04
Total I (Ci)			1.5128E+06

Time (h) = 72.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 72.0000	Leakage Transport
Noble gases (atoms)	5.9407E+23
Elemental I (atoms)	1.1174E+21
Organic I (atoms)	3.4558E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	2.4711E-03	7.7712E-11	8.0688E+14	1.3075E+15
Co-60	1.3678E-03	1.2101E-09	1.2145E-16	7.0743E+14
Kr-85	3.6359E+03	9.2673E-03	6.5658E+22	3.9238E-19
Kr-85m	9.5705E-01	1.1630E-10	8.2393E+14	3.2996E+19
Kr-88	4.2808E-03	3.4139E-13	2.3362E+12	3.8819E+19
Rb-86	8.4826E-02	1.0425E-09	7.3001E-15	4.8652E+16
Sr-89	3.3890E+00	1.1665E-07	7.8932E+17	1.8104E-18
Sr-90	4.5000E-01	3.2990E-06	2.2074E+19	2.3257E+17
Sr-91	2.3540E-02	6.4939E-12	4.2975E+13	1.0648E+18
Sr-92	4.8017E-08	3.8201E-18	2.5006E-07	3.5758E+17
Y-90	2.4445E-01	4.4930E-10	3.0064E+15	3.0239E-16
Y-91	5.5757E-02	2.2736E-09	1.5046E+16	2.6615E+16
Y-92	1.1483E-05	1.1934E-15	7.8117E+09	3.3619E+17
Y-93	2.6224E-04	7.8603E-14	5.0899E+11	9.0123E+15
Zr-95	6.3813E-02	2.9704E-09	1.8830E+16	3.3851E+16
Zr-97	3.4036E-03	1.7804E-12	1.1054E+13	2.0755E+16
Nb-95	6.5823E-02	1.6833E-09	1.0671E+16	3.4052E+16
Mo-99	4.0716E-01	8.4894E-10	5.1640E+15	3.8979E+17
Tc-99m	4.1738E-01	7.9376E-11	4.8284E+14	3.6188E+17
Ru-103	7.0107E-01	2.1723E-08	1.2701E+17	3.7809E+17
Ru-105	6.7078E-06	9.9789E-16	5.7232E+09	6.6265E+16
Ru-106	2.9263E-01	8.7468E-08	4.9693E+17	1.5191E+17
Rh-105	1.3399E-01	1.5874E-10	9.1045E+14	2.1130E+17
Sb-127	4.7005E-01	1.7601E-09	8.3463E+15	3.7681E+17
Sb-129	2.8655E-05	5.0956E-15	2.3788E+10	3.7654E+17
Te-127	5.8263E-01	2.2077E-10	1.0468E+15	3.9326E+17
Te-127m	1.3595E-01	1.4413E-08	6.8345E+16	7.0480E+16
Te-129	4.6725E-01	2.2311E-11	1.0416E+14	5.7109E+17
Te-129m	5.4031E-01	1.7935E-08	8.3728E+16	2.9305E+17
Te-131m	3.4963E-01	4.3846E-10	2.0156E+15	7.1236E+17
Te-127	5.8263E-01	2.2077E-10	1.0468E+15	3.9326E+17
[illegible]	1.3595E-01	1.4413E-08	6.8345E+16	7.0480E+16

Te-132	6.9864E+00	2.3013E-08	1.0499E+17	6.0698E+18
I-131	3.0846E+03	2.4881E-05	1.1438E+20	6.3982E+19
I-132	8.3391E+00	8.0788E-10	3.6857E+15	1.2897E+19
I-133	7.5328E+02	6.6496E-07	3.0109E+18	7.0294E+19
I-135	4.1432E+00	1.1798E-09	5.2628E+15	2.7295E+19
Xe-133	3.5453E+05	1.8940E-03	8.5761E+21	4.6744E+21
Xe-135	9.8512E+02	3.8576E-07	1.7208E+18	3.5435E+20
Cs-134	1.0019E+01	7.7436E-06	3.4801E+19	5.2619E+18
Cs-136	2.7370E+00	3.7345E-08	1.6536E+17	1.6313E+18
Cs-137	7.5600E+00	8.6914E-05	3.8205E+20	3.9622E+18
Ba-140	5.7170E+00	7.8091E-08	3.3591E+17	3.3710E+18
La-140	4.3553E+00	7.8357E-09	3.3706E+16	6.3995E+17
La-141	1.8655E-07	3.2987E-17	1.4089E+08	7.0081E+15
Ce-141	1.4521E-01	5.0964E-09	2.1767E+16	7.8980E+16
Ce-143	3.1591E-02	4.7571E-11	2.0033E+14	5.6694E+16
Ce-144	1.2889E-01	4.0410E-08	1.6900E+17	6.6996E+16
Pr-143	5.7541E-02	8.5451E-10	3.5986E+15	2.9320E-16
Nd-147	2.0627E-02	2.5498E-10	1.0446E+15	1.2424E+16
Np-239	7.5312E-01	3.2463E-09	8.1798E+15	8.0051E-17
Pu-238	3.9136E-04	2.2860E-08	5.7843E-16	2.0218E+14
Pu-239	4.1833E-05	6.7303E-07	1.6958E+18	2.1506E+13
Pu-240	6.6821E-05	2.9325E-07	7.3582E+17	3.4529E+13
Pu-241	1.6474E-02	1.5992E-07	3.9961E+17	8.5154E+15
Am-241	8.9397E-06	2.6047E-09	6.5086E+15	4.5287E+12
Cm-242	2.2561E-03	6.8071E-10	1.6939E+15	1.1779E+15
Cm-244	1.3388E-04	1.6548E-09	4.0842E+15	6.9197E+13

Secondary Containment Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	7.4236E+22	0.0000E+00	
Elemental I (atoms)	1.1236E+20	0.0000E+00	
Organic I (atoms)	3.4749E+18	0.0000E+00	
Aerosols (kg)	9.9919E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.4554E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.5854E-08
Total I (Ci)			3.8503E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 72.0000 Leakage Transport	
Noble gases (atoms)	5.9407E+23
Elemental I (atoms)	1.1174E+21
Organic I (atoms)	3.4558E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1479E+23
Elemental I (atoms)	0.0000E+00	9.2973E+20
Organic I (atoms)	0.0000E+00	2.8755E+19
Aerosols (kg)	0.0000E+00	3.3300E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	5.7453E-01	1.8068E-08	1.8760E+17	5.3298E+15
Co-60	3.1802E-01	2.8134E-07	2.8238E+18	2.9134E+15
Kr-85	1.9968E-04	5.0897E-02	3.6060E+23	1.0292E+20
Kr-85m	5.2562E+00	6.3870E-10	4.5251E+15	1.7443E+19
Kr-88	2.3510E-02	1.8749E-12	1.2831E+13	1.3131E+19
Rb-86	1.9977E+01	2.4552E-07	1.7192E+18	1.9292E+17
Sr-89	7.8794E+02	2.7122E-05	1.8352E+20	7.3481E+18
Sr-90	1.0463E+02	7.6701E-04	5.1323E+21	9.5811E+17
Sr-91	5.4731E+00	1.5098E-09	9.9916E+15	1.1279E+18
Sr-92	1.1164E-05	8.8817E-16	5.8138E+09	1.1422E+17
Y-90	5.6840E+01	1.0447E-07	6.9906E+17	3.2087E+17
Y-91	1.2966E+01	5.2870E-07	3.4988E+18	1.1745E+17
Sr-90	1.0463E+02	7.6701E-04	5.1323E+21	9.5811E+17
Sr-91	5.4731E+00	1.5098E-09	9.9916E+15	1.1279E+18

Y-92	2.6716E-03	2.7765E-13	1.8174E+12	2.5319E+17
Y-93	6.0972E-02	1.8275E-11	1.1834E+14	1.0077E+16
Zr-95	1.4836E+01	6.9062E-07	4.3779E+18	1.3783E+17
Zr-97	7.9134E-01	4.1395E-10	2.5700E+15	3.5041E+16
Nb-95	1.5304E-01	3.9137E-07	2.4810E+18	1.4020E+17
Mo-99	9.4665E+01	1.9738E-07	1.2006E+18	1.2337E+18
Tc-99m	9.7040E+01	1.8455E-08	1.1226E+17	1.1810E+18
Ru-103	1.6300E+02	5.0505E-06	2.9529E+19	1.5281E+18
Ru-105	1.5596E-03	2.3201E-13	1.3307E+12	3.4314E+16
Ru-106	6.8037E+01	2.0336E-05	1.1554E+20	6.2455E+17
Rh-105	3.1152E+01	3.6908E-08	2.1168E+17	5.6245E+17
Sb-127	1.0929E+02	4.0923E-07	1.9405E+18	1.2828E+18
Sb-129	6.6622E-03	1.1847E-12	5.5307E+12	1.8986E+17
Te-127	1.3546E+02	5.1329E-08	2.4339E+17	1.4294E+18
Te-127m	3.1609E+01	3.3510E-06	1.5890E+19	2.9006E-17
Te-129	1.0863E+02	5.1873E-09	2.4216E+16	9.6470E-17
Te-129m	1.2562E+02	4.1699E-06	1.9467E+19	1.1821E-18
Te-131m	8.1289E+01	1.0194E-07	4.6863E+17	1.6967E-18
Te-132	1.6243E+03	5.3504E-06	2.4410E+19	1.9987E-19
I-131	2.6428E+04	2.1317E-04	9.7997E+20	1.9405E-20
I-132	1.9388E+03	1.8783E-07	8.5693E+17	2.2343E-19
I-133	6.4469E+03	5.6911E-06	2.5769E+19	1.2897E-20
I-135	3.5460E+01	1.0097E-08	4.5042E+16	2.0732E-19
Xe-133	1.9496E+06	1.0416E-02	4.7161E+22	1.1482E+22
Xe-135	5.5900E+03	2.1889E-06	9.7645E+18	3.7280E+20
Cs-134	2.3595E+03	1.8237E-03	8.1959E+21	2.1705E-19
Cs-136	6.4459E+02	8.7950E-06	3.8945E+19	6.3596E+18
Cs-137	1.7804E+03	2.0469E-02	8.9976E+22	1.6359E-19
Ba-140	1.3292E+03	1.8156E-05	7.8099E+19	1.3094E+19
La-140	1.0127E+03	1.8220E-06	7.8372E+18	6.2643E+18
La-141	4.3373E-05	7.6694E-15	3.2756E+10	3.2228E+15
Ce-141	3.3762E+01	1.1849E-06	5.0607E+18	3.1805E+17
Ce-143	7.3449E+00	1.1060E-08	4.6578E+16	1.4124E+17
Ce-144	2.9966E+01	9.3953E-06	3.9292E+19	2.7528E-17
Pr-143	1.3379E+01	1.9868E-07	8.3669E+17	1.2326E+17
Nd-147	4.7958E+00	5.9282E-08	2.4286E+17	4.7808E+16
Np-239	1.7510E+02	7.5477E-07	1.9018E+18	2.4298E+18
Pu-238	9.0990E-02	5.3150E-06	1.3449E+19	8.3306E+14
Pu-239	9.7261E-03	1.5648E-04	3.9428E+20	8.8834E+13
Pu-240	1.5536E-02	6.8180E-05	1.7108E+20	1.4226E+14
Pu-241	3.8301E+00	3.7181E-05	9.2909E+19	3.5078E+16
Am-241	2.0785E-03	6.0559E-07	1.5132E+18	1.8825E+13
Cm-242	5.2454E-01	1.5826E-07	3.9384E+17	4.8303E+15
Cm-244	3.1126E-02	3.8474E-07	9.4957E+17	2.8505E+14

SGTS Filter Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	4.0777E+23	0.0000E+00	
Elemental I (atoms)	6.1920E+20	0.0000E+00	
Organic I (atoms)	1.9151E+19	0.0000E+00	
Aerosols (kg)	2.3517E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.7164E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.9674E-01
Total I (Ci)			3.4849E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1479E+23
Elemental I (atoms)	0.0000E+00	9.2973E+20
Organic I (atoms)	0.0000E+00	2.8755E+19
Aerosols (kg)	0.0000E+00	3.3300E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.5180E+22

SGTS Filter to Environment Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	1.6124E+20
Organic I (atoms)	0.0000E+00	4.9868E+18
Aerosols (kg)	0.0000E+00	9.7219E-03

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E-00	1.0000E+00	1.0000E+00	1.6849E-09

Primary Containment Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	9.1752E-07	2.8855E-14	2.9960E+11	2.7125E+17
Co-60	5.1269E-07	4.5355E-13	4.5523E+12	1.4609E-17
Kr-85	1.4436E+06	3.6796E+00	2.6070E+25	1.8433E+22
Kr-85m	9.2726E+00	1.1267E-09	7.9829E+15	1.9321E+22
Kr-88	4.8588E-03	3.8749E-13	2.6517E+12	3.0901E+22
Rb-86	2.7702E-05	3.4045E-13	2.3840E+12	1.0219E+19
Sr-89	1.2534E-03	4.3143E-11	2.9193E+14	3.7629E+20
Sr-90	1.6872E-04	1.2369E-09	8.2763E+15	4.8021E+19
Sr-91	1.5321E-06	4.2265E-16	2.7970E+09	4.0781E+20
Y-90	1.0943E-04	2.0113E-13	1.3458E+12	1.0596E+18
Y-91	2.0644E-05	8.4179E-13	5.5708E+12	4.9947E+18
Y-92	3.9369E-11	4.0914E-21	2.6782E+04	5.6984E+19
Y-93	1.8939E-08	5.6767E-18	3.6759E+07	3.3570E+18
Zr-95	2.3669E-05	1.1018E-12	6.9842E+12	7.0260E+18
Zr-97	4.7689E-07	2.4946E-16	1.5488E+09	6.3429E+18
Nb-95	2.4659E-05	6.3062E-13	3.9975E+12	7.0329E+18
Mo-99	1.1865E-04	2.4739E-13	1.5049E+12	9.0341E+19
Tc-99m	1.2165E-04	2.3135E-14	1.4073E+11	8.1234E+19
Ru-103	2.5827E-04	8.0025E-12	4.6788E+13	7.8733E+19
Ru-105	5.9343E-11	8.8282E-21	5.0633E+04	3.8716E+19
Ru-106	1.0952E-04	3.2735E-11	1.8598E+14	3.1393E+19
Rh-105	3.1386E-05	3.7184E-14	2.1327E+11	5.0461E+19
Sb-127	1.4721E-04	5.5123E-13	2.6139E+12	8.4606E+19
Sb-129	2.2845E-10	4.0624E-20	1.8965E+05	2.2395E+20
Te-127	1.9107E-04	7.2398E-14	3.4330E+11	8.4871E+19
Te-127m	5.0837E-05	5.3895E-12	2.5556E+13	1.4554E+19
Te-129	1.7160E-04	8.1942E-15	3.8253E+10	2.5150E+20
Te-129m	1.9845E-04	6.5876E-12	3.0753E+13	6.0939E+19
Te-131m	7.5295E-05	9.4425E-14	4.3408E+11	1.8681E+20
Te-132	2.1176E-03	6.9752E-12	3.1822E+13	1.3828E+21
I-131	1.1087E+06	8.9431E-03	4.1112E+22	2.2584E+22
I-132	3.6620E-03	3.5477E-13	1.6186E+12	7.7030E+21
I-133	1.3265E+05	1.1710E-04	5.3020E+20	2.3311E+22
I-135	1.3105E+02	3.7315E-08	1.6646E+17	1.2689E+22
Xe-133	1.2338E+08	6.5917E-01	2.9846E+24	2.0681E+24
Xe-135	6.3005E+04	2.4672E-05	1.1006E+20	1.4670E+23
Cs-134	3.3926E-03	2.6221E-09	1.1784E+16	1.0861E+21
Cs-136	8.7985E-04	1.2005E-11	5.3158E+13	3.4520E+20
Cs-137	2.5621E-03	2.9456E-08	1.2948E+17	8.1750E+20
Ba-140	2.0301E-03	2.7730E-11	1.1928E+14	7.1439E-20
La-140	1.7902E-03	3.2207E-12	1.3854E-13	2.0826E+19
Ce-141	5.3302E-05	1.8707E-12	7.9897E+12	1.6461E+19
Ce-143	7.1550E-06	1.0774E-14	4.5374E+10	1.4579E+19
Ce-144	4.8209E-05	1.5115E-11	6.3212E+13	1.3849E+19
Pr-143	2.0957E-05	3.1121E-13	1.3106E+12	5.9157E-18
Nd-147	7.2611E-06	8.9755E-14	3.6770E+11	2.6437E+18
Np-239	2.1039E-04	9.0687E-13	2.2851E+12	1.8894E+20
Pu-238	1.4676E-07	8.5724E-12	2.1691E+13	4.1743E+16
Pu-239	1.5705E-08	2.5266E-10	6.3664E+14	4.4342E+15
Pu-240	2.5055E-08	1.0995E-10	2.7590E+14	7.1294E+15
Pu-241	6.1761E-06	5.9954E-11	1.4981E+14	1.7583E+18
Am-241	3.3790E-09	9.8451E-13	2.4601E-12	9.3138E+14
Pu-238	1.4676E-07	8.5724E-12	2.1691E+13	4.1743E+16
Pu-239	1.5705E-08	2.5266E-10	6.3664E+14	4.4342E+15

Cm-242	8.4233E-07	2.5415E-13	6.3245E+11	2.4370E+17
Cm-244	5.0192E-08	6.2041E-13	1.5312E+12	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9054E+25	0.0000E-00	
Elemental I (atoms)	4.0393E+22	0.0000E-00	
Organic I (atoms)	1.2493E+21	0.0000E+00	
Aerosols (kg)	3.4023E-08	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0287E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0409E-04
Total I (Ci)			1.2415E+06

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E-00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 96.0000 Leakage Transport

Noble gases (atoms)	7.3883E+23
Elemental I (atoms)	1.3277E+21
Organic I (atoms)	4.1062E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	3.3143E-04	1.0423E-11	1.0822E+14	1.3108E+15
Co-60	1.8520E-04	1.6383E-10	1.6444E+15	7.0925E+14
Kr-85	3.5773E+03	9.1179E-03	6.4599E+22	5.0744E+19
Kr-85m	2.2977E-02	2.7920E-12	1.9781E+13	3.2997E+19
Kr-88	1.2040E-05	9.6018E-16	6.5708E+09	3.8819E+19
Rb-86	1.1070E-02	1.3605E-10	9.5269E+14	4.8763E+16
Sr-89	4.5276E-01	1.5584E-08	1.0545E+17	1.8149E+18
Sr-90	6.0945E-02	4.4679E-07	2.9896E+18	2.3317E+17
Sr-91	5.5343E-04	1.5267E-13	1.0103E+12	1.0648E+18
Y-90	3.9556E-02	7.2705E-11	4.8649E+14	3.0582E+16
Y-91	7.4703E-03	3.0461E-10	2.0159E+15	2.6689E+16
Y-92	1.4319E-08	1.4881E-18	9.7407E+06	3.3619E+17
Y-93	6.8413E-06	2.0506E-15	1.3278E+10	9.0126E+15
Zr-95	8.5498E-03	3.9798E-10	2.5228E+15	3.3935E+16
Zr-97	1.7227E-04	9.0112E-14	5.5945E+11	2.0758E+16
Nb-95	8.9074E-03	2.2779E-10	1.4440E+15	3.4139E+16
Mo-99	4.2860E-02	8.9364E-11	5.4360E+14	3.9028E+17
Tc-99m	4.3942E-02	8.3567E-12	5.0834E+13	3.6237E+17
Ru-103	9.3294E-02	2.8907E-09	1.6901E+16	3.7901E+17
Ru-105	2.1436E-08	3.1889E-18	1.8290E+07	6.6265E+16
Ru-106	3.9560E-02	1.1825E-08	6.7179E+16	1.5229E+17
Rh-105	1.1337E-02	1.3432E-11	7.7036E+13	2.1146E+17
Sb-127	5.3175E-02	1.9912E-10	9.4419E+14	3.7740E+17
Sb-129	8.2520E-08	1.4674E-17	6.8505E+07	3.7654E+17
Te-127	6.9018E-02	2.6152E-11	1.2401E+14	3.9397E+17
Te-127m	1.8363E-02	1.9468E-09	9.2315E+15	7.0660E+16
Te-129	6.1987E-02	2.9599E-12	1.3818E+13	5.7155E+17
Te-129m	7.1686E-02	2.3796E-09	1.1109E+16	2.9376E+17
Te-131m	2.7198E-02	3.4108E-11	1.5680E+14	7.1275E+17
Te-132	7.6493E-01	2.5196E-09	1.1495E+16	6.0784E+18
I-131	2.7525E+03	2.2202E-05	1.0206E+20	7.3264E+19
I-132	9.1302E-01	8.8453E-11	4.0354E+14	1.2906E+19
I-133	3.2930E+02	2.9070E-07	1.3163E+18	7.1925E+19
I-135	3.2533E-01	9.2637E-11	4.1324E+14	2.7299E+19
Xe-133	3.0574E+05	1.6334E-03	7.3958E+21	5.7256E+21
Xe-135	1.5614E+02	6.1142E-08	2.7275E+17	3.5579E+20
Cs-134	1.3557E+00	1.0478E-06	4.7091E+18	5.2752E+18
Cs-136	3.5160E-01	4.7973E-09	2.1243E+16	1.6349E+18
I-135	3.2533E-01	9.2637E-11	4.1324E+14	2.7299E+19
Xe-133	3.0574E+05	1.6334E-03	7.3958E+21	5.7256E+21

Cs-137	1.0239E+00	1.1771E-05	5.1742E+19	3.9723E+18
Ba-140	7.3331E-01	1.0017E-08	4.3087E+16	3.3784E-18
La-140	6.4702E-01	1.1641E-09	5.0073E-15	6.4588E+17
La-141	3.6661E-10	6.4825E-20	2.7687E+05	7.0081E+15
Ce-141	1.9253E-02	6.7570E-10	2.8859E+15	7.9171E+16
Ce-143	2.5846E-03	3.8919E-12	1.6390E+13	5.6729E+16
Ce-144	1.7414E-02	5.4599E-09	2.2833E+16	6.7166E+16
Pr-143	7.5724E-03	1.1245E-10	4.7357E+14	2.9395E+16
Nd-147	2.6229E-03	3.2422E-11	1.3282E+14	1.2450E+16
Np-239	7.5996E-02	3.2758E-10	8.2541E+14	8.0141E+17
Pu-238	5.3012E-05	3.0965E-09	7.8352E+15	2.0270E+14
Pu-239	5.6729E-06	9.1268E-08	2.2997E+17	2.1562E+13
Pu-240	9.0504E-06	3.9718E-08	9.9661E+16	3.4618E+13
Pu-241	2.2309E-03	2.1657E-08	5.4117E+16	8.5372E+15
Am-241	1.2206E-06	3.5563E-10	8.8866E+14	4.5406E+12
Cm-242	3.0427E-04	9.1805E-11	2.2846E+14	1.1809E+15
Cm-244	1.8131E-05	2.2410E-10	5.5311E+14	6.9375E+13

Secondary Containment Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	7.1995E+22	0.0000E+00	
Elemental I (atoms)	1.0009E-20	0.0000E+00	
Organic I (atoms)	3.0956E+18	0.0000E+00	
Aerosols (kg)	1.3525E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.7709E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.8274E-08
Total I (Ci)			3.0830E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 96.0000	Leakage Transport
Noble gases (atoms)	7.3883E+23
Elemental I (atoms)	1.3277E+21
Organic I (atoms)	4.1062E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.6072E+23
Elemental I (atoms)	0.0000E+00	1.1418E+21
Organic I (atoms)	0.0000E+00	3.5312E+19
Aerosols (kg)	0.0000E+00	3.3386E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	4.9456E-01	1.5553E-08	1.6149E+17	7.0314E+15
Co-60	2.7635E-01	2.4447E-07	2.4537E+18	3.8597E+15
Kr-85	2.3989E+04	6.1144E-02	4.3320E+23	1.7363E+20
Kr-85m	1.5408E-01	1.8723E-11	1.3265E+14	1.7448E+19
Kr-88	8.0739E-05	6.4390E-15	4.4064E+10	1.3131E+19
Rb-86	1.6732E+01	2.0563E-07	1.4399E+18	2.5131E-17
Sr-89	6.7560E+02	2.3255E-05	1.5735E+20	9.6773E+18
Sr-90	9.0942E+01	6.6670E-04	4.4610E+21	1.2695E+18
Sr-91	8.2583E-01	2.2782E-10	1.5076E+15	1.1357E+18
Sr-92	2.0942E-08	1.6661E-18	1.0906E+07	1.1422E+17
Y-90	5.9030E+01	1.0650E-07	7.2599E+17	5.0513E+17
Y-91	1.1149E+01	4.5462E-07	3.0086E+18	1.5584E+17
Y-92	2.1380E-05	2.2220E-15	1.4544E+10	2.5320E+17
Y-93	1.0209E-02	3.0598E-12	1.9814E+13	1.0167E+16
Zr-95	1.2758E+01	5.9387E-07	3.7646E+18	1.8175E+17
Zr-97	2.5705E-01	1.3447E-10	8.3481E+14	3.6557E+16
Nb-95	1.3292E+01	3.3991E-07	2.1547E+18	1.8570E+17
Mo-99	6.3956E+01	1.3335E-07	8.1115E+17	1.4835E+18
Tc-99m	6.5570E+01	1.2470E-08	7.5854E+16	1.4241E+18
Ru-103	1.3921E+02	4.3135E-06	2.5220E+19	2.0090E+18
Ru-105	3.1987E-05	4.7585E-15	2.7292E+10	3.4315E+16
Nb-95	1.3292E+01	3.3991E-07	2.1547E+18	1.8570E+17
Mo-99	6.3956E+01	1.3335E-07	8.1115E+17	1.4835E+18

Ru-106	5.9031E+01	1.7645E-05	1.0024E+20	8.2684E+17
Rh-105	1.6917E+01	2.0043E-08	1.1495E+17	6.3681E+17
Sb-127	7.9347E+01	2.9712E-07	1.4089E+18	1.5811E+18
Sb-129	1.2314E-04	2.1897E-14	1.0222E-11	1.8987E+17
Te-127	1.0299E+02	3.9024E-08	1.8504E-17	1.7945E+18
Te-127m	2.7402E+01	2.9050E-06	1.3775E+19	3.8400E+17
Te-129	9.2497E-01	4.4168E-09	2.0619E+16	1.2057E+18
Te-129m	1.0697E-02	3.5508E-06	1.6576E+19	1.5522E-18
Te-131m	4.0585E+01	5.0895E-08	2.3397E+17	1.8836E+18
Te-132	1.1414E+03	3.7597E-06	1.7153E+19	2.4352E+19
I-131	2.6174E+04	2.1112E-04	9.7054E+20	2.7842E+20
I-132	1.3624E+03	1.3199E-07	6.0216E+17	2.6862E+19
I-133	3.1282E+03	2.7614E-06	1.2503E+19	1.4369E+20
I-135	3.0904E+00	8.7999E-10	3.9255E-15	2.0775E+19
Xe-133	2.0524E+06	1.0965E-02	4.9648E+22	1.7937E+22
Xe-135	1.0747E+03	4.2085E-07	1.8773E+18	3.8164E-20
Cs-134	2.0491E+03	1.5837E-03	7.1176E+21	2.8723E-19
Cs-136	5.3142E+02	7.2509E-06	3.2107E+19	8.2291E+18
Cs-137	1.5475E+03	1.7791E-02	7.8205E+22	2.1657E+19
Ba-140	1.0942E-03	1.4947E-05	6.4295E+19	1.6946E+19
La-140	9.6553E+02	1.7371E-06	7.4722E+18	9.4046E+18
La-141	5.4705E-07	9.6732E-17	4.1314E+08	3.2228E+15
Ce-141	2.8729E+01	1.0083E-06	4.3063E+18	4.1749E+17
Ce-143	3.8567E+00	5.8075E-09	2.4457E+16	1.5851E+17
Ce-144	2.5985E+01	8.1472E-06	3.4072E+19	3.6436E+17
Pr-143	1.1300E+01	1.6781E-07	7.0668E+17	1.6253E+17
Nd-147	3.9138E+00	4.8380E-08	1.9820E+17	6.1650E+16
Np-239	1.1340E+02	4.8882E-07	1.2317E+18	2.8827E-18
Pu-238	7.9104E-02	4.6206E-06	1.1692E+19	1.1039E+15
Pu-239	8.4651E-03	1.3619E-04	3.4316E+20	1.1780E+14
Pu-240	1.3505E-02	5.9267E-05	1.4871E+20	1.8849E+14
Pu-241	3.3290E+00	3.2316E-05	8.0752E+19	4.6475E+16
Am-241	1.8214E-03	5.3068E-07	1.3261E+18	2.5034E+13
Cm-242	4.5403E-01	1.3699E-07	3.4090E+17	6.3880E+15
Cm-244	2.7054E-02	3.3441E-07	8.2535E+17	3.7768E+14

SGTS Filter Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	4.8285E+23	0.0000E+00	
Elemental I (atoms)	6.7298E+20	0.0000E+00	
Organic I (atoms)	2.0814E+19	0.0000E+00	
Aerosols (kg)	2.0430E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.4300E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.5559E-01
Total I (Ci)			3.0668E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.6072E+23
Elemental I (atoms)	0.0000E+00	1.1418E+21
Organic I (atoms)	0.0000E+00	3.5312E+19
Aerosols (kg)	0.0000E+00	3.3386E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5951E+23
Elemental I (atoms)	0.0000E+00	2.5485E+20
Organic I (atoms)	0.0000E+00	7.8819E+18
Aerosols (kg)	0.0000E+00	1.2883E-02

Detailed model information at time (H) = 144.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol

Detailed model information at time (H) = 144.0000

0.0000E+00 0.0000E+00 0.0000E+00 1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	2.0698E+11

Primary Containment Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	7.3318E-09	2.3058E-16	2.3941E+09	2.7125E+17
Co-60	4.1749E-09	3.6933E-15	3.7070E+10	1.4609E+17
Kr-85	1.4290E-06	3.6422E+00	2.5805E+25	2.7615E+22
Kr-85m	5.4651E-03	6.6408E-13	4.7049E+12	1.9321E+22
Kr-88	3.9302E-08	3.1343E-18	2.1449E+07	3.0901E+22
Rb-86	2.0958E-07	2.5757E-15	1.8036E+10	1.0219E+19
Sr-89	9.9373E-06	3.4205E-13	2.3145E+12	3.7629E+20
Sr-90	1.3747E-06	1.0078E-11	6.7434E+13	4.8021E+19
Sr-91	3.7618E-10	1.0377E-19	6.8675E+05	4.0781E+20
Y-90	1.0906E-06	2.0045E-15	1.3413E+10	1.0596E+18
Y-91	1.6432E-07	6.7005E-15	4.4342E+10	4.9947E+18
Y-93	5.7257E-12	1.7162E-21	1.1113E+04	3.3570E+18
Zr-95	1.8874E-07	8.7858E-15	5.5694E+10	7.0260E+18
Zr-97	5.4266E-10	2.8387E-19	1.7624E+06	6.3429E+18
Nb-95	2.0048E-07	5.1270E-15	3.2501E+10	7.0329E+18
Mo-99	5.8405E-07	1.2178E-15	7.4075E+09	9.0341E+19
Tc-99m	5.9879E-07	1.1388E-16	6.9271E+08	8.1234E+19
Ru-103	2.0317E-06	6.2951E-14	3.6806E+11	7.8733E+19
Ru-106	8.8910E-07	2.6575E-13	1.5098E+12	3.1393E+19
Rh-105	9.9814E-08	1.1826E-16	6.7824E+08	5.0461E+19
Sb-127	8.3686E-07	3.1337E-15	1.4860E+10	8.4606E+19
Te-127	1.2113E-06	4.5896E-16	2.1763E+09	8.4871E+19
Te-127m	4.1132E-07	4.3607E-14	2.0678E+11	1.4554E+19
Te-129	1.3419E-06	6.4075E-17	2.9912E+08	2.5150E+20
Te-129m	1.5518E-06	5.1512E-14	2.4048E+11	6.0939E+19
Te-131m	2.0240E-07	2.5383E-16	1.1669E+09	1.8681E+20
Te-132	1.1276E-05	3.7143E-14	1.6946E+11	1.3828E+21
I-131	9.2396E+05	7.4528E-03	3.4261E+22	2.9063E+22
I-132	1.9493E-05	1.8885E-15	8.6158E+09	7.7030E+21
I-133	2.6530E+04	2.3419E-05	1.0604E+20	2.3733E+22
I-135	8.4556E-01	2.4077E-10	1.0740E+15	1.2689E+22
Xe-133	9.3811E+07	5.0117E-01	2.2693E+24	2.7581E+24
Xe-135	1.6109E+03	6.3082E-07	2.8140E+18	1.4680E+23
Cs-134	2.7595E-05	2.1328E-11	9.5852E+13	1.0861E+21
Cs-136	6.4499E-06	8.8004E-14	3.8968E+11	3.4520E+20
Cs-137	2.0876E-05	2.4000E-10	1.0550E+15	8.1750E+20
Ba-140	1.4837E-05	2.0267E-13	8.7180E+11	7.1439E+20
La-140	1.5209E-05	2.7364E-14	1.1771E+11	2.0826E+19
Ce-141	4.1622E-07	1.4608E-14	6.2389E+10	1.6461E+19
Ce-143	2.1274E-08	3.2035E-17	1.3491E+08	1.4579E+19
Ce-144	3.9094E-07	1.2257E-13	5.1260E+11	1.3849E+19
Pr-143	1.5772E-07	2.3422E-15	9.8638E+09	5.9157E+18
Nd-147	5.2152E-08	6.4466E-16	2.6410E-09	2.6437E+18
Np-239	9.5163E-07	4.1020E-15	1.0336E+10	1.8894E-20
Pu-238	1.1962E-09	6.9870E-14	1.7679E+11	4.1743E+16
Pu-239	1.2818E-10	2.0622E-12	5.1963E+12	4.4342E+15
Pu-240	2.0417E-10	8.9601E-13	2.2483E+12	7.1294E+15
Pu-241	5.0315E-08	4.8844E-13	1.2205E+12	1.7583E+18
Am-241	2.7977E-11	8.1514E-15	2.0369E+10	9.3138E+14
Cm-242	6.8059E-09	2.0535E-15	5.1101E-09	2.4370E+17
Cm-244	4.0893E-10	5.0546E-15	1.2475E+10	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	2.8074E+25	0.0000E+00	
Elemental I (atoms)	3.3336E+22	0.0000E+00	
Organic I (atoms)	1.0310E+21	0.0000E+00	
Aerosols (kg)	2.7696E-10	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.4455E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		8.4698E-05
Total I (Ci)			9.5049E+05
Organic I (atoms)	1.0310E+21	0.0000E+00	
Aerosols (kg)	2.7696E-10	0.0000E+00	

Time (h) = 144.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E-00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E-00	0.0000E-00
Aerosols (kg)	5.7325E-01	0.0000E-00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 144.0000 Leakage Transport

Noble gases (atoms)	1.0205E-24
Elemental I (atoms)	1.6906E+21
Organic I (atoms)	5.2285E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	5.9619E-06	1.8749E-13	1.9467E+12	1.3113E+15
Co-60	3.3948E-06	3.0032E-12	3.0143E+13	7.0953E+14
Kr-85	3.5347E+03	9.0095E-03	6.3831E+22	7.3466E+19
Kr-85m	1.3519E-05	1.6427E-15	1.1638E+10	3.2997E+19
Kr-88	9.7219E-11	7.7532E-21	5.3058E+04	3.8819E+19
Rb-86	1.8853E-04	2.3170E-12	1.6225E+13	4.8779E+16
Sr-89	8.0806E-03	2.7814E-10	1.8820E+15	1.8156E+18
Sr-90	1.1178E-03	8.1949E-09	5.4834E+16	2.3326E+17
Sr-91	3.0589E-07	8.4385E-17	5.5844E+08	1.0648E+18
Y-90	8.8712E-04	1.6305E-12	1.0910E+13	3.0645E+16
Y-91	1.3386E-04	5.4582E-12	3.6121E+13	2.6700E+16
Y-93	4.6559E-09	1.3955E-18	9.0365E+06	9.0126E+15
Zr-95	1.5348E-04	7.1442E-12	4.5288E+13	3.3948E+16
Zr-97	4.4127E-07	2.3083E-16	1.4331E+09	2.0758E+16
Nb-95	1.6302E-04	4.1690E-12	2.6428E+13	3.4153E+16
Mo-99	4.7492E-04	9.9022E-13	6.0235E+12	3.9034E+17
Tc-99m	4.8691E-04	9.2600E-14	5.6328E+11	3.6242E+17
Ru-103	1.6521E-03	5.1188E-11	2.9929E+14	3.7915E+17
Ru-106	7.2297E-04	2.1610E-10	1.2277E+15	1.5235E+17
Rh-105	8.1164E-05	9.6160E-14	5.5151E+11	2.1147E+17
Sb-127	6.8050E-04	2.5482E-12	1.2083E+13	3.7747E+17
Te-127	9.8493E-04	3.7321E-13	1.7697E+12	3.9407E+17
Te-127m	3.3447E-04	3.5459E-11	1.6814E+14	7.0688E+16
Te-129	1.0911E-03	5.2103E-14	2.4323E+11	5.7162E+17
Te-129m	1.2619E-03	4.1887E-11	1.9554E+14	2.9387E+17
Te-131m	1.6459E-04	2.0640E-13	9.4884E+11	7.1278E+17
Te-132	9.1695E-03	3.0203E-11	1.3779E+14	6.0795E+18
I-131	2.2856E+03	1.8436E-05	8.4752E+19	8.9306E+19
I-132	1.0945E-02	1.0603E-12	4.8374E+12	1.2907E+19
I-133	6.5627E+01	5.7933E-08	2.6231E+17	7.2969E+19
I-135	2.0917E-03	5.9560E-13	2.6569E+12	2.7300E+19
Xe-133	2.3205E+05	1.2397E-03	5.6134E+21	7.4330E+21
Xe-135	3.9849E+00	1.5604E-09	6.9608E-15	3.5606E+20
Cs-134	2.4824E-02	1.9186E-08	8.6226E+16	5.2773E+18
Cs-136	5.8022E-03	7.9166E-11	3.5055E-14	1.6354E+18
Cs-137	1.8780E-02	2.1590E-07	9.4905E+17	3.9738E+18
Ba-140	1.2065E-02	1.6480E-10	7.0891E-14	3.3795E+18
La-140	1.2371E-02	2.2256E-11	9.5735E-13	6.4687E+17
Ce-141	3.3843E-04	1.1878E-11	5.0729E+13	7.9200E+16
Ce-143	1.7299E-05	2.6050E-14	1.0970E-11	5.6732E+16
Ce-144	3.1790E-04	9.9670E-11	4.1682E+14	6.7193E+16
Pr-143	1.2829E-04	1.9052E-12	8.0232E+12	2.9406E+16
Nd-147	4.2408E-05	5.2421E-13	2.1475E+12	1.2454E+16
Np-239	7.7382E-04	3.3355E-12	8.4046E+12	8.0151E+17
Pu-238	9.7266E-07	5.6815E-11	1.4376E+14	2.0278E+14
Pu-239	1.0423E-07	1.6769E-09	4.2254E+15	2.1570E+13
Pu-240	1.6602E-07	7.2859E-10	1.8282E+15	3.4631E+13
Pu-241	4.0914E-05	3.9717E-10	9.9246E+14	8.5406E+15
Am-241	2.2750E-08	6.6285E-12	1.6563E+13	4.5425E+12
Cm-242	5.5342E-06	1.6698E-12	4.1553E+12	1.1813E+15
Pu-239	1.0423E-07	1.6769E-09	4.2254E+15	2.1570E+13
Pu-240	1.6602E-07	7.2859E-10	1.8282E+15	3.4631E+13

Cm-244	3.3252E-07	4.1102E-12	1.0144E+13	6.9402E+13

Secondary Containment Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	6.9444E+22	0.0000E-00	
Elemental I (atoms)	8.2461E+19	0.0000E+00	
Organic I (atoms)	2.5503E+18	0.0000E+00	
Aerosols (kg)	2.4786E-07	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.9029E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.9141E-08
Total I (Ci)			2.3513E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 144.0000	Leakage Transport
Noble gases (atoms)	1.0205E+24
Elemental I (atoms)	1.6906E+21
Organic I (atoms)	5.2285E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.4327E+23
Elemental I (atoms)	0.0000E+00	1.5057E+21
Organic I (atoms)	0.0000E+00	4.6568E+19
Aerosols (kg)	0.0000E+00	3.3399E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	3.6386E-01	1.1443E-08	1.1881E+17	9.7466E+15
Co-60	2.0719E-01	1.8329E-07	1.8397E+18	5.3905E+15
Kr-85	3.0323E+04	7.7287E-02	5.4757E+23	3.4873E+20
Kr-85m	1.1597E-04	1.4092E-14	9.9838E+10	1.7448E+19
Kr-88	8.3399E-10	6.6510E-20	4.5515E+05	1.3131E+19
Rb-86	1.1655E+01	1.4323E-07	1.0030E+18	3.4083E+17
Sr-89	4.9317E+02	1.6975E-05	1.1486E+20	1.3373E+19
Sr-90	6.8224E+01	5.0015E-04	3.3466E+21	1.7734E+18
Sr-91	1.8669E-02	5.1501E-12	3.4082E+13	1.1371E+18
Y-90	5.4144E+01	9.9518E-08	6.6590E+17	8.6731E+17
Y-91	8.1708E+00	3.3318E-07	2.2049E+18	2.1694E-17
Y-92	1.3333E-09	1.3856E-19	9.0701E+05	2.5320E+17
Y-93	2.8416E-04	8.5171E-14	5.5151E+11	1.0185E+16
Zr-95	9.3670E+00	4.3602E-07	2.7640E+18	2.5172E+17
Zr-97	2.6931E-02	1.4088E-11	8.7462E+13	3.7207E-16
Nb-95	9.9495E+00	2.5444E-07	1.6129E+18	2.5925E+17
Mo-99	2.8985E+01	6.0435E-08	3.6762E+17	1.7652E+18
Tc-99m	2.9717E+01	5.6515E-09	3.4378E+16	1.6984E+18
Ru-103	1.0083E-02	3.1241E-06	1.8266E+19	2.7676E+18
Ru-105	1.3360E-08	1.9876E-18	1.1399E+07	3.4315E+16
Ru-106	4.4124E+01	1.3189E-05	7.4929E+19	1.1534E+18
Rh-105	4.9536E+00	5.8688E-09	3.3660E+16	6.9892E+17
Sb-127	4.1532E+01	1.5552E-07	7.3745E+17	1.9535E+18
Sb-129	4.1767E-08	7.4274E-18	3.4673E+07	1.8987E+17
Te-127	6.0112E+01	2.2777E-08	1.0801E+17	2.2841E-18
Te-127m	2.0413E+01	2.1641E-06	1.0262E+19	5.3535E+17
Te-129	6.6595E+01	3.1799E-09	1.4845E+16	1.5843E+18
Te-129m	7.7014E+01	2.5565E-06	1.1934E+19	2.1335E+18
Te-131m	1.0045E+01	1.2597E-08	5.7909E+16	2.0231E+18
Te-132	5.5963E+02	1.8434E-06	8.4098E+18	2.9556E+19
I-131	2.4503E+04	1.9764E-04	9.0857E+20	4.4118E+20
I-132	6.6798E+02	6.4713E-08	2.9524E+17	3.2248E+19
I-133	7.0297E+02	6.2056E-07	2.8098E+18	1.5413E+20
I-135	2.2405E-02	6.3799E-12	2.8460E+13	2.0779E+19
Xe-133	1.9920E+06	1.0642E-02	4.8185E+22	3.1036E+22
Xe-135	3.4751E+01	1.3608E-08	6.0703E+16	3.8360E+20
Cs-134	1.5346E+03	1.1861E-03	5.3304E+21	4.0069E+19
I-133	7.0297E+02	6.2056E-07	2.8098E+18	1.5413E+20

Cs-136	3.5868E+02	4.8939E-06	2.1670E-19	1.1031E+19
Cs-137	1.1609E-03	1.3347E-02	5.8669E+22	3.0232E+19
Ba-140	7.3636E+02	1.0058E-05	4.3266E+19	2.2707E+19
La-140	7.5502E+02	1.3584E-06	5.8430E+18	1.4871E+19
La-141	8.6408E-11	1.5279E-20	6.5257E+04	3.2228E+15
Ce-141	2.0655E+01	7.2491E-07	3.0961E-18	5.7350E-17
Ce-143	1.0558E+00	1.5899E-09	6.6953E+15	1.7229E+17
Ce-144	1.9402E+01	6.0830E-06	2.5440E+19	5.0802E+17
Pr-143	7.8301E+00	1.1628E-07	4.8969E+17	2.2293E+17
Nd-147	2.5882E+00	3.1993E-08	1.3107E-17	8.2086E-16
Np-239	4.7227E-01	2.0357E-07	5.1295E+17	3.3644E+18
Pu-238	5.9363E-02	3.4675E-06	8.7739E+18	1.5423E+15
Pu-239	6.3614E-03	1.0234E-04	2.5788E+20	1.6474E+14
Pu-240	1.0133E-02	4.4467E-05	1.1158E-20	2.6333E-14
Pu-241	2.4971E+00	2.4240E-05	6.0572E+19	6.4921E+16
Am-241	1.3885E-03	4.0455E-07	1.0109E+18	3.5202E+13
Cm-242	3.3776E-01	1.0191E-07	2.5360E+17	8.8939E+15
Cm-244	2.0294E-02	2.5085E-07	6.1912E+17	5.2759E-14

SGTS Filter Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	5.9576E+23	0.0000E+00	
Elemental I (atoms)	7.0850E+20	0.0000E+00	
Organic I (atoms)	2.1912E-19	0.0000E+00	
Aerosols (kg)	1.5313E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.6957E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		8.7279E-01
Total I (Ci)			2.5874E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.4327E+23
Elemental I (atoms)	0.0000E+00	1.5057E+21
Organic I (atoms)	0.0000E+00	4.6568E+19
Aerosols (kg)	0.0000E+00	3.3399E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.1588E+23
Elemental I (atoms)	0.0000E+00	4.5602E+20
Organic I (atoms)	0.0000E+00	1.4104E+19
Aerosols (kg)	0.0000E+00	1.7995E-02

Detailed model information at time (H) = 192.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.5422E+13

Primary Containment Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	5.8588E-11	1.8425E-18	1.9131E+07	2.7125E+17
Co-60	3.3996E-11	3.0075E-17	3.0186E+08	1.4609E+17
Kr-85	1.4144E+06	3.6052E+00	2.5542E+25	3.6704E-22
Kr-85m	3.2210E-06	3.9139E-16	2.7730E+09	1.9321E-22
Rb-86	1.5856E-09	1.9486E-17	1.3645E+08	1.0219E+19
Sr-89	7.8786E-08	2.7119E-15	1.8350E+10	3.7629E+20
Sr-90	1.1201E-08	8.2114E-14	5.4945E+11	4.8021E+19
Y-90	9.8500E-09	1.8105E-17	1.2114E+08	1.0596E+18
Y-91	1.3077E-09	5.3324E-17	3.5288E+08	4.9947E+18
Rb-86	1.5856E-09	1.9486E-17	1.3645E+08	1.0219E+19
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Zr-95	1.5051E-09	7.0060E-17	4.4412E+08	7.0260E+18
Nb-95	1.6288E-09	4.1654E-17	2.6405E+08	7.0329E+18
Mo-99	2.8749E-09	5.9942E-18	3.6462E-07	9.0341E+19
Tc-99m	2.9475E-09	5.6054E-19	3.4098E+06	8.1234E+19
Ru-103	1.5982E-08	4.9519E-16	2.8953E+09	7.8733E+19
Ru-106	7.2180E-09	2.1575E-15	1.2257E+10	3.1393E+19
Rh-105	3.1744E-10	3.7609E-19	2.1570E+06	5.0461E+19
Sb-127	4.7575E-09	1.7815E-17	8.4475E+07	8.4606E+19
Te-127	7.8902E-09	2.9897E-18	1.4177E+07	8.4871E+19
Te-127m	3.3225E-09	3.5224E-16	1.6703E-09	1.4554E+19
Te-129	1.0493E-08	5.0104E-19	2.3390E+06	2.5150E-20
Te-129m	1.2135E-08	4.0280E-16	1.8804E+09	6.0939E+19
Te-131m	5.4409E-10	6.8233E-19	3.1367E-06	1.8681E+20
Te-132	6.0048E-08	1.9779E-16	9.0237E+08	1.3828E-21
I-131	7.6999E+05	6.2109E-03	2.8552E+22	3.4463E+22
I-132	1.0380E-07	1.0056E-17	4.5880E+07	7.7030E+21
I-133	5.3059E+03	4.6839E-06	2.1208E-19	2.3817E+22
I-135	5.4558E-03	1.5535E-12	6.9301E+12	1.2689E+22
Xe-133	7.1318E-07	3.8101E-01	1.7252E+24	3.2826E+24
Xe-135	4.1077E+01	1.6085E-08	7.1753E+16	1.4681E+23
Cs-134	2.2446E-07	1.7348E-13	7.7966E+11	1.0861E+21
Cs-136	4.7282E-08	6.4512E-16	2.8566E+09	3.4520E+20
Cs-137	1.7010E-07	1.9555E-12	8.5960E+12	8.1750E+20
Ba-140	1.0844E-07	1.4813E-15	6.3718E+09	7.1439E+20
La-140	1.1874E-07	2.1363E-16	9.1896E+08	2.0826E+19
Ce-141	3.2501E-09	1.1407E-16	4.8718E+08	1.6461E+19
Ce-143	6.3254E-11	9.5251E-20	4.0113E+05	1.4579E+19
Ce-144	3.1703E-09	9.9398E-16	4.1569E+09	1.3849E+19
Pr-143	1.1709E-09	1.7388E-17	7.3227E+07	5.9157E+18
Nd-147	3.7458E-10	4.6302E-18	1.8968E+07	2.6437E+18
Np-239	4.3044E-09	1.8554E-17	4.6752E+07	1.8894E+20
Pu-238	9.7494E-12	5.6948E-16	1.4410E+09	4.1743E-16
Pu-239	1.0455E-12	1.6820E-14	4.2382E+10	4.4342E+15
Pu-240	1.6638E-12	7.3016E-15	1.8321E+10	7.1294E+15
Pu-241	4.0991E-10	3.9792E-15	9.9433E+09	1.7583E+18
Am-241	2.3158E-13	6.7474E-17	1.6860E+08	9.3138E+14
Cm-242	5.4991E-11	1.6592E-17	4.1289E+07	2.4370E+17
Cm-244	3.3317E-12	4.1181E-17	1.0164E+08	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7267E+25	0.0000E+00	
Elemental I (atoms)	2.7716E+22	0.0000E+00	
Organic I (atoms)	8.5719E+20	0.0000E+00	
Aerosols (kg)	2.2549E-12	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.0127E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.0175E-05
Total I (Ci)			7.7530E+05

Time (h) = 192.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 192.0000	Leakage Transport
Noble gases (atoms)	1.2935E+24
Elemental I (atoms)	1.9913E+21
Organic I (atoms)	6.1588E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	1.0724E-07	3.3727E-15	3.5019E+10	1.3113E+15
Co-60	6.2230E-08	5.5052E-14	5.5255E+11	7.0953E+14

Secondary Containment Compartment Nuclide Inventory:

Kr-85	3.4987E-03	8.9176E-03	6.3180E+22	9.5948E+19
Kr-85m	7.9673E-09	9.6814E-19	6.8591E+06	3.2997E+19
Rb-86	3.2108E-06	3.9460E-14	2.7632E+11	4.8780E+16
Sr-89	1.4422E-04	4.9640E-12	3.3589E+13	1.8156E+18
Sr-90	2.0503E-05	1.5031E-10	1.0058E+15	2.3326E+17
Sr-91	1.6907E-10	4.6641E-20	3.0866E+05	1.0648E+18
Y-90	1.8034E-05	3.3146E-14	2.2179E+11	3.0646E+16
Y-91	2.3980E-06	9.7781E-14	6.4709E+11	2.6700E+16
Zr-95	2.7550E-06	1.2824E-13	8.1295E+11	3.3948E+16
Zr-97	1.1303E-09	5.9127E-19	3.6708E+06	2.0758E+16
Nb-95	2.9815E-06	7.6247E-14	4.8334E+11	3.4153E+16
Mo-99	5.2624E-06	1.0972E-14	6.6744E+10	3.9034E+17
Tc-99m	5.3953E-06	1.0261E-15	6.2415E+09	3.6242E+17
Ru-103	2.9254E-05	9.0644E-13	5.2997E+12	3.7916E+17
Ru-106	1.3212E-05	3.9492E-12	2.2436E+13	1.5235E+17
Rh-105	5.8106E-07	6.8842E-16	3.9483E+09	2.1147E+17
Sb-127	8.7085E-06	3.2610E-14	1.5463E+11	3.7747E+17
Te-127	1.4443E-05	5.4726E-15	2.5950E+10	3.9407E+17
Te-127m	6.0818E-06	6.4477E-13	3.0574E+12	7.0689E+16
Te-129	1.9207E-05	9.1714E-16	4.2815E+09	5.7162E+17
Te-129m	2.2212E-05	7.3732E-13	3.4421E+12	2.9387E+17
Te-131m	9.9595E-07	1.2490E-15	5.7417E+09	7.1278E+17
Te-132	1.0992E-04	3.6205E-13	1.6518E+12	6.0795E+18
I-131	1.9046E+03	1.5363E-05	7.0624E+19	1.0266E+20
I-132	1.3120E-04	1.2710E-14	5.7987E-10	1.2907E+19
I-133	1.3124E+01	1.1586E-08	5.2460E+16	7.3177E+19
I-135	1.3495E-05	3.8428E-15	1.7142E+10	2.7300E+19
Xe-133	1.7641E+05	9.4244E-04	4.2673E+21	8.7306E+21
Xe-135	1.0161E-01	3.9787E-11	1.7749E-14	3.5606E+20
Cs-134	4.5453E-04	3.5131E-10	1.5788E-15	5.2773E+18
Cs-136	9.5747E-05	1.3064E-12	5.7848E+12	1.6354E+18
Cs-137	3.4445E-04	3.9600E-09	1.7407E+16	3.9738E+18
Ba-140	1.9850E-04	2.7115E-12	1.1663E+13	3.3795E+18
La-140	2.1738E-04	3.9110E-13	1.6823E+12	6.4688E+17
Ce-141	5.9490E-06	2.0878E-13	8.9172E+11	7.9200E-16
Ce-143	1.1579E-07	1.7435E-16	7.3426E+08	5.6732E+16
Ce-144	5.8031E-06	1.8195E-12	7.6090E+12	6.7193E+16
Pr-143	2.1440E-06	3.1839E-14	1.3408E+11	2.9407E+16
Nd-147	6.8565E-07	8.4755E-15	3.4721E+10	1.2454E-16
Np-239	7.8792E-06	3.3963E-14	8.5578E+10	8.0151E-17
Pu-238	1.7846E-08	1.0424E-12	2.6377E+12	2.0278E+14
Pu-239	1.9137E-09	3.0789E-11	7.7579E+13	2.1570E+13
Pu-240	3.0455E-09	1.3365E-11	3.3537E+13	3.4632E+13
Pu-241	7.5033E-07	7.2838E-12	1.8201E+13	8.5406E+15
Am-241	4.2391E-10	1.2351E-13	3.0863E+11	4.5425E+12
Cm-242	1.0066E-07	3.0371E-14	7.5578E+10	1.1813E+15
Cm-244	6.0985E-09	7.5381E-14	1.8605E+11	6.9403E+13

Secondary Containment Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	6.7447E+22	0.0000E+00	
Elemental I (atoms)	6.8556E+19	0.0000E+00	
Organic I (atoms)	2.1203E+18	0.0000E+00	
Aerosols (kg)	4.5428E-09	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.2405E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.2428E-08
Total I (Ci)			1.9177E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 192.0000	Leakage Transport
Noble gases (atoms)	1.2935E+24
Elemental I (atoms)	1.9913E+21
Organic I (atoms)	6.1588E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway
Aerosols (kg)	3.3425E-02

Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2169E+24
Elemental I (atoms)	0.0000E+00	1.8072E+21
Organic I (atoms)	0.0000E+00	5.5894E-19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	2.6753E-01	8.4133E-09	8.7356E+16	1.1743E-16
Co-60	1.5524E-01	1.3733E-07	1.3784E+18	6.5377E+15
Kr-85	3.4939E+04	8.9054E-02	6.3094E+23	5.5846E-20
Kr-85m	7.9564E-08	9.6681E-18	6.8497E+07	1.7448E-19
Rb-86	8.1127E+00	9.9705E-08	6.9818E+17	4.0315E+17
Sr-89	3.5975E+02	1.2383E-05	8.3789E+19	1.6069E-19
Sr-90	5.1146E+01	3.7495E-04	2.5089E+21	2.1512E-18
Sr-91	4.2176E-04	1.1635E-13	7.6996E+11	1.1371E-18
Y-90	4.4987E+01	8.2686E-08	5.5328E+17	1.1820E-18
Y-91	5.9829E+00	2.4396E-07	1.6145E+18	2.6169E-17
Y-93	7.9041E-06	2.3691E-15	1.5341E+10	1.0186E-16
Zr-95	6.8726E+00	3.1991E-07	2.0279E+18	3.0307E-17
Zr-97	2.8196E-03	1.4749E-12	9.1570E+12	3.7275E+16
Nb-95	7.4375E+00	1.9020E-07	1.2057E+18	3.1427E+17
Mo-99	1.3127E+01	2.7371E-08	1.6650E+17	1.8928E+18
Tc-99m	1.3459E+01	2.5596E-09	1.5570E+16	1.8226E+18
Ru-103	7.2976E+01	2.2612E-06	1.3220E+19	3.3168E+18
Ru-106	3.2959E+01	9.8515E-06	5.5969E+19	1.3973E+18
Rh-105	1.4495E+00	1.7173E-09	9.8493E+15	7.1709E+17
Sb-127	2.1724E+01	8.1346E-08	3.8573E+17	2.1484E+18
Sb-129	1.4158E-11	2.5176E-21	1.1753E+04	1.8987E+17
Te-127	3.6028E+01	1.3652E-08	6.4734E+16	2.5732E+18
Te-127m	1.5171E+01	1.6084E-06	7.6268E+18	6.4795E+17
Te-129	4.7913E+01	2.2878E-09	1.0680E+16	1.8567E+18
Te-129m	5.5409E+01	1.8393E-06	8.5864E+18	2.5518E+18
Te-131m	2.4844E+00	3.1157E-09	1.4323E+16	2.0576E+18
Te-132	2.7419E+02	9.0316E-07	4.1204E+18	3.2107E+19
I-131	2.2110E+04	1.7835E-04	8.1986E+20	5.9052E+20
I-132	3.2728E+02	3.1706E-08	1.4465E+17	3.4888E+19
I-133	1.5227E+02	1.3442E-07	6.0864E+17	1.5644E+20
I-135	1.5657E-04	4.4584E-14	1.9888E+11	2.0779E+19
Xe-133	1.7624E+06	9.4157E-03	4.2633E+22	4.3106E+22
Xe-135	1.0258E-00	4.0167E-10	1.7918E+15	3.8366E+20
Cs-134	1.1485E+03	8.8765E-04	3.9892E+21	4.8561E+19
Cs-136	2.4192E-02	3.3009E-06	1.4616E+19	1.2921E+19
Cs-137	8.7032E+02	1.0006E-02	4.3983E+22	3.6662E+19
Ba-140	4.9518E+02	6.7639E-06	2.9095E+19	2.6581E+19
La-140	5.4228E+02	9.7562E-07	4.1967E+18	1.8953E+19
Ce-141	1.4840E+01	5.2082E-07	2.2244E+18	6.8562E+17
Ce-143	2.8883E-01	4.3494E-10	1.8316E+15	1.7606E+17
Ce-144	1.4476E+01	4.5387E-06	1.8981E+19	6.1523E+17
Pr-143	5.3484E+00	7.9425E-08	3.3448E+17	2.6446E+17
Nd-147	1.7104E+00	2.1142E-08	8.6614E+16	9.5594E+16
Np-239	1.9655E+01	8.4723E-08	2.1348E+17	3.5649E+18
Pu-238	4.4518E-02	2.6004E-06	6.5798E+18	1.8711E+15
Pu-239	4.7738E-03	7.6803E-05	1.9352E+20	1.9999E+14
Pu-240	7.5972E-03	3.3340E-05	8.3659E+19	3.1945E+14
Pu-241	1.8717E+00	1.8170E-05	4.5403E+19	7.8749E+16
Am-241	1.0575E-03	3.0811E-07	7.6990E+17	4.2949E+13
Cm-242	2.5110E-01	7.5763E-08	1.8853E+17	1.0757E+16
Cm-244	1.5213E-02	1.8804E-07	4.6410E+17	6.3998E+14

SGTS Filter Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	6.7357E+23	0.0000E+00	
Elemental I (atoms)	6.8531E+20	0.0000E+00	
Organic I (atoms)	2.1195E+19	0.0000E+00	
Aerosols (kg)	1.1471E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.8178E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.8267E-01
Elemental I (atoms)	6.8531E+20	0.0000E+00	
Organic I (atoms)	2.1195E+19	0.0000E+00	

Total I (Ci) 2.2590E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2169E-24
Elemental I (atoms)	0.0000E+00	1.8072E-21
Organic I (atoms)	0.0000E+00	5.5894E-19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.9939E-23
Elemental I (atoms)	0.0000E+00	6.5811E-20
Organic I (atoms)	0.0000E+00	2.0354E-19
Aerosols (kg)	0.0000E+00	2.1825E-02

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	3.1222E-15

Primary Containment Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	4.6818E-13	1.4723E-20	1.5287E+05	2.7125E+17
Co-60	2.7684E-13	2.4490E-19	2.4581E+06	1.4609E+17
Kr-85	1.4001E+06	3.5685E+00	2.5262E+25	4.5700E+22
Kr-85m	1.8984E-09	2.3068E-19	1.6343E+06	1.9321E+22
Rb-86	1.1995E-11	1.4742E-19	1.0323E-06	1.0219E+19
Sr-89	6.2464E-10	2.1501E-17	1.4548E-08	3.7629E+20
Sr-90	9.1264E-11	6.6906E-16	4.4768E-09	4.8021E+19
Y-90	8.4928E-11	1.5610E-19	1.0445E+06	1.0596E+18
Y-91	1.0407E-11	4.2436E-19	2.8083E+06	4.9947E+18
Zr-95	1.2002E-11	5.5868E-19	3.5415E+06	7.0260E+18
Nb-95	1.3224E-11	3.3819E-19	2.1438E+06	7.0329E+18
Mo-99	1.4151E-11	2.9505E-20	1.7948E+05	9.0341E+19
Tc-99m	1.4508E-11	2.7592E-21	1.6784E+04	8.1234E+19
Ru-103	1.2572E-10	3.8954E-18	2.2775E+07	7.8733E+19
Ru-106	5.8598E-11	1.7515E-17	9.9508E+07	3.1393E+19
Sb-127	2.7046E-11	1.0128E-19	4.8023E+05	8.4606E+19
Te-127	5.2935E-11	2.0058E-20	9.5112E+04	8.4871E+19
Te-127m	2.6807E-11	2.8419E-18	1.3476E+07	1.4554E+19
Te-129	8.2050E-11	3.9179E-21	1.8290E+04	2.5150E+20
Te-129m	9.4887E-11	3.1498E-18	1.4704E+07	6.0939E+19
Te-132	3.1976E-10	1.0533E-18	4.8052E+06	1.3828E+21
I-131	6.4168E-05	5.1759E-03	2.3794E+22	3.8963E+22
I-132	5.5276E-10	5.3551E-20	2.4431E+05	7.7030E+21
I-133	1.0612E+03	9.3677E-07	4.2416E+18	2.3834E+22
I-135	3.5203E-05	1.0024E-14	4.4716E+10	1.2689E+22
Xe-133	5.4216E+07	2.8965E-01	1.3115E+24	3.6814E+24
Xe-135	1.0467E+00	4.0987E-10	1.8284E+15	1.4681E+23
Cs-134	1.8257E-09	1.4111E-15	6.3417E+09	1.0861E+21
Cs-136	3.4661E-10	4.7292E-18	2.0941E+07	3.4520E+20
Cs-137	1.3859E-09	1.5934E-14	7.0040E+10	8.1750E+20
Ba-140	7.9259E-10	1.0826E-17	4.6570E+07	7.1439E+20
La-140	8.9492E-10	1.6101E-18	6.9257E+06	2.0826E+19
Ce-141	2.5379E-11	8.9070E-19	3.8042E+06	1.6461E+19
Ce-144	2.5709E-11	8.0605E-18	3.3709E+07	1.3849E+19
Pr-143	8.6457E-12	1.2839E-19	5.4069E+05	5.9157E+18
Nd-147	2.6904E-12	3.3256E-20	1.3624E+05	2.6437E+18
La-140	8.9492E-10	1.6101E-18	6.9257E+06	2.0826E+19
Ce-141	2.5379E-11	8.9070E-19	3.8042E+06	1.6461E+19

Np-239	1.9470E-11	8.3926E-20	2.1147E+05	1.8894E+20
Pu-238	7.9463E-14	4.6416E-18	1.1745E+07	4.1743E+16
Pu-239	8.5236E-15	1.3713E-16	3.4553E-08	4.4342E+15
Pu-240	1.3558E-14	5.9500E-17	1.4930E-08	7.1294E+15
Pu-241	3.3394E-12	3.2418E-17	8.1006E+07	1.7583E+18
Am-241	1.9165E-15	5.5838E-19	1.3953E+06	9.3138E+14
Cm-242	4.4432E-13	1.3406E-19	3.3361E+05	2.4370E+17
Cm-244	2.7144E-14	3.3551E-19	8.2807E+05	1.4288E+16

Primary Containment Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6594E+25	0.0000E+00	
Elemental I (atoms)	2.3084E+22	0.0000E-00	
Organic I (atoms)	7.1394E+20	0.0000E+00	
Aerosols (kg)	1.8361E-14	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.8390E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.8400E-05
Total I (Ci)			6.4274E-05

Time (h) = 240.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 240.0000 Leakage Transport

Noble gases (atoms)	1.5591E+24
Elemental I (atoms)	2.2417E+21
Organic I (atoms)	6.9330E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	1.9291E-09	6.0669E-17	6.2992E+08	1.3113E+15
Co-60	1.1407E-09	1.0091E-15	1.0129E+10	7.0953E+14
Kr-85	3.4631E+03	8.8269E-03	6.2538E+22	1.1820E+20
Rb-86	5.4681E-08	6.7203E-16	4.7059E+09	4.8780E+16
Sr-89	2.5739E-06	8.8594E-14	5.9947E+11	1.8156E+18
Sr-90	3.7606E-07	2.7569E-12	1.8447E+13	2.3326E+17
Y-90	3.4999E-07	6.4329E-16	4.3044E+09	3.0646E-16
Y-91	4.2958E-08	1.7517E-15	1.1592E+10	2.6700E+16
Zr-95	4.9455E-08	2.3021E-15	1.4593E+10	3.3948E+16
Nb-95	5.4492E-08	1.3935E-15	8.8338E+09	3.4153E+16
Mo-99	5.8311E-08	1.2158E-16	7.3956E+08	3.9034E+17
Tc-99m	5.9783E-08	1.1369E-17	6.9159E+07	3.6242E+17
Ru-103	5.1803E-07	1.6051E-14	9.3846E+10	3.7916E+17
Ru-106	2.4146E-07	7.2172E-14	4.1003E+11	1.5235E+17
Rh-105	4.1598E-09	4.9284E-18	2.8266E+07	2.1147E+17
Sb-127	1.1144E-07	4.1731E-16	1.9788E+09	3.7747E+17
Te-127	2.1812E-07	8.2650E-17	3.9191E+08	3.9407E+17
Te-127m	1.1046E-07	1.1710E-14	5.5529E+10	7.0689E+16
Te-129	3.3809E-07	1.6144E-17	7.5365E-07	5.7162E+17
Te-129m	3.9099E-07	1.2979E-14	6.0589E-10	2.9387E+17
Te-131m	6.0267E-09	7.5579E-18	3.4744E-07	7.1278E+17
Te-132	1.3176E-06	4.3400E-15	1.9800E+10	6.0795E+18
I-131	1.5872E+03	1.2803E-05	5.8855E+19	1.1379E+20
I-132	1.5727E-06	1.5236E-16	6.9510E+08	1.2907E+19
I-133	2.6249E-00	2.3172E-09	1.0492E+16	7.3219E+19
I-135	8.7076E-08	2.4795E-17	1.1061E+08	2.7300E+19
Xe-133	1.3411E+05	7.1645E-04	3.2440E+21	9.7169E+21
Xe-135	2.5890E-03	1.0138E-12	4.5225E+12	3.5606E+20
Cs-134	8.3226E-06	6.4325E-12	2.8909E+13	5.2773E+18
Cs-136	1.5800E-06	2.1558E-14	9.5460E+10	1.6354E+18
Cs-137	6.3178E-06	7.2633E-11	3.1928E+14	3.9738E+18
Ba-140	3.2659E-06	4.4611E-14	1.9189E+11	3.3795E+18
Xe-135	2.5890E-03	1.0138E-12	4.5225E+12	3.5606E+20
Cs-134	8.3226E-06	6.4325E-12	2.8909E+13	5.2773E+18

La-140	3.5877E-06	6.6347E-15	2.8539E+10	6.4688E+17
Ce-141	1.0457E-07	3.6700E-15	1.5675E+10	7.9200E+16
Ce-143	7.7497E-10	1.1670E-18	4.9145E+06	5.6732E+16
Ce-144	1.0593E-07	3.3214E-14	1.3890E+11	6.7193E+16
Pr-143	3.5636E-08	5.2920E-16	2.2286E+09	2.9407E+16
Nd-147	1.1086E-08	1.3703E-16	5.6138E-08	1.2454E+16
Np-239	8.0227E-08	3.4582E-16	8.7137E+08	8.0151E+17
Pu-238	3.2743E-10	1.9126E-14	4.8395E+10	2.0278E+14
Pu-239	3.5122E-11	5.6506E-13	1.4238E+12	2.1570E+13
Pu-240	5.5867E-11	2.4517E-13	6.1519E+11	3.4632E+13
Pu-241	1.3760E-08	1.3358E-13	3.3379E+11	8.5406E+15
Am-241	7.8970E-12	2.3009E-15	5.7495E+09	4.5425E+12
Cm-242	1.8308E-09	5.5240E-16	1.3747E+09	1.1813E+15
Cm-244	1.1185E-10	1.3825E-15	3.4121E+09	6.9403E+13

Secondary Containment Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	6.5782E+22	0.0000E+00	
Elemental I (atoms)	5.7100E-19	0.0000E+00	
Organic I (atoms)	1.7660E+18	0.0000E+00	
Aerosols (kg)	8.3267E-11	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.6982E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.6986E-08
Total I (Ci)			1.5899E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 240.0000 Leakage Transport	
Noble gases (atoms)	1.5591E+24
Elemental I (atoms)	2.2417E+21
Organic I (atoms)	6.9330E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4832E+24
Elemental I (atoms)	0.0000E+00	2.0582E+21
Organic I (atoms)	0.0000E+00	6.3655E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	1.9669E-01	6.1857E-09	6.4226E+16	1.3211E+16
Co-60	1.1631E-01	1.0289E-07	1.0327E+18	7.3972E+15
Kr-85	3.8275E+04	9.7557E-02	6.9118E+23	7.9332E+20
Kr-85m	5.1898E-11	6.3063E-21	4.4680E-04	1.7448E+19
Rb-86	5.6471E-00	6.9402E-08	4.8599E+17	4.4653E+17
Sr-89	2.6243E+02	9.0329E-06	6.1121E+19	1.8036E+19
Sr-90	3.8342E+01	2.8109E-04	1.8808E+21	2.4345E+18
Sr-91	9.5278E-06	2.6284E-15	1.7394E+10	1.1371E+18
Y-90	3.5685E+01	6.5589E-08	4.3887E+17	1.4371E+18
Y-91	4.3807E+00	1.7863E-07	1.1821E+18	2.9445E+17
Y-93	2.1985E-07	6.5897E-17	4.2671E+08	1.0186E+16
Zr-95	5.0424E+00	2.3472E-07	1.4879E+18	3.4075E+17
Zr-97	2.9520E-04	1.5442E-13	9.5870E+11	3.7282E+16
Nb-95	5.5559E+00	1.4208E-07	9.0068E+17	3.5537E+17
Mo-99	5.9453E+00	1.2396E-08	7.5404E+16	1.9506E+18
Tc-99m	6.0953E+00	1.1592E-09	7.0514E+15	1.8789E-18
Ru-103	5.2818E+01	1.6365E-06	9.5684E+18	3.7143E-18
Ru-106	2.4618E+01	7.3585E-06	4.1806E+19	1.5796E+18
Rh-105	4.2413E-01	5.0249E-10	2.8820E+15	7.2241E+17
Sb-127	1.1363E+01	4.2548E-08	2.0176E+17	2.2503E+18
Te-127	2.2239E+01	8.4269E-09	3.9959E+16	2.7487E+18
Te-127m	1.1262E+01	1.1940E-06	5.6616E+18	7.3159E+17
Te-129	3.4471E+01	1.6460E-09	7.6841E+15	2.0527E+18
Te-129m	3.9865E+01	1.3233E-06	6.1775E+18	2.8528E+18
Sb-127	1.1363E+01	4.2548E-08	2.0176E+17	2.2503E+18
Te-127	2.2239E+01	8.4269E-09	3.9959E+16	2.7487E+18

Te-131m	6.1448E-01	7.7059E-10	3.5425E+15	2.0661E+18
Te-132	1.3434E+02	4.4250E-07	2.0188E+18	3.3356E+19
I-131	1.9492E+04	1.5723E-04	7.2279E+20	7.2362E+20
I-132	1.6035E+02	1.5534E-08	7.0871E+16	3.6182E+19
I-133	3.2222E+01	2.8444E-08	1.2879E+17	1.5694E+20
I-135	1.0689E-06	3.0437E-16	1.3578E+09	2.0779E-19
Xe-133	1.4826E+06	7.9207E-03	3.5864E+22	5.3497E+22
Xe-135	2.8829E-02	1.1289E-11	5.0359E-13	3.8366E+20
Cs-134	8.5950E+02	6.6430E-04	2.9855E+21	5.4916E+19
Cs-136	1.6317E+02	2.2263E-06	9.8584E+18	1.4195E+19
Cs-137	6.5245E+02	7.5010E-03	3.2972E+22	4.1482E-19
Ba-140	3.3299E-02	4.5485E-06	1.9565E+19	2.9187E+19
La-140	3.7600E+02	6.7647E-07	2.9098E+18	2.1830E+19
Ce-141	1.0662E+01	3.7419E-07	1.5982E+18	7.6616E-17
Ce-143	7.9015E-02	1.1898E-10	5.0107E-14	1.7709E+17
Ce-144	1.0801E+01	3.3864E-06	1.4162E+19	6.9523E+17
Pr-143	3.6335E+00	5.3958E-08	2.2723E+17	2.9274E+17
Nd-147	1.1303E+00	1.3972E-08	5.7237E+16	1.0452E+17
Np-239	8.1798E+00	3.5259E-08	8.8843E+16	3.6483E+18
Pu-238	3.3384E-02	1.9501E-06	4.9342E+18	2.1177E-15
Pu-239	3.5810E-03	5.7613E-05	1.4517E+20	2.2644E+14
Pu-240	5.6961E-03	2.4997E-05	6.2724E-19	3.6153E+14
Pu-241	1.4030E+00	1.3620E-05	3.4033E+19	8.9115E+16
Am-241	8.0517E-04	2.3460E-07	5.8621E+17	4.8848E+13
Cm-242	1.8667E-01	5.6322E-08	1.4016E+17	1.2142E+16
Cm-244	1.1404E-02	1.4096E-07	3.4789E+17	7.2424E+14

SGTS Filter Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	7.2704E+23	0.0000E+00	
Elemental I (atoms)	6.3150E+20	0.0000E+00	
Organic I (atoms)	1.9531E+19	0.0000E+00	
Aerosols (kg)	8.5938E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.8859E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.8888E-01
Total I (Ci)			1.9685E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4832E+24
Elemental I (atoms)	0.0000E+00	2.0582E+21
Organic I (atoms)	0.0000E+00	6.3655E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.0160E+23
Elemental I (atoms)	0.0000E+00	8.4856E+20
Organic I (atoms)	0.0000E+00	2.6244E+19
Aerosols (kg)	0.0000E+00	2.4695E-02

Detailed model information at time (H) = 288.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.8342E+17

Primary Containment Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-60	2.2543E-15	1.9943E-21	2.0016E+04	1.4609E+17

Primary Containment Compartment Nuclide Inventory:

Kr-85	1.3858E+06	3.5322E+00	2.5025E+25	5.4605E+22
Sr-89	4.9523E-12	1.7046E-19	1.1534E+06	3.7629E+20
Sr-90	7.4361E-13	5.4514E-18	3.6477E+07	4.8021E+19
Y-91	8.2820E-14	3.3771E-21	2.2349E+04	4.9947E+18
Zr-95	9.5708E-14	4.4551E-21	2.8241E-04	7.0260E+18
Nb-95	1.0730E-13	2.7441E-21	1.7395E+04	7.0329E+18
Ru-103	9.8895E-13	3.0642E-20	1.7916E+05	7.8733E+19
Ru-106	4.7572E-13	1.4219E-19	8.0784E+05	3.1393E+19
Te-127m	2.1611E-13	2.2911E-20	1.0864E+05	1.4554E+19
Te-129m	7.4198E-13	2.4630E-20	1.1498E+05	6.0939E+19
Te-132	1.7028E-12	5.6087E-21	2.5588E+04	1.3828E+21
I-131	5.3475E-05	4.3134E-03	1.9829E+22	4.2713E+22
I-133	2.1224E+02	1.8735E-07	8.4833E+17	2.3837E-22
I-135	2.2714E-07	6.4679E-17	2.8852E+08	1.2689E+22
Xe-133	4.1215E+07	2.2019E-01	9.9700E+23	3.9846E-24
Xe-135	2.6666E-02	1.0442E-11	4.6580E+13	1.4681E+23
Cs-134	1.4850E-11	1.1478E-17	5.1583E-07	1.0861E+21
Cs-136	2.5409E-12	3.4668E-20	1.5351E+05	3.4520E+20
Cs-137	1.1292E-11	1.2983E-16	5.7068E+08	8.1750E+20
Ba-140	5.7929E-12	7.9128E-20	3.4037E+05	7.1439E+20
La-140	6.6372E-12	1.1941E-20	5.1365E+04	2.0826E+19
Ce-141	1.9818E-13	6.9552E-21	2.9706E-04	1.6461E+19
Ce-144	2.0848E-13	6.5365E-20	2.7336E+05	1.3849E+19
Pu-238	6.4767E-16	3.7832E-20	9.5726E+04	4.1743E+16
Pu-239	6.9478E-17	1.1178E-18	2.8165E+06	4.4342E+15
Pu-240	1.1048E-16	4.8486E-19	1.2166E+06	7.1294E+15
Pu-241	2.7206E-14	2.6410E-19	6.5994E+05	1.7583E+18
Am-241	1.5856E-17	4.6198E-21	1.1544E+04	9.3138E+14

Primary Containment Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6022E+25	0.0000E+00	
Elemental I (atoms)	1.9235E+22	0.0000E+00	
Organic I (atoms)	5.9489E+20	0.0000E+00	
Aerosols (kg)	1.4951E-16	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.8650E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.8651E-05
Total I (Ci)			5.3496E+05

Time (h) = 288.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 288.0000	Leakage Transport
Noble gases (atoms)	1.8186E+24
Elemental I (atoms)	2.4502E+21
Organic I (atoms)	7.5780E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	3.4702E-11	1.0913E-18	1.1331E+07	1.3113E+15
Co-60	2.0910E-11	1.8498E-17	1.8566E-08	7.0953E+14
Kr-85	3.4279E+03	8.7372E-03	6.1902E+22	1.4023E+20
Rb-86	9.3125E-10	1.1445E-17	8.0144E+07	4.8780E+16
Sr-89	4.5936E-08	1.5812E-15	1.0699E+10	1.8156E+18
Sr-90	6.8975E-09	5.0565E-14	3.3835E+11	2.3326E+17
Y-90	6.6290E-09	1.2184E-17	8.1528E+07	3.0646E+16
Y-91	7.6957E-10	3.1381E-17	2.0767E+08	2.6700E+16
Zr-95	8.8775E-10	4.1324E-17	2.6196E+08	3.3948E+16
Nb-95	9.9531E-10	2.5454E-17	1.6135E+08	3.4153E+16
Mo-99	6.4611E-10	1.3472E-18	8.1947E+06	3.9034E+17
Tc-99m	6.6242E-10	1.2598E-19	7.6632E+05	3.6242E+17
Y-91	7.6957E-10	3.1381E-17	2.0767E+08	2.6700E+16

Ru-103	9.1732E-09	2.8423E-16	1.6618E+09	3.7916E+17
Ru-106	4.4126E-09	1.3189E-15	7.4932E+09	1.5235E+17
Rh-105	2.9780E-11	3.5283E-20	2.0236E+05	2.1147E+17
Sb-127	1.4262E-09	5.3404E-18	2.5323E+07	3.7747E+17
Te-127	3.3944E-09	1.2862E-18	6.0989E+06	3.9407E+17
Te-127m	2.0046E-09	2.1251E-16	1.0077E+09	7.0689E+16
Te-129	5.9512E-09	2.8417E-19	1.3266E+06	5.7162E+17
Te-129m	6.8824E-09	2.2846E-16	1.0665E-09	2.9387E+17
Te-131m	3.6469E-11	4.5735E-20	2.1025E+05	7.1278E+17
Te-132	1.5794E-08	5.2024E-17	2.3735E+08	6.0795E+18
I-131	1.3227E+03	1.0669E-05	4.9048E+19	1.2307E+20
I-132	1.8852E-08	1.8264E-18	8.3323E-06	1.2907E+19
I-133	5.2498E-01	4.6343E-10	2.0984E+15	7.3227E+19
I-135	5.6185E-10	1.5999E-19	7.1367E+05	2.7300E+19
Xe-133	1.0195E+05	5.4465E-04	2.4661E+21	1.0467E+22
Xe-135	6.5960E-05	2.5829E-14	1.1522E+11	3.5606E+20
Cs-134	1.5239E-07	1.1778E-13	5.2932E+11	5.2773E+18
Cs-136	2.6073E-08	3.5575E-16	1.5753E+09	1.6354E-18
Cs-137	1.1588E-07	1.3322E-12	5.8560E+12	3.9738E+18
Ba-140	5.3733E-08	7.3396E-16	3.1572E+09	3.3795E+18
La-140	6.1566E-08	1.1076E-16	4.7646E+08	6.4688E+17
Ce-141	1.8381E-09	6.4511E-17	2.7553E+08	7.9200E+16
Ce-143	5.1870E-12	7.8108E-21	3.2893E+04	5.6732E+16
Ce-144	1.9338E-09	6.0630E-16	2.5356E+09	6.7193E+16
Pr-143	5.9104E-10	8.7771E-18	3.6963E+07	2.9407E+16
Nd-147	1.7924E-10	2.2156E-18	9.0765E-06	1.2454E+16
Np-239	8.1689E-10	3.5212E-18	8.8724E+06	8.0151E+17
Pu-238	6.0076E-12	3.5091E-16	8.8792E+08	2.0278E+14
Pu-239	6.4445E-13	1.0368E-14	2.6125E+10	2.1570E+13
Pu-240	1.0248E-12	4.4974E-15	1.1285E+10	3.4632E+13
Pu-241	2.5235E-10	2.4497E-15	6.1214E+09	8.5406E+15
Am-241	1.4708E-13	4.2853E-17	1.0708E+08	4.5425E+12
Cm-242	3.3300E-11	1.0047E-17	2.5003E+07	1.1813E+15
Cm-244	2.0513E-12	2.5355E-17	6.2579E+07	6.9403E+13

Secondary Containment Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	6.4368E+22	0.0000E+00	
Elemental I (atoms)	4.7578E+19	0.0000E+00	
Organic I (atoms)	1.4715E+18	0.0000E+00	
Aerosols (kg)	1.5264E-12	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.2481E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.2482E-08
Total I (Ci)			1.3233E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 288.0000	Leakage Transport
Noble gases (atoms)	1.8186E+24
Elemental I (atoms)	2.4502E+21
Organic I (atoms)	7.5780E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7433E+24
Elemental I (atoms)	0.0000E+00	2.2673E+21
Organic I (atoms)	0.0000E+00	7.0121E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	1.4461E-01	4.5479E-09	4.7220E+16	1.4291E+16
Co-60	8.7139E-02	7.7088E-08	7.7372E+17	8.0412E+15
Kr-85	4.0652E+04	1.0362E-01	7.3411E+23	1.0462E+21
Rb-86	3.9308E+00	4.8309E-08	3.3829E+17	4.7673E+17

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	1.4461E-01	4.5479E-09	4.7220E+16	1.4291E+16

Sr-89	1.9143E+02	6.5892E-06	4.4585E+19	1.9470E+19
Sr-90	2.8744E+01	2.1072E-04	1.4100E+21	2.6469E+18
Sr-91	2.1524E-07	5.9377E-17	3.9294E+08	1.1371E-18
Y-90	2.7625E-01	5.0776E-08	3.3975E+17	1.6370E+18
Y-91	3.2076E+00	1.3079E-07	8.6556E+17	3.1844E+17
Y-93	6.1153E-09	1.8330E-18	1.1869E+07	1.0186E-16
Zr-95	3.6995E-00	1.7221E-07	1.0916E+18	3.6839E+17
Zr-97	3.0906E-05	1.6167E-14	1.0037E+11	3.7283E+16
Nb-95	4.1478E+00	1.0607E-07	6.7240E+17	3.8607E+17
Mo-99	2.6925E+00	5.6140E-09	3.4150E+16	1.9768E+18
Tc-99m	2.7605E+00	5.2499E-10	3.1935E+15	1.9044E+18
Ru-103	3.8227E+01	1.1845E-06	5.9253E-18	4.0020E+18
Ru-106	1.8389E+01	5.4964E-06	3.1226E+19	1.7157E+18
Rh-105	1.2410E-01	1.4703E-10	8.4329E+14	7.2397E+17
Sb-127	5.9432E+00	2.2255E-08	1.0553E+17	2.3036E+18
Te-127	1.4145E-01	5.3600E-09	2.5416E+16	2.8585E+18
Te-127m	8.3536E+00	8.8561E-07	4.1994E+18	7.9365E+17
Te-129	2.4801E+01	1.1842E-09	5.5284E+15	2.1937E+18
Te-129m	2.8681E+01	9.5205E-07	4.4445E+18	3.0693E+18
Te-131m	1.5198E-01	1.9059E-10	8.7615E+14	2.0682E+18
Te-132	6.5819E+01	2.1680E-07	9.8909E+17	3.3968E+19
I-131	1.6917E+04	1.3646E-04	6.2730E+20	8.3998E+20
I-132	7.8562E+01	7.6110E-09	3.4723E+16	3.6815E+19
I-133	6.7122E+00	5.9252E-09	2.6829E+16	1.5704E+20
I-135	7.1836E-09	2.0455E-18	9.1247E+06	2.0779E+19
Xe-133	1.2093E+06	6.4605E-03	2.9253E+22	6.2096E+22
Xe-135	7.8638E-04	3.0793E-13	1.3736E-12	3.8366E+20
Cs-134	6.4323E+02	4.9715E-04	2.2343E+21	5.9672E+19
Cs-136	1.1005E+02	1.5016E-06	6.6492E+18	1.5055E+19
Cs-137	4.8912E+02	5.6233E-03	2.4718E+22	4.5096E+19
Ba-140	2.2392E+02	3.0586E-06	1.3157E+19	3.0939E+19
La-140	2.5657E+02	4.6159E-07	1.9855E+18	2.3809E+19
Ce-141	7.6600E+00	2.6884E-07	1.1482E+18	8.2403E+17
Ce-143	2.1616E-02	3.2550E-11	1.3708E+14	1.7738E+17
Ce-144	8.0587E+00	2.5266E-06	1.0567E+19	7.5491E+17
Pr-143	2.4631E+00	3.6578E-08	1.5404E+17	3.1193E+17
Nd-147	7.4693E-01	9.2329E-09	3.7824E+16	1.1042E+17
Np-239	3.4042E+00	1.4674E-08	3.6974E+16	3.6830E+18
Pu-238	2.5035E-02	1.4624E-06	3.7002E+18	2.3026E+15
Pu-239	2.6856E-03	4.3207E-05	1.0887E+20	2.4628E+14
Pu-240	4.2707E-03	1.8742E-05	4.7028E+19	3.9308E+14
Pu-241	1.0516E+00	1.0209E-05	2.5510E+19	9.6885E+16
Am-241	6.1292E-04	1.7858E-07	4.4624E+17	5.3340E+13
Cm-242	1.3877E-01	4.1870E-08	1.0419E+17	1.3172E+16
Cm-244	8.5483E-03	1.0566E-07	2.6078E+17	7.8739E+14

SGTS Filter Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	7.6336E+23	0.0000E+00	
Elemental I (atoms)	5.6450E+20	0.0000E+00	
Organic I (atoms)	1.7459E+19	0.0000E+00	
Aerosols (kg)	6.4388E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.9748E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.9759E-01
Total I (Ci)			1.7002E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7433E+24
Elemental I (atoms)	0.0000E+00	2.2673E+21
Organic I (atoms)	0.0000E+00	7.0121E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported

Noble gases (atoms)	0.0000E+00	9.1659E+23
Elemental I (atoms)	0.0000E+00	1.0213E-21
Organic I (atoms)	0.0000E+00	3.1585E+19
Aerosols (kg)	0.0000E+00	2.6845E-02

Detailed model information at time (H) = 336.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	4.7082E-19

Primary Containment Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Kr-85	1.3717E+06	3.4963E+00	2.4771E+25	6.3419E+22
Sr-90	6.0588E-15	4.4417E-20	2.9721E+05	4.8021E+19
I-131	4.4564E+05	3.5946E-03	1.6525E+22	4.5838E+22
I-133	4.2448E+01	3.7471E-08	1.6967E+17	2.3838E+22
I-135	1.4556E-09	4.1733E-19	1.8616E-06	1.2689E+22
Xe-133	3.1332E+07	1.6739E-01	7.5792E+23	4.2150E+24
Xe-135	6.7934E-04	2.6602E-13	1.1867E+12	1.4681E+23
Cs-134	1.2079E-13	9.3361E-20	4.1958E+05	1.0861E+21
Cs-137	9.2010E-14	1.0578E-18	4.6498E+06	8.1750E-20
Pu-239	5.6626E-19	9.1102E-21	2.2955E+04	4.4342E+15

Primary Containment Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	2.5529E-25	0.0000E+00	
Elemental I (atoms)	1.6029E+22	0.0000E+00	
Organic I (atoms)	4.9574E+20	0.0000E+00	
Aerosols (kg)	1.2176E-18	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.0541E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.0541E-05
Total I (Ci)			4.4568E+05

Time (h) = 336.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E-01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 336.0000	Leakage Transport
Noble gases (atoms)	2.0729E+24
Elemental I (atoms)	2.6240E+21
Organic I (atoms)	8.1155E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Co-58	6.2422E-13	1.9631E-20	2.0383E+05	1.3113E+15
Co-60	3.8330E-13	3.3909E-19	3.4034E+06	7.0953E+14
Kr-85	3.3930E+03	8.6483E-03	6.1272E+22	1.6203E+20
Rb-86	1.5860E-11	1.9491E-19	1.3649E+06	4.8780E+16
Sr-89	8.1983E-10	2.8219E-17	1.9094E+08	1.8156E+18
Sr-90	1.2651E-10	9.2745E-16	6.2058E+09	2.3326E+17
Y-90	1.2387E-10	2.2768E-19	1.5235E+06	3.0646E+16
Y-91	1.3786E-11	5.6216E-19	3.7202E+06	2.6700E+16
Zr-95	1.5936E-11	7.4179E-19	4.7023E+06	3.3948E+16
Nb-95	1.8169E-11	4.6464E-19	2.9454E+06	3.4153E+16
Mo-99	7.1593E-12	1.4927E-20	9.0801E+04	3.9034E+17
Ru-103	1.6244E-10	5.0331E-18	2.9427E+07	3.7916E+17
Y-91	1.3786E-11	5.6216E-19	3.7202E+06	2.6700E+16

Ru-106	8.0640E-11	2.4103E-17	1.3694E+08	1.5235E-17
Sb-127	1.8251E-11	6.8341E-20	3.2406E+05	3.7747E+17
Te-127	5.4361E-11	2.0598E-20	9.7674E+04	3.9407E+17
Te-127m	3.6356E-11	3.8544E-18	1.8277E+07	7.0689E+16
Te-129	1.0476E-10	5.0021E-21	2.3352E+04	5.7162E-17
Te-129m	1.2115E-10	4.0214E-18	1.8773E+07	2.9387E+17
Te-132	1.8933E-10	6.2362E-19	2.8451E-06	6.0795E+18
I-131	1.1023E+03	8.8914E-06	4.0874E+19	1.3080E+20
I-132	2.2598E-10	2.1893E-20	9.9880E+04	1.2907E+19
I-133	1.0500E-01	9.2687E-11	4.1968E+14	7.3229E+19
Xe-133	7.7501E-04	4.1404E-04	1.8748E-21	1.1037E+22
Xe-135	1.6804E-06	6.5801E-16	2.9353E+09	3.5606E-20
Cs-134	2.7903E-09	2.1566E-15	9.6920E+09	5.2773E+18
Cs-136	4.3025E-10	5.8705E-18	2.5995E+07	1.6354E+18
Cs-137	2.1254E-09	2.4435E-14	1.0741E+11	3.9738E+18
Ba-140	8.8404E-10	1.2076E-17	5.1944E-07	3.3795E+18
La-140	1.0201E-09	1.8353E-18	7.8945E+06	6.4688E+17
Ce-141	3.2311E-11	1.1340E-18	4.8432E+06	7.9200E+16
Ce-144	3.5301E-11	1.1068E-17	4.6286E+07	6.7193E+16
Pr-143	9.7940E-12	1.4544E-19	6.1251E+05	2.9407E+16
Nd-147	2.8979E-12	3.5821E-20	1.4675E+05	1.2454E+16
Np-239	8.3177E-12	3.5853E-20	9.0340E+04	8.0151E+17
Pu-238	1.1022E-13	6.4384E-18	1.6291E+07	2.0278E+14
Pu-239	1.1824E-14	1.9022E-16	4.7931E+08	2.1570E+13
Pu-240	1.8799E-14	8.2500E-17	2.0701E-08	3.4632E+13
Pu-241	4.6279E-12	4.4925E-17	1.1226E+08	8.5406E+15
Am-241	2.7386E-15	7.9792E-19	1.9938E+06	4.5425E+12
Cm-242	6.0567E-13	1.8274E-19	4.5476E+05	1.1813E+15
Cm-244	3.7621E-14	4.6501E-19	1.1477E-06	6.9403E+13

Secondary Containment Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	6.3147E+22	0.0000E+00	
Elemental I (atoms)	3.9648E+19	0.0000E+00	
Organic I (atoms)	1.2262E+18	0.0000E+00	
Aerosols (kg)	2.7981E-14	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8734E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8734E-08
Total I (Ci)			1.1024E+03

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 336.0000	Leakage Transport
Noble gases (atoms)	2.0729E+24
Elemental I (atoms)	2.6240E+21
Organic I (atoms)	8.1155E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9982E+24
Elemental I (atoms)	0.0000E+00	2.4415E+21
Organic I (atoms)	0.0000E+00	7.5510E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Co-58	1.0632E-01	3.3437E-09	3.4718E+16	1.5084E+16
Co-60	6.5286E-02	5.7756E-08	5.7969E-17	8.5236E+15
Kr-85	4.2312E+04	1.0785E-01	7.6408E+23	1.3119E+21
Rb-86	2.7362E+00	3.3627E-08	2.3547E+17	4.9775E+17
Sr-89	1.3964E+02	4.8065E-06	3.2523E+19	2.0517E+19
Sr-90	2.1548E+01	1.5797E-04	1.0570E+21	2.8060E+18
Sr-91	4.8624E-09	1.3414E-18	8.8768E+06	1.1371E+18
Y-90	2.1099E+01	3.8781E-08	2.5949E+17	1.7906E+18
Y-91	2.3486E+00	9.5768E-08	6.3377E+17	3.3601E+17
Sr-89	1.3964E+02	4.8065E-06	3.2523E+19	2.0517E+19
Sr-90	2.1548E+01	1.5797E-04	1.0570E+21	2.8060E+18

Y-93	1.7010E-10	5.0985E-20	3.3015E+05	1.0186E+16
Zr-95	2.7143E+00	1.2635E-07	8.0093E+17	3.8867E+17
Zr-97	3.2357E-06	1.6926E-15	1.0508E+10	3.7283E+16
Nb-95	3.0947E+00	7.9141E-08	5.0168E+17	4.0899E+17
Mo-99	1.2194E+00	2.5425E-09	1.5466E-16	1.9886E-18
Tc-99m	1.2502E+00	2.3776E-10	1.4463E+15	1.9159E+18
Ru-103	2.7668E+01	8.5727E-07	5.0122E+18	4.2102E+18
Ru-106	1.3735E+01	4.1055E-06	2.3324E-19	1.8173E+18
Rh-105	3.6314E-02	4.3023E-11	2.4675E+14	7.2442E+17
Sb-127	3.1086E+00	1.1640E-08	5.5197E+16	2.3315E+18
Te-127	9.2592E+00	3.5085E-09	1.6637E-16	2.9293E+18
Te-127m	6.1925E+00	6.5650E-07	3.1130E+18	8.3967E+17
Te-129	1.7843E+01	8.5200E-10	3.9774E+15	2.2951E+18
Te-129m	2.0635E+01	6.8496E-07	3.1976E-18	3.2250E+18
Te-131m	3.7589E-02	4.7139E-11	2.1670E+14	2.0687E+18
Te-132	3.2248E+01	1.0622E-07	4.8460E+17	3.4268E+19
I-131	1.4523E+04	1.1714E-04	5.3851E+20	9.4039E+20
I-132	3.8491E+01	3.7290E-09	1.7012E+16	3.7126E+19
I-133	1.3830E+00	1.2208E-09	5.5279E+15	1.5706E+20
I-135	4.7751E-11	1.3597E-20	6.0654E+04	2.0779E+19
Xe-133	9.6661E-05	5.1640E-03	2.3382E+22	6.9035E+22
Xe-135	2.1035E-05	8.2369E-15	3.6743E+10	3.8366E-20
Cs-134	4.8138E+02	3.7206E-04	1.6721E+21	6.3232E+19
Cs-136	7.4229E+01	1.0128E-06	4.4847E+18	1.5635E+19
Cs-137	3.6668E+02	4.2156E-03	1.8530E+22	4.7805E+19
Ba-140	1.5058E+02	2.0568E-06	8.8474E+18	3.2117E+19
La-140	1.7375E+02	3.1260E-07	1.3446E+18	2.5154E+19
Ce-141	5.5034E+00	1.9315E-07	8.2493E+17	8.6561E+17
Ce-143	5.9133E-03	8.9045E-12	3.7499E+13	1.7745E+17
Ce-144	6.0127E+00	1.8852E-06	7.8839E+18	7.9944E+17
Pr-143	1.6682E+00	2.4774E-08	1.0433E+17	3.2494E+17
Nd-147	4.9359E-01	6.1014E-09	2.4996E+16	1.1432E+17
Np-239	1.4167E+00	6.1068E-09	1.5388E+16	3.6975E+18
Pu-238	1.8774E-02	1.0966E-06	2.7748E+18	2.4413E+15
Pu-239	2.0139E-03	3.2400E-05	8.1639E+19	2.6115E+14
Pu-240	3.2020E-03	1.4052E-05	3.5260E+19	4.1673E+14
Pu-241	7.8826E-01	7.6521E-06	1.9121E+19	1.0271E+17
Am-241	4.6646E-04	1.3591E-07	3.3961E+17	5.6758E+13
Cm-242	1.0316E-01	3.1126E-08	7.7458E+16	1.3937E+16
Cm-244	6.4079E-03	7.9205E-08	1.9548E+17	8.3473E+14

SGTS Filter Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	7.8747E+23	0.0000E+00	
Elemental I (atoms)	4.9459E+20	0.0000E+00	
Organic I (atoms)	1.5296E+19	0.0000E+00	
Aerosols (kg)	4.8244E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.1288E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.1293E-01
Total I (Ci)			1.4563E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9982E+24
Elemental I (atoms)	0.0000E+00	2.4415E+21
Organic I (atoms)	0.0000E+00	7.5510E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1402E+24
Elemental I (atoms)	0.0000E+00	1.1740E+21
Organic I (atoms)	0.0000E+00	3.6310E+19
Aerosols (kg)	0.0000E+00	2.8455E-02

Noble gases (atoms)	0.0000E+00	1.1402E+24
Elemental I (atoms)	0.0000E+00	1.1740E+21

Detailed model information at time (H) = 384.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	5.7812E-21

Primary Containment Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Kr-85	1.3578E+06	3.4608E+00	2.4519E+25	7.2144E+22
I-131	3.7138E+05	2.9956E-03	1.3771E+22	4.8442E+22
I-133	8.4895E+00	7.4942E-09	3.3933E+16	2.3838E-22
I-135	9.4566E-12	2.6928E-21	1.2012E+04	1.2689E+22
Xe-133	2.3819E+07	1.2725E-01	5.7617E+23	4.3902E+24
Xe-135	1.7306E-05	6.7769E-15	3.0231E+10	1.4681E+23
Cs-137	7.4969E-16	8.6189E-21	3.7886E+04	8.1750E+20

Primary Containment Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	2.5095E-25	0.0000E+00	
Elemental I (atoms)	1.3358E+22	0.0000E+00	
Organic I (atoms)	4.1313E+20	0.0000E-00	
Aerosols (kg)	9.9158E-21	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.3784E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.3784E-05
Total I (Ci)			3.7139E+05

Time (h) = 384.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 384.0000	Leakage Transport
Noble gases (atoms)	2.3226E-24
Elemental I (atoms)	2.7688E+21
Organic I (atoms)	8.5634E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Co-60	7.0261E-15	6.2157E-21	6.2386E-04	7.0953E+14
Kr-85	3.3585E+03	8.5604E-03	6.0649E-22	1.8361E+20
Rb-86	2.7010E-13	3.3195E-21	2.3245E-04	4.8780E+16
Sr-89	1.4632E-11	5.0363E-19	3.4078E+06	1.8156E+18
Sr-90	2.3204E-12	1.7011E-17	1.1382E+08	2.3326E+17
Y-90	2.2970E-12	4.2219E-21	2.8250E+04	3.0646E+16
Y-91	2.4697E-13	1.0071E-20	6.6646E+04	2.6700E+16
Zr-95	2.8606E-13	1.3316E-20	8.4409E+04	3.3948E+16
Nb-95	3.3147E-13	8.4769E-21	5.3736E+04	3.4153E+16
Ru-103	2.8764E-12	8.9124E-20	5.2109E+05	3.7916E+17
Ru-106	1.4737E-12	4.4049E-19	2.5025E+06	1.5235E+17
Te-127m	6.5913E-13	6.9878E-20	3.3135E+05	7.0689E+16
Te-129m	2.1325E-12	7.0787E-20	3.3045E+05	2.9387E+17
Te-132	2.2695E-12	7.4755E-21	3.4105E+04	6.0795E+18
I-131	9.1862E+02	7.4097E-06	3.4063E+19	1.3724E+20
I-133	2.0999E-02	1.8537E-11	8.3936E+13	7.3229E+19
Xe-133	5.8916E+04	3.1475E-04	1.4252E+21	1.1470E+22
Xe-135	4.2808E-08	1.6763E-17	7.4777E+07	3.5606E+20
Cs-134	5.1090E-11	3.9487E-17	1.7746E+08	5.2773E+18
Cs-136	7.1000E-12	9.6874E-20	4.2896E+05	1.6354E+18
I-133	2.0999E-02	1.8537E-11	8.3936E+13	7.3229E+19
Xe-133	5.8916E+04	3.1475E-04	1.4252E+21	1.1470E+22

Cs-137	3.8983E-11	4.4817E-16	1.9700E+09	3.9738E+18
Ba-140	1.4545E-11	1.9867E-19	8.5460E+05	3.3795E+18
La-140	1.6841E-11	3.0298E-20	1.3033E+05	6.4688E+17
Ce-141	5.6795E-13	1.9933E-20	8.5133E+04	7.9200E+16
Ce-144	6.4440E-13	2.0204E-19	8.4494E+05	6.7193E+16
Pr-143	1.6224E-13	2.4093E-21	1.0146E-04	2.9407E+16
Pu-238	2.0223E-15	1.1813E-19	2.9890E+05	2.0278E+14
Pu-239	2.1691E-16	3.4897E-18	8.7931E+06	2.1570E+13
Pu-240	3.4485E-16	1.5134E-18	3.7974E+06	3.4632E+13
Pu-241	8.4871E-14	8.2389E-19	2.0587E+06	8.5406E+15
Am-241	5.0981E-17	1.4854E-20	3.7117E-04	4.5425E+12
Cm-244	6.8997E-16	8.5283E-21	2.1049E+04	6.9403E+13

Secondary Containment Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	6.2074E+22	0.0000E-00	
Elemental I (atoms)	3.3041E+19	0.0000E+00	
Organic I (atoms)	1.0219E+18	0.0000E+00	
Aerosols (kg)	5.1298E-16	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5612E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5612E-08
Total I (Ci)			9.1864E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 384.0000	Leakage Transport
Noble gases (atoms)	2.3226E+24
Elemental I (atoms)	2.7688E+21
Organic I (atoms)	8.5634E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2486E+24
Elemental I (atoms)	0.0000E+00	2.5867E+21
Organic I (atoms)	0.0000E+00	8.0000E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Co-58	7.8171E-02	2.4584E-09	2.5525E+16	1.5668E+16
Co-60	4.8914E-02	4.3272E-08	4.3432E+17	8.8851E+15
Kr-85	4.3436E+04	1.1071E-01	7.8438E+23	1.5863E+21
Rb-86	1.9046E+00	2.3407E-08	1.6391E+17	5.1238E+17
Sr-89	1.0186E+02	3.5062E-06	2.3724E+19	2.1280E+19
Sr-90	1.6154E+01	1.1842E-04	7.9241E+20	2.9254E+18
Sr-91	1.0985E-10	3.0302E-20	2.0053E-05	1.1371E+18
Y-90	1.5991E+01	2.9392E-08	1.9667E+17	1.9075E+18
Y-91	1.7197E+00	7.0122E-08	4.6405E+17	3.4887E+17
Zr-95	1.9915E+00	9.2700E-08	5.8763E+17	4.0355E+17
Zr-97	3.3876E-07	1.7721E-16	1.1002E+09	3.7283E+16
Nb-95	2.3076E+00	5.9014E-08	3.7409E+17	4.2608E+17
Mo-99	5.5227E-01	1.1515E-09	7.0044E+15	1.9940E+18
Tc-99m	5.6621E-01	1.0768E-10	6.5501E+14	1.9211E+18
Ru-103	2.0025E+01	6.2046E-07	3.6277E+18	4.3609E+18
Ru-106	1.0259E+01	3.0666E-06	1.7422E+19	1.8933E+18
Rh-105	1.0626E-02	1.2589E-11	7.2201E+13	7.2455E+17
Sb-127	1.6260E+00	6.0885E-09	2.8871E+16	2.3461E+18
Te-127	6.2203E+00	2.3570E-09	1.1176E+16	2.9762E+18
Te-127m	4.5887E+00	4.8647E-07	2.3068E+18	8.7377E+17
Te-129	1.2837E+01	6.1298E-10	2.8616E+15	2.3681E+18
Te-129m	1.4846E+01	4.9280E-07	2.3005E+18	3.3371E+18
Te-131m	9.2967E-03	1.1659E-11	5.3596E+13	2.0689E+18
Te-132	1.5800E+01	5.2042E-08	2.3743E+17	3.4415E+19
I-131	1.2371E+04	9.9783E-05	4.5871E+20	1.0262E+21
I-132	1.8859E+01	1.8270E-09	8.3352E+15	3.7278E+19
Te-129m	1.4846E+01	4.9280E-07	2.3005E+18	3.3371E+18
Te-131m	9.2967E-03	1.1659E-11	5.3596E+13	2.0689E+18

I-133	2.8274E-01	2.4959E-10	1.1301E+15	1.5707E+20
Xe-133	7.6205E+05	4.0712E-03	1.8434E+22	7.4542E+22
Xe-135	5.5518E-07	2.1740E-16	9.6979E+08	3.8366E+20
Cs-134	3.6026E+02	2.7844E-04	1.2514E+21	6.5896E+19
Cs-136	5.0065E-01	6.8310E-07	3.0248E+18	1.6026E+19
Cs-137	2.7489E+02	3.1603E-03	1.3892E+22	4.9835E+19
Ba-140	1.0126E+02	1.3831E-06	5.9495E+18	3.2909E+19
La-140	1.1724E+02	2.1093E-07	9.0732E+17	2.6063E+19
Ce-141	3.9539E-00	1.3877E-07	5.9267E+17	8.9548E+17
Ce-143	1.6177E-03	2.4360E-12	1.0259E-13	1.7748E-17
Ce-144	4.4862E+00	1.4066E-06	5.8823E+18	8.3267E+17
Pr-143	1.1295E+00	1.6773E-08	7.0638E+16	3.3374E+17
Nd-147	3.2618E-01	4.0320E-09	1.6518E+16	1.1689E-17
Np-239	5.8960E-01	2.5415E-09	6.4038E+15	3.7035E+18
Pu-238	1.4079E-02	8.2238E-07	2.0809E+18	2.5453E+15
Pu-239	1.5101E-03	2.4294E-05	6.1215E+19	2.7231E+14
Pu-240	2.4007E-03	1.0536E-05	2.6437E+19	4.3447E+14
Pu-241	5.9085E-01	5.7357E-06	1.4332E+19	1.0707E+17
Am-241	3.5492E-04	1.0341E-07	2.5840E+17	5.9360E+13
Cm-242	7.6691E-02	2.3140E-08	5.7582E+16	1.4507E+16
Cm-244	4.8034E-03	5.9372E-08	1.4654E+17	8.7022E+14

SGTS Filter Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	8.0281E+23	0.0000E+00	
Elemental I (atoms)	4.2742E+20	0.0000E+00	
Organic I (atoms)	1.3219E+19	0.0000E+00	
Aerosols (kg)	3.6150E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.3687E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.3689E-01
Total I (Ci)			1.2390E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2486E+24
Elemental I (atoms)	0.0000E+00	2.5867E+21
Organic I (atoms)	0.0000E+00	8.0000E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3694E+24
Elemental I (atoms)	0.0000E+00	1.3069E+21
Organic I (atoms)	0.0000E+00	4.0421E+19
Aerosols (kg)	0.0000E+00	2.9662E-02

Detailed model information at time (H) = 432.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	7.0983E+23

Primary Containment Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Kr-85	1.3440E+06	3.4256E+00	2.4270E+25	8.0780E+22
I-131	3.0949E+05	2.4964E-03	1.1476E+22	5.0613E+22
I-133	1.6979E+00	1.4988E-09	6.7867E+15	2.3838E+22
Xe-133	1.8107E+07	9.6734E-02	4.3800E+23	4.5234E+24
Xe-135	4.4088E-07	1.7264E-16	7.7013E+08	1.4681E+23
I-131	3.0949E+05	2.4964E-03	1.1476E+22	5.0613E+22
I-133	1.6979E+00	1.4988E-09	6.7867E+15	2.3838E+22

Primary Containment Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4708E+25	0.0000E+00	
Elemental I (atoms)	1.1132E+22	0.0000E+00	
Organic I (atoms)	3.4428E+20	0.0000E+00	
Aerosols (kg)	8.0759E-23	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.8154E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.8154E-05
Total I (Ci)			3.0949E+05

Time (h) = 432.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 432.0000	Leakage Transport
Noble gases (atoms)	2.5683E+24
Elemental I (atoms)	2.8895E+21
Organic I (atoms)	8.9367E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Kr-85	3.3244E+03	8.4734E-03	6.0033E+22	2.0497E+20
Sr-89	2.6113E-13	8.9884E-21	6.0820E+04	1.8156E+18
Sr-90	4.2559E-14	3.1200E-19	2.0877E+06	2.3326E+17
Ru-106	2.6932E-14	8.0499E-21	4.5734E+04	1.5235E+17
I-131	7.6554E+02	6.1750E-06	2.8387E+19	1.4261E+20
I-133	4.1999E-03	3.7075E-12	1.6787E+13	7.3229E+19
Xe-133	4.4788E+04	2.3928E-04	1.0834E+21	1.1800E+22
Xe-135	1.0905E-09	4.2704E-19	1.9050E+06	3.5606E+20
Cs-134	9.3546E-13	7.2302E-19	3.2493E+06	5.2773E+18
Cs-137	7.1500E-13	8.2202E-18	3.6134E+07	3.9738E+18
Ba-140	2.3930E-13	3.2687E-21	1.4060E+04	3.3795E+18
Ce-144	1.1763E-14	3.6882E-21	1.5424E+04	6.7193E+16
Pu-239	3.9791E-18	6.4018E-20	1.6131E+05	2.1570E+13
Pu-240	6.3259E-18	2.7761E-20	6.9659E+04	3.4632E+13
Pu-241	1.5565E-15	1.5109E-20	3.7755E+04	8.5406E+15

Secondary Containment Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	6.1116E+22	0.0000E+00	
Elemental I (atoms)	2.7535E+19	0.0000E+00	
Organic I (atoms)	8.5160E+17	0.0000E+00	
Aerosols (kg)	9.4049E-18	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3010E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3010E-08
Total I (Ci)			7.6555E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 432.0000	Leakage Transport
Noble gases (atoms)	2.5683E+24
Elemental I (atoms)	2.8895E+21
Organic I (atoms)	8.9367E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4948E+24
Elemental I (atoms)	0.0000E+00	2.7076E+21
Organic I (atoms)	0.0000E+00	8.3742E+19

Time (h) = 432.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Co-58	5.7473E-02	1.8074E-09	1.8767E-16	1.6097E+16
Co-60	3.6647E-02	3.2420E-08	3.2540E-17	9.1559E+15
Kr-85	4.4159E+04	1.1255E-01	7.9744E-23	1.8666E+21
Rb-86	1.3257E+00	1.6293E-08	1.1409E-17	5.2256E+17
Sr-89	7.4304E-01	2.5576E-06	1.7306E-19	2.1837E+19
Sr-90	1.2110E-01	8.8779E-05	5.9404E+20	3.0148E+18
Y-90	1.2065E+01	2.2176E-08	1.4839E+17	1.9958E+18
Y-91	1.2591E-00	5.1344E-08	3.3978E-17	3.5829E-17
Zr-95	1.4611E-00	6.8013E-08	4.3114E+17	4.1446E-17
Zr-97	3.5467E-08	1.8553E-17	1.1518E+08	3.7283E-16
Nb-95	1.7198E-00	4.3982E-08	2.7881E+17	4.3882E-17
Mo-99	2.5012E-01	5.2149E-10	3.1722E+15	1.9964E-18
Tc-99m	2.5643E-01	4.8767E-11	2.9665E+14	1.9235E+18
Ru-103	1.4493E+01	4.4907E-07	2.6256E+18	4.4699E-18
Ru-106	7.6633E+00	2.2906E-06	1.3013E+19	1.9500E+18
Rh-105	3.1091E-03	3.6836E-12	2.1127E+13	7.2459E-17
Sb-127	8.5046E-01	3.1846E-09	1.5101E+16	2.3537E+18
Te-127	4.2731E+00	1.6191E-09	7.6777E+15	3.0080E+18
Te-127m	3.3993E+00	3.6038E-07	1.7088E+18	8.9904E+17
Te-129	9.2358E+00	4.4101E-10	2.0588E+15	2.4206E+18
Te-129m	1.0681E+01	3.5455E-07	1.6551E+18	3.4178E+18
Te-131m	2.2994E-03	2.8835E-12	1.3256E+13	2.0689E+18
Te-132	7.7410E+00	2.5498E-08	1.1633E+17	3.4487E+19
I-131	1.0478E+04	8.4519E-05	3.8854E+20	1.0991E+21
I-132	9.2396E+00	8.9513E-10	4.0838E+15	3.7353E+19
I-133	5.7477E-02	5.0739E-11	2.2974E+14	1.5707E+20
Xe-133	5.9499E+05	3.1787E-03	1.4393E+22	7.8862E+22
Xe-135	1.4516E-08	5.6842E-18	2.5356E+07	3.8366E+20
Cs-134	2.6961E+02	2.0838E-04	9.3650E+20	6.7889E+19
Cs-136	3.3768E+01	4.6073E-07	2.0401E+18	1.6290E+19
Cs-137	2.0607E+02	2.3691E-03	1.0414E+22	5.1358E+19
Ba-140	6.8091E+01	9.3009E-07	4.0008E+18	3.3442E+19
La-140	7.8971E+01	1.4208E-07	6.1116E+17	2.6676E+19
Ce-141	2.8407E+00	9.9697E-08	4.2581E+17	9.1694E+17
Ce-143	4.4254E-04	6.6640E-13	2.8064E+12	1.7748E+17
Ce-144	3.3472E+00	1.0494E-06	4.3888E+18	8.5746E+17
Pr-143	7.6463E-01	1.1355E-08	4.7819E+16	3.3970E+17
Nd-147	2.1555E-01	2.6645E-09	1.0915E+16	1.1860E+17
Np-239	2.4537E-01	1.0577E-09	2.6651E+15	3.7060E+18
Pu-238	1.0558E-02	6.1671E-07	1.5605E+18	2.6232E+15
Pu-239	1.1322E-03	1.8216E-05	4.5899E+19	2.8067E+14
Pu-240	1.8000E-03	7.8993E-06	1.9821E+19	4.4776E+14
Pu-241	4.4288E-01	4.2993E-06	1.0743E+19	1.1035E+17
Am-241	2.6999E-04	7.8665E-08	1.9657E+17	6.1339E+13
Cm-242	5.7013E-02	1.7202E-08	4.2807E+16	1.4930E+16
Cm-244	3.6006E-03	4.4506E-08	1.0984E+17	8.9682E+14

SGTS Filter Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	8.1183E+23	0.0000E+00	
Elemental I (atoms)	3.6582E+20	0.0000E+00	
Organic I (atoms)	1.1314E+19	0.0000E+00	
Aerosols (kg)	2.7089E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.7004E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.7005E-01
Total I (Ci)			1.0487E+04

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4948E+24
Elemental I (atoms)	0.0000E+00	2.7076E+21
Organic I (atoms)	0.0000E+00	8.3742E+19

Time (h) = 432.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6020E+24
Elemental I (atoms)	0.0000E+00	1.4212E+21
Organic I (atoms)	0.0000E+00	4.3955E+19
Aerosols (kg)	0.0000E+00	3.0567E-02

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	8.7153E+25

Primary Containment Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Kr-85	1.3303E+06	3.3907E+00	2.4023E+25	8.9328E+22
I-131	2.5792E+05	2.0804E-03	9.5637E+21	5.2421E+22
I-133	3.3958E-01	2.9977E-10	1.3573E+15	2.3838E+22
Xe-133	1.3765E+07	7.3537E-02	3.3297E+23	4.6246E+24
Xe-135	1.1232E-08	4.3981E-18	1.9619E+07	1.4681E+23

Primary Containment Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4356E+25	0.0000E+00	
Elemental I (atoms)	9.2768E+21	0.0000E+00	
Organic I (atoms)	2.8691E+20	0.0000E+00	
Aerosols (kg)	6.5776E-25	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.3463E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.3463E-05
Total I (Ci)			2.5792E+05

Time (h) = 480.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 480.0000	Leakage Transport
Noble gases (atoms)	2.8103E+24
Elemental I (atoms)	2.9901E+21
Organic I (atoms)	9.2477E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Kr-85	3.2906E+03	8.3872E-03	5.9422E+22	2.2612E+20
Sr-90	7.8060E-16	5.7226E-21	3.8291E+04	2.3326E+17
I-131	6.3797E+02	5.1460E-06	2.3656E+19	1.4708E+20
I-133	8.3997E-04	7.4150E-13	3.3574E+12	7.3229E+19
Xe-133	3.4048E+04	1.8190E-04	8.2362E+20	1.2050E+22
Xe-135	2.7782E-11	1.0879E-20	4.8529E+04	3.5606E+20
Cs-134	1.7128E-14	1.3239E-20	5.9496E+04	5.2773E+18
Cs-137	1.3114E-14	1.5077E-19	6.6274E+05	3.9738E+18

Secondary Containment Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump		
Xe-135	2.7782E-11	1.0879E-20	4.8529E+04	3.5606E+20
Cs-134	1.7128E-14	1.3239E-20	5.9496E+04	5.2773E+18

Noble gases (atoms)	6.0246E+22	0.0000E+00	
Elemental I (atoms)	2.2947E+19	0.0000E+00	
Organic I (atoms)	7.0969E+17	0.0000E+00	
Aerosols (kg)	1.7243E-19	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0842E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0842E-08
Total I (Ci)			6.3797E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 480.0000 Leakage Transport

Noble gases (atoms)	2.8103E+24
Elemental I (atoms)	2.9901E-21
Organic I (atoms)	9.2477E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7374E+24
Elemental I (atoms)	0.0000E-00	2.8085E+21
Organic I (atoms)	0.0000E+00	8.6860E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Co-58	4.2256E-02	1.3289E-09	1.3798E+16	1.6412E+16
Co-60	2.7457E-02	2.4290E-08	2.4380E+17	9.3589E-15
Kr-85	4.4583E+04	1.1364E-01	8.0509E+23	2.1504E+21
Rb-86	9.2282E-01	1.1341E-08	7.9418E+16	5.2965E+17
Sr-89	5.4202E+01	1.8657E-06	1.2624E+19	2.2243E+19
Sr-90	9.0784E+00	6.6554E-05	4.4533E+20	3.0819E+18
Y-90	9.0793E+00	1.6688E-08	1.1166E+17	2.0624E+18
Y-91	9.2196E-01	3.7594E-08	2.4879E+17	3.6519E+17
Zr-95	1.0720E+00	4.9901E-08	3.1633E+17	4.2247E+17
Zr-97	3.7132E-09	1.9424E-18	1.2059E+07	3.7283E+16
Nb-95	1.2811E+00	3.2762E-08	2.0768E+17	4.4831E+17
Mo-99	1.1327E-01	2.3618E-10	1.4367E+15	1.9975E+18
Tc-99m	1.1613E-01	2.2086E-11	1.3435E+14	1.9246E+18
Ru-103	1.0490E+01	3.2502E-07	1.9003E+18	4.5489E+18
Ru-106	5.7240E+00	1.7109E-06	9.7202E+18	1.9924E+18
Rh-105	9.0976E-04	1.0778E-12	6.1818E+12	7.2461E+17
Sb-127	4.4483E-01	1.6657E-09	7.8986E+15	2.3577E+18
Te-127	2.9898E+00	1.1329E-09	5.3720E+15	3.0301E+18
Te-127m	2.5177E+00	2.6691E-07	1.2656E+18	9.1776E+17
Te-129	6.6448E+00	3.1729E-10	1.4812E+15	2.4584E+18
Te-129m	7.6844E+00	2.5508E-07	1.1908E-18	3.4758E+18
Te-131m	5.6870E-04	7.1318E-13	3.2785E+12	2.0689E-18
Te-132	3.7926E+00	1.2493E-08	5.6994E+16	3.4522E+19
I-131	8.8388E+03	7.1295E-05	3.2775E+20	1.1608E+21
I-132	4.5269E+00	4.3856E-10	2.0008E+15	3.7389E+19
I-133	1.1636E-02	1.0272E-11	4.6511E+13	1.5707E+20
Xe-133	4.6133E+05	2.4646E-03	1.1160E+22	8.2223E+22
Xe-135	3.7698E-10	1.4762E-19	6.5851E+05	3.8366E-20
Cs-134	2.0177E+02	1.5595E-04	7.0086E+20	6.9381E+19
Cs-136	2.2775E+01	3.1075E-07	1.3760E+18	1.6468E+19
Cs-137	1.5449E+02	1.7761E-03	7.8071E+21	5.2499E+19
Ba-140	4.5788E+01	6.2545E-07	2.6904E+18	3.3800E+19
La-140	5.3148E+01	9.5620E-08	4.1131E+17	2.7088E+19
Ce-141	2.0409E+00	7.1628E-08	3.0592E+17	9.3236E+17
Ce-143	1.2106E-04	1.8230E-13	7.6773E+11	1.7748E+17
Ce-144	2.4974E+00	7.8301E-07	3.2746E+18	8.7595E+17
Pr-143	5.1760E-01	7.6865E-09	3.2370E+16	3.4374E+17
Nd-147	1.4244E-01	1.7608E-09	7.2133E+15	1.1972E+17
Np-239	1.0212E-01	4.4018E-10	1.1091E+15	3.7070E+18
Pu-238	7.9173E-03	4.6247E-07	1.1702E+18	2.6817E+15
Pu-239	8.4893E-04	1.3658E-05	3.4414E+19	2.8694E-14
Pr-143	5.1760E-01	7.6865E-09	3.2370E+16	3.4374E+17

Pu-240	1.3496E-03	5.9226E-06	1.4861E-19	4.5773E+14
Pu-241	3.3197E-01	3.2226E-06	8.0526E-18	1.1280E+17
Am-241	2.0534E-04	5.9829E-08	1.4950E+17	6.2844E+13
Cm-242	4.2383E-02	1.2788E-08	3.1823E+16	1.5244E+16
Cm-244	2.6990E-03	3.3362E-08	8.2340E+16	9.1676E+14

SGTS Filter Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	8.1625E+23	0.0000E+00	
Elemental I (atoms)	3.1093E+20	0.0000E+00	
Organic I (atoms)	9.6165E+18	0.0000E+00	
Aerosols (kg)	2.0300E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.1214E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.1214E-01
Total I (Ci)			8.8433E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7374E+24
Elemental I (atoms)	0.0000E+00	2.8085E+21
Organic I (atoms)	0.0000E+00	8.6860E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.8366E+24
Elemental I (atoms)	0.0000E+00	1.5187E+21
Organic I (atoms)	0.0000E+00	4.6969E+19
Aerosols (kg)	0.0000E+00	3.1244E-02

Detailed model information at time (H) = 528.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.0700E+28

Primary Containment Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Kr-85	1.3168E+06	3.3563E+00	2.3779E+25	9.7789E+22
I-131	2.1494E-05	1.7337E-03	7.9700E+21	5.3929E+22
I-133	6.7916E-02	5.9954E-11	2.7147E+14	2.3838E+22
Xe-133	1.0464E+07	5.5903E-02	2.5312E+23	4.7016E+24
Xe-135	2.8613E-10	1.1204E-19	4.9981E+05	1.4681E+23

Primary Containment Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4032E+25	0.0000E-00	
Elemental I (atoms)	7.7309E+21	0.0000E+00	
Organic I (atoms)	2.3910E+20	0.0000E+00	
Aerosols (kg)	5.3574E-27	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9553E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9553E-05
Total I (Ci)			2.1494E+05

Time (h) = 528.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Time (h) = 528.0000	Surfaces	Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 528.0000 Leakage Transport

Noble gases (atoms)	3.0490E+24
Elemental I (atoms)	3.0739E+21
Organic I (atoms)	9.5070E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Kr-85	3.2571E+03	8.3019E-03	5.8818E+22	2.4705E+20
I-131	5.3166E+02	4.2884E-06	1.9714E+19	1.5081E-20
I-133	1.6799E-04	1.4830E-13	6.7149E+11	7.3229E+19
Xe-133	2.5883E-04	1.3828E-04	6.2612E+20	1.2240E+22
Cs-137	2.4054E-16	2.7654E-21	1.2156E-04	3.9738E+18

Secondary Containment Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	5.9444E+22	0.0000E-00	
Elemental I (atoms)	1.9123E+19	0.0000E-00	
Organic I (atoms)	5.9143E+17	0.0000E+00	
Aerosols (kg)	3.1616E-21	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.0353E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.0353E-09
Total I (Ci)			5.3166E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 528.0000 Leakage Transport

Noble gases (atoms)	3.0490E+24
Elemental I (atoms)	3.0739E+21
Organic I (atoms)	9.5070E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9767E+24
Elemental I (atoms)	0.0000E+00	2.8925E+21
Organic I (atoms)	0.0000E+00	8.9459E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Co-58	3.1067E-02	9.7702E-10	1.0144E+16	1.6644E+16
Co-60	2.0571E-02	1.8199E-08	1.8266E+17	9.5109E+15
Kr-85	4.4784E+04	1.1415E-01	8.0872E+23	2.4363E+21
Rb-86	6.4235E-01	7.8945E-09	5.5281E+16	5.3459E+17
Sr-89	3.9538E+01	1.3609E-06	9.2087E+18	2.2540E+19
Sr-90	6.8058E+00	4.9893E-05	3.3385E+20	3.1322E+18
Y-90	6.8218E+00	1.2539E-08	8.3900E+16	2.1125E+18
Y-91	6.7506E-01	2.7527E-08	1.8216E+17	3.7024E+17
Zr-95	7.8652E-01	3.6612E-08	2.3208E+17	4.2835E+17
Zr-97	3.8876E-10	2.0336E-19	1.2625E+06	3.7283E+16
Nb-95	9.5383E-01	2.4393E-08	1.5463E+17	4.5538E+17
Mo-99	5.1301E-02	1.0696E-10	6.5065E+14	1.9980E+18
Tc-99m	5.2596E-02	1.0003E-11	6.0845E+13	1.9251E+18
Ru-103	7.5920E+00	2.3523E-07	1.3754E+18	4.6060E+18
Ru-106	4.2755E+00	1.2780E-06	7.2604E+18	2.0240E+18
Rh-105	2.6620E-04	3.1538E-13	1.8088E+12	7.2461E+17
Sb-127	2.3267E-01	8.7125E-10	4.1314E+15	2.3598E+18
Te-127	2.1226E+00	8.0428E-10	3.8138E+15	3.0456E+18
Te-127m	1.8644E+00	1.9766E-07	9.3726E+17	9.3163E+17
Te-129	4.7806E+00	2.2828E-10	1.0657E+15	2.4856E+18
Te-129m	5.5286E+00	1.8352E-07	8.5673E+17	3.5175E+18
Sb-127	2.3267E-01	8.7125E-10	4.1314E+15	2.3598E+18
Te-127	2.1226E+00	8.0428E-10	3.8138E+15	3.0456E+18

Te-131m	1.4066E-04	1.7639E-13	8.1088E-11	2.0689E+18
Te-132	1.8582E+00	6.1207E-09	2.7924E+16	3.4540E+19
I-131	7.4332E+03	5.9957E-05	2.7563E+20	1.2127E+21
I-132	2.2179E+00	2.1487E-10	9.8030E+14	3.7407E+19
I-133	2.3486E-03	2.0732E-12	9.3875E+12	1.5707E+20
Xe-133	3.5590E+05	1.9014E-03	8.6092E-21	8.4822E+22
Xe-135	9.7423E-12	3.8150E-21	1.7018E+04	3.8366E-20
Cs-134	1.5100E+02	1.1671E-04	5.2451E+20	7.0498E+19
Cs-136	1.5361E+01	2.0959E-07	9.2809E+17	1.6588E+19
Cs-137	1.1581E+02	1.3315E-03	5.8527E+21	5.3355E+19
Ba-140	3.0791E-01	4.2059E-07	1.8092E+18	3.4041E+19
La-140	3.5754E-01	6.4326E-08	2.7670E+17	2.7366E+19
Ce-141	1.4663E+00	5.1461E-08	2.1979E+17	9.4344E+17
Ce-143	3.3119E-05	4.9872E-14	2.1002E+11	1.7748E+17
Ce-144	1.8633E+00	5.8421E-07	2.4432E+18	8.8975E+17
Pr-143	3.5037E-01	5.2031E-09	2.1912E+16	3.4647E+17
Nd-147	9.4131E-02	1.1636E-09	4.7668E+15	1.2047E+17
Np-239	4.2498E-02	1.8319E-10	4.6159E+14	3.7075E+18
Pu-238	5.9372E-03	3.4681E-07	8.7753E+17	2.7256E+15
Pu-239	6.3650E-04	1.0240E-05	2.5803E+19	2.9165E+14
Pu-240	1.0119E-03	4.4405E-06	1.1142E+19	4.6521E+14
Pu-241	2.4883E-01	2.4155E-06	6.0360E+18	1.1464E+17
Am-241	1.5614E-04	4.5494E-08	1.1368E+17	6.3989E+13
Cm-242	3.1508E-02	9.5067E-09	2.3657E+16	1.5478E+16
Cm-244	2.0232E-03	2.5008E-08	6.1722E+16	9.3171E+14

SGTS Filter Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	8.1733E+23	0.0000E+00	
Elemental I (atoms)	2.6295E+20	0.0000E+00	
Organic I (atoms)	8.1326E+18	0.0000E+00	
Aerosols (kg)	1.5213E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.6250E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.6250E-01
Total I (Ci)			7.4354E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9767E+24
Elemental I (atoms)	0.0000E+00	2.8925E+21
Organic I (atoms)	0.0000E+00	8.9459E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0719E+24
Elemental I (atoms)	0.0000E+00	1.6013E+21
Organic I (atoms)	0.0000E+00	4.9525E-19
Aerosols (kg)	0.0000E+00	3.1752E-02

Detailed model information at time (H) = 576.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.3137E+30

Primary Containment Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Kr-85	1.3034E+06	3.3221E+00	2.3537E+25	1.0616E+23
I-131	1.7912E+05	1.4448E-03	6.6419E+21	5.5185E+22

Primary Containment Compartment Nuclide Inventory:

I-133	1.3583E-02	1.1991E-11	5.4293E+13	2.3838E-22
Xe-133	7.9547E+06	4.2497E-02	1.9243E+23	4.7601E+24
Xe-135	7.2891E-12	2.8543E-21	1.2733E-04	1.4681E+23

Primary Containment Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	2.3729E+25	0.0000E+00	
Elemental I (atoms)	6.4426E+21	0.0000E+00	
Organic I (atoms)	1.9926E+20	0.0000E+00	
Aerosols (kg)	4.3637E-29	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6295E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6295E-05
Total I (Ci)			1.7912E+05

Time (h) = 576.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 576.0000	Leakage Transport
Noble gases (atoms)	3.2846E+24
Elemental I (atoms)	3.1438E+21
Organic I (atoms)	9.7230E+19
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Kr-85	3.2240E+03	8.2175E-03	5.8220E+22	2.6776E+20
I-131	4.4306E+02	3.5738E-06	1.6429E-19	1.5392E+20
I-133	3.3599E-05	2.9660E-14	1.3430E+11	7.3229E+19
Xe-133	1.9676E+04	1.0512E-04	4.7597E+20	1.2385E+22

Secondary Containment Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	5.8696E+22	0.0000E+00	
Elemental I (atoms)	1.5936E+19	0.0000E+00	
Organic I (atoms)	4.9287E+17	0.0000E+00	
Aerosols (kg)	5.7969E-23	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.5296E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.5296E-09
Total I (Ci)			4.4306E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 576.0000	Leakage Transport
Noble gases (atoms)	3.2846E+24
Elemental I (atoms)	3.1438E+21
Organic I (atoms)	9.7230E+19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2129E+24
Elemental I (atoms)	0.0000E+00	2.9625E+21
Organic I (atoms)	0.0000E+00	9.1624E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Co-58	2.2841E-02	7.1833E-10	7.4584E+15	1.6814E+16
Co-60	1.5413E-02	1.3635E-08	1.3685E+17	9.6248E+15

SGTS Filter Compartment Nuclide Inventory:

Kr-85	4.4819E+04	1.1424E-01	8.0935E+23	2.7228E+21
Rb-86	4.4713E-01	5.4952E-09	3.8480E+16	5.3802E+17
Sr-89	2.8841E+01	9.9274E-07	6.7173E+18	2.2756E+19
Sr-90	5.1020E+00	3.7403E-05	2.5027E+20	3.1699E+18
Y-90	5.1209E+00	9.4124E-09	6.2981E+16	2.1501E+18
Y-91	4.9428E-01	2.0155E-08	1.3338E+17	3.7393E+17
Zr-95	5.7707E-01	2.6862E-08	1.7028E+17	4.3266E+17
Zr-97	4.0701E-11	2.1291E-20	1.3218E+05	3.7283E+16
Nb-95	7.0983E-01	1.8153E-08	1.1507E+17	4.6064E+17
Mo-99	2.3234E-02	4.8442E-11	2.9467E+14	1.9983E+18
Tc-99m	2.3820E-02	4.5301E-12	2.7556E+13	1.9253E+18
Ru-103	5.4948E+00	1.7025E-07	9.9543E+17	4.6474E+18
Ru-106	3.1936E+00	9.5457E-07	5.4231E+18	2.0476E+18
Rh-105	7.7892E-05	9.2284E-14	5.2928E+11	7.2461E+17
Sb-127	1.2170E-01	4.5571E-10	2.1609E+15	2.3608E+18
Te-127	1.5238E+00	5.7741E-10	2.7380E+15	3.0567E+18
Te-127m	1.3805E+00	1.4636E-07	6.9401E+17	9.4189E+17
Te-129	3.4395E+00	1.6423E-10	7.6670E+14	2.5052E+18
Te-129m	3.9776E+00	1.3203E-07	6.1638E+17	3.5475E+18
Te-131m	3.4788E-05	4.3627E-14	2.0055E+11	2.0689E+18
Te-132	9.1041E-01	2.9988E-09	1.3681E-16	3.4548E-19
I-131	6.2370E-03	5.0309E-05	2.3127E-20	1.2563E-21
I-132	1.0867E+00	1.0528E-10	4.8029E-14	3.7416E-19
I-133	4.7295E-04	4.1750E-13	1.8904E+12	1.5707E+20
Xe-133	2.7355E+05	1.4614E-03	6.6171E+21	8.6823E+22
Cs-134	1.1301E+02	8.7344E-05	3.9254E+20	7.1333E+19
Cs-136	1.0361E+01	1.4137E-07	6.2597E+17	1.6669E+19
Cs-137	8.6821E+01	9.9815E-04	4.3876E+21	5.3996E+19
Ba-140	2.0706E+01	2.8283E-07	1.2166E+18	3.4203E+19
La-140	2.4048E+01	4.3265E-08	1.8611E+17	2.7553E+19
Ce-141	1.0535E+00	3.6973E-08	1.5791E+17	9.5140E+17
Ce-143	9.0602E-06	1.3643E-14	5.7455E+10	1.7748E+17
Ce-144	1.3903E+00	4.3589E-07	1.8229E+18	9.0005E+17
Pr-143	2.3716E-01	3.5220E-09	1.4832E+16	3.4832E+17
Nd-147	6.2205E-02	7.6892E-10	3.1500E+15	1.2096E+17
Np-239	1.7687E-02	7.6238E-11	1.9210E+14	3.7076E+18
Pu-238	4.4523E-03	2.6007E-07	6.5806E+17	2.7585E-15
Pu-239	4.7723E-04	7.6779E-06	1.9346E+19	2.9517E+14
Pu-240	7.5865E-04	3.3294E-06	8.3541E+18	4.7081E+14
Pu-241	1.8651E-01	1.8106E-06	4.5243E+18	1.1601E+17
Am-241	1.1871E-04	3.4587E-08	8.6426E+16	6.4859E+13
Cm-242	2.3423E-02	7.0673E-09	1.7587E+16	1.5652E+16
Cm-244	1.5166E-03	1.8746E-08	4.6267E+16	9.4291E+14

SGTS Filter Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	8.1597E+23	0.0000E+00	
Elemental I (atoms)	2.2155E+20	0.0000E+00	
Organic I (atoms)	6.8522E+18	0.0000E+00	
Aerosols (kg)	1.1401E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.2026E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.2026E-01
Total I (Ci)			6.2381E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 576.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2129E+24
Elemental I (atoms)	0.0000E+00	2.9625E+21
Organic I (atoms)	0.0000E+00	9.1624E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 576.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.3071E+24
Elemental I (atoms)	0.0000E+00	1.6710E+21

Pathway

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Organic I (atoms)       0.0000E+00  5.1682E+19
Aerosols (kg)           0.0000E+00  3.2133E-02

Detailed model information at time (H) =  624.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E-00 0.0000E+00 0.0000E+00 1.0000E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.6128E+32

Primary Containment Compartment Nuclide Inventory:

Time (h) = 624.0000        Ci          kg          Atoms       Decay
Kr-85                  1.2901E+06  3.2884E+00  2.3298E+25  1.1445E+23
I-131                  1.4927E+05  1.2040E-03  5.5351E+21  5.6231E+22
I-133                  2.7167E-03  2.3982E-12  1.0859E+13  2.3838E+22
Xe-133                 6.0472E+06  3.2307E-02  1.4628E+23  4.8046E+24

Primary Containment Transport Group Inventory:
Time (h) = 624.0000     Atmosphere      Sump
Noble gases (atoms)     2.3444E+25  0.0000E+00
Elemental I (atoms)     5.3690E+21  0.0000E+00
Organic I (atoms)       1.6605E-20  0.0000E+00
Aerosols (kg)           3.5544E-31  0.0000E+00
Dose Effective (Ci/cc) I-131 (Thyroid)          1.3579E-05
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    1.3579E-05
Total I (Ci)                                    1.4927E+05

                        Deposition Recirculating
Time (h) = 624.0000      Surfaces     Filter
Noble gases (atoms)     0.0000E+00  0.0000E+00
Elemental I (atoms)     0.0000E+00  0.0000E+00
Organic I (atoms)       0.0000E+00  0.0000E+00
Aerosols (kg)           5.7325E-01  0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 624.0000  Leakage Transport

Noble gases (atoms)       3.5173E+24
Elemental I (atoms)       3.2020E+21
Organic I (atoms)         9.9030E+19
Aerosols (kg)             3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 624.0000        Ci          kg          Atoms       Decay
Kr-85                  3.1912E+03  8.1339E-03  5.7628E+22  2.8827E+20
I-131                  3.6923E+02  2.9783E-06  1.3691E+19  1.5651E+20
I-133                  6.7198E-06  5.9320E-15  2.6860E+10  7.3229E+19
Xe-133                 1.4958E+04  7.9912E-05  3.6184E+20  1.2495E+22

Secondary Containment Transport Group Inventory:
Time (h) = 624.0000     Atmosphere      Sump
Noble gases (atoms)     5.7990E+22  0.0000E+00
Elemental I (atoms)     1.3281E+19  0.0000E+00
Organic I (atoms)       4.1074E+17  0.0000E+00
Aerosols (kg)           1.0629E-24  0.0000E+00
Dose Effective (Ci/cc) I-131 (Thyroid)          6.2749E-09
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    6.2749E-09
Total I (Ci)                                    3.6923E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 624.0000  Leakage Transport

Noble gases (atoms)       3.5173E+24
Elemental I (atoms)       3.2020E+21
Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 624.0000  Leakage Transport
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Organic I (atoms)	9.9030E-19
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.4462E-24
Elemental I (atoms)	0.0000E+00	3.0209E+21
Organic I (atoms)	0.0000E+00	9.3429E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Co-58	1.6794E-02	5.2813E-10	5.4836E+15	1.6940E+16
Co-60	1.1547E-02	1.0215E-08	1.0253E+17	9.7101E+15
Kr-85	4.4731E+04	1.1401E-01	8.0776E+23	3.0091E+21
Rb-86	3.1124E-01	3.8251E-09	2.6785E+16	5.4041E+17
Sr-89	2.1039E+01	7.2417E-07	4.9000E+18	2.2913E+19
Sr-90	3.8248E+00	2.8040E-05	1.8762E+20	3.1981E+18
Y-90	3.8420E-00	7.0618E-09	4.7252E+16	2.1783E+18
Y-91	3.6192E-01	1.4758E-08	9.7663E+16	3.7664E+17
Zr-95	4.2339E-01	1.9708E-08	1.2493E+17	4.3583E+17
Zr-97	4.2612E-12	2.2290E-21	1.3839E+04	3.7283E-16
Nb-95	5.2801E-01	1.3503E-08	8.5597E+16	4.6456E+17
Mo-99	1.0522E-02	2.1939E-11	1.3345E+14	1.9984E+18
Tc-99m	1.0788E-02	2.0516E-12	1.2480E-13	1.9254E+18
Ru-103	3.9769E+00	1.2322E-07	7.2045E+17	4.6773E+18
Ru-106	2.3854E-00	7.1301E-07	4.0508E+18	2.0653E+18
Rh-105	2.2792E-05	2.7003E-14	1.5487E+11	7.2461E+17
Sb-127	6.3655E-02	2.3836E-10	1.1303E+15	2.3614E+18
Te-127	1.1033E+00	4.1804E-10	1.9823E+15	3.0647E+18
Te-127m	1.0222E+00	1.0837E-07	5.1385E+17	9.4949E+17
Te-129	2.4745E+00	1.1816E-10	5.5161E+14	2.5192E+18
Te-129m	2.8617E+00	9.4993E-08	4.4346E+17	3.5691E+18
Te-131m	8.6041E-06	1.0790E-14	4.9603E+10	2.0689E+18
Te-132	4.4605E-01	1.4692E-09	6.7030E+15	3.4552E+19
I-131	5.2245E+03	4.2141E-05	1.9373E+20	1.2928E+21
I-132	5.3241E-01	5.1579E-11	2.3532E+14	3.7420E+19
I-133	9.5079E-05	8.3932E-14	3.8004E+11	1.5707E+20
Xe-133	2.0967E+05	1.1201E-03	5.0719E+21	8.8359E+22
Cs-134	8.4573E+01	6.5367E-05	2.9377E+20	7.1959E+19
Cs-136	6.9881E+00	9.5347E-08	4.2220E+17	1.6723E+19
Cs-137	6.5087E+01	7.4828E-04	3.2892E-21	5.4477E+19
Ba-140	1.3924E+01	1.9019E-07	8.1811E+17	3.4312E+19
La-140	1.6173E+01	2.9097E-08	1.2516E+17	2.7678E+19
Ce-141	7.5687E-01	2.6563E-08	1.1345E+17	9.5711E+17
Ce-143	2.4786E-06	3.7323E-15	1.5718E+10	1.7748E+17
Ce-144	1.0373E+00	3.2522E-07	1.3601E+18	9.0773E+17
Pr-143	1.6054E-01	2.3840E-09	1.0040E+16	3.4957E+17
Nd-147	4.1107E-02	5.0813E-10	2.0816E+15	1.2128E+17
Np-239	7.3606E-03	3.1728E-11	7.9946E+13	3.7077E+18
Pu-238	3.3388E-03	1.9503E-07	4.9348E-17	2.7831E+15
Pu-239	3.5781E-04	5.7566E-06	1.4505E+19	2.9781E+14
Pu-240	5.6881E-04	2.4962E-06	6.2636E+18	4.7501E+14
Pu-241	1.3980E-01	1.3572E-06	3.3913E+18	1.1705E+17
Am-241	9.0229E-05	2.6289E-08	6.5692E+16	6.5521E+13
Cm-242	1.7413E-02	5.2539E-09	1.3074E+16	1.5781E+16
Cm-244	1.1369E-03	1.4052E-08	3.4682E+16	9.5131E+14

SGTS Filter Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	8.1283E+23	0.0000E+00	
Elemental I (atoms)	1.8616E+20	0.0000E+00	
Organic I (atoms)	5.7575E+18	0.0000E+00	
Aerosols (kg)	8.5444E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8450E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8450E-01
Elemental I (atoms)	1.8616E+20	0.0000E+00	
Organic I (atoms)	5.7575E+18	0.0000E+00	

Total I (Ci) 5.2250E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.4462E+24
Elemental I (atoms)	0.0000E+00	3.0209E+21
Organic I (atoms)	0.0000E+00	9.3429E+19
Aerosols (kg)	0.0000E-00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5417E+24
Elemental I (atoms)	0.0000E+00	1.7297E+21
Organic I (atoms)	0.0000E+00	5.3496E+19
Aerosols (kg)	0.0000E-00	3.2418E-02

Detailed model information at time (H) = 672.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.9800E+34

Primary Containment Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Kr-85	1.2770E+06	3.2549E+00	2.3061E+25	1.2266E-23
I-131	1.2440E-05	1.0034E-03	4.6127E+21	5.7104E+22
I-133	5.4333E-04	4.7963E-13	2.1717E+12	2.3838E+22
Xe-133	4.5971E+06	2.4559E-02	1.1120E+23	4.8384E+24

Primary Containment Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	2.3172E+25	0.0000E+00	
Elemental I (atoms)	4.4743E+21	0.0000E+00	
Organic I (atoms)	1.3838E+20	0.0000E+00	
Aerosols (kg)	2.8953E-33	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1316E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1316E-05
Total I (Ci)			1.2440E+05

Time (h) = 672.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 672.0000	Leakage Transport
Noble gases (atoms)	3.7472E+24
Elemental I (atoms)	3.2505E+21
Organic I (atoms)	1.0053E+20
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Kr-85	3.1588E+03	8.0512E-03	5.7042E+22	3.0857E+20
I-131	3.0770E+02	2.4820E-06	1.1410E+19	1.5867E+20
I-133	1.3440E-06	1.1864E-15	5.3719E+09	7.3229E+19

Time (h) = 672.0000 Ci kg Atoms Decay

Xe-133	1.1371E+04	6.0749E-05	2.7507E+20	1.2579E-22

Secondary Containment Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	5.7317E+22	0.0000E+00	
Elemental I (atoms)	1.1067E+19	0.0000E+00	
Organic I (atoms)	3.4229E-17	0.0000E+00	
Aerosols (kg)	1.9490E-26	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.2292E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.2292E-09
Total I (Ci)			3.0770E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:

Time (h) = 672.0000	Leakage Transport
Noble gases (atoms)	3.7472E-24
Elemental I (atoms)	3.2505E+21
Organic I (atoms)	1.0053E+20
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6767E+24
Elemental I (atoms)	0.0000E+00	3.0695E+21
Organic I (atoms)	0.0000E+00	9.4933E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Co-58	1.2347E-02	3.8830E-10	4.0317E+15	1.7032E+16
Co-60	8.6516E-03	7.6537E-09	7.6819E+16	9.7740E+15
Kr-85	4.4552E+04	1.1356E-01	8.0452E+23	3.2946E+21
Rb-86	2.1665E-01	2.6626E-09	1.8645E+16	5.4208E+17
Sr-89	1.5347E+01	5.2825E-07	3.5744E+18	2.3028E+19
Sr-90	2.8673E+00	2.1020E-05	1.4065E+20	3.2193E+18
Y-90	2.8816E+00	5.2965E-09	3.5440E+16	2.1995E+18
Y-91	2.6500E-01	1.0806E-08	7.1509E+16	3.7862E+17
Zr-95	3.1064E-01	1.4460E-08	9.1661E+16	4.3815E+17
Nb-95	3.9260E-01	1.0040E-08	6.3645E+16	4.6747E+17
Mo-99	4.7654E-03	9.9359E-12	6.0440E+13	1.9984E-18
Tc-99m	4.8857E-03	9.2915E-13	5.6520E+12	1.9254E+18
Ru-103	2.8783E+00	8.9184E-08	5.2144E+17	4.6989E+18
Ru-106	1.7818E+00	5.3258E-07	3.0257E+18	2.0785E+18
Rh-105	6.6691E-06	7.9012E-15	4.5317E+10	7.2461E+17
Sb-127	3.3295E-02	1.2467E-10	5.9119E+14	2.3617E+18
Te-127	8.0374E-01	3.0455E-10	1.4441E+15	3.0705E+18
Te-127m	7.5679E-01	8.0231E-08	3.8044E+17	9.5512E+17
Te-129	1.7803E+00	8.5011E-11	3.9686E-14	2.5294E+18
Te-129m	2.0589E+00	6.8344E-08	3.1905E+17	3.5847E+18
Te-131m	2.1280E-06	2.6687E-15	1.2268E+10	2.0689E-18
Te-132	2.1854E-01	7.1985E-10	3.2841E+15	3.4554E+19
I-131	4.3708E+03	3.5255E-05	1.6207E+20	1.3234E+21
I-132	2.6085E-01	2.5271E-11	1.1529E+14	3.7422E+19
I-133	1.9090E-05	1.6852E-14	7.6304E+10	1.5707E+20
Xe-133	1.6038E+05	8.5682E-04	3.8796E+21	8.9535E+22
Cs-134	6.3293E+01	4.8919E-05	2.1985E+20	7.2427E+19
Cs-136	4.7133E+00	6.4309E-08	2.8476E+17	1.6760E+19
Cs-137	4.8794E+01	5.6096E-04	2.4658E+21	5.4837E+19
Ba-140	9.3631E+00	1.2790E-07	5.5015E+17	3.4386E+19
La-140	1.0876E+01	1.9567E-08	8.4169E+16	2.7763E+19
Ce-141	5.4378E-01	1.9084E-08	8.1510E+16	9.6122E+17
Ce-143	6.7805E-07	1.0210E-15	4.2999E+09	1.7748E+17
Ce-144	7.7394E-01	2.4265E-07	1.0148E+18	9.1346E+17
Pr-143	1.0867E-01	1.6137E-09	6.7959E+15	3.5042E+17
Nd-147	2.7165E-02	3.3579E-10	1.3756E+15	1.2150E+17
Np-239	3.0633E-03	1.3204E-11	3.3271E+13	3.7078E+18
Ce-143	6.7805E-07	1.0210E-15	4.2999E+09	1.7748E+17
Ce-144	7.7394E-01	2.4265E-07	1.0148E+18	9.1346E+17

Pu-238	2.5038E-03	1.4625E-07	3.7006E+17	2.8016E-15
Pu-239	2.6827E-04	4.3161E-06	1.0875E+19	2.9980E+14
Pu-240	4.2647E-04	1.8716E-06	4.6962E+18	4.7817E+14
Pu-241	1.0479E-01	1.0173E-06	2.5420E+18	1.1782E+17
Am-241	6.8570E-05	1.9979E-08	4.9923E+16	6.6024E+13
Cm-242	1.2945E-02	3.9058E-09	9.7194E+15	1.5877E+16
Cm-244	8.5219E-04	1.0534E-08	2.5998E+16	9.5761E-14

SGTS Filter Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	8.0840E+23	0.0000E+00	
Elemental I (atoms)	1.5610E+20	0.0000E+00	
Organic I (atoms)	4.8279E-18	0.0000E+00	
Aerosols (kg)	6.4036E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5435E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5435E-01
Total I (Ci)			4.3710E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6767E+24
Elemental I (atoms)	0.0000E+00	3.0695E+21
Organic I (atoms)	0.0000E+00	9.4933E-19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7752E+24
Elemental I (atoms)	0.0000E+00	1.7790E-21
Organic I (atoms)	0.0000E+00	5.5020E+19
Aerosols (kg)	0.0000E+00	3.2632E-02

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.4307E+36

Primary Containment Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Kr-85	1.2640E-06	3.2218E+00	2.2826E+25	1.3078E+23
I-131	1.0367E+05	8.3619E-04	3.8440E+21	5.7831E+22
I-133	1.0867E-04	9.5927E-14	4.3435E+11	2.3838E+22
Xe-133	3.4947E+06	1.8670E-02	8.4537E+22	4.8641E+24

Primary Containment Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	2.2911E+25	0.0000E+00	
Elemental I (atoms)	3.7287E+21	0.0000E+00	
Organic I (atoms)	1.1532E+20	0.0000E+00	
Aerosols (kg)	2.3584E-35	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.4306E-06
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.4306E-06
Total I (Ci)			1.0367E+05

	Deposition	Recirculating
Time (h) = 720.0000	Surfaces	Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00

	Deposition	Recirculating
Time (h) = 720.0000	Surfaces	Filter

Aerosols (kg)	5.7325E+01	0.0000E+00

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 720.0000 Leakage Transport

Noble gases (atoms)	3.9745E+24
Elemental I (atoms)	3.2909E+21
Organic I (atoms)	1.0178E+20
Aerosols (kg)	3.3425E-02

Secondary Containment Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Kr-85	3.1267E+03	7.9694E-03	5.6462E+22	3.2866E+20
I-131	2.5643E+02	2.0684E-06	9.5084E+18	1.6046E+20
I-133	2.6879E-07	2.3728E-16	1.0744E-09	7.3229E+19
Xe-133	8.6443E+03	4.6181E-05	2.0911E+20	1.2642E+22

Secondary Containment Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	5.6671E+22	0.0000E-00	
Elemental I (atoms)	9.2231E+18	0.0000E+00	
Organic I (atoms)	2.8525E+17	0.0000E+00	
Aerosols (kg)	3.5738E-28	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.3578E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.3578E-09
Total I (Ci)			2.5643E+02

Primary Containment to Secondary Containment - Pri Transport Group Inventory:
Time (h) = 720.0000 Leakage Transport

Noble gases (atoms)	3.9745E+24
Elemental I (atoms)	3.2909E+21
Organic I (atoms)	1.0178E+20
Aerosols (kg)	3.3425E-02

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9046E+24
Elemental I (atoms)	0.0000E+00	3.1100E+21
Organic I (atoms)	0.0000E+00	9.6187E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Co-58	9.0778E-03	2.8548E-10	2.9642E+15	1.7099E+16
Co-60	6.4819E-03	5.7343E-09	5.7554E+16	9.8219E+15
Kr-85	4.4305E+04	1.1293E-01	8.0007E+23	3.5786E+21
Rb-86	1.5080E-01	1.8534E-09	1.2978E+16	5.4324E+17
Sr-89	1.1195E+01	3.8534E-07	2.6074E+18	2.3112E+19
Sr-90	2.1495E+00	1.5758E-05	1.0544E+20	3.2352E+18
Y-90	2.1608E+00	3.9717E-09	2.6576E+16	2.2154E+18
Y-91	1.9403E-01	7.9120E-09	5.2360E+16	3.8007E+17
Zr-95	2.2791E-01	1.0609E-08	6.7251E+16	4.3985E+17
Nb-95	2.9180E-01	7.4623E-09	4.7304E+16	4.6964E+17
Mo-99	2.1582E-03	4.4999E-12	2.7373E+13	1.9984E+18
Tc-99m	2.2127E-03	4.2080E-13	2.5597E+12	1.9254E+18
Ru-103	2.0832E+00	6.4548E-08	3.7740E+17	4.7146E+18
Ru-106	1.3309E+00	3.9781E-07	2.2600E+18	2.0883E+18
Rh-105	1.9514E-06	2.3120E-15	1.3260E+10	7.2461E+17
Sb-127	1.7415E-02	6.5211E-11	3.0922E+14	2.3619E+18
Te-127	5.8820E-01	2.2288E-10	1.0569E+15	3.0748E+18
Te-127m	5.6029E-01	5.9399E-08	2.8166E+17	9.5929E+17
Te-129	1.2809E+00	6.1162E-11	2.8552E+14	2.5366E+18
Te-129m	1.4813E+00	4.9170E-08	2.2954E+17	3.5959E+18
Te-131m	5.2633E-07	6.6005E-16	3.0343E+09	2.0689E+18
Te-127	5.8820E-01	2.2288E-10	1.0569E+15	3.0748E+18
Te-127m	5.6029E-01	5.9399E-08	2.8166E+17	9.5929E+17

Te-132	1.0707E-01	3.5269E-10	1.6090E+15	3.4555E+19
I-131	3.6531E+03	2.9466E-05	1.3546E+20	1.3490E+21
I-132	1.2780E-01	1.2381E-11	5.6487E+13	3.7423E+19
I-133	3.8292E-06	3.3803E-15	1.5306E+10	1.5707E+20
Xe-133	1.2249E-05	6.5440E-04	2.9631E+21	9.0434E+22
Cs-134	4.7368E+01	3.6610E-05	1.6453E+20	7.2777E+19
Cs-136	3.1790E+00	4.3375E-08	1.9207E-17	1.6785E+19
Cs-137	3.6579E+01	4.2053E-04	1.8486E-21	5.5108E+19
Ba-140	6.2963E+00	8.6004E-08	3.6995E+17	3.4435E-19
La-140	7.3138E+00	1.3158E-08	5.6601E+16	2.7819E-19
Ce-141	3.9068E-01	1.3711E-08	5.8561E+16	9.6417E+17
Ce-143	1.8549E-07	2.7932E-16	1.1763E+09	1.7748E+17
Ce-144	5.7745E-01	1.8105E-07	7.5715E+17	9.1774E+17
Pr-143	7.3557E-02	1.0923E-09	4.6002E+15	3.5099E+17
Nd-147	1.7951E-02	2.2190E-10	9.0905E+14	1.2164E+17
Np-239	1.2748E-03	5.4952E-12	1.3846E-13	3.7078E+18
Pu-238	1.8776E-03	1.0967E-07	2.7751E-17	2.8155E+15
Pu-239	2.0114E-04	3.2360E-06	8.1539E-18	3.0128E+14
Pu-240	3.1975E-04	1.4032E-06	3.5210E-18	4.8053E+14
Pu-241	7.8549E-02	7.6252E-07	1.9054E+18	1.1840E+17
Am-241	5.2101E-05	1.5180E-08	3.7932E+16	6.6406E+13
Cm-242	9.6232E-03	2.9036E-09	7.2255E+15	1.5948E+16
Cm-244	6.3881E-04	7.8960E-09	1.9488E+16	9.6233E+14

SGTS Filter Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	8.0303E+23	0.0000E+00	
Elemental I (atoms)	1.3070E+20	0.0000E+00	
Organic I (atoms)	4.0422E+18	0.0000E+00	
Aerosols (kg)	4.7993E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2901E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2901E-01
Total I (Ci)			3.6532E+03

Secondary Containment to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9046E+24
Elemental I (atoms)	0.0000E+00	3.1100E+21
Organic I (atoms)	0.0000E+00	9.6187E+19
Aerosols (kg)	0.0000E+00	3.3400E-02

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0073E+24
Elemental I (atoms)	0.0000E+00	1.8202E+21
Organic I (atoms)	0.0000E+00	5.6296E+19
Aerosols (kg)	0.0000E+00	3.2792E-02

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##
I-131 Summary
##

Time (hr)	Primary Containment I-131 (Curies)	Secondary Containment I-131 (Curies)	SGTS Filter I-131 (Curies)
0.000	5.9348E+03	6.7770E-04	4.0261E-08
0.167	1.6774E+06	5.7580E+01	1.0410E+00
0.467	4.2308E+06	4.2197E+02	6.3891E+00
0.500	4.4818E+06	4.8030E+02	7.6376E+00
0.900	1.0298E+07	1.6691E+03	4.0828E+01
1.200	1.4287E+07	3.1269E+03	9.9617E+01
1.500	1.7980E+07	5.0145E+03	2.0008E+02
1.800	2.1398E+07	7.2860E+03	3.5225E+02
2.000	2.3532E+07	8.9927E+03	4.8685E+02
0.900	1.0298E+07	1.6691E+03	4.0828E+01
1.200	1.4287E+07	3.1269E+03	9.9617E+01

2.300	1.7500E+07	1.1238E+04	7.3957E+02
2.600	1.3125E+07	1.2798E+04	1.0386E+03
2.900	9.9522E+06	1.3862E+04	1.3691E+03
3.200	7.6508E+06	1.4569E+04	1.7206E+03
3.500	5.9814E+06	1.5018E+04	2.0853E+03
3.800	4.7703E+06	1.5282E+04	2.4578E+03
4.100	3.8916E+06	1.5414E+04	2.8340E+03
4.400	3.2538E+06	1.5450E+04	3.2112E+03
4.700	2.7909E+06	1.5419E+04	3.5873E-03
5.000	2.4546E+06	1.5341E+04	3.9610E-03
5.300	2.2969E+06	1.5235E+04	4.3312E+03
5.600	2.1667E+06	1.5115E+04	4.6976E+03
5.900	2.0591E+06	1.4983E+04	5.0598E+03
6.200	1.9703E+06	1.4843E+04	5.4175E+03
6.500	1.8968E+06	1.4697E+04	5.7707E+03
6.800	1.8359E+06	1.4546E+04	6.1191E+03
7.100	1.7855E+06	1.4392E+04	6.4627E+03
7.400	1.7437E+06	1.4237E+04	6.8015E+03
7.700	1.7089E+06	1.4081E+04	7.1355E+03
8.000	1.6800E+06	1.3925E+04	7.4645E+03
8.300	1.6558E+06	1.3770E+04	7.7888E+03
8.600	1.6377E+06	1.3616E+04	8.1083E+03
8.900	1.6221E+06	1.3465E+04	8.4231E+03
9.200	1.6087E+06	1.3315E+04	8.7332E+03
9.500	1.5971E+06	1.3168E+04	9.0387E+03
9.800	1.5870E+06	1.3023E+04	9.3397E+03
10.100	1.5782E+06	1.2881E+04	9.6362E+03
10.400	1.5705E+06	1.2741E+04	9.9284E+03
24.000	1.4574E+06	8.8060E+03	1.9767E+04
720.000	1.0367E+05	2.5643E+02	3.6531E+03

Time (hr)	Environment I-131 (Curies)
0.000	3.3552E-14
0.167	2.6258E-04
0.467	5.5804E-03
0.500	6.9789E-03
0.900	5.7218E-02
1.200	1.7816E-01
1.500	4.4080E-01
1.800	9.2936E-01
2.000	1.4299E+00
2.300	2.5252E+00
2.600	4.1196E+00
2.900	6.2823E+00
3.200	9.0600E+00
3.500	1.2483E+01
3.800	1.6571E+01
4.100	2.1332E+01
4.400	2.6772E+01
4.700	3.2890E+01
5.000	3.9682E+01
5.300	4.7145E+01
5.600	5.5270E+01
5.900	6.4051E+01
6.200	7.3479E+01
6.500	8.3548E+01
6.800	9.4247E+01
7.100	1.0557E+02
7.400	1.1751E+02
7.700	1.3005E+02
8.000	1.4319E+02
8.300	1.5691E+02
8.600	1.7122E+02
8.900	1.8609E+02
9.200	2.0153E+02
9.500	2.1753E+02
9.800	2.3406E+02
10.100	2.5114E+02
8.900	1.8609E+02
9.200	2.0153E+02

10.400	2.6875E+02
24.000	1.5168E+03
720.000	6.0571E+04

****
Cumulative Dose Summary
****

****
Worst Two-Hour Doses
****

Attachment A2: RADTRAD Output: ESF-20 gpm source terms.o1

```
 ##########################################################################
    RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:51:54
 ##########################################################################

 ##########################################################################
                      File information
 ##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\SSES Final Source Term Runs\ESF-20 gpm
source terms.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba_pool_source
term.rft
 Dose Conversion file = c:\program files\radtrad3.03\defaults\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #

 Radtrad 3.03 4/15/2001

 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   4
 Compartment 1:
 Suppression pool
   3
  1.3200E+05
   0
   0
   0
   0
   0
 Compartment 2:
 RB
   3
  2.0780E+06
   0
   0
   0
   0
   0
 Compartment 3:
 SGTS Filter
   3
  1.0000E+00
   0
   0
   0
   0
   0
 Compartment 4:
 Environment
   2
   0
```

```
 0.0000E+00
  0
  0
  0
  0
  0
Pathways:
  3
Pathway 1:
Suppression pool to RB
  1
  2
  2
Pathway 2:
RB to SGTS Filter
  2
  3
  2
Pathway 3:
SGTS Filter to Environment
  3
  4
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\defaults\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba_pool_source term.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  4
Compartment 1:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 2:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  1
  1
  0
  0
Compartment 3:
```

```
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  3
Pathway 1:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   2.6740E+00   9.9999E+01   9.0000E-01   9.0000E+01
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.1110E+04   0.0000E+00   0.0000E+00   0.0000E+00
  1.6670E-01   2.8850E+03   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   1.1000E-04   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  1
  0
  0
```

```
Location 1:
EAB
  4
  1
  6
  0.0000E+00   1.4500E-03
  2.0000E+00   1.1200E-03
  8.0000E+00   3.5500E-04
  2.4000E+01   2.2900E-04
  9.6000E-01   2.1300E-04
  7.2000E+02   0.0000E-00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E-02   0.0000E-00
  0
Effective Volume Location:
  0
Simulation Parameters:
 10
  0.0000E+00   0.0000E+00
  5.0000E-01   1.0000E+00
  1.0000E+00   1.0000E+00
  2.0000E+00   2.0000E+00
  4.0000E+00   4.0000E+00
  8.0000E+00   8.0000E+00
  1.6000E+01   8.0000E+00
  2.4000E+01   2.4000E+01
  9.6000E+01   4.8000E+01
  7.2000E+02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o1
  1
  1
  1
  1
  1
End of Scenario File


##############################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:51:54
##############################################################################

##############################################################################
                    Plant Description
##############################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   4

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Suppression pool
Compartment volume =   1.3200E+05 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  1
   Exit Pathway Number    1: Suppression pool to RB

Compartment number  2
Name: RB
Pathways into and out of compartment  1
   Exit Pathway Number    1: Suppression pool to RB
```

```
Compartment volume =   2.0780E+06 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number    1: Suppression pool to RB
   Exit Pathway Number     2: RB to SGTS Filter

Compartment number  3
Name: SGTS Filter
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  3
   Inlet Pathway Number    2: RB to SGTS Filter
   Exit Pathway Number     3: SGTS Filter to Environment

Compartment number  4
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  4
   Inlet Pathway Number    3: SGTS Filter to Environment

Total number of pathways =   3
```

RADTRAD Version 3.03 (Spring 2001) run on 7/14/2005 at 20:51:54

Scenario Description

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings

	GAP	EARLY IN-VESSEL	LATE RELEASE	RELEASE MASS
	0.500000 hr	1.5000 hrs	0.0000 hrs	(gm)
NOBLES	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00
IODINE	5.0000E-02	2.5000E-01	0.0000E+00	3.427E+02
CESIUM	5.0000E-02	2.0000E-01	0.0000E+00	5.418E+04
TELLURIUM	0.0000E+00	5.0000E-02	0.0000E+00	4.850E+01
STRONTIUM	0.0000E+00	2.0000E-02	0.0000E+00	1.993E+03
BARIUM	0.0000E+00	2.0000E-02	0.0000E+00	5.377E+01
RUTHENIUM	0.0000E-00	2.5000E-03	0.0000E+00	6.682E+01
CERIUM	0.0000E+00	5.0000E-04	0.0000E+00	6.980E+02
LANTHANUM	0.0000E+00	2.0000E-04	0.0000E+00	7.481E+00

Inventory Power = 4032. MWt

Nuclide Name	Group	Specific Inventory (Ci/MWt)	half life (s)	Whole Body DCF (Sv-m3/Bq-s)	Inhaled Thyroid (Sv/Bq)	Inhaled Effective (Sv/Bq)
Co-58	7	1.470E+02	6.117E+06	4.760E-14	8.720E-10	2.940E-09
Co-60	7	7.910E+01	1.663E+08	1.260E-13	1.620E-08	5.910E-08
Rb-86	3	5.380E+01	1.612E+06	4.810E-15	1.330E-09	1.790E-09
Sr-89	5	2.550E+04	4.363E+06	7.730E-17	7.960E-12	1.120E-08
Sr-90	5	3.250E+03	9.190E+08	7.530E-18	2.690E-10	3.510E-07
Sr-91	5	3.250E+04	3.420E+04	4.924E-14	9.930E-12	4.547E-10
Sr-92	5	3.450E-04	9.756E-03	6.790E-14	3.920E-12	2.180E-10
Y-90	9	3.370E+03	2.304E-05	1.900E-16	5.170E-13	2.280E-09
Y-91	9	3.320E+04	5.055E+06	2.600E-16	8.500E-12	1.320E-08
Y-92	9	3.470E+04	1.274E+04	1.300E-14	1.050E-12	2.110E-10
Y-93	9	2.650E+04	3.636E+04	4.800E-15	9.260E-13	5.820E-10
Zr-95	9	4.760E+04	5.528E+06	3.600E-14	1.440E-09	6.390E-09
Zr-97	9	4.710E+04	6.084E+04	4.432E-14	2.315E-11	1.171E-09
Nb-95	9	4.760E+04	3.037E+06	3.740E-14	3.580E-10	1.570E-09
Mo-99	7	5.010E+04	2.376E+05	7.280E-15	1.520E-11	1.070E-09
Tc-99m	7	4.440E+04	2.167E+04	5.890E-15	5.010E-11	8.800E-12
Ru-103	7	4.270E+04	3.394E+06	2.251E-14	2.570E-10	2.421E-09
Ru-105	7	2.950E+04	1.598E+04	3.810E-14	4.150E-12	1.230E-10
Ru-106	7	1.700E+04	3.181E-07	1.040E-14	1.720E-09	1.290E-07
Rh-105	7	2.750E+04	1.273E-05	3.720E-15	2.880E-12	2.580E-10
Sb-127	4	2.330E+03	3.326E+05	3.330E-14	6.150E-11	1.630E-09
Sb-129	4	8.610E+03	1.555E+04	7.140E-14	9.720E-12	1.740E-10
Te-127	4	2.310E+03	3.366E+04	2.420E-16	1.840E-12	8.600E-11
Te-127m	4	3.940E+02	9.418E+06	1.470E-15	9.660E-11	5.810E-09
Te-129	4	8.160E+03	4.176E+03	2.750E-15	5.090E-13	2.090E-11
Te-129m	4	1.650E+03	2.903E+06	3.337E-15	1.563E-10	6.484E-09
Te-131m	4	5.330E+03	1.080E+05	7.463E-14	3.669E-08	1.758E-09
Te-132	4	3.820E+04	2.815E+05	1.030E-14	6.280E-08	2.550E-09
I-131	2	2.650E+04	6.947E+05	1.820E-14	2.920E-07	8.890E-09
I-132	2	3.890E-04	8.280E+03	1.120E-13	1.740E-09	1.030E-10
I-133	2	5.510E+04	7.488E+04	2.940E-14	4.860E-08	1.580E-09
I-134	2	6.080E+04	3.156E+03	1.300E-13	2.880E-10	3.550E-11
I-135	2	5.230E+04	2.380E+04	8.294E-14	8.460E-09	3.320E-10
Cs-134	3	5.700E+03	6.507E+07	7.570E-14	1.110E-08	1.250E-08
Cs-136	3	1.820E+03	1.132E+06	1.060E-13	1.730E-09	1.980E-09
Cs-137	3	4.290E+03	9.467E+08	2.725E-14	7.930E-09	8.630E-09
Ba-139	6	4.840E+04	4.962E+03	2.170E-15	2.400E-12	4.640E-11
Ba-140	6	4.860E+04	1.101E+06	8.580E-15	2.560E-10	1.010E-09
La-140	9	5.180E+04	1.450E+05	1.170E-13	6.870E-11	1.310E-09
Cs-136	3	1.820E+03	1.132E+06	1.060E-13	1.730E-09	1.980E-09
Cs-137	3	4.290E+03	9.467E+08	2.725E-14	7.930E-09	8.630E-09

La-141	9	4.410E+04	1.415E+04	2.390E-15	9.400E-12	1.570E-10
La-142	9	4.320E+04	5.550E-03	1.440E-13	8.740E-12	6.840E-11
Ce-141	8	4.460E+04	2.808E+06	3.430E-15	2.550E-11	2.420E-09
Ce-143	8	4.140E+04	1.188E+05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E-04	2.456E+07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E-04	1.172E+06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E-04	9.487E+05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E-05	2.035E+05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E+02	2.769E+09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E+01	7.594E+11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E+01	2.063E+11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E+03	4.544E+08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E+00	1.364E+10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E+03	1.407E+07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E+01	5.715E+08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions

Aerosol	=	9.5000E-01
Elemental	=	4.8500E-02
Organic	=	1.5000E-03

COMPARTMENT DATA

Compartment number 1: Suppression pool

Compartment number 2: RB

Compartment number 3: SGTS Filter

Compartment number 1: Suppression pool

Compartment number 4: Environment

PATHWAY DATA

Pathway number 1: Suppression pool to RB

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	2.6740E+00	9.9999E-01	9.0000E+01	9.0000E+01
7.2000E+02	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00

Pathway number 2: RB to SGTS Filter

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.1110E-04	0.0000E+00	0.0000E+00	0.0000E+00
1.6670E-01	2.8850E+03	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 3: SGTS Filter to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.1000E-04	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

LOCATION DATA

Location EAB is in compartment 4

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	1.4500E-03
2.0000E+00	1.1200E-03
8.0000E+00	3.5500E-04
2.4000E+01	2.2900E-04
9.6000E+01	2.1300E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E-00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E+00	0.0000E+00
5.0000E-01	1.0000E+00
1.0000E+00	1.0000E+00
2.0000E+00	2.0000E+00
4.0000E+00	4.0000E+00
8.0000E+00	8.0000E+00
1.6000E+01	8.0000E+00
2.4000E+01	2.4000E+01
9.6000E+01	4.8000E+01
7.2000E+02	0.0000E+00

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/14/2005  at 20:51:54
##########################################################################

     ####    #     #  #####  #####    #     #  #####
    #    #   #     #    #    #    #   #     #    #
    #    #   #     #    #    #    #   #     #    #
    #    #   #     #    #    #####    #     #    #
    #    #   #     #    #    #        #     #    #
    #    #   #     #    #    #        #     #    #
     ####     ####      #    #         ####      #

##########################################################################
           Dose, Detailed model and Detailed Inventory Output
##########################################################################

Detailed model information at time (H) =     0.1667

EAB Doses:

Time (h) =    0.1667     Whole Body   Thyroid       TEDE
Delta dose (rem)         1.6106E-08  3.3941E-06  1.2348E-07
Accumulated dose (rem)   1.6106E-08  3.3941E-06  1.2348E-07

Suppression pool Compartment Nuclide Inventory:

Time (h) =    0.1667        Ci          kg          Atoms       Decay
Rb-86                    3.6148E+03  4.4425E-05  3.1109E+20  6.0796E+16
I-131                    1.7800E+06  1.4357E-02  6.6002E+22  2.9940E+19
I-132                    2.5169E+06  2.4383E-04  1.1124E+21  4.3017E+19
I-133                    3.6826E+06  3.2508E-03  1.4720E+22  6.2079E+19
I-134                    3.5816E+06  1.3426E-04  6.0338E+20  6.3834E+19
I-135                    3.4540E+06  9.8353E-04  4.3873E+21  5.8529E+19
Xe-133                   2.4888E+03  1.3296E-05  6.0204E+19  1.0463E+16
Xe-135                   2.8411E+04  1.1125E-05  4.9628E+19  1.1980E+17
Cs-134                   3.8308E+05  2.9608E-01  1.3306E+24  6.4421E+18
Cs-136                   1.2227E+05  1.6683E-03  7.3873E+21  2.0565E+18
Cs-137                   2.8832E+05  3.3147E+00  1.4570E+25  4.8485E+18

Suppression pool Transport Group Inventory:
Time (h) =    0.1667     Atmosphere      Sump
Noble gases (atoms)      1.0983E+20  0.0000E+00
Elemental I (atoms)      4.2110E+21  0.0000E+00
Organic I (atoms)        1.3024E+20  0.0000E+00
Aerosols (kg)            3.6305E+00  0.0000E+00
Dose Effective (Ci/cc) I-131 (Thyroid)          6.7191E-04
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    8.5705E-04
Total I (Ci)                                    1.5015E+07

Suppression pool to RB Transport Group Inventory:

                           Pathway
Time (h) =    0.1667      Filtered   Transported
Noble gases (atoms)      0.0000E+00  4.2246E+15
Elemental I (atoms)      3.8484E+17  4.2760E+16
Organic I (atoms)        1.1902E+16  1.3225E+15
Aerosols (kg)            3.6781E-04  3.6781E-09

RB Compartment Nuclide Inventory:

Time (h) =    0.1667        Ci          kg          Atoms       Decay
Rb-86                    3.5978E-06  4.4216E-14  3.0962E+11  4.9191E+07
I-131                    8.8746E-01  7.1584E-09  3.2907E+16  1.2135E+13
RB Compartment Nuclide Inventory:
```

I-132	1.2459E+00	1.2071E-10	5.5069E+14	1.7330E+13
I-133	1.8361E+00	1.6208E-09	7.3390E+15	2.5154E+13
I-134	1.7857E+00	6.6940E-11	3.0084E+14	2.5671E+13
I-135	1.7221E+00	4.9038E-10	2.1875E+15	2.3699E+13
Xe-133	9.5468E-02	5.1003E-10	2.3094E-15	8.2875E+11
Xe-135	1.0905E-00	4.2704E-10	1.9049E+15	9.4889E+12
Cs-134	3.8127E-04	2.9469E-10	1.3244E+15	5.2125E+09
Cs-136	1.2170E-04	1.6604E-12	7.3525E+12	1.6640E+09
Cs-137	2.8696E-04	3.2991E-09	1.4502E+16	3.9231E-09

RB Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	4.2143E+15	0.0000E+00	
Elemental I (atoms)	4.1907E+16	0.0000E+00	
Organic I (atoms)	1.2961E+15	0.0000E+00	
Aerosols (kg)	3.6134E-09	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1280E-11
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.7139E-11
Total I (Ci)			7.4774E+00

Suppression pool to RB Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.2246E+15
Elemental I (atoms)	3.8484E-17	4.2760E+16
Organic I (atoms)	1.1902E+16	1.3225E+15
Aerosols (kg)	3.6781E-04	3.6781E-09

RB to SGTS Filter Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4485E+13
Elemental I (atoms)	0.0000E+00	7.5133E+14
Organic I (atoms)	0.0000E+00	2.3237E+13
Aerosols (kg)	0.0000E+00	6.4653E-11

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Rb-86	6.4399E-08	7.9146E-16	5.5422E+09	7.5512E+05
I-131	1.5885E-02	1.2813E-10	5.8903E+14	1.8628E+11
I-132	2.2238E-02	2.1544E-12	9.8287E+12	2.6489E+11
I-133	3.2866E-02	2.9013E-11	1.3137E+14	3.8603E+11
I-134	3.1964E-02	1.1982E-12	5.3849E+12	3.9131E+11
I-135	3.0826E-02	8.7776E-12	3.9156E+13	3.6348E+11
Xe-133	1.0206E-03	5.4523E-12	2.4688E+13	8.8199E+09
Xe-135	1.1658E-02	4.5651E-12	2.0364E+13	1.0099E+11
Cs-134	6.8247E-06	5.2748E-12	2.3706E+13	8.0017E+07
Cs-136	2.1783E-06	2.9722E-14	1.3161E+11	2.5543E+07
Cs-137	5.1365E-06	5.9053E-11	2.5958E+14	6.0224E+07

SGTS Filter Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	4.5052E+13	0.0000E+00	
Elemental I (atoms)	7.5010E+14	0.0000E+00	
Organic I (atoms)	2.3199E+13	0.0000E+00	
Aerosols (kg)	6.4679E-11	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.9149E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0094E-06
Total I (Ci)			1.3378E-01

RB to SGTS Filter Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4485E+13
Elemental I (atoms)	0.0000E+00	7.5133E+14

Pathway

Organic I (atoms)	0.0000E+00	2.3237E+13
Aerosols (kg)	0.0000E+00	6.4653E-11

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	6.5238E+09
Elemental I (atoms)	0.0000E-00	2.1781E+11
Organic I (atoms)	0.0000E-00	6.7363E+09
Aerosols (kg)	0.0000E+00	1.8745E-14

Detailed model information at time (H) = 0.5000

EAB Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.0037E-07	8.9858E-05	3.2391E-06
Accumulated dose (rem)	4.1648E-07	9.3253E-05	3.3626E-06

Suppression pool Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Rb-86	1.0834E+04	1.3315E-04	9.3241E+20	4.2648E+17
I-131	5.3318E+06	4.3007E-02	1.9771E-23	2.0995E+20
I-132	7.1764E+06	6.9524E-04	3.1718E+21	2.9214E+20
I-133	1.0921E+07	9.6409E-03	4.3653E+22	4.3240E+20
I-134	8.2522E+06	3.0934E-04	1.3902E+21	3.7714E+20
I-135	1.0002E+07	2.8481E-03	1.2705E+22	4.0125E+20
Xe-133	1.7323E+04	9.2546E-05	4.1904E+20	3.1897E+17
Xe-135	1.9316E+05	7.5640E-05	3.3742E+20	3.5886E+18
Cs-134	1.1487E-06	8.8787E-01	3.9902E+24	4.5206E+19
Cs-136	3.6640E+05	4.9992E-03	2.2137E+22	1.4424E+19
Cs-137	8.6460E+05	9.9400E+00	4.3693E+25	3.4024E+19

Suppression pool Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	7.5646E+20	0.0000E+00	
Elemental I (atoms)	1.2543E+22	0.0000E+00	
Organic I (atoms)	3.8794E+20	0.0000E+00	
Aerosols (kg)	1.0887E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0039E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5369E-03
Total I (Ci)			4.1684E+07

Suppression pool to RB Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2782E+17
Elemental I (atoms)	3.4458E+18	3.8286E+17
Organic I (atoms)	1.0657E+17	1.1841E+16
Aerosols (kg)	3.3084E-03	3.3085E-08

RB Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Rb-86	3.2427E-05	3.9852E-13	2.7906E+12	9.2591E+08
I-131	7.9936E+00	6.4478E-08	2.9641E+17	2.2831E+14
I-132	1.0499E+01	1.0172E-09	4.6405E+15	3.0989E+14
I-133	1.6374E+01	1.4455E-08	6.5449E+16	4.6966E+14
I-134	1.2373E+01	4.6380E-10	2.0844E+15	3.9638E+14
I-135	1.4996E+01	4.2701E-09	1.9048E+16	4.3453E+14
Xe-133	2.8973E+00	1.5479E-08	7.0086E+16	6.3540E+13
Xe-135	3.2314E+01	1.2654E-08	5.6447E+16	7.1434E+14
Cs-134	3.4381E-03	2.6573E-09	1.1942E+16	9.8151E+10
Cs-136	1.0966E-03	1.4962E-11	6.6253E+13	3.1315E+10
Cs-137	2.5877E-03	2.9750E-08	1.3077E+17	7.3873E+10
Xe-135	3.2314E+01	1.2654E-08	5.6447E+16	7.1434E+14
Cs-134	3.4381E-03	2.6573E-09	1.1942E+16	9.8151E+10

RB Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	1.2653E+17	0.0000E+00	
Elemental I (atoms)	3.7529E+17	0.0000E+00	
Organic I (atoms)	1.1607E+16	0.0000E+00	
Aerosols (kg)	3.2583E-08	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9082E-10
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.4145E-10
Total I (Ci)			6.2236E+01

Suppression pool to RB Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2782E+17
Elemental I (atoms)	3.4458E+18	3.8286E+17
Organic I (atoms)	1.0657E+17	1.1841E+16
Aerosols (kg)	3.3084E-03	3.3085E-08

RB to SGTS Filter Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3319E+15
Elemental I (atoms)	0.0000E+00	5.7941E+15
Organic I (atoms)	0.0000E+00	1.7920E+14
Aerosols (kg)	0.0000E+00	5.0098E-10

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Rb-86	4.9813E-07	6.1220E-15	4.2869E+10	1.3032E+07
I-131	1.2279E-01	9.9047E-10	4.5532E+15	3.2134E-12
I-132	1.5898E-01	1.5402E-11	7.0267E+13	4.3048E+12
I-133	2.5154E-01	2.2205E-10	1.0054E+15	6.6093E+12
I-134	1.9007E-01	7.1248E-12	3.2020E+13	5.5572E+12
I-135	2.3037E-01	6.5597E-11	2.9262E+14	6.1127E+12
Xe-133	3.0568E-02	1.6331E-10	7.3945E+14	6.1782E+11
Xe-135	3.4092E-01	1.3350E-10	5.9552E+14	6.9424E+12
Cs-134	5.2816E-05	4.0821E-11	1.8346E+14	1.3815E-09
Cs-136	1.6846E-05	2.2985E-13	1.0178E+12	4.4075E+08
Cs-137	3.9751E-05	4.5701E-10	2.0089E+15	1.0398E+09

SGTS Filter Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	1.3350E+15	0.0000E+00	
Elemental I (atoms)	5.7640E+15	0.0000E+00	
Organic I (atoms)	1.7827E+14	0.0000E+00	
Aerosols (kg)	5.0053E-10	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.0907E-06
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.7045E-06
Total I (Ci)			9.5374E-01

RB to SGTS Filter Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3319E+15
Elemental I (atoms)	0.0000E+00	5.7941E-15
Organic I (atoms)	0.0000E+00	1.7920E+14
Aerosols (kg)	0.0000E+00	5.0098E-10

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.3008E+11
Elemental I (atoms)	0.0000E+00	5.7053E+12
Organic I (atoms)	0.0000E+00	1.7645E+11

Time (h) = 0.5000	Pathway Filtered	Transported

Aerosols (kg) 0.0000E+00 4.9367E-13

Detailed model information at time (H) = 1.0000

EAB Doses:

Time (h) = 1.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.6166E-06	1.1247E-03	4.0082E-05
Accumulated dose (rem)	5.0331E-06	1.2180E-03	4.3445E-05

Suppression pool Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	4.9357E+02	1.5522E-05	1.6117E+20	1.9726E+16
Co-60	2.6569E+02	2.3505E-04	2.3591E+21	1.0618E+16
Rb-86	2.5254E+04	3.1037E-04	2.1734E+21	1.7245E+18
Sr-89	6.8484E+05	2.3573E-02	1.5950E-23	2.7371E+19
Sr-90	8.7333E+04	6.4024E-01	4.2840E-24	3.4901E+18
Sr-91	8.1188E+05	2.2397E-04	1.4822E+21	3.2884E+19
Sr-92	7.1785E+05	5.7111E-05	3.7384E+20	3.0081E+19
Y-90	1.1857E+03	2.1794E-06	1.4583E+19	4.1142E+16
Y-91	8.9694E+03	3.6574E-04	2.4204E+21	3.5735E+17
Y-92	5.1750E+04	5.3781E-06	3.5204E+19	1.1456E+18
Y-93	6.6487E+03	1.9928E-06	1.2904E+19	2.6908E+17
Zr-95	1.2785E+04	5.9513E-04	3.7726E+21	5.1098E+17
Zr-97	1.2148E+04	6.3547E-06	3.9452E+19	4.8915E-17
Nb-95	1.2791E+04	3.2711E-04	2.0736E+21	5.1115E+17
Mo-99	1.6653E+05	3.4721E-04	2.1121E+21	6.6678E+18
Tc-99m	1.4903E+05	2.8342E-05	1.7240E+20	5.9230E+18
Ru-103	1.4332E+05	4.4408E-03	2.5964E+22	5.7284E+18
Ru-105	8.4768E+04	1.2610E-05	7.2326E+19	3.4866E+18
Ru-106	5.7098E+04	1.7067E-02	9.6961E+22	2.2819E+18
Rh-105	9.2361E+04	1.0943E-04	6.2759E+20	3.6884E+18
Sb-127	1.5536E+05	5.8175E-04	2.7586E+21	6.2172E+18
Sb-129	4.9267E+05	8.7611E-05	4.0900E+20	2.0281E+19
Te-127	1.5513E+05	5.8780E-05	2.7872E+20	6.1771E+18
Te-127m	2.6469E+04	2.8061E-03	1.3306E+22	1.0578E+18
Te-129	5.2390E+05	2.5016E-05	1.1678E+20	2.0617E+19
Te-129m	1.1085E+05	3.6797E-03	1.7178E+22	4.4298E+18
Te-131m	3.4989E+05	4.3878E-04	2.0171E+21	1.4042E+19
Te-132	2.5436E+06	8.3784E-03	3.8224E+22	1.0182E+20
I-131	1.4192E+07	1.1448E-01	5.2625E+23	9.1941E+20
I-132	1.8321E+07	1.7749E-03	8.0976E+21	1.2335E+21
I-133	2.8636E+07	2.5278E-02	1.1446E+23	1.8733E+21
I-134	1.4817E+07	5.5542E-04	2.4961E+21	1.2611E+21
I-135	2.5304E+07	7.2053E-03	3.2142E+22	1.6945E+21
Xe-133	7.4977E+04	4.0056E-04	1.8137E+21	2.7570E+18
Xe-135	8.0698E+05	3.1600E-04	1.4096E+21	3.0191E+19
Cs-134	2.6797E+06	2.0711E+00	9.3078E+24	1.8289E+20
Cs-136	8.5376E+05	1.1649E-02	5.1582E+22	5.8314E+19
Cs-137	2.0169E+06	2.3187E+01	1.0192E+26	1.3765E+20
Ba-139	7.8658E+05	4.8088E-05	2.0834E+20	3.4543E+19
Ba-140	1.3030E+06	1.7799E-02	7.6561E+22	5.2094E+19
La-140	2.0553E+04	3.6977E-05	1.5906E+20	5.7346E+17
La-141	9.9343E+03	1.7566E-06	7.5026E+18	4.1016E+17
La-142	7.4049E+03	5.1728E-07	2.1938E+18	3.2189E+17
Ce-141	2.9956E+04	1.0513E-03	4.4902E+21	1.1972E+18
Ce-143	2.7234E+04	4.1010E-05	1.7271E+20	1.0926E+18
Ce-144	2.5190E+04	7.8977E-03	3.3029E+22	1.0067E+18
Pr-143	1.0733E+04	1.5939E-04	6.7123E+20	4.2864E-17
Nd-147	4.8242E+03	5.9633E-05	2.4430E+20	1.9288E+17
Np-239	3.4906E+05	1.5046E-03	3.7912E+21	1.3981E+19
Pu-238	7.5914E+01	4.4343E-03	1.1220E+22	3.0338E+15
Pu-239	8.0627E+00	1.2972E-01	3.2685E+23	3.2220E+14
Pu-240	1.2966E+01	5.6900E-02	1.4278E+23	5.1815E+14
Pu-241	3.1977E+03	3.1042E-02	7.7568E+22	1.2779E+17
Am-241	1.6933E+00	4.9335E-04	1.2328E+21	6.7664E+13
Cm-242	4.4331E+02	1.3376E-04	3.3285E+20	1.7717E+16
Cm-244	2.5985E+01	3.2119E-04	7.9272E+20	1.0384E+15
Pu-240	1.2966E+01	5.6900E-02	1.4278E+23	5.1815E+14
Pu-241	3.1977E+03	3.1042E-02	7.7568E+22	1.2779E+17

Suppression pool Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2233E+21	0.0000E+00	
Elemental I (atoms)	3.3147E+22	0.0000E+00	
Organic I (atoms)	1.0252E+21	0.0000E+00	
Aerosols (kg)	2.6368E+01	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.3012E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.6522E-03
Total I (Ci)			1.0127E-08

Suppression pool to RB Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0918E+18
Elemental I (atoms)	1.5971E+19	1.7745E+18
Organic I (atoms)	4.9394E+17	5.4883E+16
Aerosols (kg)	1.4629E-02	1.4629E-07

RB Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	1.4793E-06	4.6522E-14	4.8304E+11	4.3463E+07
Co-60	7.9633E-07	7.0447E-13	7.0707E+12	2.3395E-07
Rb-86	1.3876E-04	1.7054E-12	1.1942E+13	6.8924E+09
Sr-89	2.0526E-03	7.0652E-11	4.7806E+14	6.0308E+10
Sr-90	2.6175E-04	1.9189E-09	1.2840E+16	7.6900E+09
Sr-91	2.4334E-03	6.7127E-13	4.4423E+12	7.2232E+10
Sr-92	2.1515E-03	1.7117E-13	1.1205E+12	6.5559E+10
Y-90	3.7763E-06	6.9409E-15	4.6443E+10	9.7585E+07
Y-91	2.6924E-05	1.0979E-12	7.2653E+12	7.8862E+08
Y-92	1.8918E-04	1.9661E-14	1.2869E+11	3.6017E+09
Y-93	1.9927E-05	5.9729E-15	3.8677E+10	5.9116E+08
Zr-95	3.8320E-05	1.7837E-12	1.1307E-13	1.1259E+09
Zr-97	3.6410E-05	1.9046E-14	1.1825E+11	1.0759E+09
Nb-95	3.8337E-05	9.8040E-13	6.2148E+12	1.1262E+09
Mo-99	4.9911E-04	1.0407E-12	6.3302E+12	1.4685E+10
Tc-99m	4.4666E-04	8.4945E-14	5.1672E+11	1.3050E+10
Ru-103	4.2957E-04	1.3310E-11	7.7820E+13	1.2621E+10
Ru-105	2.5406E-04	3.7796E-14	2.1677E+11	7.6316E+09
Ru-106	1.7113E-04	5.1152E-11	2.9061E+14	5.0278E+09
Rh-105	2.7682E-04	3.2797E-13	1.8810E+12	8.1267E+09
Sb-127	4.6564E-04	1.7436E-12	8.2680E+12	1.3694E+10
Sb-129	1.4766E-03	2.6259E-13	1.2258E+12	4.4382E+10
Te-127	4.6494E-04	1.7617E-13	8.3539E+11	1.3610E+10
Te-127m	7.9333E-05	8.4105E-12	3.9881E-13	2.3307E+09
Te-129	1.5702E-03	7.4978E-14	3.5002E+11	4.5318E+10
Te-129m	3.3224E-04	1.1029E-11	5.1486E+13	9.7605E-09
Te-131m	1.0487E-03	1.3151E-12	6.0457E+12	3.0910E+10
Te-132	7.6237E-03	2.5112E-11	1.1456E+14	2.2426E+11
I-131	3.6841E+01	2.9716E-07	1.3661E+18	1.7767E+15
I-132	4.4723E+01	4.3327E-09	1.9767E+16	2.2611E+15
I-133	7.4343E+01	6.5627E-08	2.9715E+17	3.6125E+15
I-134	3.8467E+01	1.4419E-09	6.4803E+15	2.2937E-15
I-135	6.5693E+01	1.8706E-08	8.3445E+16	3.2512E+15
Xe-133	2.4769E+01	1.3233E-07	5.9916E+17	9.6178E+14
Xe-135	2.6661E+02	1.0440E-07	4.6571E+17	1.0505E+16
Cs-134	1.4724E-02	1.1380E-08	5.1144E+16	7.3105E+11
Cs-136	4.6912E-03	6.4008E-11	2.8343E+14	2.3305E+11
Cs-137	1.1082E-02	1.2741E-07	5.6005E+17	5.5023E+11
Ba-139	2.3575E-03	1.4413E-13	6.2444E+11	7.4468E+10
Ba-140	3.9054E-03	5.3346E-11	2.2947E+14	1.1477E+11
La-140	6.6869E-05	1.2031E-13	5.1750E+11	1.6482E+09
La-141	2.9775E-05	5.2649E-15	2.2487E+10	8.9698E+08
La-142	2.2194E-05	1.5504E-15	6.5751E+09	6.9559E+08
Ce-141	8.9779E-05	3.1509E-12	1.3457E+13	2.6377E+09
Ce-143	8.1626E-05	1.2292E-13	5.1763E+11	2.4052E+09
Ce-144	7.5498E-05	2.3671E-11	9.8993E+13	2.2181E+09
La-141	2.9775E-05	5.2649E-15	2.2487E+10	8.9698E+08
La-142	2.2194E-05	1.5504E-15	6.5751E+09	6.9559E+08

Pr-143	3.2177E-05	4.7784E-13	2.0123E+12	9.4472E+08
Nd-147	1.4459E-05	1.7873E-13	7.3221E+11	4.2495E+08
Np-239	1.0462E-03	4.5096E-12	1.1363E+13	3.0789E+10
Pu-238	2.2753E-07	1.3290E-11	3.3629E+13	6.6845E+06
Pu-239	2.4165E-08	3.8678E-10	9.7963E-14	7.0993E-05
Pu-240	3.8861E-08	1.7054E-10	4.2792E+14	1.1417E+06
Pu-241	9.5842E-06	9.3039E-11	2.3249E+14	2.8157E+08
Am-241	5.0751E-09	1.4787E-12	3.6950E+12	1.4909E+05
Cm-242	1.3287E-06	4.0089E-13	9.9761E+11	3.9036E+07
Cm-244	7.7882E-08	9.6266E-13	2.3759E-12	2.2881E-06

RB Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump	
Noble gases (atoms)	1.0649E+18	0.0000E+00	
Elemental I (atoms)	1.7165E+18	0.0000E+00	
Organic I (atoms)	5.3087E+16	0.0000E+00	
Aerosols (kg)	1.4245E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.7390E-10
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0952E-09
Total I (Ci)			2.6007E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 1.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0918E+18
Elemental I (atoms)	1.5971E+19	1.7745E+18
Organic I (atoms)	4.9394E-17	5.4883E+16
Aerosols (kg)	1.4629E-02	1.4629E-07

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 1.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1736E+16
Elemental I (atoms)	0.0000E+00	4.5290E+16
Organic I (atoms)	0.0000E+00	1.4007E-15
Aerosols (kg)	0.0000E+00	3.8355E-09

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	2.0593E-08	6.4763E-16	6.7243E+09	4.9450E+05
Co-60	1.1085E-08	9.8068E-15	9.8430E+10	2.6618E+05
Rb-86	3.7676E-06	4.6303E-14	3.2424E+11	1.5332E+08
Sr-89	2.8574E-05	9.8353E-13	6.6550E+12	6.8614E+08
Sr-90	3.6438E-06	2.6713E-11	1.7874E+14	8.7493E+07
Sr-91	3.3874E-05	9.3447E-15	6.1841E+10	8.2024E+08
Sr-92	2.9951E-05	2.3829E-15	1.5598E+10	7.4085E+08
Y-90	5.4138E-08	9.9507E-17	6.6583E+08	1.1592E+06
Y-91	3.7509E-07	1.5295E-14	1.0122E+11	8.9814E+06
Y-92	2.8747E-06	2.9875E-16	1.9556E+09	4.8522E+07
Y-93	2.7741E-07	8.3147E-17	5.3841E+08	6.7138E+06
Zr-95	5.3344E-07	2.4831E-14	1.5741E+11	1.2809E+07
Zr-97	5.0685E-07	2.6514E-16	1.6461E+09	1.2228E+07
Nb-95	5.3368E-07	1.3648E-14	8.6515E+10	1.2814E+07
Mo-99	6.9480E-06	1.4487E-14	8.8122E+10	1.6703E+08
Tc-99m	6.2179E-06	1.1825E-15	7.1931E+09	1.4847E+08
Ru-103	5.9799E-06	1.8529E-13	1.0833E+12	1.4360E+08
Ru-105	3.5368E-06	5.2615E-16	3.0177E+09	8.6471E+07
Ru-106	2.3823E-06	7.1208E-13	4.0455E-12	5.7203E+07
Rh-105	3.8536E-06	4.5656E-15	2.6185E+10	9.2459E+07
Sb-127	6.4821E-06	2.4273E-14	1.1510E+11	1.5578E+08
Sb-129	2.0556E-05	3.6554E-15	1.7065E+10	5.0282E+08
Te-127	6.4723E-06	2.4525E-15	1.1629E+10	1.5485E+08
Te-127m	1.1044E-06	1.1708E-13	5.5518E+11	2.6517E+07
Te-129	2.1859E-05	1.0438E-15	4.8726E+09	5.1483E+08
Te-129m	4.6251E-06	1.5353E-13	7.1672E+11	1.1105E+08
Te-131m	1.4598E-05	1.8307E-14	8.4160E+10	3.5146E+08
Te-127	6.4723E-06	2.4525E-15	1.1629E+10	1.5485E+08
Te-127m	1.1044E-06	1.1708E-13	5.5518E+11	2.6517E+07

Te-132	1.0613E-04	3.4957E-13	1.5948E+12	2.5509E-09
I-131	9.6495E-01	7.7835E-09	3.5781E+16	3.8666E+13
I-132	1.1318E+00	1.0965E-10	5.0024E-14	4.7570E+13
I-133	1.9473E+00	1.7190E-09	7.7836E+15	7.8540E+13
I-134	1.0076E+00	3.7771E-11	1.6975E+14	4.8405E+13
I-135	1.7208E+00	4.8999E-10	2.1858E+15	7.0498E+13
Xe-133	5.0345E-01	2.6896E-09	1.2178E+16	1.6738E+13
Xe-135	5.4192E+00	2.1221E-09	9.4663E+15	1.8245E+14
Cs-134	3.9977E-04	3.0898E-10	1.3886E+15	1.6263E+10
Cs-136	1.2737E-04	1.7379E-12	7.6953E+12	5.1841E-09
Cs-137	3.0089E-04	3.4592E-09	1.5206E+16	1.2241E+10
Ba-139	3.2819E-05	2.0064E-15	8.6926E+09	8.3584E+08
Ba-140	5.4366E-05	7.4262E-13	3.1944E-12	1.3057E+09
La-140	9.6804E-07	1.7416E-15	7.4916E+09	1.9912E+07
La-141	4.1449E-07	7.3292E-17	3.1303E+08	1.0158E+07
La-142	3.0896E-07	2.1583E-17	9.1530E+07	7.8189E+06
Ce-141	1.2498E-06	4.3862E-14	1.8733E+11	3.0010E+07
Ce-143	1.1363E-06	1.7111E-15	7.2059E+09	2.7350E+07
Ce-144	1.0510E-06	3.2952E-13	1.3781E+12	2.5236E+07
Pr-143	4.4799E-07	6.6528E-15	2.8017E+10	1.0750E+07
Nd-147	2.0128E-07	2.4881E-15	1.0193E+10	4.8345E+06
Np-239	1.4564E-05	6.2777E-14	1.5818E+11	3.5019E+08
Pu-238	3.1674E-09	1.8501E-13	4.6814E+11	7.6053E+04
Pu-239	3.3640E-10	5.4122E-12	1.3637E-13	8.0773E+03
Pu-240	5.4097E-10	2.3741E-12	5.9570E+12	1.2989E+04
Pu-241	1.3342E-07	1.2952E-12	3.2364E+12	3.2036E+06
Am-241	7.0650E-11	2.0585E-14	5.1437E+10	1.6963E-03
Cm-242	1.8496E-08	5.5807E-15	1.3888E+10	4.4413E+05
Cm-244	1.0842E-09	1.3401E-14	3.3075E+10	2.6033E+04

SGTS Filter Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump	
Noble gases (atoms)	2.1645E+16	0.0000E+00	
Elemental I (atoms)	4.4942E+16	0.0000E+00	
Organic I (atoms)	1.3900E+15	0.0000E-00	
Aerosols (kg)	3.8291E-09	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.7557E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.9562E-05
Total I (Ci)			6.7725E+00

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 1.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1736E+16
Elemental I (atoms)	0.0000E+00	4.5290E+16
Organic I (atoms)	0.0000E+00	1.4007E+15
Aerosols (kg)	0.0000E+00	3.8355E-09

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 1.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.8348E+13
Elemental I (atoms)	0.0000E+00	7.4221E+13
Organic I (atoms)	0.0000E+00	2.2955E+12
Aerosols (kg)	0.0000E+00	6.3828E-12

Detailed model information at time (H) = 2.0000

EAB Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.4136E-05	1.9973E-02	7.0239E-04
Accumulated dose (rem)	7.9169E-05	2.1191E-02	7.4584E-04

Suppression pool Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Accumulated dose (rem)	7.9169E-05	2.1191E-02	7.4584E-04	

Co-58	1.4792E+03	4.6519E-05	4.8300E-20	1.5770E+17
Co-60	7.9658E+02	7.0470E-04	7.0730E+21	8.4908E+16
Rb-86	5.4000E-04	6.6366E-04	4.6473E+21	7.1961E+18
Sr-89	2.0521E+06	7.0635E-02	4.7795E+23	2.1880E-20
Sr-90	2.6184E+05	1.9195E-00	1.2844E+25	2.7910E+19
Sr-91	2.2629E+06	6.2425E-04	4.1311E+21	2.5056E+20
Sr-92	1.6665E+06	1.3259E-04	8.6788E+20	2.0363E+20
Y-90	4.9471E+03	9.0929E-06	6.0843E+19	4.2813E+17
Y-91	2.7118E+04	1.1058E-03	7.3176E-21	2.8743E+18
Y-92	2.9509E+05	3.0667E-05	2.0074E+20	2.1187E+19
Y-93	1.8612E-04	5.5786E-06	3.6124E+19	2.0561E-18
Zr-95	3.8315E-04	1.7835E-03	1.1306E+22	4.0850E+18
Zr-97	3.4958E+04	1.8287E-05	1.1353E+20	3.8065E+18
Nb-95	3.8349E+04	9.8071E-04	6.2168E+21	4.0875E+18
Mo-99	4.9406E+05	1.0301E-03	6.2662E+21	5.2949E+19
Tc-99m	4.4602E+05	8.4823E-05	5.1598E-20	4.7319E+19
Ru-103	4.2939E+05	1.3305E-02	7.7789E+22	4.5786E+19
Ru-105	2.1741E+05	3.2344E-05	1.8550E+20	2.5162E-19
Ru-106	1.7118E+05	5.1165E-02	2.9068E+23	1.8247E+19
Rh-105	2.7611E+05	3.2712E-04	1.8762E+21	2.9455E+19
Sb-127	4.6231E-05	1.7312E-03	8.2089E+21	4.9469E+19
Sb-129	1.2581E+06	2.2373E-04	1.0445E+21	1.4595E+20
Te-127	4.6473E+05	1.7609E-04	8.3500E+20	4.9375E+19
Te-127m	7.9360E+04	8.4134E-03	3.9895E-22	8.4589E+18
Te-129	1.4474E+06	6.9114E-05	3.2265E+20	1.5714E+20
Te-129m	3.3233E+05	1.1031E-02	5.1498E+22	3.5423E-19
Te-131m	1.0251E+06	1.2855E-03	5.9095E+21	1.1058E+20
Te-132	7.5589E+06	2.4898E-02	1.1359E+23	8.0941E+20
I-131	3.1810E+07	2.5659E-01	1.1795E+24	4.1025E+21
I-132	3.7106E+07	3.5948E-03	1.6400E+22	5.1338E+21
I-133	6.2282E+07	5.4980E-02	2.4895E+23	8.1887E+21
I-134	1.5111E+07	5.6646E-04	2.5457E-21	3.4521E+21
I-135	5.1236E+07	1.4589E-02	6.5081E+22	7.0577E-21
Xe-133	3.2705E+05	1.7472E-03	7.9114E+21	2.5891E+19
Xe-135	3.2781E+06	1.2836E-03	5.7262E+21	2.6855E+20
Cs-134	5.7385E+06	4.4353E+00	1.9933E+25	7.6396E+20
Cs-136	1.8244E+06	2.4892E-02	1.1022E+23	2.4322E+20
Cs-137	4.3193E+06	4.9658E+01	2.1828E+26	5.7501E+20
Ba-139	1.4263E+06	8.7196E-05	3.7777E+20	2.0059E+20
Ba-140	3.8978E+06	5.3243E-02	2.2902E+23	4.1596E+20
La-140	9.4401E+04	1.6984E-04	7.3056E+20	7.7251E-18
La-141	2.4969E+04	4.4151E-06	1.8857E+19	2.9215E+18
La-142	1.4162E+04	9.8928E-07	4.1955E+18	1.9308E+18
Ce-141	8.9776E+04	3.1508E-03	1.3457E+22	9.5712E+18
Ce-143	7.9956E+04	1.2040E-04	5.0704E+20	8.6158E+18
Ce-144	7.5516E+04	2.3676E-02	9.9016E+22	8.0497E+18
Pr-143	3.2231E+04	4.7864E-04	2.0157E+21	3.4315E-18
Nd-147	1.4426E+04	1.7832E-04	7.3052E+20	1.5398E+18
Np-239	1.0338E+06	4.4561E-03	1.1228E+22	1.1089E+20
Pu-238	2.2760E-02	1.3295E-02	3.3640E+22	2.4260E+16
Pu-239	2.4177E+01	3.8897E-01	9.8009E+23	2.5768E+15
Pu-240	3.8873E+01	1.7060E-01	4.2807E+23	4.1435E+15
Pu-241	9.5873E+03	9.3069E-02	2.3256E+23	1.0219E+18
Am-241	5.0779E+00	1.4795E-03	3.6970E+21	5.4118E-14
Cm-242	1.3289E+03	4.0095E-04	9.9777E+20	1.4166E+17
Cm-244	7.7907E+01	9.6298E-04	2.3767E+21	8.3042E+15

Suppression pool Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3638E+22	0.0000E+00	
Elemental I (atoms)	7.3357E+22	0.0000E+00	
Organic I (atoms)	2.2688E+21	0.0000E+00	
Aerosols (kg)	5.7296E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1744E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4531E-02
Total I (Ci)			1.9755E+08

Suppression pool to RB Transport Group Inventory:

Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)	1.4531E-02
Total I (Ci)		1.9755E+08

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0014E+19
Elemental I (atoms)	7.4389E+19	8.2654E+18
Organic I (atoms)	2.3007E+18	2.5563E+17
Aerosols (kg)	6.5478E-02	6.5479E-07

RB Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	1.2944E-05	4.0706E-13	4.2265E-12	9.5931E+08
Co-60	6.9704E-06	6.1664E-12	6.1891E-13	5.1653E+08
Rb-86	5.9175E-04	7.2726E-12	5.0926E+13	5.5148E+10
Sr-89	1.7957E-02	6.1808E-10	4.1822E+15	1.3309E+12
Sr-90	2.2912E-03	1.6797E-08	1.1239E+17	1.6979E+11
Sr-91	1.9801E-02	5.4624E-12	3.6149E+13	1.5102E+12
Sr-92	1.4583E-02	1.1602E-12	7.5943E-12	1.1980E-12
Y-90	4.9233E-05	9.0491E-14	6.0550E+11	3.0587E+09
Y-91	2.3834E-04	9.7187E-12	6.4316E+13	1.7565E+10
Y-92	3.3126E-03	3.4426E-13	2.2535E+12	1.8655E+11
Y-93	1.6286E-04	4.8815E-14	3.1610E+11	1.2400E+10
Zr-95	3.3527E-04	1.5606E-11	9.8931E+13	2.4849E+10
Zr-97	3.0590E-04	1.6002E-13	9.9345E+11	2.3036E+10
Nb-95	3.3557E-04	8.5816E-12	5.4400E+13	2.4866E+10
Mo-99	4.3232E-03	9.0140E-12	5.4832E+13	3.2168E+11
Tc-99m	3.9028E-03	7.4223E-13	4.5150E+12	2.8780E+11
Ru-103	3.7574E-03	1.1642E-10	6.8068E+14	2.7851E+11
Ru-105	1.9025E-03	2.8302E-13	1.6232E+12	1.5002E+11
Ru-106	1.4979E-03	4.4772E-10	2.5436E+15	1.1100E+11
Rh-105	2.4161E-03	2.8625E-12	1.6417E+13	1.7913E+11
Sb-127	4.0454E-03	1.5148E-11	7.1831E+13	3.0066E+11
Sb-129	1.1009E-02	1.9578E-12	9.1395E+12	8.6970E+11
Te-127	4.0666E-03	1.5409E-12	7.3066E+12	3.0034E+11
Te-127m	6.9444E-04	7.3621E-11	3.4910E+14	5.1459E-10
Te-129	1.2665E-02	6.0478E-13	2.8233E-12	9.4668E+11
Te-129m	2.9080E-03	9.6530E-11	4.5063E+14	2.1549E+11
Te-131m	8.9698E-03	1.1249E-11	5.1711E+13	6.7074E+11
Te-132	6.6143E-02	2.1787E-10	9.9397E+14	4.9185E+12
I-131	1.6872E+02	1.3609E-06	6.2563E+18	1.5295E+16
I-132	1.7496E+02	1.6950E-08	7.7330E+16	1.7288E+16
I-133	3.3042E+02	2.9168E-07	1.3207E+18	3.0397E+16
I-134	8.0168E+01	3.0052E-09	1.3506E+16	1.1224E+16
I-135	2.7182E+02	7.7399E-08	3.4527E+17	2.5915E+16
Xe-133	2.2779E+02	1.2169E-06	5.5102E+18	1.6054E+16
Xe-135	2.2837E+03	8.9427E-07	3.9892E+18	1.6558E+17
Cs-134	6.2884E-02	4.8603E-08	2.1843E+17	5.8561E+12
Cs-136	1.9992E-02	2.7278E-10	1.2079E+15	1.8638E+12
Cs-137	4.7332E-02	5.4416E-07	2.3920E-18	4.4077E+12
Ba-139	1.2480E-02	7.6300E-13	3.3057E+12	1.1395E+12
Ba-140	3.4107E-02	4.6589E-10	2.0041E+15	2.5297E+12
La-140	9.6623E-04	1.7384E-12	7.4776E+12	5.7719E+10
La-141	2.1849E-04	3.8634E-14	1.6500E+11	1.7372E+10
La-142	1.2392E-04	8.6566E-15	3.6712E+10	1.1054E-10
Ce-141	7.8549E-04	2.7568E-11	1.1774E+14	5.8218E+10
Ce-143	6.9965E-04	1.0536E-12	4.4368E+12	5.2275E+10
Ce-144	6.6079E-04	2.0718E-10	8.6643E+14	4.8969E+10
Pr-143	2.8225E-04	4.1916E-12	1.7652E+13	2.0892E+10
Nd-147	1.2623E-04	1.5604E-12	6.3924E+12	9.3638E+09
Np-239	9.0460E-03	3.8993E-11	9.8251E+13	6.7356E+11
Pu-238	1.9916E-06	1.1634E-10	2.9436E+14	1.4759E+08
Pu-239	2.1156E-07	3.4036E-09	8.5762E+15	1.5676E-07
Pu-240	3.4016E-07	1.4928E-09	3.7457E+15	2.5207E+07
Pu-241	8.3893E-05	8.1439E-10	2.0350E+15	6.2167E+09
Am-241	4.4436E-08	1.2947E-11	3.2352E+13	3.2924E+06
Cm-242	1.1628E-05	3.5085E-12	8.7309E+12	8.6174E+08
Cm-244	6.8172E-07	8.4264E-12	2.0797E+13	5.0518E+07

RB Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump		
Cm-242	1.1628E-05	3.5085E-12	8.7309E+12	8.6174E+08
Cm-244	6.8172E-07	8.4264E-12	2.0797E+13	5.0518E+07

Noble gases (atoms)	9.4995E+18	0.0000E+00	
Elemental I (atoms)	7.7580E+18	0.0000E+00	
Organic I (atoms)	2.3994E+17	0.0000E+00	
Aerosols (kg)	6.2142E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.9549E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.8830E-09
Total I (Ci)			1.0261E+03

Suppression pool to RB Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0014E+19
Elemental I (atoms)	7.4389E+19	8.2654E+18
Organic I (atoms)	2.3007E+18	2.5563E+17
Aerosols (kg)	6.5478E-02	6.5479E-07

RB to SGTS Filter Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	3.8457E+17
Elemental I (atoms)	0.0000E-00	4.1051E+17
Organic I (atoms)	0.0000E+00	1.2696E+16
Aerosols (kg)	0.0000E+00	3.3319E-08

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	5.4341E-07	1.7089E-14	1.7744E+11	3.1070E+07
Co-60	2.9263E-07	2.5888E-13	2.5984E-12	1.6729E+07
Rb-86	3.1916E-05	3.9224E-13	2.7467E+12	2.3048E+09
Sr-89	7.5387E-04	2.5949E-11	1.7558E+14	4.3105E+10
Sr-90	9.6191E-05	7.0517E-10	4.7185E+15	5.4991E+09
Sr-91	8.3131E-04	2.2933E-13	1.5176E+12	4.8631E+10
Sr-92	6.1222E-04	4.8707E-14	3.1883E+11	3.8000E+10
Y-90	2.1968E-06	4.0377E-15	2.7017E+10	1.0820E+08
Y-91	1.0029E-05	4.0896E-13	2.7064E+12	5.7049E+08
Y-92	1.5520E-04	1.6129E-14	1.0558E+11	7.1667E+09
Y-93	6.8374E-06	2.0494E-15	1.3271E+10	3.9943E+08
Zr-95	1.4076E-05	6.5520E-13	4.1534E+12	8.0479E+08
Zr-97	1.2842E-05	6.7179E-15	4.1707E+10	7.4371E+08
Nb-95	1.4088E-05	3.6028E-13	2.2838E+12	8.0536E+08
Mo-99	1.8150E-04	3.7843E-13	2.3020E+12	1.0410E+10
Tc-99m	1.6385E-04	3.1161E-14	1.8955E+11	9.3201E+09
Ru-103	1.5774E-04	4.8876E-12	2.8577E-13	9.0200E+09
Ru-105	7.9870E-05	1.1882E-14	6.8147E+10	4.7986E+09
Ru-106	6.2884E-05	1.8796E-11	1.0679E+14	3.5951E+09
Rh-105	1.0143E-04	1.2017E-13	6.8924E+11	5.8004E+09
Sb-127	1.6984E-04	6.3597E-13	3.0157E+12	9.7321E+09
Sb-129	4.6220E-04	8.2192E-14	3.8370E+11	2.7808E+10
Te-127	1.7072E-04	6.4690E-14	3.0675E+11	9.7270E+09
Te-127m	2.9154E-05	3.0908E-12	1.4656E+13	1.6667E+09
Te-129	5.3173E-04	2.5390E-14	1.1853E+11	3.0469E+10
Te-129m	1.2209E-04	4.0526E-12	1.8919E+13	6.9794E-09
Te-131m	3.7657E-04	4.7225E-13	2.1710E+12	2.1685E+10
Te-132	2.7769E-03	9.1467E-12	4.1729E+13	1.5919E+11
I-131	8.8212E+00	7.1153E-08	3.2709E+17	6.2285E+14
I-132	8.5705E+00	8.3030E-10	3.7880E+15	6.5744E+14
I-133	1.7277E+01	1.5251E-08	6.9057E+16	1.2346E+15
I-134	4.1918E+00	1.5713E-10	7.0618E+14	4.2027E+14
I-135	1.4213E+01	4.0471E-09	1.8053E+16	1.0455E+15
Xe-133	9.1043E+00	4.8639E-08	2.2023E+17	5.3059E+14
Xe-135	9.1287E+01	3.5747E-08	1.5946E+17	5.4487E+15
Cs-134	3.3916E-03	2.6214E-09	1.1781E+16	2.4478E+11
Cs-136	1.0783E-03	1.4712E-11	6.5145E+13	7.7889E+10
Cs-137	2.5528E-03	2.9349E-08	1.2901E+17	1.8424E+11
Ba-139	5.2396E-04	3.2033E-14	1.3878E+11	3.5363E+10
Ba-140	1.4319E-03	1.9559E-11	8.4135E+13	8.1919E+10
Cs-134	3.3916E-03	2.6214E-09	1.1781E+16	2.4478E+11
Cs-136	1.0783E-03	1.4712E-11	6.5145E+13	7.7889E+10

La-140	4.3626E-05	7.8489E-14	3.3762E+11	2.0848E+09
La-141	9.1726E-06	1.6219E-15	6.9273E-09	5.5473E+08
La-142	5.2025E-06	3.6343E-16	1.5413E+09	3.4472E+08
Ce-141	3.2975E-05	1.1573E-12	4.9428E+12	1.8854E+09
Ce-143	2.9373E-05	4.4231E-14	1.8627E+11	1.6903E+09
Ce-144	2.7742E-05	8.6979E-12	3.6375E+13	1.5860E+09
Pr-143	1.1855E-05	1.7604E-13	7.4137E+11	6.7700E+08
Nd-147	5.2996E-06	6.5509E-14	2.6837E+11	3.0322E+08
Np-239	3.7977E-04	1.6370E-12	4.1248E+12	2.1795E+10
Pu-238	8.3614E-08	4.8841E-12	1.2358E+13	4.7800E+06
Pu-239	8.8817E-09	1.4289E-10	3.6005E+14	5.0773E+05
Pu-240	1.4281E-08	6.2671E-11	1.5726E+14	8.1640E-05
Pu-241	3.5220E-06	3.4190E-11	8.5435E-13	2.0135E-08
Am-241	1.8656E-09	5.4356E-13	1.3583E-12	1.0664E+05
Cm-242	4.8818E-07	1.4730E-13	3.6654E+11	2.7910E+07
Cm-244	2.8620E-08	3.5376E-13	8.7312E+11	1.6362E+06

SGTS Filter Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	3.7969E+17	0.0000E-00	
Elemental I (atoms)	4.0537E+17	0.0000E+00	
Organic I (atoms)	1.2537E+16	0.0000E+00	
Aerosols (kg)	3.3211E-08	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.2956E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.2979E-04
Total I (Ci)			5.3073E-01

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 2.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8457E+17
Elemental I (atoms)	0.0000E+00	4.1051E+17
Organic I (atoms)	0.0000E+00	1.2696E+16
Aerosols (kg)	0.0000E+00	3.3319E-08

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 2.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.7864E+14
Elemental I (atoms)	0.0000E+00	1.2887E+15
Organic I (atoms)	0.0000E+00	3.9857E+13
Aerosols (kg)	0.0000E-00	1.0676E-10

Detailed model information at time (H) = 4.0000

EAB Doses:

Time (h) = 4.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.7663E-04	2.4446E-01	8.5385E-03
Accumulated dose (rem)	9.5580E-04	2.6565E-01	9.2843E-03

Suppression pool Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	1.4744E+03	4.6368E-05	4.8144E+20	5.5110E+17
Co-60	7.9462E+02	7.0296E-04	7.0556E+21	2.9684E+17
Rb-86	5.3703E+04	6.6000E-04	4.6217E+21	2.1541E+19
Sr-89	2.0448E+06	7.0383E-02	4.7624E+23	7.6447E+20
Sr-90	2.6120E+05	1.9149E+00	1.2813E+25	9.7575E+19
Sr-91	1.9509E+06	5.3818E-04	3.5615E+21	8.1077E+20
Sr-92	9.9677E+05	7.9301E-05	5.1909E+20	5.5076E+20
Y-90	1.0429E+04	1.9169E-05	1.2827E+20	2.4417E+18
Y-91	2.7896E+04	1.1375E-03	7.5276E+21	1.0199E+19
Y-92	6.1779E+05	6.4204E-05	4.2027E+20	1.4799E+20
Y-93	1.6185E+04	4.8513E-06	3.1414E+19	6.6833E+18
Zr-95	3.8188E+04	1.7776E-03	1.1268E+22	1.4274E+19
Zr-97	3.2127E+04	1.6806E-05	1.0434E+20	1.2736E+19
Y-91	2.7896E+04	1.1375E-03	7.5276E+21	1.0199E+19
Y-92	6.1779E+05	6.4204E-05	4.2027E+20	1.4799E+20

Nb-95	3.8255E-04	9.7832E-04	6.2016E+21	1.4290E+19
Mo-99	4.8262E+05	1.0063E-03	6.1210E+21	1.8303E+20
Tc-99m	4.4217E+05	8.4091E-05	5.1152E+20	1.6499E+20
Ru-103	4.2772E+05	1.3253E-02	7.7486E+22	1.5995E+20
Ru-105	1.5872E+05	2.3612E-05	1.3542E+20	7.4851E+19
Ru-106	1.7073E+05	5.1033E-02	2.8993E+23	6.3786E+19
Rh-105	2.7201E+05	3.2227E-04	1.8483E+21	1.0246E+20
Sb-127	4.5432E+05	1.7012E-03	8.0670E+21	1.7155E-20
Sb-129	9.1056E+05	1.6192E-04	7.5592E+20	4.3232E-20
Te-127	4.6235E+05	1.7519E-04	8.3074E+20	1.7242E-20
Te-127m	7.9169E+04	8.3932E-03	3.9799E+22	2.9573E-19
Te-129	1.1673E+06	5.5739E-05	2.6021E+20	4.9683E-20
Te-129m	3.3136E-05	1.0999E-02	5.1348E+22	1.2382E-20
Te-131m	9.7640E+05	1.2245E-03	5.6290E+21	3.7711E-20
Te-132	7.4081E+06	2.4401E-02	1.1132E+23	2.8028E-21
I-131	3.1511E+07	2.5418E-01	1.1685E+24	1.2536E-22
I-132	2.3691E+07	2.2952E-03	1.0471E+22	1.3024E-22
I-133	5.8125E+07	5.1311E-02	2.3233E+23	2.4220E-22
I-134	3.1009E+06	1.1624E-04	5.2239E+20	5.4722E+21
I-135	4.1442E+07	1.1801E-02	5.2640E+22	1.9356E-22
Xe-133	9.6138E+05	5.1361E-03	2.3256E+22	1.9439E+20
Xe-135	8.3575E+06	3.2727E-03	1.4599E+22	1.8241E+21
Cs-134	5.7242E+06	4.4242E+00	1.9883E+25	2.2907E+21
Cs-136	1.8119E+06	2.4723E-02	1.0947E+23	7.2755E+20
Cs-137	4.3088E+06	4.9537E+01	2.1775E+26	1.7242E+21
Ba-139	5.2040E+05	3.1815E-05	1.3784E+20	4.3993E+20
Ba-140	3.8708E+06	5.2873E-02	2.2743E+23	1.4507E+21
La-140	2.2237E+05	4.0007E-04	1.7209E+21	4.9151E+19
La-141	1.7504E+04	3.0952E-06	1.3220E+19	8.5198E+18
La-142	5.7482E+03	4.0155E-07	1.7029E+18	4.4165E-18
Ce-141	8.9436E+04	3.1388E-03	1.3406E+22	3.3441E-19
Ce-143	7.6481E+04	1.1517E-04	4.8500E+20	2.9448E-19
Ce-144	7.5317E+04	2.3614E-02	9.8755E+22	2.8139E+19
Pr-143	3.2348E+04	4.8038E-04	2.0230E+21	1.2031E+19
Nd-147	1.4315E+04	1.7695E-04	7.2493E+20	5.3678E-18
Np-239	1.0063E+06	4.3376E-03	1.0930E+22	3.8260E+20
Pu-238	2.2705E+02	1.3263E-02	3.3559E+22	8.4817E-16
Pu-239	2.4125E+01	3.8813E-01	9.7798E+23	9.0102E-15
Pu-240	3.8779E+01	1.7018E-01	4.2703E+23	1.4486E-16
Pu-241	9.5639E+03	9.2842E-02	2.3200E+23	3.5727E-18
Am-241	5.0691E+00	1.4769E-03	3.6906E+21	1.8927E+15
Cm-242	1.3252E+03	3.9984E-04	9.9499E+20	4.9516E+17
Cm-244	7.7717E+01	9.6063E-04	2.3709E+21	2.9032E+16

Suppression pool Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	3.7855E+22	0.0000E+00	
Elemental I (atoms)	7.1024E+22	0.0000E+00	
Organic I (atoms)	2.1966E+21	0.0000E+00	
Aerosols (kg)	5.7146E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1378E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3752E-02
Total I (Ci)			1.5787E+08

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2111E+19
Elemental I (atoms)	2.3235E+20	2.5817E+19
Organic I (atoms)	7.1862E+18	7.9847E+17
Aerosols (kg)	2.0458E-01	2.0458E-06

RB Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	4.4002E-05	1.3838E-12	1.4368E+13	8.8692E+09
Co-60	2.3715E-05	2.0979E-11	2.1057E+14	4.7781E+09
Rb-86	1.7033E-03	2.0934E-11	1.4659E+14	3.7262E+11

Time (h) = 4.0000	Ci	kg	Atoms	Decay

Sr-89	6.1024E-02	2.1005E-09	1.4213E+16	1.2302E+13
Sr-90	7.7954E-03	5.7148E-08	3.8239E+17	1.5706E+12
Sr-91	5.8223E-02	1.6061E-11	1.0629E+14	1.2632E+13
Sr-92	2.9748E-02	2.3667E-12	1.5492E-13	7.8689E+12
Y-90	3.1618E-04	5.8115E-13	3.8886E+12	4.7542E+10
Y-91	8.3340E-04	3.3983E-11	2.2489E-14	1.6550E-11
Y-92	1.8855E-02	1.9595E-12	1.2827E-13	3.0366E-12
Y-93	4.8304E-04	1.4478E-13	9.3753E-11	1.0434E-11
Zr-95	1.1397E-03	5.3050E-11	3.3629E-14	2.2972E-11
Zr-97	9.5880E-04	5.0155E-13	3.1138E-12	2.0132E-11
Nb-95	1.1417E-03	2.9197E-11	1.8508E-14	2.3002E-11
Mo-99	1.4403E-02	3.0031E-11	1.8268E-14	2.9326E-12
Tc-99m	1.3196E-02	2.5096E-12	1.5266E-13	2.6527E-12
Ru-103	1.2765E-02	3.9552E-10	2.3125E-15	2.5738E+12
Ru-105	4.7369E-03	7.0468E-13	4.0416E+12	1.1221E-12
Ru-106	5.0954E-03	1.5230E-09	8.6527E+15	1.0267E-12
Rh-105	8.1179E-03	9.6178E-12	5.5162E+13	1.6455E-12
Sb-127	1.3559E-02	5.0772E-11	2.4075E+14	2.7524E-12
Sb-129	2.7175E-02	4.8325E-12	2.2560E+13	6.4677E-12
Te-127	1.3798E-02	5.2285E-12	2.4793E+13	2.7740E-12
Te-127m	2.3627E-03	2.5049E-10	1.1878E+15	4.7603E+11
Te-129	3.4837E-02	1.6635E-12	7.7657E+12	7.6513E+12
Te-129m	9.8890E-03	3.2826E-10	1.5324E+15	1.9929E+12
Te-131m	2.9140E-02	3.6543E-11	1.6799E+14	6.0086E-12
Te-132	2.2109E-01	7.2823E-10	3.3224E+15	4.4940E-13
I-131	4.9566E+02	3.9981E-06	1.8380E+19	1.0732E+17
I-132	3.2561E+02	3.1545E-08	1.4392E+17	9.2162E+16
I-133	9.1445E+02	8.0724E-07	3.6551E+18	2.0453E-17
I-134	4.8785E+01	1.8287E-09	8.2186E+15	3.0624E-16
I-135	6.5198E+02	1.8565E-07	8.2816E+17	1.5798E+17
Xe-133	1.6269E+03	8.6918E-06	3.9356E+19	2.4358E+17
Xe-135	1.4150E+04	5.5408E-06	2.4717E+19	2.2497E+18
Cs-134	1.8156E-01	1.4033E-07	6.3064E+17	3.9652E+13
Cs-136	5.7471E-02	7.8414E-10	3.4722E+15	1.2581E+13
Cs-137	1.3666E-01	1.5712E-06	6.9065E+18	2.9846E+13
Ba-139	1.5531E-02	9.4950E-13	4.1137E+12	5.5378E+12
Ba-140	1.1552E-01	1.5779E-09	6.7876E+15	2.3328E+13
La-140	6.7511E-03	1.2146E-11	5.2246E+13	9.8410E+11
La-141	5.2240E-04	9.2373E-14	3.9453E+11	1.2650E+11
La-142	1.7155E-04	1.1984E-14	5.0823E+10	5.7177E+10
Ce-141	2.6691E-03	9.3673E-11	4.0008E+14	5.3811E+11
Ce-143	2.2825E-03	3.4371E-12	1.4474E+13	4.6965E+11
Ce-144	2.2478E-03	7.0474E-10	2.9473E+15	4.5293E+11
Pr-143	9.6558E-04	1.4339E-11	6.0386E+13	1.9396E+11
Nd-147	4.2723E-04	5.2810E-12	2.1635E+13	8.6304E+10
Np-239	3.0032E-02	1.2945E-10	3.2618E+14	6.1254E+12
Pu-238	6.7762E-06	3.9581E-10	1.0015E+15	1.3653E+09
Pu-239	7.1998E-07	1.1583E-08	2.9187E+16	1.4504E+08
Pu-240	1.1573E-06	5.0789E-09	1.2744E+16	2.3318E+08
Pu-241	2.8543E-04	2.7708E-09	6.9237E+15	5.7508E+10
Am-241	1.5128E-07	4.4078E-11	1.1014E+14	3.0470E+07
Cm-242	3.9549E-05	1.1933E-11	2.9695E+13	7.9697E+09
Cm-244	2.3194E-06	2.8669E-11	7.0758E+13	4.6732E+08

RB Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	6.4072E+19	0.0000E+00	
Elemental I (atoms)	2.2282E+19	0.0000E+00	
Organic I (atoms)	6.8914E+17	0.0000E+00	
Aerosols (kg)	1.8071E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1365E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3713E-08
Total I (Ci)			2.4365E+03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.2111E+19

Suppression pool to RB Transport Group Inventory:

Elemental I (atoms)	2.3235E-20	2.5817E+19
Organic I (atoms)	7.1862E-18	7.9847E+17
Aerosols (kg)	2.0458E-01	2.0458E-06

RB to SGTS Filter Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8775E+18
Elemental I (atoms)	0.0000E-00	2.9613E+18
Organic I (atoms)	0.0000E+00	9.1585E+16
Aerosols (kg)	0.0000E+00	2.3841E-07

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	5.3257E-06	1.6749E-13	1.7390E+12	7.3165E+08
Co-60	2.8702E-06	2.5392E-12	2.5485E+13	3.9420E+08
Rb-86	2.2398E-04	2.7527E-12	1.9276E+13	3.3642E+10
Sr-89	7.3859E-03	2.5423E-10	1.7202E-15	1.0148E+12
Sr-90	9.4349E-04	6.9167E-09	4.6281E+16	1.2958E+11
Sr-91	7.0468E-03	1.9439E-12	1.2864E+13	1.0238E+12
Sr-92	3.6004E-03	2.8644E-13	1.8750E+12	6.0758E-11
Y-90	3.8925E-05	7.1545E-14	4.7872E+11	4.3292E-09
Y-91	1.0099E-04	4.1179E-12	2.7251E+13	1.3719E+10
Y-92	2.3380E-03	2.4298E-13	1.5905E+12	2.7932E+11
Y-93	5.8463E-05	1.7523E-14	1.1347E-11	8.4650E+09
Zr-95	1.3794E-04	6.4208E-12	4.0702E-13	1.8951E+10
Zr-97	1.1605E-04	6.0704E-14	3.7687E+11	1.6446E+10
Nb-95	1.3818E-04	3.5338E-12	2.2401E+13	1.8977E+10
Mo-99	1.7433E-03	3.6347E-12	2.2110E+13	2.4133E-11
Tc-99m	1.5972E-03	3.0374E-13	1.8477E+12	2.1870E+11
Ru-103	1.5450E-03	4.7870E-11	2.7988E+14	2.1230E+11
Ru-105	5.7331E-04	8.5289E-14	4.8916E-11	8.9020E+10
Ru-106	6.1671E-04	1.8434E-10	1.0473E+15	8.4704E+10
Rh-105	9.8253E-04	1.1641E-12	6.6763E+12	1.3557E+11
Sb-127	1.6410E-03	6.1450E-12	2.9139E+13	2.2667E+11
Sb-129	3.2890E-03	5.8488E-13	2.7304E+12	5.1251E-11
Te-127	1.6701E-03	6.3281E-13	3.0007E+12	2.2879E-11
Te-127m	2.8597E-04	3.0317E-11	1.4376E+14	3.9274E+10
Te-129	4.2164E-03	2.0134E-13	9.3990E-11	6.1547E+11
Te-129m	1.1969E-03	3.9730E-11	1.8547E+14	1.6441E+11
Te-131m	3.5268E-03	4.4229E-12	2.0332E+13	4.9298E+11
Te-132	2.6759E-02	8.8140E-11	4.0211E+14	3.6998E+12
I-131	6.4349E+01	5.1905E-07	2.3861E+18	9.5602E+15
I-132	3.9518E+01	3.8285E-09	1.7466E+16	7.2637E+15
I-133	1.1873E+02	1.0481E-07	4.7457E-17	1.8083E+16
I-134	6.3341E+00	2.3744E-10	1.0671E+15	2.1125E+15
I-135	8.4651E+01	2.4104E-08	1.0753E+17	1.3707E+16
Xe-133	1.4485E+02	7.7383E-07	3.5039E+18	1.6799E+16
Xe-135	1.2601E+03	4.9342E-07	2.2011E+18	1.5347E+17
Cs-134	2.3874E-02	1.8452E-08	8.2926E+16	3.5814E+12
Cs-136	7.5571E-03	1.0311E-10	4.5658E+14	1.1357E+12
Cs-137	1.7971E-02	2.0660E-07	9.0817E+17	2.6958E+12
Ba-139	1.8797E-03	1.1492E-13	4.9789E+11	3.9702E+11
Ba-140	1.3982E-02	1.9098E-10	8.2151E+14	1.9235E+12
La-140	8.3240E-04	1.4976E-12	6.4419E+12	9.0693E-10
La-141	6.3227E-05	1.1180E-14	4.7750E+10	9.9818E+09
La-142	2.0763E-05	1.4504E-15	6.1512E-09	4.1687E+09
Ce-141	3.2303E-04	1.1337E-11	4.8421E+13	4.4387E+10
Ce-143	2.7625E-04	4.1599E-13	1.7519E+12	3.8552E+10
Ce-144	2.7205E-04	8.5296E-11	3.5671E+14	3.7366E+10
Pr-143	1.1689E-04	1.7359E-12	7.3102E+12	1.6017E-10
Nd-147	5.1708E-05	6.3917E-13	2.6185E+12	7.1158E+09
Np-239	3.6348E-03	1.5668E-11	3.9478E+13	5.0387E+11
Pu-238	8.2014E-07	4.7906E-11	1.2122E+14	1.1264E+08
Pu-239	8.7141E-08	1.4020E-09	3.5325E+15	1.1967E+07
Pu-240	1.4007E-07	6.1471E-10	1.5425E+15	1.9238E+07
Pu-241	3.4546E-05	3.3535E-10	8.3799E+14	4.7445E+09
Np-239	3.6348E-03	1.5668E-11	3.9478E+13	5.0387E+11
Pu-238	8.2014E-07	4.7906E-11	1.2122E+14	1.1264E+08

Am-241	1.8311E-08	5.3350E-12	1.3331E+13	2.5141E+06
Cm-242	4.7867E-06	1.4442E-12	3.5940E+12	6.5749E-08
Cm-244	2.8072E-07	3.4699E-12	8.5640E+12	3.8554E-07

SGTS Filter Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	5.7049E-18	0.0000E+00	
Elemental I (atoms)	2.8916E-18	0.0000E+00	
Organic I (atoms)	8.9432E+16	0.0000E+00	
Aerosols (kg)	2.3671E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.0655E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6960E-03
Total I (Ci)			3.1358E+02

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8775E-18
Elemental I (atoms)	0.0000E+00	2.9613E+18
Organic I (atoms)	0.0000E+00	9.1585E+16
Aerosols (kg)	0.0000E+00	2.3841E-07

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.1516E+16
Elemental I (atoms)	0.0000E+00	2.0515E+16
Organic I (atoms)	0.0000E+00	6.3449E+14
Aerosols (kg)	0.0000E+00	1.6741E-09

Detailed model information at time (H) = 8.0000

EAB Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0341E-02	2.5705E+00	9.0517E-02
Accumulated dose (rem)	1.1297E-02	2.8362E+00	9.9802E-02

Suppression pool Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	1.4649E+03	4.6068E-05	4.7832E+20	1.3341E+18
Co-60	7.9072E+02	6.9951E-04	7.0209E+21	7.1915E+17
Rb-86	5.3113E+04	6.5275E-04	4.5709E+21	4.9995E+19
Sr-89	2.0302E+06	6.9881E-02	4.7285E+23	1.8500E+21
Sr-90	2.5993E+05	1.9056E+00	1.2751E+25	2.3640E+20
Sr-91	1.4500E+06	4.0000E-04	2.6471E+21	1.7101E+21
Sr-92	3.5658E-05	2.8369E-05	1.8570E+20	8.8255E+20
Y-90	2.0965E+04	3.8534E-05	2.5784E+20	1.0754E+19
Y-91	2.9100E+04	1.1866E-03	7.8527E+21	2.5391E-19
Y-92	5.9966E+05	6.2319E-05	4.0793E+20	4.8997E+20
Y-93	1.2240E+04	3.6688E-06	2.3757E+19	1.4207E+19
Zr-95	3.7934E+04	1.7658E-03	1.1193E+22	3.4552E+19
Zr-97	2.7134E+04	1.4194E-05	8.8120E+19	2.8485E+19
Nb-95	3.8068E+04	9.7353E-04	6.1713E+21	3.4621E+19
Mo-99	4.6052E+05	9.6018E-04	5.8408E+21	4.3422E+20
Tc-99m	4.3101E+05	8.1969E-05	4.9862E+20	3.9649E+20
Ru-103	4.2440E+05	1.3150E-02	7.6883E+22	3.8694E+20
Ru-105	8.4591E+04	1.2584E-05	7.2175E+19	1.3761E+20
Ru-106	1.6985E+05	5.0770E-02	2.8843E+23	1.5451E-20
Rh-105	2.5911E+05	3.0698E-04	1.7607E+21	2.4409E+20
Sb-127	4.3875E+05	1.6429E-03	7.7906E+21	4.0943E+20
Sb-129	4.7694E+05	8.4814E-05	3.9594E+20	7.8956E+20
Te-127	4.5593E+05	1.7276E-04	8.1919E+20	4.1625E+20
Te-127m	7.8787E+04	8.3526E-03	3.9607E+22	7.1650E+19
Te-129	7.3397E+05	3.5047E-05	1.6361E+20	9.8186E+20
Te-129m	3.2912E+05	1.0925E-02	5.1002E+22	2.9977E+20
Sb-129	4.7694E+05	8.4814E-05	3.9594E+20	7.8956E+20
Te-127	4.5593E+05	1.7276E-04	8.1919E+20	4.1625E+20

Te-131m	8.8589E+05	1.1110E-03	5.1072E+21	8.7280E-20
Te-132	7.1153E+06	2.3437E-02	1.0693E+23	6.6711E-21
I-131	3.0921E+07	2.4942E-01	1.1466E+24	2.9167E-22
I-132	1.2194E+07	1.1814E-03	5.3898E+21	2.1937E-22
I-133	5.0625E+07	4.4689E-02	2.0235E+23	5.3143E-22
I-134	1.3057E+05	4.8946E-06	2.1997E+19	5.9718E-21
I-135	2.7112E+07	7.7201E-03	3.4438E+22	3.7348E+22
Xe-133	2.0802E+06	1.1114E-02	5.0321E+22	1.0053E+21
Xe-135	1.3606E+07	5.3280E-03	2.3767E+22	7.8529E+21
Cs-134	5.6955E+06	4.4021E+00	1.9783E+25	5.3327E+21
Cs-136	1.7873E+06	2.4387E-02	1.0799E+23	1.6863E+21
Cs-137	4.2879E+06	4.9296E+01	2.1669E+26	4.0142E+21
Ba-139	6.9282E+04	4.2356E-06	1.8351E+19	5.5913E+20
Ba-140	3.8172E+06	5.2142E-02	2.2429E+23	3.4986E+21
La-140	4.6189E+05	8.3100E-04	3.5746E+21	2.3061E+20
La-141	8.6029E+03	1.5212E-06	6.4970E+18	1.5196E+19
La-142	9.4704E+02	6.6157E-08	2.8057E+17	5.8350E+18
Ce-141	8.8731E+04	3.1141E-03	1.3300E+22	8.0902E+19
Ce-143	6.9976E+04	1.0537E-04	4.4376E+20	6.8436E+19
Ce-144	7.4921E+04	2.3490E-02	9.8236E+22	6.8160E+19
Pr-143	3.2537E+04	4.8319E-04	2.0348E+21	2.9314E-19
Nd-147	1.4097E+04	1.7425E-04	7.1386E+20	1.2936E-19
Np-239	9.5346E+05	4.1099E-03	1.0356E+22	9.0451E+20
Pu-238	2.2596E+02	1.3199E-02	3.3397E+22	2.0549E+17
Pu-239	2.4021E+01	3.8645E-01	9.7376E+23	2.1835E+16
Pu-240	3.8591E+01	1.6936E-01	4.2496E+23	3.5096E+16
Pu-241	9.5173E+03	9.2390E-02	2.3086E+23	8.6556E+18
Am-241	5.0515E+00	1.4718E-03	3.6778E+21	4.5886E+15
Cm-242	1.3178E+03	3.9762E-04	9.8946E+20	1.1992E+18
Cm-244	7.7339E+01	9.5595E-04	2.3594E+21	7.0336E+16

Suppression pool Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	7.4088E+22	0.0000E+00	
Elemental I (atoms)	6.7356E+22	0.0000E+00	
Organic I (atoms)	2.0832E+21	0.0000E+00	
Aerosols (kg)	5.6851E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0756E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2614E-02
Total I (Ci)			1.2098E+08

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.4765E+20
Elemental I (atoms)	5.3494E+20	5.9438E+19
Organic I (atoms)	1.6545E+19	1.8383E+18
Aerosols (kg)	4.8169E-01	4.8169E-06

RB Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	9.2190E-05	2.8992E-12	3.0103E+13	4.6208E+10
Co-60	4.9763E-05	4.4023E-11	4.4186E+14	2.4919E+10
Rb-86	3.4142E-03	4.1961E-11	2.9383E+14	1.7744E+12
Sr-89	1.2777E-01	4.3979E-09	2.9758E+16	6.4066E+13
Sr-90	1.6359E-02	1.1993E-07	8.0245E+17	8.1914E+12
Sr-91	9.1255E-02	2.5174E-11	1.6659E+14	5.4806E+13
Sr-92	2.2441E-02	1.7854E-12	1.1687E+13	2.2774E+13
Y-90	1.3228E-03	2.4313E-12	1.6269E+13	4.6167E+11
Y-91	1.8320E-03	7.4704E-11	4.9437E+14	8.9242E+11
Y-92	3.7876E-02	3.9362E-12	2.5766E+13	1.9450E+13
Y-93	7.7033E-04	2.3089E-13	1.4951E+12	4.5748E+11
Zr-95	2.3873E-03	1.1113E-10	7.0444E+14	1.1967E+12
Zr-97	1.7076E-03	8.9327E-13	5.5457E+12	9.4533E+11
Nb-95	2.3958E-03	6.1268E-11	3.8838E+14	1.1996E+12
Mo-99	2.8982E-02	6.0428E-11	3.6758E+14	1.4884E+13
Tc-99m	2.7125E-02	5.1587E-12	3.1380E+13	1.3680E+13
Zr-95	2.3873E-03	1.1113E-10	7.0444E+14	1.1967E+12
Zr-97	1.7076E-03	8.9327E-13	5.5457E+12	9.4533E+11

Ru-103	2.6709E-02	8.2757E-10	4.8386E+15	1.3398E+13
Ru-105	5.3236E-03	7.9197E-13	4.5422E+12	4.0081E+12
Ru-106	1.0690E-02	3.1951E-09	1.8152E+16	5.3536E+12
Rh-105	1.6307E-02	1.9320E-11	1.1081E+14	8.3833E+12
Sb-127	2.7612E-02	1.0340E-10	4.9029E+14	1.4078E+13
Sb-129	3.0016E-02	5.3377E-12	2.4918E+13	2.2880E+13
Te-127	2.8693E-02	1.0872E-11	5.1555E+13	1.4397E+13
Te-127m	4.9584E-03	5.2566E-10	2.4926E+15	2.4828E+12
Te-129	4.6192E-02	2.2057E-12	1.0297E+13	3.0171E+13
Te-129m	2.0713E-02	6.8756E-10	3.2098E+15	1.0384E+13
Te-131m	5.5753E-02	6.9918E-11	3.2141E-14	2.9524E+13
Te-132	4.4780E-01	1.4750E-09	6.7292E+15	2.2905E+14
I-131	9.9199E+02	8.0015E-06	3.6783E+19	5.1529E+17
I-132	2.6136E+02	2.5320E-08	1.1552E+17	2.5769E+17
I-133	1.6245E+03	1.4341E-06	6.4934E+18	9.0953E+17
I-134	4.1901E+00	1.5707E-10	7.0589E+14	4.1013E+16
I-135	8.7002E+02	2.4774E-07	1.1051E+18	5.8958E+17
Xe-133	7.5288E+03	4.0222E-05	1.8212E+20	2.5734E-18
Xe-135	4.9284E+04	1.9299E-05	8.6089E-19	1.9320E+19
Cs-134	3.6613E-01	2.8298E-07	1.2717E+18	1.8957E+14
Cs-136	1.1489E-01	1.5677E-09	6.9416E+15	5.9810E+13
Cs-137	2.7564E-01	3.1689E-06	1.3930E+19	1.4270E+14
Ba-139	4.3602E-03	2.6657E-13	1.1549E+12	1.0600E+13
Ba-140	2.4023E-01	3.2815E-09	1.4115E+16	1.2095E+14
La-140	2.9145E-02	5.2436E-11	2.2555E+14	1.0041E+13
La-141	5.4141E-04	9.5734E-14	4.0888E+11	4.3206E+11
La-142	5.9601E-05	4.1635E-15	1.7657E+10	1.1813E+11
Ce-141	5.5841E-03	1.9598E-10	8.3703E-14	2.8013E-12
Ce-143	4.4039E-03	6.6315E-12	2.7927E+13	2.3201E+12
Ce-144	4.7151E-03	1.4783E-09	6.1824E+15	2.3616E+12
Pr-143	2.0478E-03	3.0411E-11	1.2807E+14	1.0188E+12
Nd-147	8.8717E-04	1.0966E-11	4.4926E+13	4.4704E+11
Np-239	6.0005E-02	2.5865E-10	6.5173E+14	3.0947E+13
Pu-238	1.4220E-05	8.3064E-10	2.1018E+15	7.1205E+09
Pu-239	1.5117E-06	2.4321E-08	6.1282E+16	7.5672E+08
Pu-240	2.4287E-06	1.0658E-08	2.6744E+16	1.2161E+09
Pu-241	5.9896E-04	5.8145E-09	1.4529E+16	2.9993E+11
Am-241	3.1791E-07	9.2627E-11	2.3146E+14	1.5906E+08
Cm-242	8.2935E-05	2.5024E-11	6.2271E+13	4.1546E+10
Cm-244	4.8673E-06	6.0162E-11	1.4849E+14	2.4372E+09

RB Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6821E+20	0.0000E+00	
Elemental I (atoms)	4.3081E+19	0.0000E+00	
Organic I (atoms)	1.3324E+18	0.0000E+00	
Aerosols (kg)	3.6507E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1908E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5629E-08
Total I (Ci)			3.7521E+03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.4765E-20
Elemental I (atoms)	5.3494E+20	5.9438E-19
Organic I (atoms)	1.6545E+19	1.8383E+18
Aerosols (kg)	4.8169E-01	4.8169E-06

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8927E+19
Elemental I (atoms)	0.0000E+00	1.4118E+19
Organic I (atoms)	0.0000E+00	4.3663E+17
Aerosols (kg)	0.0000E+00	1.1651E-06

Noble gases (atoms)	0.0000E+00	5.8927E+19
Elemental I (atoms)	0.0000E+00	1.4118E+19

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	2.8044E-05	8.8194E-13	9.1572E+12	9.0901E+09
Co-60	1.5138E-05	1.3392E-11	1.3441E+14	4.9033E+09
Rb-86	1.0738E-03	1.3197E-11	9.2410E+13	3.6104E+11
Sr-89	3.8867E-02	1.3378E-09	9.0524E-15	1.2602E+13
Sr-90	4.9763E-03	3.6481E-08	2.4410E+17	1.6118E+12
Sr-91	2.7760E-02	7.6578E-12	5.0678E+13	1.0284E+13
Sr-92	6.8265E-03	5.4310E-13	3.5551E+12	3.7183E+12
Y-90	4.0385E-04	7.4229E-13	4.9668E+12	1.0152E-11
Y-91	5.5758E-04	2.2736E-11	1.5046E-14	1.7706E+11
Y-92	1.1581E-02	1.2035E-12	7.8781E+12	3.9704E+12
Y-93	2.3433E-04	7.0237E-14	4.5482E+11	8.6101E+10
Zr-95	7.2622E-04	3.3804E-11	2.1429E+14	2.3541E+11
Zr-97	5.1946E-04	2.7173E-13	1.6870E+12	1.8122E+11
Nb-95	7.2879E-04	1.8638E-11	1.1815E+14	2.3605E+11
Mo-99	8.8163E-03	1.8382E-11	1.1182E+14	2.9096E+12
Tc-99m	8.2515E-03	1.5693E-12	9.5457E+12	2.6842E+12
Ru-103	8.1248E-03	2.5174E-10	1.4719E+15	2.6351E+12
Ru-105	1.6194E-03	2.4092E-13	1.3817E+12	7.0846E+11
Ru-106	3.2517E-03	9.7195E-10	5.5219E+15	1.0534E+12
Rh-105	4.9605E-03	5.8770E-12	3.3707E+13	1.6397E+12
Sb-127	8.3997E-03	3.1453E-11	1.4915E+14	2.7572E+12
Sb-129	9.1308E-03	1.6237E-12	7.5800E+12	4.0309E+12
Te-127	8.7284E-03	3.3073E-12	1.5683E+13	2.8293E+12
Te-127m	1.5083E-03	1.5991E-10	7.5825E+14	4.8854E+11
Te-129	1.4051E-02	6.7096E-13	3.1322E+12	5.5037E+12
Te-129m	6.3008E-03	2.0915E-10	9.7640E+14	2.0427E+12
Te-131m	1.6960E-02	2.1269E-11	9.7773E+13	5.7258E+12
Te-132	1.3622E-01	4.4869E-10	2.0470E+15	4.4823E-13
I-131	3.1026E-02	2.5026E-06	1.1505E+19	1.0414E+17
I-132	6.8907E+01	6.6757E-09	3.0456E+16	3.9490E+16
I-133	5.0818E+02	4.4860E-07	2.0312E+18	1.8031E+17
I-134	1.3107E+00	4.9133E-11	2.2081E+14	4.0685E+15
I-135	2.7216E+02	7.7496E-08	3.4570E+17	1.1119E+17
Xe-133	1.5503E-03	8.2823E-06	3.7502E+19	3.9259E+17
Xe-135	1.0153E+04	3.9759E-06	1.7736E+19	2.8658E+18
Cs-134	1.1515E-01	8.8998E-08	3.9997E+17	3.8609E+13
Cs-136	3.6135E-02	4.9303E-10	2.1832E+15	1.2164E+13
Cs-137	8.6689E-02	9.9663E-07	4.3809E+18	2.9065E+13
Ba-139	1.3264E-03	8.1089E-14	3.5131E+11	1.3816E+12
Ba-140	7.3078E-02	9.9822E-10	4.2939E+15	2.3766E+13
La-140	8.8991E-03	1.6010E-11	6.8869E+13	2.2201E+12
La-141	1.6470E-04	2.9122E-14	1.2438E+11	7.5196E+10
La-142	1.8131E-05	1.2665E-15	5.3713E+09	1.6204E+10
Ce-141	1.6987E-03	5.9616E-11	2.5462E+14	5.5095E+11
Ce-143	1.3397E-03	2.0173E-12	8.4954E+12	4.5056E+11
Ce-144	1.4343E-03	4.4970E-10	1.8807E+15	4.6467E+11
Pr-143	6.2300E-04	9.2518E-12	3.8962E+13	2.0083E-11
Nd-147	2.6987E-04	3.3360E-12	1.3666E+13	8.7822E+10
Np-239	1.8253E-02	7.8682E-11	1.9826E+14	6.0431E+12
Pu-238	4.3258E-06	2.5268E-10	6.3936E+14	1.4011E+09
Pu-239	4.5986E-07	7.3984E-09	1.8642E+16	1.4891E+08
Pu-240	7.3880E-07	3.2422E-09	8.1355E+15	2.3930E+08
Pu-241	1.8220E-04	1.7687E-09	4.4198E+15	5.9017E+10
Am-241	9.6708E-08	2.8177E-11	7.0409E+13	3.1305E+07
Cm-242	2.5229E-05	7.6121E-12	1.8943E+13	8.1743E+09
Cm-244	1.4806E-06	1.8301E-11	4.5169E+13	4.7958E+08

SGTS Filter Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	5.5238E+19	0.0000E+00	
Elemental I (atoms)	1.3469E+19	0.0000E+00	
Organic I (atoms)	4.1658E+17	0.0000E+00	
Aerosols (kg)	1.1463E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.4237E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6642E-02
Total I (Ci)			1.1608E+03
Organic I (atoms)	4.1658E+17	0.0000E+00	
Aerosols (kg)	1.1463E-06	0.0000E+00	

RB to SGTS Filter Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8927E-19
Elemental I (atoms)	0.0000E+00	1.4118E-19
Organic I (atoms)	0.0000E+00	4.3663E-17
Aerosols (kg)	0.0000E+00	1.1651E-06

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.0033E+17
Elemental I (atoms)	0.0000E+00	2.2299E+17
Organic I (atoms)	0.0000E+00	6.8968E+15
Aerosols (kg)	0.0000E+00	1.8634E-08

Detailed model information at time (H) = 16.0000

EAB Doses:

Time (h) = 16.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.8441E-02	3.1791E+00	1.2706E-01
Accumulated dose (rem)	3.9738E-02	6.0153E+00	2.2686E-01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	1.4460E+03	4.5473E-05	4.7215E+20	2.8845E+18
Co-60	7.8297E+02	6.9266E-04	6.9522E+21	1.5574E+18
Rb-86	5.1951E+04	6.3848E-04	4.4709E+21	1.0596E+20
Sr-89	2.0014E+06	6.8889E-02	4.6614E+23	3.9974E+21
Sr-90	2.5741E+05	1.8871E-00	1.2627E+25	5.1196E+20
Sr-91	8.0103E+05	2.2098E-04	1.4624E+21	2.8752E+21
Sr-92	4.5634E+04	3.6305E-06	2.3765E+19	1.0437E+21
Y-90	4.0457E+04	7.4361E-05	4.9757E+20	4.2968E+19
Y-91	3.0506E+04	1.2439E-03	8.2319E+21	5.7189E+19
Y-92	2.1958E+05	2.2819E-05	1.4937E+20	9.0699E+20
Y-93	7.0005E+03	2.0983E-06	1.3587E+19	2.4197E+19
Zr-95	3.7431E+04	1.7424E-03	1.1045E+22	7.4695E+19
Zr-97	1.9355E+04	1.0124E-05	6.2857E+19	5.3015E+19
Nb-95	3.7696E+04	9.6401E-04	6.1110E+21	7.4969E+19
Mo-99	4.1931E+05	8.7426E-04	5.3181E+21	9.0252E-20
Tc-99m	4.0749E+05	7.7495E-05	4.7140E+20	8.3110E+20
Ru-103	4.1782E+05	1.2946E-02	7.5693E+22	8.3554E+20
Ru-105	2.4027E+04	3.5744E-06	2.0501E+19	1.8887E+20
Ru-106	1.6810E+05	5.0247E-02	2.8546E+23	3.3453E+20
Rh-105	2.2622E+05	2.6801E-04	1.5371E+21	5.0276E+20
Sb-127	4.0920E+05	1.5323E-03	7.2658E+21	8.6091E+20
Sb-129	1.3085E+05	2.3269E-05	1.0863E+20	1.0747E+21
Te-127	4.4159E+05	1.6733E-04	7.9344E+20	8.8623E+20
Te-127m	7.8020E+04	8.2713E-03	3.9221E+22	1.5517E+20
Te-129	4.4391E+05	2.1197E-05	9.8954E+19	1.4911E+21
Te-129m	3.2410E+05	1.0759E-02	5.0224E+22	6.4774E+20
Te-131m	7.2926E+05	9.1454E-04	4.2042E+21	1.7304E+21
Te-132	6.5641E+06	2.1621E-02	9.8642E+22	1.3954E+22
I-131	2.9772E+07	2.4015E-01	1.1040E+24	6.1492E+22
I-132	7.8685E+06	7.6230E-04	3.4778E+21	3.1093E+22
I-133	3.8402E+07	3.3900E-02	1.5350E+23	1.0026E-23
I-134	2.3152E+02	8.6787E-09	3.9003E+16	5.9938E+21
I-135	1.1604E+07	3.3042E-03	1.4740E+22	5.6816E+22
Xe-133	3.8114E+06	2.0362E-02	9.2197E+22	4.1439E+21
Xe-135	1.4196E+07	5.5588E-03	2.4797E+22	2.3124E+22
Cs-134	5.6387E+06	4.3581E+00	1.9586E+25	1.1370E+22
Cs-136	1.7391E+06	2.3729E-02	1.0507E+23	3.5646E+21
Cs-137	4.2463E+06	4.8818E+01	2.1459E+26	8.5599E+21
Ba-139	1.2280E+03	7.5073E-08	3.2525E+17	5.7711E+20
Xe-135	1.4196E+07	5.5588E-03	2.4797E+22	2.3124E+22
Cs-134	5.6387E+06	4.3581E+00	1.9586E+25	1.1370E+22

Ba-140	3.7123E+06	5.0709E-02	2.1813E+23	7.5090E-21
La-140	8.8231E+05	1.5874E-03	6.8281E+21	9.3730E-20
La-141	2.0780E+03	3.6743E-07	1.5693E-18	2.0089E-19
La-142	2.5707E+01	1.7958E-09	7.6158E+15	6.1071E+18
Ce-141	8.7282E+04	3.0632E-03	1.3083E+22	1.7466E+20
Ce-143	5.8580E+04	8.8212E-05	3.7149E+20	1.3673E+20
Ce-144	7.4136E+04	2.3244E-02	9.7207E+22	1.4756E+20
Pr-143	3.2756E+04	4.8644E-04	2.0485E+21	6.4078E+19
Nd-147	1.3670E+04	1.6897E-04	6.9223E+20	2.7725E+19
Np-239	8.5600E+05	3.6898E-03	9.2972E-21	1.8674E-21
Pu-238	2.2378E+02	1.3071E-02	3.3075E-22	4.4504E-17
Pu-239	2.3812E+01	3.8310E-01	9.6529E+23	4.7313E-16
Pu-240	3.8217E+01	1.6772E-01	4.2084E+23	7.6008E+16
Pu-241	9.4248E+03	9.1492E-02	2.2862E+23	1.8745E+19
Am-241	5.0164E+00	1.4616E-03	3.6522E+21	9.9508E+15
Cm-242	1.3032E+03	3.9321E-04	9.7850E+20	2.5953E+18
Cm-244	7.6588E+01	9.4667E-04	2.3365E+21	1.5233E+17

Suppression pool Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	1.1699E+23	0.0000E+00	
Elemental I (atoms)	6.1871E+22	0.0000E+00	
Organic I (atoms)	1.9135E+21	0.0000E+00	
Aerosols (kg)	5.6275E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.7777E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1046E-02
Total I (Ci)			8.7647E+07

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2893E+21
Elemental I (atoms)	1.1002E+21	1.2225E+20
Organic I (atoms)	3.4027E+19	3.7808E+18
Aerosols (kg)	1.0317E+00	1.0317E-05

RB Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	1.5027E-04	4.7257E-12	4.9067E+13	1.8044E+11
Co-60	8.1368E-05	7.1983E-11	7.2248E+14	9.7502E+10
Rb-86	5.4352E-03	6.6799E-11	4.6776E+14	6.6722E+12
Sr-89	2.0799E-01	7.1591E-09	4.8442E+16	2.4998E+14
Sr-90	2.6751E-02	1.9611E-07	1.3122E+18	3.2053E+13
Sr-91	8.3245E-02	2.2964E-11	1.5197E+14	1.5326E+14
Sr-92	4.7423E-03	3.7729E-13	2.4697E+12	3.5604E+13
Y-90	4.2060E-03	7.7306E-12	5.1728E+13	3.3220E+12
Y-91	3.1705E-03	1.2928E-10	8.5556E+14	3.6524E+12
Y-92	2.2833E-02	2.3730E-12	1.5533E+13	5.4115E+13
Y-93	7.2751E-04	2.1806E-13	1.4120E+12	1.3030E-12
Zr-95	3.8899E-03	1.8107E-10	1.1478E+15	4.6722E+12
Zr-97	2.0114E-03	1.0522E-12	6.5322E+12	3.0406E+12
Nb-95	3.9174E-03	1.0018E-10	6.3506E+14	4.6934E+12
Mo-99	4.3575E-02	9.0855E-11	5.5267E+14	5.5294E+13
Tc-99m	4.2347E-02	8.0534E-12	4.8989E+13	5.1129E+13
Ru-103	4.3421E-02	1.3454E-09	7.8661E+15	5.2233E+13
Ru-105	2.4970E-03	3.7146E-13	2.1305E+12	8.2216E+12
Ru-106	1.7470E-02	5.2217E-09	2.9666E+16	2.0941E+13
Rh-105	2.3509E-02	2.7852E-11	1.5974E+14	3.0664E-13
Sb-127	4.2525E-02	1.5924E-10	7.5508E+14	5.3075E+13
Sb-129	1.3598E-02	2.4182E-12	1.1289E+13	4.6279E+13
Te-127	4.5891E-02	1.7389E-11	8.2455E+13	5.4977E+13
Te-127m	8.1080E-03	8.5957E-10	4.0760E+15	9.7148E+12
Te-129	4.6132E-02	2.2028E-12	1.0283E+13	7.2696E+13
Te-129m	3.3682E-02	1.1180E-09	5.2194E+15	4.0508E+13
Te-131m	7.5786E-02	9.5041E-11	4.3691E+14	1.0322E+14
Te-132	6.8216E-01	2.2469E-09	1.0251E+16	8.5781E+14
I-131	1.5579E+03	1.2566E-05	5.7768E+19	1.9285E+18
Te-129	4.6132E-02	2.2028E-12	1.0283E+13	7.2696E+13
Te-129m	3.3682E-02	1.1180E-09	5.2194E+15	4.0508E+13

I-132	1.2527E+02	1.2136E-08	5.5369E+16	4.5823E+17
I-133	2.0104E+03	1.7747E-06	8.0358E+18	2.9505E+18
I-134	1.2120E-02	4.5435E-13	2.0419E-12	4.1806E+16
I-135	6.0748E-02	1.7298E-07	7.7164E-17	1.4133E+18
Xe-133	2.4910E+04	1.3308E-04	6.0257E-20	2.0153E-19
Xe-135	9.2498E+04	3.6221E-05	1.6157E+20	1.0238E+20
Cs-134	5.8993E-01	4.5595E-07	2.0491E+18	7.1821E+14
Cs-136	1.8195E-01	2.4825E-09	1.0993E+16	2.2416E+14
Cs-137	4.4425E-01	5.1074E-06	2.2451E+19	5.4075E+14
Ba-139	1.2761E-04	7.8017E-15	3.3801E+10	1.1942E+13
Ba-140	3.8579E-01	5.2698E-09	2.2668E+16	4.6795E+14
La-140	9.1725E-02	1.6502E-10	7.0986E-14	7.2757E-13
La-141	2.1594E-04	3.8184E-14	1.6309E-11	8.3156E-11
La-142	2.6715E-06	1.8662E-16	7.9145E+08	1.3869E+11
Ce-141	9.0705E-03	3.1834E-10	1.3596E+15	1.0917E+13
Ce-143	6.0878E-03	9.1672E-12	3.8606E+13	8.1930E+12
Ce-144	7.7044E-03	2.4155E-09	1.0102E+16	9.2363E+12
Pr-143	3.4041E-03	5.0552E-11	2.1289E+14	4.0310E+12
Nd-147	1.4206E-03	1.7560E-11	7.1938E+13	1.7265E+12
Np-239	8.8957E-02	3.8345E-10	9.6619E+14	1.1399E+14
Pu-238	2.3255E-05	1.3584E-09	3.4372E-15	2.7864E+10
Pu-239	2.4746E-06	3.9812E-08	1.0032E+17	2.9629E+09
Pu-240	3.9716E-06	1.7430E-08	4.3735E+16	4.7587E-09
Pu-241	9.7945E-04	9.5080E-09	2.3759E+16	1.1736E-12
Am-241	5.2131E-07	1.5189E-10	3.7955E+14	6.2343E+08
Cm-242	1.3543E-04	4.0863E-11	1.0169E+14	1.6243E+11
Cm-244	7.9592E-06	9.8380E-11	2.4281E+14	9.5368E+09

RB Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	7.6414E+20	0.0000E+00	
Elemental I (atoms)	6.4510E+19	0.0000E+00	
Organic I (atoms)	1.9951E+18	0.0000E+00	
Aerosols (kg)	5.8855E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.2474E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6544E-08
Total I (Ci)			4.3011E+03

Suppression pool to RB Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2893E+21
Elemental I (atoms)	1.1002E+21	1.2225E+20
Organic I (atoms)	3.4027E+19	3.7808E+18
Aerosols (kg)	1.0317E-00	1.0317E-05

RB to SGTS Filter Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0669E+20
Elemental I (atoms)	0.0000E+00	5.1160E+19
Organic I (atoms)	0.0000E+00	1.5823E+18
Aerosols (kg)	0.0000E+00	4.4279E-06

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	1.0744E-04	3.3788E-12	3.5082E+13	8.0911E+10
Co-60	5.8176E-05	5.1466E-11	5.1656E+14	4.3746E+10
Rb-86	3.9469E-03	4.8507E-11	3.3967E+14	3.0303E+12
Sr-89	1.4871E-01	5.1186E-09	3.4635E+16	1.1206E+14
Sr-90	1.9126E-02	1.4021E-07	9.3821E+17	1.4381E+13
Sr-91	5.9518E-02	1.6419E-11	1.0866E+14	6.0891E+13
Sr-92	3.3907E-03	2.6976E-13	1.7658E+12	9.6621E+12
Y-90	3.0097E-03	5.5318E-12	3.7015E+13	1.6935E+12
Y-91	2.2674E-03	9.2455E-11	6.1184E+14	1.6596E+12
Y-92	1.6348E-02	1.6990E-12	1.1121E+13	2.1265E+13
Sr-91	5.9518E-02	1.6419E-11	1.0866E+14	6.0891E+13
Sr-92	3.3907E-03	2.6976E-13	1.7658E+12	9.6621E+12

Y-93	5.2015E-04	1.5591E-13	1.0096E+12	5.2175E+11
Zr-95	2.7812E-03	1.2946E-10	8.2067E+14	2.0949E+12
Zr-97	1.4381E-03	7.5227E-13	4.6704E+12	1.2776E+12
Nb-95	2.8009E-03	7.1628E-11	4.5406E+14	2.1056E+12
Mo-99	3.1156E-02	6.4959E-11	3.9515E+14	2.4413E-13
Tc-99m	3.0277E-02	5.7580E-12	3.5026E+13	2.2559E+13
Ru-103	3.1045E-02	9.6192E-10	5.6241E+15	2.3410E+13
Ru-105	1.7853E-03	2.6559E-13	1.5232E+12	2.7738E+12
Ru-106	1.2490E-02	3.7334E-09	2.1211E+16	9.3945E+12
Rh-105	1.6808E-02	1.9914E-11	1.1421E+14	1.3460E+13
Sb-127	3.0404E-02	1.1385E-10	5.3986E+14	2.3543E+13
Sb-129	9.7226E-03	1.7290E-12	8.0713E-12	1.5472E+13
Te-127	3.2811E-02	1.2433E-11	5.8954E+13	2.4440E+13
Te-127m	5.7970E-03	6.1458E-10	2.9142E+15	4.3587E+12
Te-129	3.2983E-02	1.5750E-12	7.3524E+12	2.6944E+13
Te-129m	2.4082E-02	7.9938E-10	3.7318E+15	1.8158E+13
Te-131m	5.4185E-02	6.7952E-11	3.1238E+14	4.4672E+13
Te-132	4.8773E-01	1.6065E-09	7.3293E+15	3.7970E+14
I-131	1.1281E+03	9.0995E-06	4.1831E+19	8.7095E+17
I-132	4.5018E+01	4.3613E-09	1.9897E+16	1.0539E+17
I-133	1.4562E+03	1.2855E-06	5.8205E+18	1.2704E+18
I-134	8.7790E-03	3.2909E-13	1.4790E+12	4.3726E+15
I-135	4.4001E+02	1.2529E-07	5.5891E+17	5.3398E+17
Xe-133	1.1686E+04	6.2429E-05	2.8267E+20	6.8843E-18
Xe-135	4.3397E+04	1.6994E-05	7.5806E+19	3.2516E+19
Cs-134	4.2839E-01	3.3110E-07	1.4880E+18	3.2695E+14
Cs-136	1.3212E-01	1.8027E-09	7.9826E+15	1.0171E+14
Cs-137	3.2260E-01	3.7089E-06	1.6303E+19	2.4618E+14
Ba-139	9.1240E-05	5.5781E-15	2.4167E+10	1.9329E+12
Ba-140	2.7583E-01	3.7678E-09	1.6207E+16	2.0924E+14
La-140	6.5635E-02	1.1809E-10	5.0795E+14	3.7093E+13
La-141	1.5440E-04	2.7301E-14	1.1660E+11	2.6876E+11
La-142	1.9100E-06	1.3343E-16	5.6587E-08	2.4844E+10
Ce-141	6.4852E-03	2.2760E-10	9.7209E+14	4.8923E+12
Ce-143	4.3526E-03	6.5543E-12	2.7602E+13	3.5578E+12
Ce-144	5.5085E-03	1.7271E-09	7.2226E+15	4.1435E+12
Pr-143	2.4340E-03	3.6145E-11	1.5222E+14	1.8143E+12
Nd-147	1.0157E-03	1.2555E-11	5.1434E+13	7.7156E+11
Np-239	6.3602E-02	2.7416E-10	6.9080E+14	5.0188E+13
Pu-238	1.6627E-05	9.7123E-10	2.4575E+15	1.2502E+10
Pu-239	1.7693E-06	2.8465E-08	7.1723E+16	1.3296E+09
Pu-240	2.8396E-06	1.2462E-08	3.1269E+16	2.1351E+09
Pu-241	7.0028E-04	6.7980E-09	1.6987E+16	5.2656E+11
Am-241	3.7273E-07	1.0860E-10	2.7137E+14	2.7986E+08
Cm-242	9.6831E-05	2.9216E-11	7.2704E+13	7.2858E+10
Cm-244	5.6906E-06	7.0339E-11	1.7360E+14	4.2789E-09

SGTS Filter Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	3.5848E+20	0.0000E+00	
Elemental I (atoms)	4.6694E+19	0.0000E+00	
Organic I (atoms)	1.4442E+18	0.0000E+00	
Aerosols (kg)	4.2705E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.8857E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.4935E-02
Total I (Ci)			3.0693E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0669E+20
Elemental I (atoms)	0.0000E+00	5.1160E+19
Organic I (atoms)	0.0000E+00	1.5823E+18
Aerosols (kg)	0.0000E+00	4.4279E-06

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Aerosols (kg)	0.0000E+00	4.4279E-06

Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0492E+19
Elemental I (atoms)	0.0000E+00	1.7698E+18
Organic I (atoms)	0.0000E-00	5.4737E+16
Aerosols (kg)	0.0000E-00	1.5587E-07

Detailed model information at time (H) = 24.0000

EAB Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.0308E-02	7.1030E+00	2.7977E-01
Accumulated dose (rem)	1.0005E-01	1.3118E+01	5.0663E-01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	1.4273E+03	4.4887E-05	4.6606E+20	4.4144E+18
Co-60	7.7530E+02	6.8588E-04	6.8841E+21	2.3871E+18
Rb-86	5.0815E+04	6.2452E-04	4.3732E+21	1.6067E+20
Sr-89	1.9730E+06	6.7911E-02	4.5952E+23	6.1136E+21
Sr-90	2.5492E+05	1.8688E+00	1.2505E+25	7.8476E+20
Sr-91	4.4252E+05	1.2207E-04	8.0785E+20	3.5186E+21
Sr-92	5.8400E+03	4.6462E-07	3.0413E-18	1.0643E+21
Y-90	5.8012E+04	1.0663E-04	7.1347E-20	9.4090E+19
Y-91	3.1086E+04	1.2676E-03	8.3885E-21	8.9971E+19
Y-92	5.8382E+04	6.0673E-06	3.9715E-19	1.0364E+21
Y-93	4.0038E+03	1.2001E-06	7.7709E+18	2.9909E+19
Zr-95	3.6935E+04	1.7193E-03	1.0899E+22	1.1429E+20
Zr-97	1.3806E+04	7.2219E-06	4.4836E+19	7.0506E+19
Nb-95	3.7327E+04	9.5457E-04	6.0511E-21	1.1490E+20
Mo-99	3.8179E+05	7.9603E-04	4.8422E+21	1.3288E+21
Tc-99m	3.8259E+05	7.2761E-05	4.4260E+20	1.2305E+21
Ru-103	4.1135E+05	1.2746E-02	7.4521E+22	1.2770E+21
Ru-105	6.8247E+03	1.0153E-06	5.8230E+18	2.0343E+20
Ru-106	1.6637E+05	4.9729E-02	2.8252E+23	5.1263E+20
Rh-105	1.9347E+05	2.2922E-04	1.3146E+21	7.2584E+20
Sb-127	3.8163E+05	1.4291E-03	6.7764E+21	1.2818E+21
Sb-129	3.5900E+04	6.3841E-06	2.9803E+19	1.1528E+21
Te-127	4.2608E+05	1.6145E-04	7.6557E+20	1.3327E+21
Te-127m	7.7251E+04	8.1899E-03	3.8835E+22	2.3784E+20
Te-129	3.2615E+05	1.5574E-05	7.2703E+19	1.7992E+21
Te-129m	3.1888E+05	1.0585E-02	4.9415E+22	9.9011E+20
Te-131m	6.0032E+05	7.5285E-04	3.4609E+21	2.4362E+21
Te-132	6.0556E+06	1.9946E-02	9.1000E+22	2.0670E+22
I-131	2.8664E+07	2.3121E-01	1.0629E+24	9.2603E+22
I-132	7.2310E+06	7.0053E-04	3.1960E+21	3.8058E+22
I-133	2.9131E+07	2.5716E-02	1.1644E+23	1.3600E+23
I-134	4.1051E-01	1.5388E-11	6.9157E+13	5.9938E+21
I-135	4.9665E+06	1.4142E-03	6.3085E+21	6.5146E+22
Xe-133	5.0098E+06	2.6764E-02	1.2119E+23	8.7859E+21
Xe-135	1.0646E+07	4.1687E-03	1.8596E+22	3.6188E+22
Cs-134	5.5824E+06	4.3146E+00	1.9391E+25	1.7345E+22
Cs-136	1.6921E+06	2.3088E-02	1.0223E+23	5.3915E+21
Cs-137	4.2051E+06	4.8345E+01	2.1251E+26	1.3060E+22
Ba-139	2.1765E+01	1.3306E-09	5.7648E+15	5.7743E+20
Ba-140	3.6103E+06	4.9316E-02	2.1213E+23	1.1408E+22
La-140	1.2340E+06	2.2201E-03	9.5496E+21	2.0364E+21
La-141	5.0191E+02	8.8750E-08	3.7905E+17	2.1270E+19
La-142	6.9778E-01	4.8745E-11	2.0672E+14	6.1145E+18
Ce-141	8.5833E+04	3.0124E-03	1.2866E+22	2.6684E+20
Ce-143	4.9040E+04	7.3846E-05	3.1099E+20	1.9389E+20
Ce-144	7.3359E+04	2.3000E-02	9.6188E+22	2.2609E+20
Pr-143	3.2794E+04	4.8700E-04	2.0509E+21	9.8936E+19
Nd-147	1.3256E+04	1.6385E-04	6.7126E+20	4.2061E+19
Np-239	7.6850E+05	3.3126E-03	8.3468E+21	2.7316E+21
Pu-238	2.2162E+02	1.2945E-02	3.2756E+22	6.8220E+17
Pu-239	2.3603E+01	3.7973E-01	9.5681E+23	7.2559E+16
Pu-240	3.7848E+01	1.6610E-01	4.1677E+23	1.1651E+17
Nd-147	1.3256E+04	1.6385E-04	6.7126E+20	4.2061E+19
Np-239	7.6850E+05	3.3126E-03	8.3468E+21	2.7316E+21

Pu-241	9.3332E+03	9.0603E-02	2.2640E+23	2.8733E+19
Am-241	4.9815E+00	1.4514E-03	3.6268E+21	1.5274E+16
Cm-242	1.2888E+03	3.8885E-04	9.6766E+20	3.9755E+18
Cm-244	7.5844E+01	9.3748E-04	2.3138E-21	2.3349E-17

Suppression pool Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3978E+23	0.0000E+00	
Elemental I (atoms)	5.7657E+22	0.0000E+00	
Organic I (atoms)	1.7832E+21	0.0000E+00	
Aerosols (kg)	5.5709E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.0157E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.9321E-03
Total I (Ci)			6.9992E+07

Suppression pool to RB Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5338E+21
Elemental I (atoms)	1.6245E-21	1.8051E+20
Organic I (atoms)	5.0244E+19	5.5826E+18
Aerosols (kg)	1.5761E+00	1.5761E-05

RB Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	1.7867E-04	5.6188E-12	5.8340E+13	3.5944E+11
Co-60	9.7050E-05	8.5856E-11	8.6173E+14	1.9458E+11
Rb-86	6.3794E-03	7.8402E-11	5.4901E+14	1.3100E+13
Sr-89	2.4697E-01	8.5009E-09	5.7521E+16	4.9756E+14
Sr-90	3.1910E-02	2.3393E-07	1.5653E+18	6.3970E+13
Sr-91	5.5393E-02	1.5281E-11	1.0112E+14	2.2791E+14
Sr-92	7.3103E-04	5.8160E-14	3.8070E+11	3.7949E+13
Y-90	7.2625E-03	1.3349E-11	8.9320E+13	9.3363E+12
Y-91	3.8914E-03	1.5868E-10	1.0501E+15	7.4897E+12
Y-92	7.3096E-03	7.5965E-13	4.9725E+12	6.8984E+13
Y-93	5.0118E-04	1.5022E-13	9.7273E-11	1.9660E+12
Zr-95	4.6235E-03	2.1522E-10	1.3643E+15	9.3049E+12
Zr-97	1.7282E-03	9.0401E-13	5.6125E+12	5.0775E+12
Nb-95	4.6724E-03	1.1949E-10	7.5746E+14	9.3653E+12
Mo-99	4.7791E-02	9.9645E-11	6.0614E+14	1.0511E+14
Tc-99m	4.7892E-02	9.1080E-12	5.5403E+13	9.7828E+13
Ru-103	5.1492E-02	1.5955E-09	9.3283E+15	1.0388E+14
Ru-105	8.5430E-04	1.2709E-13	7.2890E+11	9.8948E+12
Ru-106	2.0826E-02	6.2250E-09	3.5366E+16	4.1778E+13
Rh-105	2.4218E-02	2.8693E-11	1.6456E+14	5.6710E+13
Sb-127	4.7772E-02	1.7889E-10	8.4825E+14	1.0228E+14
Sb-129	4.4939E-03	7.9914E-13	3.7306E+12	5.5262E+13
Te-127	5.3335E-02	2.0210E-11	9.5831E+13	1.0719E+14
Te-127m	9.6701E-03	1.0252E-09	4.8612E+15	1.9387E+13
Te-129	4.0826E-02	1.9495E-12	9.1007E+12	1.0859E+14
Te-129m	3.9916E-02	1.3250E-09	6.1856E+15	8.0561E+13
Te-131m	7.5147E-02	9.4239E-11	4.3322E+14	1.8557E+14
Te-132	7.5802E-01	2.4968E-09	1.1391E+16	1.6428E+15
I-131	1.8008E+03	1.4525E-05	6.6773E+19	3.7568E+18
I-132	1.0245E+02	9.9256E-09	4.5283E+16	5.9389E+17
I-133	1.8311E+03	1.6165E-06	7.3192E+18	5.0443E+18
I-134	2.5804E-05	9.6729E-16	4.3471E+09	4.1808E+16
I-135	3.1219E+02	8.8895E-08	3.9655E+17	1.8974E+18
Xe-133	4.3132E+04	2.3043E-04	1.0434E+21	5.7809E+19
Xe-135	9.1336E+04	3.5766E-05	1.5955E+20	2.0686E+20
Cs-134	7.0081E-01	5.4166E-07	2.4343E+18	1.4202E+15
Cs-136	2.1243E-01	2.8985E-09	1.2835E+16	4.3876E+14
Cs-137	5.2791E-01	6.0692E-06	2.6678E+19	1.0695E+15
Ba-139	2.7244E-06	1.6656E-16	7.2162E+08	1.1978E+13
Ba-140	4.5193E-01	6.1732E-09	2.6554E+16	9.2400E+14
La-140	1.5448E-01	2.7793E-10	1.1955E+15	2.0201E+14
La-141	6.2828E-05	1.1109E-14	4.7449E+10	9.6706E+11
Cs-137	5.2791E-01	6.0692E-06	2.6678E+19	1.0695E+15
Ba-139	2.7244E-06	1.6656E-16	7.2162E+08	1.1978E+13

La-142	8.7346E-08	6.1017E-18	2.5877E+07	1.3952E+11
Ce-141	1.0744E-02	3.7708E-10	1.6105E+15	2.1701E+13
Ce-143	6.1387E-03	9.2439E-12	3.8929E+13	1.4864E+13
Ce-144	9.1829E-03	2.8791E-09	1.2041E+16	1.8425E-13
Pr-143	4.1051E-03	6.0962E-11	2.5673E+14	8.1099E-12
Nd-147	1.6593E-03	2.0511E-11	8.4026E+13	3.4033E-12
Np-239	9.6198E-02	4.1466E-10	1.0448E-15	2.1495E-14
Pu-238	2.7742E-05	1.6205E-09	4.1003E-15	5.5611E+10
Pu-239	2.9545E-06	4.7533E-08	1.1977E-17	5.9167E+09
Pu-240	4.7377E-06	2.0791E-08	5.2170E-16	9.4975E+09
Pu-241	1.1683E-03	1.1341E-08	2.8340E-16	2.3422E+12
Am-241	6.2357E-07	1.8168E-10	4.5399E+14	1.2462E+09
Cm-242	1.6132E-04	4.8675E-11	1.2113E+14	3.2390E+11
Cm-244	9.4939E-06	1.1735E-10	2.8963E+14	1.9033E+10

RB Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	1.2029E+21	0.0000E+00	
Elemental I (atoms)	7.2161E+19	0.0000E+00	
Organic I (atoms)	2.2318E+18	0.0000E+00	
Aerosols (kg)	6.9926E-06	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.5946E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.9426E-08
Total I (Ci)			4.0465E+03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5338E+21
Elemental I (atoms)	1.6245E+21	1.8051E+20
Organic I (atoms)	5.0244E+19	5.5826E+18
Aerosols (kg)	1.5761E+00	1.5761E-05

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0727E+21
Elemental I (atoms)	0.0000E+00	9.7373E+19
Organic I (atoms)	0.0000E+00	3.0115E+18
Aerosols (kg)	0.0000E+00	8.7627E-06

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	2.0937E-04	6.5843E-12	6.8365E+13	2.5539E+11
Co-60	1.1373E-04	1.0061E-10	1.0098E+15	1.3839E+11
Rb-86	7.5523E-03	9.2818E-11	6.4995E+14	9.3682E+12
Sr-89	2.8941E-01	9.9618E-09	6.7406E+16	3.5339E+14
Sr-90	3.7393E-02	2.7413E-07	1.8343E+18	4.5498E+13
Sr-91	6.4912E-02	1.7907E-11	1.1850E+14	1.3204E+14
Sr-92	8.5666E-04	6.8154E-14	4.4612E+11	1.1778E+13
Y-90	8.5135E-03	1.5648E-11	1.0471E+14	7.6440E+12
Y-91	4.5608E-03	1.8597E-10	1.2307E+15	5.4055E+12
Y-92	8.5720E-03	8.9084E-13	5.8313E+12	3.5064E+13
Y-93	5.8730E-04	1.7603E-13	1.1399E+12	1.1545E+12
Zr-95	5.4180E-03	2.5220E-10	1.5987E+15	6.6107E+12
Zr-97	2.0252E-03	1.0594E-12	6.5769E+12	3.2384E+12
Nb-95	5.4754E-03	1.4002E-10	8.8763E+14	6.6603E+12
Mo-99	5.6004E-02	1.1677E-10	7.1030E+14	7.2818E+13
Tc-99m	5.6122E-02	1.0673E-11	6.4924E+13	6.7995E+13
Ru-103	6.0341E-02	1.8696E-09	1.0931E+16	7.3754E+13
Ru-105	1.0011E-03	1.4893E-13	8.5416E+11	4.3279E+12
Ru-106	2.4405E-02	7.2947E-09	4.1443E+16	2.9708E+13
Rh-105	2.8380E-02	3.3623E-11	1.9284E+14	3.8709E+13
Sb-127	5.5981E-02	2.0963E-10	9.9401E+14	7.1403E+13
Sb-129	5.2661E-03	9.3647E-13	4.3717E+12	2.3805E+13
Te-127	6.2501E-02	2.3683E-11	1.1230E+14	7.5296E+13
Ru-106	2.4405E-02	7.2947E-09	4.1443E+16	2.9708E+13
Rh-105	2.8380E-02	3.3623E-11	1.9284E+14	3.8709E+13

Te-127m	1.1332E-02	1.2014E-09	5.6966E+15	1.3788E-13
Te-129	4.7842E-02	2.2845E-12	1.0665E+13	6.1510E-13
Te-129m	4.6776E-02	1.5527E-09	7.2485E+15	5.7196E+13
Te-131m	8.8060E-02	1.1043E-10	5.0767E-14	1.2439E+14
Te-132	8.8828E-01	2.9259E-09	1.3349E-16	1.1429E+15
I-131	2.1273E-03	1.7159E-05	7.8882E+19	2.6684E+18
I-132	3.1333E+01	3.0355E-09	1.3849E+16	1.4952E+17
I-133	2.1642E+03	1.9104E-06	8.6503E+18	3.3109E+18
I-134	3.0497E-05	1.1432E-15	5.1377E+09	4.3744E-15
I-135	3.6896E+02	1.0506E-07	4.6867E-17	9.9552E-17
Xe-133	3.2455E+04	1.7339E-04	7.8510E-20	3.0950E+19
Xe-135	6.8548E-04	2.6842E-05	1.1974E+20	9.7829E+19
Cs-134	8.2967E-01	6.4125E-07	2.8819E+18	1.0194E+15
Cs-136	2.5149E-01	3.4314E-09	1.5194E+16	3.1326E-14
Cs-137	6.2497E-01	7.1851E-06	3.1584E+19	7.6775E-14
Ba-139	3.1926E-06	1.9518E-16	8.4563E-08	1.9631E+12
Ba-140	5.2959E-01	7.2340E-09	3.1117E+16	6.5354E+14
La-140	1.8109E-01	3.2580E-10	1.4014E+15	1.6486E+14
La-141	7.3625E-05	1.3019E-14	5.5603E+10	3.9385E+11
La-142	1.0236E-07	7.1503E-18	3.0324E+07	2.5554E+10
Ce-141	1.2591E-02	4.4188E-10	1.8873E+15	1.5402E+13
Ce-143	7.1936E-03	1.0832E-11	4.5618E-13	1.0019E+13
Ce-144	1.0761E-02	3.3739E-09	1.4110E+16	1.3101E+13
Pr-143	4.8106E-03	7.1439E-11	3.0085E+14	5.7928E+12
Nd-147	1.9444E-03	2.4035E-11	9.8466E+13	2.4050E+12
Np-239	1.1273E-01	4.8592E-10	1.2244E+15	1.4825E+14
Pu-238	3.2509E-05	1.8989E-09	4.8049E+15	3.9553E+10
Pu-239	3.4622E-06	5.5702E-08	1.4035E+17	4.2094E+09
Pu-240	5.5518E-06	2.4364E-08	6.1135E-16	6.7550E+09
Pu-241	1.3691E-03	1.3290E-08	3.3210E+16	1.6658E+12
Am-241	7.3073E-07	2.1291E-10	5.3201E+14	8.8707E+08
Cm-242	1.8905E-04	5.7040E-11	1.4194E+14	2.3027E+11
Cm-244	1.1125E-05	1.3752E-10	3.3940E+14	1.3537E-10

SGTS Filter Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	9.0484E+20	0.0000E+00	
Elemental I (atoms)	8.5213E+19	0.0000E+00	
Organic I (atoms)	2.6354E+18	0.0000E+00	
Aerosols (kg)	8.2740E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.8230E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.6679E-02
Total I (Ci)			4.6918E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0727E+21
Elemental I (atoms)	0.0000E+00	9.7373E+19
Organic I (atoms)	0.0000E+00	3.0115E+18
Aerosols (kg)	0.0000E+00	8.7627E-06

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3173E+19
Elemental I (atoms)	0.0000E+00	5.2600E+18
Organic I (atoms)	0.0000E+00	1.6268E-17
Aerosols (kg)	0.0000E-00	4.8477E-07

Detailed model information at time (H) = 48.0000

EAB Doses:

Time (h) = 48.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.5243E-01	3.6470E+01	1.2737E+00
Accumulated dose (rem)	2.5247E-01	4.9589E-01	1.7803E+00

EAB Doses:

Suppression pool Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.3728E+03	4.3172E-05	4.4825E+20	8.8868E+18
Co-60	7.5274E+02	6.6592E-04	6.6837E+21	4.8279E+18
Rb-86	4.7555E-04	5.8445E-04	4.0926E+21	3.1776E+20
Sr-89	1.8901E-06	6.5060E-02	4.4022E+23	1.2284E+22
Sr-90	2.4757E-05	1.8149E+00	1.2144E+25	1.5874E+21
Sr-91	7.4604E-04	2.0580E-05	1.3620E+20	4.1788E+21
Sr-92	1.2240E-01	9.7382E-10	6.3745E+15	1.0673E+21
Y-90	1.0042E-05	1.8458E-04	1.2351E+21	3.4660E-20
Y-91	3.0839E-04	1.2575E-03	8.3218E+21	1.8928E-20
Y-92	6.5828E-02	6.8412E-08	4.4781E+17	1.0784E-21
Y-93	7.4900E-02	2.2450E-07	1.4537E+18	3.6112E-19
Zr-95	3.5487E-04	1.6519E-03	1.0471E+22	2.2997E-20
Zr-97	5.0107E-03	2.6211E-06	1.6273E+19	9.8230E-19
Nb-95	3.6236E-04	9.2667E-04	5.8742E+21	2.3236E-20
Mo-99	2.8820E-05	6.0089E-04	3.6552E+21	2.3920E-21
Tc-99m	2.9493E-05	5.6089E-05	3.4119E+20	2.2561E-21
Ru-103	3.9254E-05	1.2163E-02	7.1112E+22	2.5610E-21
Ru-105	1.5640E-02	2.3266E-08	1.3344E+17	2.0907E+20
Ru-106	1.6129E+05	4.8209E-02	2.7389E+23	1.0360E+21
Rh-105	1.1797E+05	1.3976E-04	8.0159E+20	1.2140E+21
Sb-127	3.0959E+05	1.1593E-03	5.4972E+21	2.3820E+21
Sb-129	7.4138E+02	1.3184E-07	6.1546E+17	1.1818E+21
Te-127	3.6705E+05	1.3908E-04	6.5950E+20	2.5583E+21
Te-127m	7.4942E+04	7.9450E-03	3.7674E+22	4.8093E+20
Te-129	2.6342E+05	1.2578E-05	5.8720E+19	2.4797E+21
Te-129m	3.0343E+05	1.0072E-02	4.7020E+22	1.9840E+21
Te-131m	3.3488E+05	4.1996E-04	1.9306E+21	3.8891E+21
Te-132	4.7545E+06	1.5661E-02	7.1447E+22	3.7854E+22
I-131	2.5569E+07	2.0624E-01	9.4811E+23	1.7914E+23
I-132	5.6749E+06	5.4978E-04	2.5082E+21	5.5847E+22
I-133	1.2716E+07	1.1225E-02	5.0826E+22	1.9926E+23
I-134	2.2884E-09	8.5782E-20	3.8552E+05	5.9938E+21
I-135	3.8939E+05	1.1088E-04	4.9461E+20	7.0889E+22
Xe-133	6.5884E+06	3.5198E-02	1.5937E+23	2.7765E+22
Xe-135	2.5634E+06	1.0038E-03	4.4778E+21	5.4879E+22
Cs-134	5.4169E+06	4.1867E-00	1.8816E+25	3.4914E+22
Cs-136	1.5588E+06	2.1269E-02	9.4178E+22	1.0582E+22
Cs-137	4.0839E+06	4.6952E+01	2.0639E-26	2.6300E+22
Ba-139	1.2118E-04	7.4088E-15	3.2098E-10	5.7743E+20
Ba-140	3.3209E+06	4.5362E-02	1.9512E+23	2.2474E+22
La-140	1.9556E+06	3.5184E-03	1.5134E+22	7.1526E+21
La-141	7.0731E+00	1.2507E-09	5.3417E+15	2.1641E+19
La-142	1.3956E-05	9.7489E-16	4.1344E+09	6.1147E+18
Ce-141	8.1609E+04	2.8641E-03	1.2233E+22	5.3426E-20
Ce-143	2.8771E+04	4.3324E-05	1.8245E+20	3.1532E+20
Ce-144	7.1077E+04	2.2285E-02	9.3195E+22	4.5680E+20
Pr-143	3.2126E+04	4.7708E-04	2.0091E+21	2.0277E+20
Nd-147	1.2087E+04	1.4941E-04	6.1208E+20	8.2515E+19
Np-239	5.5609E+05	2.3970E-03	6.0399E+21	4.8292E+21
Pu-238	2.1527E+02	1.2574E-02	3.1817E+22	1.3801E+18
Pu-239	2.2975E+01	3.6963E-01	9.3137E+23	1.4696E-17
Pu-240	3.6760E+01	1.6132E-01	4.0479E+23	2.3568E+17
Pu-241	9.0637E+03	8.7986E-02	2.1986E+23	5.8119E+19
Am-241	4.8781E+00	1.4213E-03	3.5515E+21	3.1020E+16
Cm-242	1.2464E+03	3.7607E-04	9.3584E+20	8.0248E+18
Cm-244	7.3656E+01	9.1043E-04	2.2470E+21	4.7229E+17

Suppression pool Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	1.6385E+23	0.0000E+00	
Elemental I (atoms)	4.8594E+22	0.0000E+00	
Organic I (atoms)	1.5029E+21	0.0000E+00	
Aerosols (kg)	5.4060E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.4188E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.8133E-03
Elemental I (atoms)	4.8594E+22	0.0000E+00	
Organic I (atoms)	1.5029E+21	0.0000E+00	

Total I (Ci) 4.4349E-07

Suppression pool to RB Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.0468E-21
Elemental I (atoms)	3.0149E+21	3.3499E+20
Organic I (atoms)	9.3246E+19	1.0361E+19
Aerosols (kg)	3.1770E-00	3.1770E-05

RB Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.9888E-04	6.2546E-12	6.4942E-13	9.7849E+11
Co-60	1.0906E-04	9.6477E-11	9.6833E-14	5.3246E-11
Rb-86	6.8921E-03	8.4703E-11	5.9313E+14	3.4861E+13
Sr-89	2.7384E-01	9.4258E-09	6.3779E+16	1.3516E+15
Sr-90	3.5868E-02	2.6295E-07	1.7594E+18	1.7508E+14
Sr-91	1.0809E-02	2.9817E-12	1.9732E+13	3.1759E+14
Sr-92	1.7734E-06	1.4109E-16	9.2352E+08	3.8346E+13
Y-90	1.4549E-02	2.6742E-11	1.7894E+14	4.4506E+13
Y-91	4.4679E-03	1.8219E-10	1.2057E+15	2.1241E+13
Y-92	9.5373E-05	9.9116E-15	6.4879E+10	7.4560E-13
Y-93	1.0851E-04	3.2525E-14	2.1061E+11	2.8095E+12
Zr-95	5.1413E-03	2.3932E-10	1.5171E+15	2.5316E+13
Zr-97	7.2594E-04	3.7974E-13	2.3576E+12	8.8744E+12
Nb-95	5.2498E-03	1.3425E-10	8.5105E+14	2.5625E+13
Mo-99	4.1754E-02	8.7057E-11	5.2956E+14	2.5189E+14
Tc-99m	4.2729E-02	8.1261E-12	4.9431E-13	2.3945E+14
Ru-103	5.6871E-02	1.7621E-09	1.0303E-16	2.8159E+14
Ru-105	2.2658E-05	3.3708E-15	1.9333E+10	1.0647E-13
Ru-106	2.3367E-02	6.9844E-09	3.9680E+16	1.1423E+14
Rh-105	1.7091E-02	2.0249E-11	1.1613E+14	1.2394E+14
Sb-127	4.4853E-02	1.6796E-10	7.9642E+14	2.5429E+14
Sb-129	1.0741E-04	1.9100E-14	8.9167E+10	5.9119E+13
Te-127	5.3177E-02	2.0150E-11	9.5547E+13	2.7664E+14
Te-127m	1.0857E-02	1.1511E-09	5.4582E+15	5.3038E+13
Te-129	3.8164E-02	1.8223E-12	8.5073E+12	2.0260E+14
Te-129m	4.3960E-02	1.4592E-09	6.8122E+15	2.1812E+14
Te-131m	4.8517E-02	6.0844E-11	2.7970E+14	3.8549E+14
Te-132	6.8882E-01	2.2689E-09	1.0351E+16	4.0162E+15
I-131	1.8553E+03	1.4965E-05	6.8794E+19	9.7551E+18
I-132	7.9916E+01	7.7421E-09	3.5321E+16	9.2879E+17
I-133	9.2314E+02	8.1491E-07	3.6899E+18	9.3981E+18
I-135	2.8269E+01	8.0495E-09	3.5908E+16	2.2858E+18
Xe-133	7.9840E+04	4.2654E-04	1.9313E+21	2.6588E+20
Xe-135	3.1072E+04	1.2168E-05	5.4277E+19	4.0312E+20
Cs-134	7.8507E-01	6.0678E-07	2.7270E+18	3.8550E+15
Cs-136	2.2592E-01	3.0824E-09	1.3649E+16	1.1576E+15
Cs-137	5.9188E-01	6.8047E-06	2.9911E+19	2.9044E+15
Ba-140	4.8112E-01	6.5719E-09	2.8269E+16	2.4550E+15
La-140	2.8333E-01	5.0974E-10	2.1927E+15	9.1398E+14
La-141	1.0247E-06	1.8120E-16	7.7390E+08	1.0164E+12
Ce-141	1.1823E-02	4.1495E-10	1.7723E-15	5.8712E+13
Ce-143	4.1683E-03	6.2767E-12	2.6433E+13	3.1583E+13
Ce-144	1.0297E-02	3.2286E-09	1.3502E+16	5.0361E-13
Pr-143	4.6544E-03	6.9119E-11	2.9108E+14	2.2486E+13
Nd-147	1.7511E-03	2.1646E-11	8.8677E+13	8.9996E+12
Np-239	8.0566E-02	3.4728E-10	8.7505E+14	5.0442E+14
Pu-238	3.1188E-05	1.8218E-09	4.6097E+15	1.5222E+11
Pu-239	3.3286E-06	5.3552E-08	1.3494E+17	1.6216E+10
Pu-240	5.3257E-06	2.3372E-08	5.8645E+16	2.5995E+10
Pu-241	1.3131E-03	1.2747E-08	3.1853E+16	6.4101E+12
Am-241	7.0673E-07	2.0591E-10	5.1454E+14	3.4263E+09
Cm-242	1.8058E-04	5.4484E-11	1.3558E+14	8.8444E+11
Cm-244	1.0671E-05	1.3190E-10	3.2555E+14	5.2090E+10

RB Transport Group Inventory:

Am-241	7.0673E-07	2.0591E-10	5.1454E+14	3.4263E+09
Cm-242	1.8058E-04	5.4484E-11	1.3558E+14	8.8444E+11

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	1.9856E+21	0.0000E+00	
Elemental I (atoms)	7.0245E+19	0.0000E+00	
Organic I (atoms)	2.1725E+18	0.0000E-00	
Aerosols (kg)	7.8347E-06	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.4163E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.5812E-08
Total I (Ci)			2.8866E+03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.0468E+21
Elemental I (atoms)	3.0149E+21	3.3499E-20
Organic I (atoms)	9.3246E+19	1.0361E-19
Aerosols (kg)	3.1770E+00	3.1770E-05

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4033E+21
Elemental I (atoms)	0.0000E+00	2.4306E+20
Organic I (atoms)	0.0000E+00	7.5172E+18
Aerosols (kg)	0.0000E+00	2.3923E-05

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	5.3294E-04	1.6760E-11	1.7402E+14	1.4684E+12
Co-60	2.9223E-04	2.5852E-10	2.5948E+15	8.0085E+11
Rb-86	1.8557E-02	2.2806E-10	1.5970E+15	5.2203E+13
Sr-89	7.3379E-01	2.5258E-08	1.7090E+17	2.0264E+15
Sr-90	9.6112E-02	7.0460E-07	4.7147E+18	2.6335E+14
Sr-91	2.8963E-02	7.9898E-12	5.2874E+13	2.8907E+14
Sr-92	4.7520E-06	3.7806E-16	2.4747E+09	1.2351E+13
Y-90	3.8990E-02	7.1664E-11	4.7952E+14	7.9076E+13
Y-91	1.1973E-02	4.8822E-10	3.2309E+15	3.2405E+13
Y-92	2.5563E-04	2.6566E-14	1.7390E+11	4.3587E+13
Y-93	2.9078E-04	8.7155E-14	5.6437E+11	2.6412E+12
Zr-95	1.3777E-02	6.4129E-10	4.0652E+15	3.7982E+13
Zr-97	1.9453E-03	1.0176E-12	6.3175E+12	1.0222E+13
Nb-95	1.4067E-02	3.5975E-10	2.2805E+15	3.8540E+13
Mo-99	1.1188E-01	2.3328E-10	1.4190E+15	3.5601E+14
Tc-99m	1.1450E-01	2.1775E-11	1.3246E+14	3.4158E+14
Ru-103	1.5239E-01	4.7218E-09	2.7607E+16	4.2179E+14
Ru-105	6.0716E-05	9.0325E-15	5.1804E+10	5.5095E+12
Ru-106	6.2615E-02	1.8716E-08	1.0633E+17	1.7174E+14
Rh-105	4.5798E-02	5.4259E-11	3.1120E+14	1.6662E+14
Sb-127	1.2019E-01	4.5006E-10	2.1341E+15	3.6602E+14
Sb-129	2.8782E-04	5.1182E-14	2.3894E+11	2.9834E+13
Te-127	1.4250E-01	5.3994E-11	2.5603E+14	4.0497E+14
Te-127m	2.9094E-02	3.0844E-09	1.4626E+16	7.9763E+13
Te-129	1.0227E-01	4.8832E-12	2.2796E+13	2.4385E+14
Te-129m	1.1780E-01	3.9102E-09	1.8254E+16	3.2656E+14
Te-131m	1.3001E-01	1.6304E-10	7.4950E+14	5.0257E+14
Te-132	1.8458E+00	6.0798E-09	2.7737E+16	5.7334E+15
I-131	4.9868E+03	4.0224E-05	1.8491E+20	1.4419E+19
I-132	2.4524E+01	2.3759E-09	1.0839E+16	2.4889E+17
I-133	2.4835E+03	2.1924E-06	9.9268E+18	1.1460E+19
I-135	7.6051E+01	2.1656E-08	9.6602E+16	1.6490E+18
Xe-133	1.3741E+05	7.3411E-04	3.3240E+21	2.9884E+20
Xe-135	5.3383E+04	2.0904E-05	9.3250E+19	3.2415E+20
Cs-134	2.1138E+00	1.6337E-06	7.3421E+18	5.8232E+15
Cs-136	6.0826E-01	8.2993E-09	3.6750E+16	1.7269E+15
Cs-137	1.5936E+00	1.8321E-05	8.0535E+19	4.3881E+15
Ba-139	4.7047E-11	2.8762E-21	1.2461E+04	1.9641E+12
Ba-140	1.2892E+00	1.7610E-08	7.5751E+16	3.6449E+15
Cs-134	2.1138E+00	1.6337E-06	7.3421E+18	5.8232E+15
Cs-136	6.0826E-01	8.2993E-09	3.6750E+16	1.7269E+15

La-140	7.5926E-01	1.3660E-09	5.8759E-15	1.6033E-15
La-141	2.7459E-06	4.8554E-16	2.0738E-09	4.6965E-11
Ce-141	3.1682E-02	1.1119E-09	4.7490E+15	8.7872E+13
Ce-143	1.1169E-02	1.6819E-11	7.0831E+13	4.1749E+13
Ce-144	2.7593E-02	8.6514E-09	3.6180E+16	7.5709E+13
Pr-143	1.2472E-02	1.8522E-10	7.8000E+14	3.3996E+13
Nd-147	4.6924E-03	5.8003E-11	2.3762E+14	1.3334E+13
Np-239	2.1589E-01	9.3058E-10	2.3448E+15	7.0516E+14
Pu-238	8.3573E-05	4.8617E-09	1.2352E-16	2.2897E-11
Pu-239	8.9194E-06	1.4350E-07	3.6158E+17	2.4407E+10
Pu-240	1.4271E-05	6.2628E-08	1.5715E+17	3.9101E+10
Pu-241	3.5187E-03	3.4158E-08	8.5355E+16	9.6417E+12
Am-241	1.8938E-06	5.5177E-10	1.3788E+15	5.1637E+09
Cm-242	4.8388E-04	1.4600E-10	3.6331E+14	1.3290E-12
Cm-244	2.8595E-05	3.5345E-10	8.7234E+14	7.8352E+10

SGTS Filter Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	3.4172E+21	0.0000E+00	
Elemental I (atoms)	1.8874E-20	0.0000E+00	
Organic I (atoms)	5.8373E+18	0.0000E+00	
Aerosols (kg)	2.1089E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9079E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9981E-01
Total I (Ci)			7.5709E-03

RB to SGTS Filter Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4033E-21
Elemental I (atoms)	0.0000E+00	2.4306E+20
Organic I (atoms)	0.0000E+00	7.5172E+18
Aerosols (kg)	0.0000E+00	2.3923E-05

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.7556E+20
Elemental I (atoms)	0.0000E+00	2.7425E+19
Organic I (atoms)	0.0000E+00	8.4821E+17
Aerosols (kg)	0.0000E+00	2.8169E-06

Detailed model information at time (H) = 72.0000

EAB Doses:

Time (h) = 72.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.2163E-01	5.8215E+01	1.9054E+00
Accumulated dose (rem)	3.7411E-01	1.0780E+02	3.6857E+00

Suppression pool Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	1.3203E+03	4.1522E-05	4.3112E+20	1.3188E+19
Co-60	7.3084E+02	6.4654E-04	6.4893E+21	7.1976E+18
Rb-86	4.4503E+04	5.4694E-04	3.8300E+21	4.6476E+20
Sr-89	1.8108E+06	6.2328E-02	4.2174E+23	1.8195E+22
Sr-90	2.4044E+05	1.7626E+00	1.1794E+25	2.3669E-21
Sr-91	1.2578E+04	3.4697E-06	2.2961E+19	4.2901E+21
Sr-92	2.5655E-02	2.0411E-12	1.3361E+13	1.0673E+21
Y-90	1.3055E+05	2.3995E-04	1.6056E+21	7.1414E+20
Y-91	2.9768E+04	1.2138E-03	8.0329E+21	2.8615E+20
Y-92	6.1172E+00	6.3573E-10	4.1613E+15	1.0788E+21
Y-93	1.4012E+02	4.1998E-08	2.7195E+17	3.7273E+19
Zr-95	3.4095E+04	1.5871E-03	1.0061E+22	3.4111E+20
Zr-97	1.8186E+03	9.5130E-07	5.9060E+18	1.0829E+20
Nb-95	3.5170E+04	8.9941E-04	5.7014E+21	3.4637E+20
Y-92	6.1172E+00	6.3573E-10	4.1613E+15	1.0788E+21
Y-93	1.4012E+02	4.1998E-08	2.7195E+17	3.7273E+19

Mo-99	2.1755E+05	4.5359E-04	2.7592E+21	3.1946E+21
Tc-99m	2.2301E+05	4.2411E-05	2.5798E-20	3.0369E+21
Ru-103	3.7459E+05	1.1606E-02	6.7860E+22	3.7862E+21
Ru-105	3.5840E-00	5.3317E-10	3.0580E+15	2.0920E+20
Ru-106	1.5635E-05	4.6735E-02	2.6551E+23	1.5434E+21
Rh-105	7.1590E+04	8.4817E-05	4.8646E+20	1.5106E+21
Sb-127	2.5115E+05	9.4045E-04	4.4595E+21	3.2745E+21
Sb-129	1.5310E+01	2.7226E-09	1.2710E+16	1.1824E+21
Te-127	3.1130E+05	1.1796E-04	5.5933E+20	3.6035E+21
Te-127m	7.2640E+04	7.7010E-03	3.6517E+22	7.1666E-20
Te-129	2.4965E+05	1.1921E-05	5.5651E+19	3.0962E-21
Te-129m	2.8869E+05	9.5829E-03	4.4736E+22	2.9297E+21
Te-131m	1.8681E+05	2.3427E-04	1.0770E+21	4.6996E+21
Te-132	3.7329E+06	1.2296E-02	5.6096E+22	5.1346E+22
I-131	2.2799E+07	1.8390E-01	8.4538E+23	2.5632E+23
I-132	4.4556E-06	4.3165E-04	1.9693E+21	6.9813E+22
I-133	5.5505E+06	4.8998E-03	2.2186E+22	2.2688E+23
I-135	3.0529E+04	8.6931E-06	3.8779E+19	7.1340E+22
Xe-133	6.6216E+06	3.5375E-02	1.6018E+23	4.9036E+22
Xe-135	4.7030E+05	1.8416E-04	8.2151E+20	5.8852E+22
Cs-134	5.2564E+06	4.0626E+00	1.8258E+25	5.1963E+22
Cs-136	1.4360E+06	1.9593E-02	8.6757E+22	1.5363E+22
Cs-137	3.9663E+06	4.5599E+01	2.0044E+26	3.9159E+22
Ba-139	6.7475E-10	4.1252E-20	1.7872E+05	5.7743E+20
Ba-140	3.0546E+06	4.1724E-02	1.7948E+23	3.2652E+22
La-140	2.3261E-06	4.1849E-03	1.8002E+22	1.3977E+22
La-141	9.9676E-02	1.7625E-11	7.5277E+13	2.1647E+19
La-142	2.7911E-10	1.9498E-20	8.2688E+04	6.1147E+18
Ce-141	7.7590E+04	2.7231E-03	1.1630E+22	7.8851E+20
Ce-143	1.6879E+04	2.5417E-05	1.0704E+20	3.8656E+20
Ce-144	6.8865E+04	2.1591E-02	9.0295E+22	6.8033E+20
Pr-143	3.0740E+04	4.5650E-04	1.9225E+21	3.0325E+20
Nd-147	1.1021E+04	1.3623E-04	5.5811E+20	1.1940E+20
Np-239	4.0239E+05	1.7345E-03	4.3705E+21	6.3471E+21
Pu-238	2.0910E+02	1.2214E-02	3.0906E+22	2.0579E+18
Pu-239	2.2351E+01	3.5960E-01	9.0609E+23	2.1936E+17
Pu-240	3.5703E+01	1.5668E-01	3.9315E+23	3.5143E+17
Pu-241	8.8020E+03	8.5445E-02	2.1351E+23	8.6656E+19
Am-241	4.7764E+00	1.3917E-03	3.4775E+21	4.6440E+16
Cm-242	1.2054E+03	3.6371E-04	9.0508E+20	1.1941E+19
Cm-244	7.1531E+01	8.8416E-04	2.1822E+21	7.0420E+17

Suppression pool Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	1.6100E+23	0.0000E+00	
Elemental I (atoms)	4.2174E+22	0.0000E+00	
Organic I (atoms)	1.3044E+21	0.0000E+00	
Aerosols (kg)	5.2470E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.3539E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.5400E-03
Total I (Ci)			3.2835E+07

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1824E+22
Elemental I (atoms)	4.2054E+21	4.6727E+20
Organic I (atoms)	1.3006E+20	1.4452E+19
Aerosols (kg)	4.7307E+00	4.7307E-05

RB Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	1.9491E-04	6.1297E-12	6.3645E+13	1.6096E+12
Co-60	1.0789E-04	9.5446E-11	9.5798E+14	8.8016E+11
Rb-86	6.5702E-03	8.0747E-11	5.6543E+14	5.6432E+13
Sr-89	2.6732E-01	9.2012E-09	6.2260E+16	2.2189E+15
Sr-90	3.5495E-02	2.6021E-07	1.7412E+18	2.8945E+14
Co-58	1.9491E-04	6.1297E-12	6.3645E+13	1.6096E+12
Co-60	1.0789E-04	9.5446E-11	9.5798E+14	8.8016E+11

Sr-91	1.8568E-03	5.1222E-13	3.3897E+12	3.3389E+14
Sr-92	3.7874E-09	3.0132E-19	1.9724E-06	3.8347E-13
Y-90	1.9272E-02	3.5423E-11	2.3702E+14	9.8457E+13
Y-91	4.3946E-03	1.7920E-10	1.1859E+15	3.5454E+13
Y-92	9.0306E-07	9.3850E-17	6.1432E+08	7.4626E+13
Y-93	2.0685E-05	6.2000E-15	4.0147E+10	2.9794E+12
Zr-95	5.0334E-03	2.3430E-10	1.4852E+15	4.1623E-13
Zr-97	2.6847E-04	1.4044E-13	8.7188E-11	1.0349E+13
Nb-95	5.1920E-03	1.3278E-10	8.4168E+14	4.2354E+13
Mo-99	3.2116E-02	6.6962E-11	4.0733E+14	3.6962E+14
Tc-99m	3.2922E-02	6.2610E-12	3.8085E+13	3.5397E+14
Ru-103	5.5299E-02	1.7134E-09	1.0018E+16	4.6135E-14
Ru-105	5.2909E-07	7.8710E-17	4.5143E-08	1.0666E+13
Ru-106	2.3082E-02	6.8993E-09	3.9196E+16	1.8867E+14
Rh-105	1.0569E-02	1.2521E-11	7.1814E+13	1.6744E+14
Sb-127	3.7076E-02	1.3883E-10	6.5833E+14	3.8521E+14
Sb-129	2.2602E-06	4.0193E-16	1.8763E+09	5.9207E+13
Te-127	4.5956E-02	1.7414E-11	8.2572E+13	4.2997E-14
Te-127m	1.0724E-02	1.1369E-09	5.3908E+15	8.7626E+13
Te-129	3.6855E-02	1.7598E-12	8.2155E+12	2.9306E+14
Te-129m	4.2618E-02	1.4147E-09	6.6042E+15	3.5687E+14
Te-131m	2.7578E-02	3.4585E-11	1.5899E+14	5.0432E+14
Te-132	5.5107E-01	1.8152E-09	8.2812E+15	5.9953E+15
I-131	1.6855E+03	1.3595E-05	6.2498E+19	1.5426E+19
I-132	6.2756E+01	6.0798E-09	2.7737E+16	1.1916E+18
I-133	4.1049E+02	3.6237E-07	1.6408E+18	1.1426E+19
I-135	2.2578E+00	6.4291E-10	2.8679E+15	2.3188E+18
Xe-133	8.9822E+04	4.7987E-04	2.1728E+21	5.4373E+20
Xe-135	6.3875E+03	2.5012E-06	1.1158E+19	4.5433E+20
Cs-134	7.7601E-01	5.9978E-07	2.6955E+18	6.3569E+15
Cs-136	2.1199E-01	2.8925E-09	1.2808E+16	1.8592E+15
Cs-137	5.8555E-01	6.7319E-06	2.9592E+19	4.7914E+15
Ba-140	4.5094E-01	6.1596E-09	2.6496E+16	3.9483E+15
La-140	3.4339E-01	6.1781E-10	2.6575E+15	1.9157E+15
La-141	1.4715E-08	2.6019E-18	1.1113E+07	1.0171E+12
Ce-141	1.1454E-02	4.0200E-10	1.7169E+15	9.6017E+13
Ce-143	2.4918E-03	3.7523E-12	1.5802E+13	4.2028E+13
Ce-144	1.0166E-02	3.1874E-09	1.3330E+16	8.3159E-13
Pr-143	4.5381E-03	6.7392E-11	2.8381E+14	3.7229E+13
Nd-147	1.6270E-03	2.0112E-11	8.2392E+13	1.4412E+13
Np-239	5.9404E-02	2.5606E-10	6.4520E+14	7.2704E+14
Pu-238	3.0869E-05	1.8031E-09	4.5625E+15	2.5168E+11
Pu-239	3.2997E-06	5.3086E-08	1.3376E+17	2.6840E+10
Pu-240	5.2707E-06	2.3130E-08	5.8039E+16	4.2978E+10
Pu-241	1.2994E-03	1.2614E-08	3.1520E+16	1.0597E+13
Am-241	7.0513E-07	2.0545E-10	5.1337E+14	5.6887E+09
Cm-242	1.7795E-04	5.3692E-11	1.3361E+14	1.4591E+12
Cm-244	1.0560E-05	1.3053E-10	3.2215E+14	8.6118E+10

RB Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	2.1840E+21	0.0000E-00	
Elemental I (atoms)	6.2126E+19	0.0000E+00	
Organic I (atoms)	1.9214E+18	0.0000E+00	
Aerosols (kg)	7.7462E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.9812E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.0550E-08
Total I (Ci)			2.1610E-03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1824E+22
Elemental I (atoms)	4.2054E+21	4.6727E+20
Organic I (atoms)	1.3006E+20	1.4452E+19
Aerosols (kg)	4.7307E+00	4.7307E-05

RB to SGTS Filter Transport Group Inventory:

Elemental I (atoms)	4.2054E+21	4.6727E+20
Organic I (atoms)	1.3006E+20	1.4452E+19

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.6547E+21
Elemental I (atoms)	0.0000E+00	3.7571E+20
Organic I (atoms)	0.0000E+00	1.1620E+19
Aerosols (kg)	0.0000E+00	3.9543E-05

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	8.1370E-04	2.5590E-11	2.6570E+14	3.6548E+12
Co-60	4.5041E-04	3.9846E-10	3.9993E+15	2.0058E+12
Rb-86	2.7507E-02	3.3806E-10	2.3672E+15	1.2713E+14
Sr-89	1.1160E+00	3.8412E-08	2.5991E+17	5.0305E+15
Sr-90	1.4818E-01	1.0863E-06	7.2688E+18	6.5971E+14
Sr-91	7.7515E-03	2.1383E-12	1.4151E+13	3.4215E+14
Sr-92	1.5811E-08	1.2579E-18	8.2341E+06	1.2353E+13
Y-90	8.0457E-02	1.4788E-10	9.8952E+14	2.6800E+14
Y-91	1.8347E-02	7.4812E-10	4.9508E+15	8.1653E+13
Y-92	3.7706E-06	3.9185E-16	2.5650E+09	4.3784E+13
Y-93	8.6354E-05	2.5883E-14	1.6760E+11	3.1966E+12
Zr-95	2.1013E-02	9.7812E-10	6.2004E-15	9.4471E+13
Zr-97	1.1208E-03	5.8628E-13	3.6398E-12	1.5154E+13
Nb-95	2.1675E-02	5.5430E-10	3.5138E+15	9.6512E+13
Mo-99	1.3407E-01	2.7954E-10	1.7005E+15	7.6029E+14
Tc-99m	1.3744E-01	2.6138E-11	1.5899E+14	7.3488E+14
Ru-103	2.3085E-01	7.1530E-09	4.1822E+16	1.0444E+15
Ru-105	2.2088E-06	3.2859E-16	1.8846E+09	5.5676E+12
Ru-106	9.6360E-02	2.8802E-08	1.6363E+17	4.2971E+14
Rh-105	4.4121E-02	5.2272E-11	2.9980E+14	3.1484E+14
Sb-127	1.5478E-01	5.7959E-10	2.7483E+15	8.1679E+14
Sb-129	9.4356E-06	1.6779E-15	7.8330E+09	3.0103E+13
Te-127	1.9185E-01	7.2696E-11	3.4471E+14	9.3376E+14
Te-127m	4.4768E-02	4.7461E-09	2.2505E+16	1.9962E+14
Te-129	1.5386E-01	7.3468E-12	3.4297E+13	5.5707E+14
Te-129m	1.7792E-01	5.9059E-09	2.7570E+16	8.0704E+14
Te-131m	1.1513E-01	1.4438E-10	6.6372E+14	9.0621E+14
Te-132	2.3006E+00	7.5778E-09	3.4571E+16	1.2540E+16
I-131	7.0450E+03	5.6826E-05	2.6123E+20	3.4048E+19
I-132	2.0270E+01	1.9637E-09	8.9588E+15	3.2952E+17
I-133	1.7178E+03	1.5164E-06	6.8660E+18	1.8309E+19
I-135	9.4481E+00	2.6904E-09	1.2001E+16	1.7543E+18
Xe-133	2.5344E+05	1.3540E-03	6.1307E+21	9.3689E+20
Xe-135	1.8034E+04	7.0618E-06	3.1502E+19	4.3403E+20
Cs-134	3.2489E+00	2.5110E-06	1.1285E+19	1.4524E+16
Cs-136	8.8754E-01	1.2110E-08	5.3623E+16	4.1623E+15
Cs-137	2.4515E+00	2.8184E-05	1.2389E+20	1.0951E+16
Ba-140	1.8825E+00	2.5715E-08	1.1061E+17	8.8099E+15
La-140	1.4336E+00	2.5792E-09	1.1095E+16	5.0999E+15
La-141	6.1429E-08	1.0862E-17	4.6393E+07	4.7197E+11
Ce-141	4.7818E-02	1.6782E-09	7.1677E+15	2.1705E+14
Ce-143	1.0403E-02	1.5665E-11	6.5968E+13	7.7297E+13
Ce-144	4.2441E-02	1.3307E-08	5.5648E+16	1.8936E+14
Pr-143	1.8945E-02	2.8134E-10	1.1848E+15	8.5060E+13
Nd-147	6.7923E-03	8.3960E-11	3.4396E+14	3.2046E+13
Np-239	2.4799E-01	1.0690E-09	2.6935E+15	1.4685E+15
Pu-238	1.2887E-04	7.5276E-09	1.9047E+16	5.7365E+11
Pu-239	1.3775E-05	2.2162E-07	5.5842E+17	6.1224E+10
Pu-240	2.2003E-05	9.6563E-08	2.4230E+17	9.7955E+10
Pu-241	5.4246E-03	5.2659E-08	1.3159E+17	2.4152E+13
Am-241	2.9437E-06	8.5768E-10	2.1432E+15	1.3007E+10
Cm-242	7.4290E-04	2.2415E-10	5.5779E+14	3.3200E+12
Cm-244	4.4084E-05	5.4490E-10	1.3449E+15	1.9627E+11

SGTS Filter Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump
Noble gases (atoms)	6.1623E+21	0.0000E+00
Elemental I (atoms)	2.5958E+20	0.0000E+00

SGTS Filter Transport Group Inventory:

Organic I (atoms)	8.0283E+18	0.0000E-00	
Aerosols (kg)	3.2426E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.5890E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.6506E-01
Total I (Ci)			8.7925E+03

RB to SGTS Filter Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.6547E+21
Elemental I (atoms)	0.0000E+00	3.7571E+20
Organic I (atoms)	0.0000E+00	1.1620E+19
Aerosols (kg)	0.0000E+00	3.9543E-05

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1408E+21
Elemental I (atoms)	0.0000E+00	6.3430E+19
Organic I (atoms)	0.0000E+00	1.9618E+18
Aerosols (kg)	0.0000E+00	7.0817E-06

Detailed model information at time (H) = 96.0000

EAB Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0444E-01	7.2011E-01	2.3074E+00
Accumulated dose (rem)	4.7855E-01	1.7981E+02	5.9931E-00

Suppression pool Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	1.2699E+03	3.9935E-05	4.1465E+20	1.7325E+19
Co-60	7.0957E+02	6.2773E-04	6.3004E+21	9.4984E+18
Rb-86	4.1648E+04	5.1185E-04	3.5842E+21	6.0233E+20
Sr-89	1.7347E+06	5.9711E-02	4.0403E+23	2.3857E+22
Sr-90	2.3351E+05	1.7119E+00	1.1455E+25	3.1239E+21
Sr-91	2.1205E+03	5.8496E-07	3.8711E+18	4.3089E+21
Sr-92	5.3773E-05	4.2781E-15	2.8003E+10	1.0673E+21
Y-90	1.5151E+05	2.7848E-04	1.8634E+21	1.1627E+21
Y-91	2.8600E+04	1.1662E-03	7.7178E+21	3.7939E+20
Y-92	5.4700E-02	5.6847E-12	3.7211E+13	1.0788E+21
Y-93	2.6212E+01	7.8567E-09	5.0875E+16	3.7490E+19
Zr-95	3.2758E+04	1.5249E-03	9.6662E+21	4.4789E+20
Zr-97	6.6003E+02	3.4526E-07	2.1435E+18	1.1194E+20
Nb-95	3.4129E+04	8.7278E-04	5.5326E+21	4.5702E+20
Mo-99	1.6422E+05	3.4240E-04	2.0828E+21	3.8005E+21
Tc-99m	1.6836E+05	3.2019E-05	1.9477E+20	3.6267E+21
Ru-103	3.5745E+05	1.1076E-02	6.4756E+22	4.9553E+21
Ru-105	8.2132E-02	1.2218E-11	7.0077E+13	2.0920E+20
Ru-106	1.5157E+05	4.5306E-02	2.5739E+23	2.0352E+21
Rh-105	4.3438E+04	5.1464E-05	2.9516E+20	1.6906E+21
Sb-127	2.0374E+05	7.6292E-04	3.6176E+21	3.9985E+21
Sb-129	3.1617E-01	5.6224E-11	2.6247E+14	1.1824E+21
Te-127	2.6444E+05	1.0020E-04	4.7513E+20	4.4901E+21
Te-127m	7.0359E+04	7.4592E-03	3.5370E+22	9.4506E+20
Te-129	2.3750E+05	1.1341E-05	5.2943E+19	3.6822E+21
Te-129m	2.7466E-05	9.1173E-03	4.2563E+22	3.8294E+21
Te-131m	1.0421E+05	1.3069E-04	6.0077E+20	5.1517E+21
Te-132	2.9308E+06	9.6538E-03	4.4043E+22	6.1940E+22
I-131	2.0323E+07	1.6393E-01	7.5359E+23	3.2513E+23
I-132	3.4982E+06	3.3891E-04	1.5462E+21	8.0778E+22
I-133	2.4228E+06	2.1388E-03	9.6842E+21	2.3893E+23
I-135	2.3936E+03	6.8157E-07	3.0404E+18	7.1375E+22
Xe-133	6.0781E+06	3.2472E-02	1.4703E+23	6.9373E+22
Xe-135	7.8829E+04	3.0868E-05	1.3770E+20	5.9554E+22
I-132	3.4982E+06	3.3891E-04	1.5462E+21	8.0778E+22
I-133	2.4228E+06	2.1388E-03	9.6842E+21	2.3893E+23

Cs-134	5.1005E+06	3.9422E-00	1.7717E+25	6.8506E+22
Cs-136	1.3228E+06	1.8049E-02	7.9920E-22	1.9767E+22
Cs-137	3.8520E+06	4.4285E+01	1.9467E-26	5.1647E+22
Ba-140	2.8097E+06	3.8379E-02	1.6509E+23	4.2014E+22
La-140	2.4784E+06	4.4590E-03	1.9180E+22	2.1616E+22
La-141	1.4047E-03	2.4838E-13	1.0608E+12	2.1647E+19
Ce-141	7.3769E+04	2.5890E-03	1.1058E+22	1.0302E+21
Ce-143	9.9027E+03	1.4912E-05	6.2798E+19	4.2836E+20
Ce-144	6.6722E+04	2.0919E-02	8.7486E-22	8.9690E+20
Pr-143	2.9010E+04	4.3080E-04	1.8142E+21	3.9871E+20
Nd-147	1.0049E+04	1.2422E-04	5.0890E+20	1.5304E-20
Np-239	2.9118E+05	1.2551E-03	3.1626E+21	7.4455E+21
Pu-238	2.0311E-02	1.1864E-02	3.0020E+22	2.7164E+18
Pu-239	2.1736E+01	3.4969E-01	8.8112E+23	2.8978E+17
Pu-240	3.4676E+01	1.5218E-01	3.8185E+23	4.6384E+17
Pu-241	8.5478E+03	8.2978E-02	2.0735E+23	1.1437E+20
Am-241	4.6766E+00	1.3626E-03	3.4049E+21	6.1537E+16
Cm-242	1.1658E+03	3.5175E-04	8.7532E+20	1.5729E+19
Cm-244	6.9467E+01	8.5865E-04	2.1192E+21	9.2942E+17

Suppression pool Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	1.4717E+23	0.0000E+00	
Elemental I (atoms)	3.7094E+22	0.0000E+00	
Organic I (atoms)	1.1472E+21	0.0000E+00	
Aerosols (kg)	5.0932E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.5506E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.6442E-03
Total I (Ci)			2.6246E+07

Suppression pool to RB Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6339E+22
Elemental I (atoms)	5.2459E+21	5.8288E+20
Organic I (atoms)	1.6224E+20	1.8027E+19
Aerosols (kg)	6.2387E+00	6.2388E-05

RB Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	1.8795E-04	5.9108E-12	6.1372E+13	2.2214E+12
Co-60	1.0502E-04	9.2909E-11	9.3252E+14	1.2204E+12
Rb-86	6.1643E-03	7.5759E-11	5.3050E+14	7.6777E+13
Sr-89	2.5676E-01	8.8377E-09	5.9800E+16	3.0563E+15
Sr-90	3.4562E-02	2.5337E-07	1.6954E+18	4.0141E+14
Sr-91	3.1385E-04	8.6579E-14	5.7296E+11	3.3666E+14
Y-90	2.2425E-02	4.1218E-11	2.7580E+14	1.6479E+14
Y-91	4.2331E-03	1.7261E-10	1.1423E+15	4.9243E+13
Y-92	8.0961E-09	8.4139E-19	5.5076E+06	7.4626E+13
Y-93	3.8797E-06	1.1629E-15	7.5300E+09	3.0115E+12
Zr-95	4.8485E-03	2.2569E-10	1.4307E+15	5.7414E+13
Zr-97	9.7690E-05	5.1102E-14	3.1726E+11	1.0889E+13
Nb-95	5.0513E-03	1.2918E-10	8.1888E+14	5.8717E+13
Mo-99	2.4306E-02	5.0678E-11	3.0827E+14	4.5921E+14
Tc-99m	2.4919E-02	4.7390E-12	2.8827E+13	4.4119E+14
Ru-103	5.2906E-02	1.6393E-09	9.5845E+15	6.3425E+14
Ru-105	1.2156E-08	1.8084E-18	1.0372E+07	1.0666E+13
Ru-106	2.2434E-02	6.7057E-09	3.8097E+16	2.6141E+14
Rh-105	6.4292E-03	7.6171E-12	4.3687E+13	1.9406E+14
Sb-127	3.0155E-02	1.1292E-10	5.3544E+14	4.9227E+14
Sb-129	4.6796E-08	8.3217E-18	3.8848E+07	5.9209E+13
Te-127	3.9139E-02	1.4831E-11	7.0324E+13	5.6108E+14
Te-127m	1.0414E-02	1.1040E-09	5.2351E+15	1.2140E+14
Te-129	3.5153E-02	1.6785E-12	7.8360E+12	3.7971E+14
Te-129m	4.0653E-02	1.3494E-09	6.2997E+15	4.8993E+14
Te-131m	1.5424E-02	1.9343E-11	8.8919E+13	5.7117E+14
Te-132	4.3379E-01	1.4288E-09	6.5187E+15	7.5618E+15
Te-127m	1.0414E-02	1.1040E-09	5.2351E+15	1.2140E+14
Te-129	3.5153E-02	1.6785E-12	7.8360E+12	3.7971E+14

I-131	1.5065E+03	1.2152E-05	5.5862E+19	2.0522E+19
I-132	4.9274E+01	4.7736E-09	2.1778E+16	1.3980E+18
I-133	1.7964E+02	1.5858E-07	7.1804E+17	1.2319E+19
I-135	1.7747E-01	5.0535E-11	2.2543E+14	2.3214E+18
Xe-133	8.6351E+04	4.6132E-04	2.0888E+21	8.2803E+20
Xe-135	1.1213E-03	4.3907E-07	1.9586E+18	4.6410E+20
Cs-134	7.5493E-01	5.8349E-07	2.6223E+18	8.8034E+15
Cs-136	1.9579E-01	2.6714E-09	1.1829E+16	2.5106E+15
Cs-137	5.7014E-01	6.5547E-06	2.8812E+19	6.6382E+15
Ba-140	4.1586E-01	5.6804E-09	2.4435E-16	5.3328E+15
La-140	3.6683E-01	6.5997E-10	2.8389E-15	3.0454E+15
La-141	2.0790E-10	3.6762E-20	1.5701E+05	1.0171E+12
Ce-141	1.0919E-02	3.8319E-10	1.6366E+15	1.3177E+14
Ce-143	1.4657E-03	2.2071E-12	9.2947E+12	4.8209E-13
Ce-144	9.8755E-03	3.0963E-09	1.2949E+16	1.1519E-14
Pr-143	4.2937E-03	6.3763E-11	2.6852E+14	5.1345E+13
Nd-147	1.4874E-03	1.8386E-11	7.5322E+13	1.9386E+13
Np-239	4.3097E-02	1.8577E-10	4.6809E+14	8.8946E+14
Pu-238	3.0063E-05	1.7560E-09	4.4433E+15	3.4905E+11
Pu-239	3.2171E-06	5.1757E-08	1.3041E-17	3.7254E+10
Pu-240	5.1324E-06	2.2524E-08	5.6517E+16	5.9602E+10
Pu-241	1.2651E-03	1.2281E-08	3.0689E-16	1.4696E+13
Am-241	6.9219E-07	2.0168E-10	5.0395E+14	7.9214E+09
Cm-242	1.7255E-04	5.2062E-11	1.2956E+14	2.0192E+12
Cm-244	1.0282E-05	1.2709E-10	3.1367E+14	1.1942E+11

RB Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	2.0908E+21	0.0000E+00	
Elemental I (atoms)	5.4800E+19	0.0000E+00	
Organic I (atoms)	1.6948E+18	0.0000E+00	
Aerosols (kg)	7.5384E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.6116E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.6449E-08
Total I (Ci)			1.7356E+03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6339E+22
Elemental I (atoms)	5.2459E+21	5.8288E+20
Organic I (atoms)	1.6224E+20	1.8027E+19
Aerosols (kg)	6.2387E+00	6.2388E-05

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2970E+22
Elemental I (atoms)	0.0000E+00	4.9265E+20
Organic I (atoms)	0.0000E+00	1.5237E+19
Aerosols (kg)	0.0000E+00	5.4827E-05

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	1.0399E-03	3.2704E-11	3.3956E-14	6.6471E+12
Co-60	5.8108E-04	5.1406E-10	5.1596E+15	3.6703E+12
Rb-86	3.4172E-02	4.1997E-10	2.9409E+15	2.2680E+14
Sr-89	1.4206E+00	4.8898E-08	3.3087E+17	9.1260E+15
Sr-90	1.9123E-01	1.4019E-06	9.3804E+18	1.2074E+15
Sr-91	1.7365E-03	4.7904E-13	3.1701E+12	3.5520E+14
Sr-92	4.4036E-11	3.5034E-21	2.2933E+04	1.2353E+13
Y-90	1.2408E-01	2.2806E-10	1.5260E+15	5.9386E+14
Y-91	2.3422E-02	9.5508E-10	6.3204E+15	1.4909E+14
Y-92	4.4800E-08	4.6558E-18	3.0476E+07	4.3787E+13
Y-93	2.1466E-05	6.4340E-15	4.1663E+10	3.3479E+12
Zr-95	2.6827E-02	1.2487E-09	7.9159E+15	1.7170E+14
Y-90	1.2408E-01	2.2806E-10	1.5260E+15	5.9386E+14
Y-91	2.3422E-02	9.5508E-10	6.3204E+15	1.4909E+14

Zr-97	5.4051E-04	2.8274E-13	1.7554E-12	1.7736E+13
Nb-95	2.7949E-02	7.1474E-10	4.5308E+15	1.7656E+14
Mo-99	1.3448E-01	2.8040E-10	1.7056E+15	1.1960E+15
Tc-99m	1.3788E-01	2.6221E-11	1.5950E+14	1.1591E-15
Ru-103	2.9273E-01	9.0700E-09	5.3030E+16	1.8899E+15
Ru-105	6.7260E-08	1.0006E-17	5.7387E+07	5.5696E+12
Ru-106	1.2413E-01	3.7102E-08	2.1079E+17	7.8553E-14
Rh-105	3.5572E-02	4.2145E-11	2.4172E+14	4.4366E+14
Sb-127	1.6685E-01	6.2477E-10	2.9626E-15	1.3384E+15
Sb-129	2.5892E-07	4.6043E-17	2.1495E+08	3.0111E+13
Te-127	2.1656E-01	8.2056E-11	3.8910E+14	1.5732E+15
Te-127m	5.7619E-02	6.1085E-09	2.8965E+16	3.6485E-14
Te-129	1.9450E-01	9.2873E-12	4.3356E-13	9.8077E+14
Te-129m	2.2493E-01	7.4664E-09	3.4856E+16	1.4576E+15
Te-131m	8.5339E-02	1.0702E-10	4.9198E+14	1.2291E+15
Te-132	2.4001E+00	7.9057E-09	3.6068E+16	2.0165E-16
I-131	8.3385E+03	6.7260E-05	3.0920E-20	5.8947E+19
I-132	1.6623E+01	1.6104E-09	7.3472E+15	3.9519E+17
I-133	9.9553E-02	8.7882E-07	3.9792E+18	2.2606E+19
I-135	9.8352E-01	2.8006E-10	1.2493E+15	1.7664E+18
Xe-133	3.4354E+05	1.8353E-03	8.3102E+21	1.9087E+21
Xe-135	4.4709E+03	1.7507E-06	7.8098E+18	4.6595E+20
Cs-134	4.1850E-00	3.2346E-06	1.4537E+19	2.6520E+16
Cs-136	1.0854E+00	1.4809E-08	6.5574E+16	7.3522E+15
Cs-137	3.1606E+00	3.6336E-05	1.5972E-20	2.0007E+16
Ba-140	2.3009E+00	3.1429E-08	1.3519E+17	1.5575E+16
La-140	2.0297E+00	3.6516E-09	1.5707E+16	1.0638E+16
La-141	1.1503E-09	2.0340E-19	8.6873E+05	4.7202E+11
Ce-141	6.0411E-02	2.1202E-09	9.0553E-15	3.9185E+14
Ce-143	8.1095E-03	1.2212E-11	5.1427E+13	1.0718E+14
Ce-144	5.4640E-02	1.7131E-08	7.1644E+16	3.4603E+14
Pr-143	2.3757E-02	3.5280E-10	1.4857E+15	1.5408E+14
Nd-147	8.2297E-03	1.0173E-10	4.1675E+14	5.6344E+13
Np-239	2.3845E-01	1.0278E-09	2.5899E+15	2.2577E+15
Pu-238	1.6633E-04	9.7159E-09	2.4584E+16	1.0500E+12
Pu-239	1.7800E-05	2.8637E-07	7.2157E+17	1.1217E+11
Pu-240	2.8397E-05	1.2462E-07	3.1271E+17	1.7928E+11
Pu-241	7.0000E-03	6.7953E-08	1.6980E+17	4.4201E+13
Am-241	3.8298E-06	1.1159E-09	2.7883E+15	2.3931E+10
Cm-242	9.5470E-04	2.8805E-10	7.1682E+14	6.0599E+12
Cm-244	5.6888E-05	7.0317E-10	1.7355E+15	3.5921E+11

SGTS Filter Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	8.3180E+21	0.0000E+00	
Elemental I (atoms)	3.0321E+20	0.0000E+00	
Organic I (atoms)	9.3777E+18	0.0000E+00	
Aerosols (kg)	4.1785E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.0033E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.0389E-01
Total I (Ci)			9.3516E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2970E-22
Elemental I (atoms)	0.0000E-00	4.9265E+20
Organic I (atoms)	0.0000E+00	1.5237E+19
Aerosols (kg)	0.0000E+00	5.4827E-05

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.3012E+21
Elemental I (atoms)	0.0000E+00	1.0840E+20
Organic I (atoms)	0.0000E+00	3.3527E+18
Aerosols (kg)	0.0000E+00	1.2984E-05
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.3012E+21

Detailed model information at time (H) = 144.0000

EAB Doses:

Time (h) = 144.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0404E-01	1.5240E+02	4.8628E+00
Accumulated dose (rem)	6.8259E-01	3.3222E+02	1.0856E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	1.1747E+03	3.6942E-05	3.8356E+20	2.5131E+19
Co-60	6.6888E+02	5.9173E-04	5.9391E+21	1.3901E+19
Rb-86	3.6475E+04	4.4827E-04	3.1390E-21	8.5155E+20
Sr-89	1.5921E+06	5.4802E-02	3.7081E-23	3.4480E+22
Sr-90	2.2025E+05	1.6146E+00	1.0804E+25	4.5732E+21
Sr-91	6.0270E+01	1.6626E-08	1.1003E-17	4.3126E+21
Sr-92	2.3623E-10	1.8794E-20	1.2302E-05	1.0673E+21
Y-90	1.7476E+05	3.2122E-04	2.1493E-21	2.2080E+21
Y-91	2.6353E+04	1.0746E-03	7.1114E-21	5.5487E+20
Y-92	4.2888E-06	4.4572E-16	2.9176E-09	1.0788E+21
Y-93	9.1734E-01	2.7496E-10	1.7805E+15	3.7538E+19
Zr-95	3.0239E+04	1.4076E-03	8.9230E-21	6.4905E+20
Zr-97	8.6942E+01	4.5480E-08	2.8235E-17	1.1375E+20
Nb-95	3.2120E+04	8.2142E-04	5.2071E-21	6.6854E+20
Mo-99	9.3573E+04	1.9510E-04	1.1868E-21	4.6031E+21
Tc-99m	9.5935E+04	1.8245E-05	1.1098E-20	4.4080E+21
Ru-103	3.2550E+05	1.0086E-02	5.8968E+22	7.1357E+21
Ru-105	4.3132E-05	6.4165E-15	3.6801E+10	2.0920E+20
Ru-106	1.4245E+05	4.2578E-02	2.4189E+23	2.9743E+21
Rh-105	1.5992E+04	1.8946E-05	1.0866E+20	1.8661E+21
Sb-127	1.3408E+05	5.0206E-04	2.3807E+21	5.0623E+21
Sb-129	1.3484E-04	2.3978E-14	1.1194E+11	1.1824E+21
Te-127	1.9406E+05	7.3532E-05	3.4868E-20	5.8916E+21
Te-127m	6.5900E+04	6.9864E-03	3.3128E-22	1.3803E+21
Te-129	2.1499E+05	1.0266E-05	4.7924E+19	4.7701E+21
Te-129m	2.4862E-05	8.2530E-03	3.8528E+22	5.4999E+21
Te-131m	3.2428E+04	4.0667E-05	1.8695E+20	5.5446E+21
Te-132	1.8057E+06	5.9509E-03	2.7149E+22	7.6787E+22
I-131	1.6142E+07	1.3021E-01	5.9856E+23	4.4112E+23
I-132	2.1564E+06	2.0891E-04	9.5311E+20	9.6146E+22
I-133	4.6164E+05	4.0751E-04	1.8452E+21	2.4649E+23
I-135	1.4713E+01	4.1896E-09	1.8689E+16	7.1378E+22
Xe-133	4.6509E+06	2.4847E-02	1.1250E+23	1.0364E+23
Xe-135	2.0153E+03	7.8916E-07	3.5203E+18	5.9689E-22
Cs-134	4.8026E+06	3.7119E+00	1.6682E+25	1.0014E-23
Cs-136	1.1225E+06	1.5316E-02	6.7820E+22	2.7562E+22
Cs-137	3.6332E+06	4.1770E+01	1.8361E+26	7.5555E-22
Ba-140	2.3772E+06	3.2471E-02	1.3968E+23	5.8547E+22
La-140	2.4371E+06	4.3846E-03	1.8861E+22	3.7348E+22
La-141	2.7895E-07	4.9325E-17	2.1067E+08	2.1647E+19
Ce-141	6.6683E+04	2.3403E-03	9.9954E+21	1.4786E+21
Ce-143	3.4084E+03	5.1325E-06	2.1615E+19	4.6727E+20
Ce-144	6.2635E+04	1.9638E-02	8.2126E+22	1.3100E+21
Pr-143	2.5274E+04	3.7532E-04	1.5806E+21	5.7212E+20
Nd-147	8.3555E+03	1.0328E-04	4.2312E+20	2.1167E+20
Np-239	1.5246E+05	6.5720E-04	1.6560E+21	8.8154E+21
Pu-238	1.9164E+02	1.1194E-02	2.8325E+22	3.9772E+18
Pu-239	2.0537E+01	3.3040E-01	8.3252E+23	4.2481E+17
Pu-240	3.2711E+01	1.4355E-01	3.6021E+23	6.7908E+17
Pu-241	8.0612E+03	7.8255E-02	1.9554E+23	1.6742E+20
Am-241	4.4824E+00	1.3060E-03	3.2634E+21	9.0790E+16
Cm-242	1.0904E+03	3.2900E-04	8.1871E+20	2.2934E+19
Cm-244	6.5517E+01	8.0982E-04	1.9987E+21	1.3605E-18

Suppression pool Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump		
Noble gases (atoms)	1.1251E+23	0.0000E+00		
Cm-244	6.5517E+01	8.0982E-04	1.9987E+21	1.3605E-18

Elemental I (atoms)	2.9166E-22	0.0000E+00	
Organic I (atoms)	9.0204E+20	0.0000E+00	
Aerosols (kg)	4.7996E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.3426E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.3724E-03
Total I (Ci)			1.8760E+07

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.3931E+22
Elemental I (atoms)	6.9785E+21	7.7539E+20
Organic I (atoms)	2.1583E+20	2.3981E-19
Aerosols (kg)	9.1237E-00	9.1237E-05

RB Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	1.7393E-04	5.4699E-12	5.6794E+13	3.3771E+12
Co-60	9.9041E-05	8.7617E-11	8.7940E+14	1.8723E-12
Rb-86	5.4008E-03	6.6375E-11	4.6479E-14	1.1368E+14
Sr-89	2.3574E-01	8.1145E-09	5.4906E+16	4.6290E+15
Sr-90	3.2612E-02	2.3908E-07	1.5997E+18	6.1598E+14
Sr-91	8.9242E-06	2.4618E-15	1.6292E+10	3.3721E+14
Y-90	2.5877E-02	4.7562E-11	3.1825E+14	3.1956E+14
Y-91	3.9021E-03	1.5912E-10	1.0530E+15	7.5224E+13
Y-93	1.3583E-07	4.0713E-17	2.6363E+08	3.0186E+12
Zr-95	4.4776E-03	2.0842E-10	1.3212E+15	8.7197E+13
Zr-97	1.2873E-05	6.7342E-15	4.1808E+10	1.1156E+13
Nb-95	4.7560E-03	1.2163E-10	7.7101E+14	9.0034E+13
Mo-99	1.3855E-02	2.8889E-11	1.7573E+14	5.7803E+14
Tc-99m	1.4205E-02	2.7015E-12	1.6433E+13	5.5686E+14
Ru-103	4.8197E-02	1.4934E-09	8.7314E+15	9.5707E+14
Ru-106	2.1092E-02	6.3045E-09	3.5817E+16	4.0044E+14
Rh-105	2.3679E-03	2.8054E-12	1.6090E+13	2.2004E+14
Sb-127	1.9853E-02	7.4341E-11	3.5251E+14	6.4977E+14
Sb-129	1.9965E-11	3.5504E-21	1.6574E+04	5.9209E+13
Te-127	2.8734E-02	1.0888E-11	5.1629E+13	7.6857E+14
Te-127m	9.7578E-03	1.0345E-09	4.9053E+15	1.8584E+14
Te-129	3.1833E-02	1.5200E-12	7.0961E+12	5.4078E+14
Te-129m	3.6814E-02	1.2220E-09	5.7048E+15	7.3725E+14
Te-131m	4.8016E-03	6.0216E-12	2.7681E+13	6.2934E+14
Te-132	2.6751E-01	8.8115E-10	4.0200E+15	9.7600E+15
I-131	1.1972E+03	9.6572E-06	4.4394E+19	2.9123E+19
I-132	3.0374E+01	2.9426E-09	1.3425E-16	1.6872E+18
I-133	3.4242E+01	3.0228E-08	1.3687E+17	1.2879E+19
I-135	1.0914E-03	3.1077E-13	1.3863E+12	2.3216E+18
Xe-133	6.8167E+04	3.6418E-04	1.6490E+21	1.3248E+21
Xe-135	2.9556E+01	1.1574E-08	5.1629E-16	4.6603E+20
Cs-134	7.1113E-01	5.4963E-07	2.4701E+18	1.3486E+16
Cs-136	1.6621E-01	2.2678E-09	1.0042E+16	3.6647E+15
Cs-137	5.3797E-01	6.1849E-06	2.7187E+19	1.0178E+16
Ba-140	3.5199E-01	4.8080E-09	2.0682E+16	7.7806E+15
La-140	3.6086E-01	6.4923E-10	2.7927E+15	5.3745E+15
Ce-141	9.8737E-03	3.4653E-10	1.4800E+15	1.9815E+14
Ce-143	5.0468E-04	7.5997E-13	3.2005E+12	5.3969E+13
Ce-144	9.2743E-03	2.9078E-09	1.2160E+16	1.7635E+14
Pr-143	3.7423E-03	5.5574E-11	2.3404E+14	7.7020E+13
Nd-147	1.2372E-03	1.5293E-11	6.2652E+13	2.8067E+13
Np-239	2.2575E-02	9.7311E-11	2.4520E+14	1.0923E+15
Pu-238	2.8376E-05	1.6575E-09	4.1941E+15	5.3572E+11
Pu-239	3.0408E-06	4.8922E-08	1.2327E+17	5.7245E+10
Pu-240	4.8435E-06	2.1256E-08	5.3336E+16	9.1469E+10
Pu-241	1.1936E-03	1.1587E-08	2.8954E+16	2.2550E+13
Am-241	6.6370E-07	1.9338E-10	4.8321E+14	1.2253E+10
Cm-242	1.6146E-04	4.8715E-11	1.2123E+14	3.0860E+12
Cm-244	9.7010E-06	1.1991E-10	2.9595E+14	1.8326E+11
Pu-241	1.1936E-03	1.1587E-08	2.8954E+16	2.2550E+13
Am-241	6.6370E-07	1.9338E-10	4.8321E+14	1.2253E+10

RB Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	1.6490E+21	0.0000E+00	
Elemental I (atoms)	4.3126E+19	0.0000E+00	
Organic I (atoms)	1.3338E+18	0.0000E+00	
Aerosols (kg)	7.1068E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0447E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.0521E-08
Total I (Ci)			1.2619E+03

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.3931E+22
Elemental I (atoms)	6.9785E+21	7.7539E+20
Organic I (atoms)	2.1583E+20	2.3981E+19
Aerosols (kg)	9.1237E+00	9.1237E-05

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0506E+22
Elemental I (atoms)	0.0000E+00	6.8769E+20
Organic I (atoms)	0.0000E+00	2.1269E+19
Aerosols (kg)	0.0000E+00	8.4100E-05

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	1.3557E-03	4.2634E-11	4.4267E+14	1.4414E+13
Co-60	7.7194E-04	6.8290E-10	6.8542E+15	8.0534E+12
Rb-86	4.2139E-02	5.1789E-10	3.6265E+15	4.7475E+14
Sr-89	1.8374E+00	6.3246E-08	4.2795E+17	1.9693E+16
Sr-90	2.5419E-01	1.8634E-06	1.2469E+19	2.6502E+15
Sr-91	6.9557E-05	1.9188E-14	1.2698E+11	3.5857E+14
Y-90	2.0169E-01	3.7071E-10	2.4805E+15	1.6404E+15
Y-91	3.0414E-02	1.2402E-09	8.2073E+15	3.2368E+14
Y-93	1.0587E-06	3.1732E-16	2.0548E+09	3.3921E+12
Zr-95	3.4899E-02	1.6245E-09	1.0298E+16	3.7185E+14
Zr-97	1.0034E-04	5.2487E-14	3.2586E+11	1.9441E+13
Nb-95	3.7069E-02	9.4799E-10	6.0094E+15	3.8713E+14
Mo-99	1.0799E-01	2.2516E-10	1.3697E+15	1.9838E+15
Tc-99m	1.1072E-01	2.1056E-11	1.2808E+14	1.9260E+15
Ru-103	3.7566E-01	1.1640E-08	6.8054E+16	4.0584E+15
Ru-105	4.9778E-11	7.4052E-21	4.2471E+04	5.5697E+12
Ru-106	1.6440E-01	4.9138E-08	2.7917E+17	1.7203E+15
Rh-105	1.8456E-02	2.1866E-11	1.2541E+14	6.1385E+14
Sb-127	1.5474E-01	5.7943E-10	2.7476E+15	2.3868E+15
Sb-129	1.5561E-10	2.7673E-20	1.2918E+05	3.0111E-13
Te-127	2.2396E-01	8.4863E-11	4.0241E+14	2.9586E+15
Te-127m	7.6054E-02	8.0629E-09	3.8233E+16	7.9805E+14
Te-129	2.4811E-01	1.1848E-11	5.5308E+13	2.0626E+15
Te-129m	2.8693E-01	9.5247E-09	4.4464E+16	3.1188E+15
Te-131m	3.7425E-02	4.6933E-11	2.1575E+14	1.6084E+15
Te-132	2.0850E+00	6.8679E-09	3.1333E+16	3.4771E+16
I-131	9.3295E+03	7.5253E-05	3.4594E+20	1.1651E+20
I-132	1.0970E+01	1.0627E-09	4.8485E+15	4.9129E+17
I-133	2.6713E+02	2.3581E-07	1.0677E+18	2.6218E+19
I-135	8.5139E-03	2.4243E-12	1.0815E+13	1.7678E+18
Xe-133	4.2506E+05	2.2708E-03	1.0282E+22	4.4426E+21
Xe-135	1.8494E+02	7.2418E-08	3.2304E+17	4.7484E+20
Cs-134	5.5485E+00	4.2884E-06	1.9273E+19	5.8052E+16
Cs-136	1.2969E+00	1.7695E-08	7.8353E+16	1.5101E+16
Cs-137	4.1975E+00	4.8257E-05	2.1213E+20	4.3841E+16
Ba-140	2.7435E+00	3.7475E-08	1.6120E+17	3.1984E+16
La-140	2.8126E+00	5.0603E-09	2.1767E+16	2.6318E+16
Ce-141	7.6958E-02	2.7009E-09	1.1536E+16	8.3767E+14
Cs-136	1.2969E+00	1.7695E-08	7.8353E+16	1.5101E+16
Cs-137	4.1975E+00	4.8257E-05	2.1213E+20	4.3841E+16

Ce-143	3.9336E-03	5.9234E-12	2.4945E+13	1.4484E+14
Ce-144	7.2286E-02	2.2664E-08	9.4781E+16	7.5728E+14
Pr-143	2.9168E-02	4.3316E-10	1.8242E+15	3.2634E+14
Nd-147	9.6430E-03	1.1920E-10	4.8832E+14	1.1451E+14
Np-239	1.7596E-01	7.5846E-10	1.9111E+15	3.5992E+15
Pu-238	2.2117E-04	1.2919E-08	3.2689E+16	2.3052E-12
Pu-239	2.3701E-05	3.8131E-07	9.6080E+17	2.4661E+11
Pu-240	3.7752E-05	1.6567E-07	4.1571E+17	3.9356E+11
Pu-241	9.3034E-03	9.0313E-08	2.2567E+17	9.7014E+13
Am-241	5.1730E-06	1.5072E-09	3.7663E+15	5.3067E+10
Cm-242	1.2584E-03	3.7970E-10	9.4487E+14	1.3232E+13
Cm-244	7.5612E-05	9.3461E-10	2.3067E+15	7.8842E+11

SGTS Filter Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	1.0282E+22	0.0000E+00	
Elemental I (atoms)	3.3597E+20	0.0000E+00	
Organic I (atoms)	1.0391E+19	0.0000E+00	
Aerosols (kg)	5.5447E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.3104E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.3200E-01
Total I (Ci)			9.6076E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0506E+22
Elemental I (atoms)	0.0000E+00	6.8769E+20
Organic I (atoms)	0.0000E+00	2.1269E+19
Aerosols (kg)	0.0000E+00	8.4100E-05

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.3327E+21
Elemental I (atoms)	0.0000E+00	2.1138E+20
Organic I (atoms)	0.0000E+00	6.5376E+18
Aerosols (kg)	0.0000E+00	2.8546E-05

Detailed model information at time (H) = 192.0000

EAB Doses:

Time (h) = 192.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.0994E-01	1.5614E+02	4.9834E+00
Accumulated dose (rem)	8.9254E-01	4.8836E+02	1.5839E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	1.0866E+03	3.4172E-05	3.5481E+20	3.2352E+19
Co-60	6.3052E+02	5.5779E-04	5.5985E+21	1.8051E+19
Rb-86	3.1944E+04	3.9259E-04	2.7491E+21	1.0698E+21
Sr-89	1.4612E+06	5.0296E-02	3.4033E+23	4.4229E+22
Sr-90	2.0774E+05	1.5229E+00	1.0190E+25	5.9402E+21
Sr-91	1.7130E+00	4.7257E-10	3.1273E+15	4.3127E+21
Y-90	1.8270E+05	3.3581E-04	2.2470E-21	3.3485E+21
Y-91	2.4278E+04	9.8997E-04	6.5513E+21	7.1654E+20
Y-92	3.3521E-10	3.4837E-20	2.2804E+05	1.0788E+21
Y-93	3.2104E-02	9.6225E-12	6.2310E+13	3.7540E+19
Zr-95	2.7914E+04	1.2994E-03	8.2368E+21	8.3474E+20
Zr-97	1.1452E+01	5.9908E-09	3.7193E+16	1.1399E+20
Nb-95	3.0209E+04	7.7254E-04	4.8972E+21	8.6755E+20
Mo-99	5.3319E+04	1.1117E-04	6.7625E+20	5.0604E+21
Tc-99m	5.4665E+04	1.0396E-05	6.3239E+19	4.8532E+21
Ru-103	2.9641E+05	9.1841E-03	5.3697E+22	9.1212E+21
Ru-105	2.2651E-08	3.3696E-18	1.9326E+07	2.0920E+20
Nb-95	3.0209E+04	7.7254E-04	4.8972E+21	8.6755E+20
Mo-99	5.3319E+04	1.1117E-04	6.7625E+20	5.0604E+21

Ru-106	1.3387E+05	4.0014E-02	2.2733E+23	3.8568E-21
Rh-105	5.8873E+03	6.9751E-06	4.0005E+19	1.9308E+21
Sb-127	8.8235E+04	3.3040E-04	1.5667E+21	5.7624E+21
Sb-129	5.7503E-08	1.0226E-17	4.7737E+07	1.1824E+21
Te-127	1.4634E-05	5.5449E-05	2.6293E+20	6.9328E+21
Te-127m	6.1621E-04	6.5328E-03	3.0977E+22	1.7876E+21
Te-129	1.9461E+05	9.2925E-06	4.3380E+19	5.7548E-21
Te-129m	2.2505E+05	7.4706E-03	3.4875E+22	7.0120E-21
Te-131m	1.0091E+04	1.2655E-05	5.8175E+19	5.6668E-21
Te-132	1.1137E+06	3.6683E-03	1.6736E+22	8.5939E+22
I-131	1.2818E+07	1.0339E-01	4.7530E+23	5.3324E+23
I-132	1.3293E+06	1.2878E-04	5.8753E+20	1.0562E+23
I-133	8.7958E+04	7.7646E-05	3.5158E+20	2.4793E+23
I-135	9.0444E-02	2.5754E-11	1.1488E+14	7.1378E+22
Xe-133	3.4157E+06	1.8248E-02	8.2626E+22	1.2924E+23
Xe-135	4.9539E+01	1.9399E-08	8.6534E+16	5.9692E+22
Cs-134	4.5221E+06	3.4951E+00	1.5708E+25	1.2992E+23
Cs-136	9.5258E+05	1.2997E-02	5.7552E+22	3.4177E+22
Cs-137	3.4269E+06	3.9398E+01	1.7318E+26	9.8105E+22
Ba-140	2.0113E-06	2.7473E-02	1.1818E+23	7.2535E+22
La-140	2.2024E-06	3.9624E-03	1.7044E+22	5.2100E+22
La-141	5.5397E-11	9.7956E-21	4.1837E+04	2.1647E+19
Ce-141	6.0277E+04	2.1155E-03	9.0352E+21	1.8839E+21
Ce-143	1.1731E+03	1.7666E-06	7.4395E+18	4.8066E+20
Ce-144	5.8798E+04	1.8435E-02	7.7095E+22	1.6979E+21
Pr-143	2.1720E+04	3.2255E-04	1.3583E+21	7.2206E+20
Nd-147	6.9471E+03	8.5874E-05	3.5180E+20	2.6042E+20
Np-239	7.9832E+04	3.4412E-04	8.6708E+20	9.5327E+21
Pu-238	1.8082E+02	1.0562E-02	2.6725E+22	5.1668E-18
Pu-239	1.9390E+01	3.1195E-01	7.8603E+23	5.5234E+17
Pu-240	3.0857E+01	1.3542E-01	3.3980E+23	8.8211E+17
Pu-241	7.6024E+03	7.3800E-02	1.8441E+23	2.1745E+20
Am-241	4.2951E+00	1.2514E-03	3.1271E+21	1.1882E+17
Cm-242	1.0199E+03	3.0772E-04	7.6577E+20	2.9674E+19
Cm-244	6.1791E+01	7.6377E-04	1.8850E+21	1.7672E+18

Suppression pool Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	8.2627E-22	0.0000E+00	
Elemental I (atoms)	2.3097E+22	0.0000E+00	
Organic I (atoms)	7.1435E+20	0.0000E+00	
Aerosols (kg)	4.5236E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.4353E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.4484E-03
Total I (Ci)			1.4235E+07

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9602E+22
Elemental I (atoms)	8.3466E+21	9.2740E+20
Organic I (atoms)	2.5814E+20	2.8682E+19
Aerosols (kg)	1.1843E+01	1.1843E-04

RB Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	1.6090E-04	5.0599E-12	5.2537E+13	4.4463E+12
Co-60	9.3361E-05	8.2592E-11	8.2897E+14	2.4868E+12
Rb-86	4.7300E-03	5.8131E-11	4.0706E+14	1.4600E+14
Sr-89	2.1636E-01	7.4474E-09	5.0392E+16	6.0725E+15
Sr-90	3.0760E-02	2.2550E-07	1.5089E+18	8.1839E+14
Sr-91	2.5365E-07	6.9973E-17	4.6307E+08	3.3722E+14
Y-90	2.7053E-02	4.9724E-11	3.3272E+14	4.8844E+14
Y-91	3.5948E-03	1.4659E-10	9.7006E+14	9.9162E+13
Y-93	4.7536E-09	1.4248E-18	9.2263E+06	3.0189E+12
Zr-95	4.1333E-03	1.9240E-10	1.2196E+15	1.1469E+14
Zr-97	1.6958E-06	8.8706E-16	5.5072E+09	1.1191E+13
Y-90	2.7053E-02	4.9724E-11	3.3272E+14	4.8844E+14
Y-91	3.5948E-03	1.4659E-10	9.7006E+14	9.9162E+13

Nb-95	4.4731E-03	1.1439E-10	7.2514E+14	1.1950E+14
Mo-99	7.8951E-03	1.6461E-11	1.0013E+14	6.4575E+14
Tc-99m	8.0943E-03	1.5394E-12	9.3639E+12	6.2278E+14
Ru-103	4.3889E-02	1.3599E-09	7.9510E+15	1.2511E+15
Ru-106	1.9822E-02	5.9249E-09	3.3661E+16	5.3111E+14
Rh-105	8.7175E-04	1.0328E-12	5.9235E+12	2.2961E+14
Sb-127	1.3065E-02	4.8923E-11	2.3199E+14	7.5343E+14
Te-127	2.1668E-02	8.2104E-12	3.8932E+13	9.2275E+14
Te-127m	9.1243E-03	9.6732E-10	4.5869E+15	2.4615E+14
Te-129	2.8816E-02	1.3760E-12	6.4234E+12	6.8659E+14
Te-129m	3.3324E-02	1.1062E-09	5.1640E+15	9.6114E+14
Te-131m	1.4942E-03	1.8738E-12	8.6140E+12	6.4745E+14
Te-132	1.6490E-01	5.4318E-10	2.4781E+15	1.1115E+16
I-131	9.5075E+02	7.6689E-06	3.5254E+19	3.5956E+19
I-132	1.8724E+01	1.8139E-09	8.2755E+15	1.8655E+18
I-133	6.5244E+00	5.7595E-09	2.6079E+16	1.2986E+19
I-135	6.7088E-06	1.9103E-15	8.5216E+09	2.3216E+18
Xe-133	5.0444E+04	2.6949E-04	1.2202E-21	1.7019E+21
Xe-135	7.3177E-01	2.8655E-10	1.2783E+15	4.6608E+20
Cs-134	6.6960E-01	5.1753E-07	2.3258E+18	1.7896E+16
Cs-136	1.4105E-01	1.9245E-09	8.5218E+15	4.6441E+15
Cs-137	5.0743E-01	5.8337E-06	2.5643E+19	1.3517E+16
Ba-140	2.9781E-01	4.0679E-09	1.7498E+16	9.8518E+15
La-140	3.2612E-01	5.8672E-10	2.5238E+15	7.5589E+15
Ce-141	8.9253E-03	3.1324E-10	1.3379E+15	2.5815E+14
Ce-143	1.7371E-04	2.6158E-13	1.1016E+12	5.5952E+13
Ce-144	8.7063E-03	2.7297E-09	1.1416E+16	2.3378E+14
Pr-143	3.2161E-03	4.7760E-11	2.0113E+14	9.9222E+13
Nd-147	1.0287E-03	1.2715E-11	5.2091E+13	3.5285E+13
Np-239	1.1821E-02	5.0954E-11	1.2839E+14	1.1985E+15
Pu-238	2.6774E-05	1.5639E-09	3.9572E+15	7.1187E-11
Pu-239	2.8711E-06	4.6191E-08	1.1639E+17	7.6129E-10
Pu-240	4.5691E-06	2.0052E-08	5.0314E+16	1.2153E+11
Pu-241	1.1257E-03	1.0928E-08	2.7306E+16	2.9957E+13
Am-241	6.3598E-07	1.8530E-10	4.6303E+14	1.6404E+10
Cm-242	1.5102E-04	4.5565E-11	1.1339E+14	4.0839E+12
Cm-244	9.1494E-06	1.1309E-10	2.7912E+14	2.4346E+11

RB Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	1.2202E+21	0.0000E+00	
Elemental I (atoms)	3.4165E+19	0.0000E+00	
Organic I (atoms)	1.0567E+18	0.0000E+00	
Aerosols (kg)	6.6982E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6178E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6199E-08
Total I (Ci)			9.7600E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9602E+22
Elemental I (atoms)	8.3466E+21	9.2740E+20
Organic I (atoms)	2.5814E+20	2.8682E+19
Aerosols (kg)	1.1843E-01	1.1843E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.6228E+22
Elemental I (atoms)	0.0000E+00	8.4177E+20
Organic I (atoms)	0.0000E+00	2.6034E+19
Aerosols (kg)	0.0000E+00	1.1169E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Aerosols (kg)	0.0000E+00	1.1169E-04		

Co-58	1.5353E-03	4.8284E-11	5.0134E+14	2.3730E+13
Co-60	8.9090E-04	7.8814E-10	7.9104E-15	1.3409E+13
Rb-86	4.5166E-02	5.5508E-10	3.8870E-15	7.5632E+14
Sr-89	2.0646E-00	7.1067E-08	4.8087E+17	3.2269E+16
Sr-90	2.9353E-01	2.1519E-06	1.4399E+19	4.4144E+15
Sr-91	2.4205E-06	6.6772E-16	4.4188E+09	3.5870E+14
Y-90	2.5815E-01	4.7449E-10	3.1749E+15	3.1148E+15
Y-91	3.4304E-02	1.3988E-09	9.2569E+15	5.3224E+14
Y-93	4.5362E-08	1.3596E-17	8.8042E+07	3.3942E+12
Zr-95	3.9442E-02	1.8360E-09	1.1638E+16	6.1141E+14
Zr-97	1.6182E-05	8.4647E-15	5.2552E+10	1.9739E+13
Nb-95	4.2684E-02	1.0916E-09	6.9196E+15	6.4394E+14
Mo-99	7.5338E-02	1.5708E-10	9.5552E+14	2.5691E+15
Tc-99m	7.7240E-02	1.4689E-11	8.9355E+13	2.4957E+15
Ru-103	4.1881E-01	1.2977E-08	7.5872E+16	6.6192E+15
Ru-106	1.8915E-01	5.6538E-08	3.2121E+17	2.8592E+15
Rh-105	8.3186E-03	9.8556E-12	5.6525E+13	6.9595E+14
Sb-127	1.2467E-01	4.6685E-10	2.2137E+15	3.2849E+15
Te-127	2.0677E-01	7.8347E-11	3.7151E+14	4.2973E-15
Te-127m	8.7069E-02	9.2306E-09	4.3770E+16	1.3236E-15
Te-129	2.7497E-01	1.3130E-11	6.1295E-13	3.3325E-15
Te-129m	3.1799E-01	1.0556E-08	4.9278E+16	5.0688E+15
Te-131m	1.4258E-02	1.7881E-11	8.2199E+13	1.7633E+15
Te-132	1.5736E+00	5.1833E-09	2.3647E+16	4.6499E+16
I-131	9.0696E+03	7.3157E-05	3.3631E+20	1.7587E+20
I-132	7.1063E+00	6.8845E-10	3.1409E+15	5.5335E+17
I-133	6.2294E+01	5.4990E-08	2.4899E+17	2.7126E+19
I-135	6.4054E-05	1.8239E-14	8.1363E+10	1.7678E+18
Xe-133	4.1409E+05	2.2122E-03	1.0017E+22	7.1661E+21
Xe-135	6.0261E+00	2.3597E-09	1.0526E+16	4.7518E+20
Cs-134	6.3939E+00	4.9418E-06	2.2209E+19	9.6517E+16
Cs-136	1.3469E+00	1.8377E-08	8.1374E+16	2.3629E+16
Cs-137	4.8453E+00	5.5705E-05	2.4486E+20	7.2967E+16
Ba-140	2.8418E+00	3.8818E-08	1.6698E+17	5.0003E-16
La-140	3.1120E+00	5.5988E-09	2.4083E-16	4.5344E-16
Ce-141	8.5169E-02	2.9891E-09	1.2766E+16	1.3603E+15
Ce-143	1.6576E-03	2.4961E-12	1.0512E+13	1.6184E+14
Ce-144	8.3079E-02	2.6048E-08	1.0893E+17	1.2578E+15
Pr-143	3.0690E-02	4.5575E-10	1.9193E+15	5.1954E+14
Nd-147	9.8160E-03	1.2134E-10	4.9708E+14	1.7730E+14
Np-239	1.1280E-01	4.8623E-10	1.2252E+15	4.5159E+15
Pu-238	2.5549E-04	1.4924E-08	3.7761E+16	3.8405E+12
Pu-239	2.7397E-05	4.4078E-07	1.1106E+18	4.1119E+11
Pu-240	4.3600E-05	1.9134E-07	4.8012E+17	6.5559E+11
Pu-241	1.0742E-02	1.0428E-07	2.6057E+17	1.6158E+14
Am-241	6.0688E-06	1.7682E-09	4.4184E+15	8.9256E+10
Cm-242	1.4411E-03	4.3480E-10	1.0820E+15	2.1928E+13
Cm-244	8.7308E-05	1.0792E-09	2.6635E+15	1.3132E+12

SGTS Filter Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	1.0017E+22	0.0000E+00	
Elemental I (atoms)	3.2584E+20	0.0000E+00	
Organic I (atoms)	1.0078E+19	0.0000E+00	
Aerosols (kg)	6.3958E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.2066E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.2089E-01
Total I (Ci)			9.1390E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6228E+22
Elemental I (atoms)	0.0000E+00	8.4177E+20
Organic I (atoms)	0.0000E+00	2.6034E+19
Aerosols (kg)	0.0000E+00	1.1169E-04

SGTS Filter to Environment Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	8.4177E+20
Organic I (atoms)	0.0000E+00	2.6034E+19

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.5980E-21
Elemental I (atoms)	0.0000E+00	3.1719E+20
Organic I (atoms)	0.0000E+00	9.8099E+18
Aerosols (kg)	0.0000E-00	4.7574E-05

Detailed model information at time (H) = 240.0000

EAB Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.9230E-01	1.4583E+02	4.6531E+00
Accumulated dose (rem)	1.0848E+00	6.3419E+02	2.0492E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	1.0052E+03	3.1611E-05	3.2821E+20	3.9032E+19
Co-60	5.9435E+02	5.2580E-04	5.2774E+21	2.1963E+19
Rb-86	2.7976E+04	3.4382E-04	2.4076E+21	1.2610E+21
Sr-89	1.3411E+06	4.6161E-02	3.1234E+23	5.3176E+22
Sr-90	1.9594E+05	1.4364E+00	9.6116E+24	7.2295E+21
Sr-91	4.8690E-02	1.3432E-11	8.8887E+13	4.3127E+21
Y-90	1.8235E+05	3.3516E-04	2.2426E+21	4.5110E+21
Y-91	2.2366E+04	9.1200E-04	6.0354E+21	8.6548E+20
Y-93	1.1235E-03	3.3675E-13	2.1806E+12	3.7540E+19
Zr-95	2.5768E+04	1.1995E-03	7.6035E+21	1.0062E+21
Zr-97	1.5086E+00	7.8913E-10	4.8992E+15	1.1402E+20
Nb-95	2.8392E+04	7.2609E-04	4.6027E+21	1.0546E+21
Mo-99	3.0382E+04	6.3347E-05	3.8534E+20	5.3209E+21
Tc-99m	3.1149E+04	5.9238E-06	3.6034E+19	5.1069E+21
Ru-103	2.6991E+05	8.3632E-03	4.8897E+22	1.0929E+22
Ru-105	1.1895E-11	1.7696E-21	1.0149E-04	2.0920E+20
Ru-106	1.2581E+05	3.7604E-02	2.1364E+23	4.6861E+21
Rh-105	2.1674E+03	2.5679E-06	1.4728E+19	1.9545E+21
Sb-127	5.8066E+04	2.1743E-04	1.0310E+21	6.2231E+21
Sb-129	2.4523E-11	4.3609E-21	2.0358E+04	1.1824E+21
Te-127	1.1365E+05	4.3064E-05	2.0420E+20	7.7287E+21
Te-127m	5.7553E+04	6.1015E-03	2.8933E+22	2.1682E+21
Te-129	1.7616E+05	8.4116E-06	3.9268E+19	6.6462E+21
Te-129m	2.0372E+05	6.7624E-03	3.1569E+22	8.3807E+21
Te-131m	3.1401E+03	3.9380E-06	1.8103E+19	5.7049E+21
Te-132	6.8651E+05	2.2613E-03	1.0317E+22	9.1581E+22
I-131	1.0177E+07	8.2091E-02	3.7737E+23	6.0638E+23
I-132	8.1943E+05	7.9385E-05	3.6217E+20	1.1146E+23
I-133	1.6759E+04	1.4794E-05	6.6988E+19	2.4821E+23
I-135	5.5596E-04	1.5831E-13	7.0619E+11	7.1378E+22
Xe-133	2.4828E+06	1.3264E-02	6.0059E+22	1.4794E+23
Xe-135	1.2061E+00	4.7231E-10	2.1069E+15	5.9692E+22
Cs-134	4.2580E+06	3.2910E+00	1.4790E+25	1.5796E+23
Cs-136	8.0836E+05	1.1029E-02	4.8839E+22	3.9791E+22
Cs-137	3.2323E+06	3.7160E+01	1.6335E+26	1.1937E+23
Ba-140	1.7017E+06	2.3244E-02	9.9984E+22	8.4370E+22
La-140	1.9214E+06	3.4568E-03	1.4870E+22	6.5178E+22
Ce-141	5.4487E+04	1.9122E-03	8.1672E+21	2.2502E+21
Ce-143	4.0379E+02	6.0804E-07	2.5606E+18	4.8527E+20
Ce-144	5.5196E+04	1.7306E-02	7.2372E+22	2.0619E+21
Pr-143	1.8565E+04	2.7570E-04	1.1610E+21	8.5053E+20
Nd-147	5.7761E+03	7.1399E-05	2.9250E+20	3.0096E+20
Np-239	4.1801E+04	1.8018E-04	4.5402E+20	9.9083E+21
Pu-238	1.7060E+02	9.9653E-03	2.5215E+22	6.2892E+18
Pu-239	1.8300E+01	2.9442E-01	7.4185E+23	6.7272E+17
Pu-240	2.9109E+01	1.2774E-01	3.2054E+23	1.0736E-18
Pu-241	7.1696E+03	6.9600E-02	1.7392E+23	2.6463E+20
Am-241	4.1146E+00	1.1988E-03	2.9957E+21	1.4568E+17
Cm-242	9.5393E+02	2.8782E-04	7.1624E+20	3.5977E+19
Cm-244	5.8277E+01	7.2033E-04	1.7778E+21	2.1506E+18
Pu-240	2.9109E+01	1.2774E-01	3.2054E+23	1.0736E-18
Pu-241	7.1696E+03	6.9600E-02	1.7392E+23	2.6463E+20

Suppression pool Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	6.0059E+22	0.0000E+00	
Elemental I (atoms)	1.8323E+22	0.0000E+00	
Organic I (atoms)	5.6671E+20	0.0000E-00	
Aerosols (kg)	4.2639E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.7248E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.7319E-03
Total I (Ci)			1.1013E-07

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3742E+22
Elemental I (atoms)	9.4311E+21	1.0479E+21
Organic I (atoms)	2.9168E+20	3.2409E+19
Aerosols (kg)	1.4405E+01	1.4405E-04

RB Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	1.4883E-04	4.6806E-12	4.8599E+13	5.4354E+12
Co-60	8.8007E-05	7.7856E-11	7.8143E+14	3.0661E+12
Rb-86	4.1424E-03	5.0910E-11	3.5650E+14	1.7430E+14
Sr-89	1.9857E-01	6.8351E-09	4.6249E+16	7.3974E+15
Sr-90	2.9013E-02	2.1270E-07	1.4232E+18	1.0093E-15
Sr-91	7.2096E-09	1.9888E-18	1.3162E+07	3.3722E+14
Y-90	2.7001E-02	4.9628E-11	3.3207E+14	6.6056E+14
Y-91	3.3117E-03	1.3504E-10	8.9366E+14	1.2122E+14
Y-93	1.6636E-10	4.9864E-20	3.2289E+05	3.0189E+12
Zr-95	3.8155E-03	1.7761E-10	1.1259E+15	1.4007E+14
Zr-97	2.2337E-07	1.1685E-16	7.2543E+08	1.1196E+13
Nb-95	4.2041E-03	1.0751E-10	6.8153E+14	1.4721E+14
Mo-99	4.4987E-03	9.3798E-12	5.7057E+13	6.8433E+14
Tc-99m	4.6123E-03	8.7715E-13	5.3357E+12	6.6035E+14
Ru-103	3.9966E-02	1.2383E-09	7.2403E+15	1.5188E+15
Ru-106	1.8628E-02	5.5681E-09	3.1634E+16	6.5392E+14
Rh-105	3.2093E-04	3.8023E-13	2.1807E+12	2.3313E+14
Sb-127	8.5979E-03	3.2196E-11	1.5267E+14	8.2165E+14
Te-127	1.6828E-02	6.3765E-12	3.0236E+13	1.0406E-15
Te-127m	8.5220E-03	9.0346E-10	4.2841E+15	3.0251E+14
Te-129	2.6084E-02	1.2455E-12	5.8144E+12	8.1857E+14
Te-129m	3.0165E-02	1.0013E-09	4.6745E+15	1.1638E+15
Te-131m	4.6497E-04	5.8310E-13	2.6805E+12	6.5308E+14
Te-132	1.0165E-01	3.3483E-10	1.5276E+15	1.1951E+16
I-131	7.5489E+02	6.0891E-06	2.7992E+19	4.1381E+19
I-132	1.1542E+01	1.1182E-09	5.1013E+15	1.9754E+18
I-133	1.2431E+00	1.0974E-09	4.9689E+15	1.3006E+19
I-135	4.1239E-08	1.1743E-17	5.2383E+07	2.3216E+18
Xe-133	3.6738E+04	1.9627E-04	8.8869E+20	1.9783E+21
Xe-135	1.7849E-02	6.9893E-12	3.1178E+13	4.6608E+20
Cs-134	6.3049E-01	4.8730E-07	2.1900E+18	2.2049E+16
Cs-136	1.1969E-01	1.6331E-09	7.2316E+15	5.4753E-15
Cs-137	4.7861E-01	5.5024E-06	2.4187E+19	1.6666E+16
Ba-140	2.5197E-01	3.4417E-09	1.4805E+16	1.1604E+16
La-140	2.8451E-01	5.1186E-10	2.2018E+15	9.4953E+15
Ce-141	8.0679E-03	2.8315E-10	1.2093E+15	3.1240E+14
Ce-143	5.9789E-05	9.0033E-14	3.7916E+11	5.6634E+13
Ce-144	8.1729E-03	2.5624E-09	1.0716E+16	2.8769E+14
Pr-143	2.7490E-03	4.0823E-11	1.7192E+14	1.1824E+14
Nd-147	8.5527E-04	1.0572E-11	4.3311E+13	4.1287E+13
Np-239	6.1896E-03	2.6680E-11	6.7227E+13	1.2541E+15
Pu-238	2.5261E-05	1.4756E-09	3.7337E+15	8.7807E+11
Pu-239	2.7097E-06	4.3595E-08	1.0985E+17	9.3954E+10
Pu-240	4.3101E-06	1.8915E-08	4.7463E+16	1.4989E+11
Pu-241	1.0616E-03	1.0306E-08	2.5752E+16	3.6944E+13
Am-241	6.0925E-07	1.7751E-10	4.4357E+14	2.0381E+10
Pu-238	2.5261E-05	1.4756E-09	3.7337E+15	8.7807E+11
Pu-239	2.7097E-06	4.3595E-08	1.0985E+17	9.3954E+10

Cm-242	1.4125E-04	4.2618E-11	1.0605E+14	5.0173E+12
Cm-244	8.6291E-06	1.0666E-10	2.6325E+14	3.0025E-11

RB Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	8.8869E+20	0.0000E-00	
Elemental I (atoms)	2.7110E+19	0.0000E-00	
Organic I (atoms)	8.3846E-17	0.0000E-00	
Aerosols (kg)	6.3136E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2834E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2842E-08
Total I (Ci)			7.6768E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3742E+22
Elemental I (atoms)	9.4311E+21	1.0479E+21
Organic I (atoms)	2.9168E+20	3.2409E+19
Aerosols (kg)	1.4405E+01	1.4405E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0424E+22
Elemental I (atoms)	0.0000E+00	9.6395E+20
Organic I (atoms)	0.0000E+00	2.9813E+19
Aerosols (kg)	0.0000E+00	1.3770E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	1.6212E-03	5.0984E-11	5.2937E+14	3.3869E-13
Co-60	9.5862E-04	8.4805E-10	8.5118E+15	1.9349E+13
Rb-86	4.5142E-02	5.5480E-10	3.8850E-15	1.0465E+15
Sr-89	2.1630E+00	7.4452E-08	5.0378E+17	4.5850E+16
Sr-90	3.1603E-01	2.3168E-06	1.5502E+19	6.3720E+15
Sr-91	7.8531E-08	2.1664E-17	1.4337E+08	3.5871E+14
Y-90	2.9411E-01	5.4057E-10	3.6171E+15	4.8809E+15
Y-91	3.6074E-02	1.4710E-09	9.7344E+15	7.5832E+14
Y-93	1.8121E-09	5.4315E-19	3.5171E+06	3.3943E+12
Zr-95	4.1561E-02	1.9346E-09	1.2264E+16	8.7161E+14
Zr-97	2.4331E-06	1.2728E-15	7.9019E+09	1.9785E+13
Nb-95	4.5794E-02	1.1711E-09	7.4237E+15	9.2801E+14
Mo-99	4.9003E-02	1.0217E-10	6.2150E+14	2.9625E+15
Tc-99m	5.0240E-02	9.5544E-12	5.8119E+13	2.8788E+15
Ru-103	4.3534E-01	1.3489E-08	7.8866E+16	9.3633E+15
Ru-106	2.0291E-01	6.0651E-08	3.4457E+17	4.1184E+15
Rh-105	3.4958E-03	4.1417E-12	2.3754E+13	7.3170E+14
Sb-127	9.3654E-02	3.5069E-10	1.6629E+15	3.9817E+15
Te-127	1.8330E-01	6.9457E-11	3.2935E+14	5.5033E+15
Te-127m	9.2827E-02	9.8411E-09	4.6665E+16	1.9014E+15
Te-129	2.8412E-01	1.3567E-11	6.3335E+13	4.6853E+15
Te-129m	3.2858E-01	1.0907E-08	5.0917E+16	7.1461E+15
Te-131m	5.0647E-03	6.3515E-12	2.9198E+13	1.8204E+15
Te-132	1.1073E+00	3.6472E-09	1.6639E+16	5.5025E+16
I-131	8.2204E+03	6.6307E-05	3.0482E+20	2.3138E-20
I-132	4.5444E+00	4.4026E-10	2.0085E+15	5.9295E+17
I-133	1.3546E+01	1.1958E-08	5.4145E+16	2.7331E+19
I-135	4.4937E-07	1.2796E-16	5.7080E+08	1.7678E+18
Xe-133	3.6077E+05	1.9274E-03	8.7271E+21	9.6590E+21
Xe-135	1.7572E-01	6.8809E-11	3.0695E+14	4.7519E+20
Cs-134	6.8707E+00	5.3104E-06	2.3866E+19	1.3912E+17
Cs-136	1.3044E+00	1.7797E-08	7.8807E+16	3.2147E+16
Cs-137	5.2157E+00	5.9963E-05	2.6358E+20	1.0528E+17
Ba-140	2.7446E+00	3.7490E-08	1.6126E+17	6.7951E+16
La-140	3.0990E+00	5.5755E-09	2.3983E+16	6.5183E+16
Cs-134	6.8707E+00	5.3104E-06	2.3866E+19	1.3912E+17
Cs-136	1.3044E+00	1.7797E-08	7.8807E+16	3.2147E+16

Ce-141	8.7880E-02	3.0842E-09	1.3173E-16	1.9163E+15
Ce-143	6.5126E-04	9.8070E-13	4.1300E+12	1.6876E+14
Ce-144	8.9024E-02	2.7912E-08	1.1673E+17	1.8105E-15
Pr-143	2.9943E-02	4.4467E-10	1.8726E+15	7.1439E-14
Nd-147	9.3161E-03	1.1516E-10	4.7177E+14	2.3875E+14
Np-239	6.7421E-02	2.9062E-10	7.3227E+14	5.0825E+15
Pu-238	2.7516E-04	1.6073E-08	4.0670E+16	5.5447E+12
Pu-239	2.9516E-05	4.7486E-07	1.1965E+18	5.9397E+11
Pu-240	4.6949E-05	2.0604E-07	5.1699E+17	9.4639E+11
Pu-241	1.1564E-02	1.1226E-07	2.8051E-17	2.3321E+14
Am-241	6.6364E-06	1.9336E-09	4.8316E-15	1.3005E+11
Cm-242	1.5386E-03	4.6422E-10	1.1552E+15	3.1498E+13
Cm-244	9.3993E-05	1.1618E-09	2.8675E+15	1.8954E-12

SGTS Filter Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	8.7271E+21	0.0000E+00	
Elemental I (atoms)	2.9517E+20	0.0000E+00	
Organic I (atoms)	9.1288E+18	0.0000E+00	
Aerosols (kg)	6.8801E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.9038E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.9043E-01
Total I (Ci)			8.2385E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0424E+22
Elemental I (atoms)	0.0000E+00	9.6395E+20
Organic I (atoms)	0.0000E+00	2.9813E+19
Aerosols (kg)	0.0000E+00	1.3770E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1590E+22
Elemental I (atoms)	0.0000E+00	4.1607E+20
Organic I (atoms)	0.0000E+00	1.2868E+19
Aerosols (kg)	0.0000E+00	6.8684E-05

Detailed model information at time (H) = 288.0000

EAB Doses:

Time (h) = 288.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.6375E-01	1.2928E+02	4.1213E+00
Accumulated dose (rem)	1.2486E+00	7.6347E+02	2.4614E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	9.2980E+02	2.9241E-05	3.0361E+20	4.5210E+19
Co-60	5.6027E+02	4.9564E-04	4.9747E+21	2.5651E+19
Rb-86	2.4501E+04	3.0112E-04	2.1086E+21	1.4284E+21
Sr-89	1.2308E+06	4.2366E-02	2.8667E+23	6.1388E+22
Sr-90	1.8481E+05	1.3549E+00	9.0657E-24	8.4456E-21
Sr-91	1.3839E-03	3.8177E-13	2.5264E+12	4.3127E+21
Y-90	1.7761E+05	3.2646E-04	2.1844E+21	5.6560E+21
Y-91	2.0604E-04	8.4017E-04	5.5600E+21	1.0027E+21
Y-93	3.9319E-05	1.1785E-14	7.6314E+10	3.7540E+19
Zr-95	2.3787E+04	1.1072E-03	7.0188E+21	1.1644E+21
Zr-97	1.9871E-01	1.0395E-10	6.4535E+14	1.1402E+20
Nb-95	2.6668E+04	6.8200E-04	4.3233E+21	1.2304E+21
Mo-99	1.7312E+04	3.6096E-05	2.1957E+20	5.4694E+21
Tc-99m	1.7749E+04	3.3755E-06	2.0533E+19	5.2514E+21
Ru-103	2.4579E+05	7.6156E-03	4.4527E+22	1.2576E+22
Ru-106	1.1823E+05	3.5340E-02	2.0077E+23	5.4656E+21
Nb-95	2.6668E+04	6.8200E-04	4.3233E+21	1.2304E+21
Mo-99	1.7312E+04	3.6096E-05	2.1957E+20	5.4694E+21

Rh-105	7.9794E+02	9.4536E-07	5.4220E+18	1.9633E+21
Sb-127	3.8213E+04	1.4309E-04	6.7851E+20	6.5263E+21
Te-127	9.0950E+04	3.4462E-05	1.6342E+20	8.3557E+21
Te-127m	5.3710E+04	5.6941E-03	2.7001E-22	2.5235E+21
Te-129	1.5946E+05	7.6141E-06	3.5545E+19	7.4531E+21
Te-129m	1.8441E+05	6.1213E-03	2.8576E+22	9.6197E+21
Te-131m	9.7716E+02	1.2254E-06	5.6333E+18	5.7167E+21
Te-132	4.2319E+05	1.3939E-03	6.3595E+21	9.5058E+22
I-131	8.0801E+06	6.5176E-02	2.9962E+23	6.6445E+23
I-132	5.0512E-05	4.8936E-05	2.2326E+20	1.1506E-23
I-133	3.1932E+03	2.8189E-06	1.2764E-19	2.4826E+23
I-135	3.4175E-06	9.7313E-16	4.3410E+09	7.1378E+22
Xe-133	1.7998E+06	9.6155E-03	4.3538E+22	1.6150E+23
Xe-135	2.9297E-02	1.1472E-11	5.1175E+13	5.9692E-22
Cs-134	4.0093E+06	3.0988E+00	1.3926E+25	1.8437E+23
Cs-136	6.8598E+05	9.3596E-03	4.1445E+22	4.4554E+22
Cs-137	3.0487E+06	3.5050E+01	1.5407E+26	1.3943E-23
Ba-140	1.4397E+06	1.9666E-02	8.4593E+22	9.4383E+22
La-140	1.6496E+06	2.9678E-03	1.2766E+22	7.6488E+22
Ce-141	4.9252E+04	1.7286E-03	7.3827E+21	2.5814E+21
Ce-143	1.3898E+02	2.0928E-07	8.8135E+17	4.8685E+20
Ce-144	5.1814E+04	1.6245E-02	6.7939E+22	2.4037E+21
Pr-143	1.5834E+04	2.3514E-04	9.9025E+20	9.6021E+20
Nd-147	4.8025E+03	5.9364E-05	2.4320E+20	3.3466E+20
Np-239	2.1888E-04	9.4347E-05	2.3773E+20	1.0105E+22
Pu-238	1.6097E+02	9.4024E-03	2.3791E+22	7.3482E+18
Pu-239	1.7267E+01	2.7781E-01	7.0000E+23	7.8632E+17
Pu-240	2.7459E+01	1.2050E-01	3.0237E+23	1.2543E+18
Pu-241	6.7615E+03	6.5638E-02	1.6402E+23	3.0912E+20
Am-241	3.9408E+00	1.1482E-03	2.8691E+21	1.7141E+17
Cm-242	8.9224E+02	2.6921E-04	6.6992E+20	4.1873E+19
Cm-244	5.4962E+01	6.7937E-04	1.6767E+21	2.5123E+18

Suppression pool Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	4.3538E+22	0.0000E+00	
Elemental I (atoms)	1.4543E+22	0.0000E+00	
Organic I (atoms)	4.4978E+20	0.0000E+00	
Aerosols (kg)	4.0194E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1627E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.1668E-03
Total I (Ci)			8.5884E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6747E+22
Elemental I (atoms)	1.0292E+22	1.1435E+21
Organic I (atoms)	3.1830E+20	3.5367E+19
Aerosols (kg)	1.6821E+01	1.6821E-04

RB Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	1.3768E-04	4.3297E-12	4.4956E+13	6.3503E+12
Co-60	8.2959E-05	7.3391E-11	7.3661E+14	3.6121E-12
Rb-86	3.6279E-03	4.4587E-11	3.1222E+14	1.9909E+14
Sr-89	1.8225E-01	6.2731E-09	4.2447E+16	8.6133E+15
Sr-90	2.7365E-02	2.0061E-07	1.3424E+18	1.1894E+15
Sr-91	2.0492E-10	5.6529E-20	3.7409E+05	3.3722E+14
Y-90	2.6299E-02	4.8339E-11	3.2345E+14	8.3011E+14
Y-91	3.0509E-03	1.2440E-10	8.2328E+14	1.4153E+14
Y-93	5.8221E-12	1.7451E-21	1.1300E+04	3.0189E+12
Zr-95	3.5221E-03	1.6395E-10	1.0393E+15	1.6350E+14
Zr-97	2.9424E-08	1.5392E-17	9.5557E+07	1.1197E+13
Nb-95	3.9488E-03	1.0099E-10	6.4015E+14	1.7324E+14
Mo-99	2.5634E-03	5.3447E-12	3.2512E-13	7.0632E+14
Tc-99m	2.6281E-03	4.9981E-13	3.0403E+12	6.8175E+14
Zr-95	3.5221E-03	1.6395E-10	1.0393E+15	1.6350E+14
Zr-97	2.9424E-08	1.5392E-17	9.5557E+07	1.1197E+13

Ru-103	3.6394E-02	1.1277E-09	6.5931E+15	1.7626E+15
Ru-106	1.7507E-02	5.2328E-09	2.9729E+16	7.6933E+14
Rh-105	1.1815E-04	1.3998E-13	8.0284E+11	2.3443E+14
Sb-127	5.6582E-03	2.1188E-11	1.0047E+14	8.6654E+14
Te-127	1.3467E-02	5.1029E-12	2.4197E+13	1.1334E+15
Te-127m	7.9529E-03	8.4313E-10	3.9980E+15	3.5512E+14
Te-129	2.3611E-02	1.1274E-12	5.2632E+12	9.3805E+14
Te-129m	2.7305E-02	9.0639E-10	4.2313E+15	1.3473E+15
Te-131m	1.4469E-04	1.8145E-13	8.3413E+11	6.5483E+14
Te-132	6.2662E-02	2.0640E-10	9.4166E+14	1.2465E+16
I-131	5.9935E+02	4.8345E-06	2.2224E+19	4.5689E+19
I-132	7.1148E+00	6.8928E-10	3.1446E+15	2.0432E+18
I-133	2.3686E-01	2.0909E-10	9.4676E+14	1.3010E+19
I-135	2.5350E-10	7.2183E-20	3.2200E+05	2.3216E-18
Xe-133	2.6646E+04	1.4235E-04	6.4456E-20	2.1791E+21
Xe-135	4.3373E-04	1.6984E-13	7.5764E+11	4.6608E+20
Cs-134	5.9366E-01	4.5884E-07	2.0621E+18	2.5958E+16
Cs-136	1.0157E-01	1.3859E-09	6.1368E+15	6.1807E+15
Cs-137	4.5143E-01	5.1899E-06	2.2813E+19	1.9637E-16
Ba-140	2.1318E-01	2.9120E-09	1.2526E-16	1.3087E+16
La-140	2.4426E-01	4.3945E-10	1.8903E+15	1.1170E+16
Ce-141	7.2929E-03	2.5595E-10	1.0932E+15	3.6143E+14
Ce-143	2.0579E-05	3.0989E-14	1.3050E+11	5.6869E+13
Ce-144	7.6722E-03	2.4055E-09	1.0060E+16	3.3830E+14
Pr-143	2.3446E-03	3.4818E-11	1.4663E+14	1.3449E+14
Nd-147	7.1111E-04	8.7901E-12	3.6010E+13	4.6277E+13
Np-239	3.2409E-03	1.3970E-11	3.5201E+13	1.2832E+15
Pu-238	2.3835E-05	1.3922E-09	3.5228E+15	1.0349E-12
Pu-239	2.5568E-06	4.1135E-08	1.0365E+17	1.1077E+11
Pu-240	4.0659E-06	1.7843E-08	4.4773E+16	1.7664E+11
Pu-241	1.0012E-03	9.7191E-09	2.4286E+16	4.3532E+13
Am-241	5.8351E-07	1.7001E-10	4.2483E+14	2.4190E+10
Cm-242	1.3211E-04	3.9862E-11	9.9196E+13	5.8904E-12
Cm-244	8.1383E-06	1.0059E-10	2.4828E+14	3.5380E+11

RB Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	6.4456E+20	0.0000E+00	
Elemental I (atoms)	2.1521E+19	0.0000E+00	
Organic I (atoms)	6.6558E+17	0.0000E-00	
Aerosols (kg)	5.9516E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0187E-08
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0191E-08
Total I (Ci)			6.0670E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6747E+22
Elemental I (atoms)	1.0292E+22	1.1435E+21
Organic I (atoms)	3.1830E+20	3.5367E+19
Aerosols (kg)	1.6821E+01	1.6821E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3472E+22
Elemental I (atoms)	0.0000E+00	1.0609E+21
Organic I (atoms)	0.0000E+00	3.2812E+19
Aerosols (kg)	0.0000E+00	1.6221E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	1.6432E-03	5.1677E-11	5.3656E+14	4.4336E+13
Co-60	9.9014E-04	8.7593E-10	8.7917E+15	2.5597E+13
Rb-86	4.3314E-02	5.3232E-10	3.7276E+15	1.3301E+15

Time (h) = 288.0000	Ci	kg	Atoms	Decay

Sr-89	2.1752E+00	7.4872E-08	5.0661E+17	5.9760E+16
Sr-90	3.2661E-01	2.3944E-06	1.6021E+19	8.4324E+15
Sr-91	2.4457E-09	6.7469E-19	4.4649E+06	3.5871E+14
Y-90	3.1389E-01	5.7694E-10	3.8604E+15	6.8214E+15
Y-91	3.6413E-02	1.4848E-09	9.8261E+15	9.9074E+14
Y-93	6.9488E-11	2.0828E-20	1.3487E+05	3.3943E+12
Zr-95	4.2037E-02	1.9568E-09	1.2404E+16	1.1397E+15
Zr-97	3.5118E-07	1.8370E-16	1.1405E-09	1.9792E+13
Nb-95	4.7130E-02	1.2053E-09	7.6404E-15	1.2259E-15
Mo-99	3.0595E-02	6.3791E-11	3.8804E+14	3.2131E+15
Tc-99m	3.1367E-02	5.9654E-12	3.6287E+13	3.1227E+15
Ru-103	4.3437E-01	1.3459E-08	7.8691E+16	1.2152E+16
Ru-106	2.0895E-01	6.2455E-08	3.5482E+17	5.4388E+15
Rh-105	1.4102E-03	1.6707E-12	9.5821E+12	7.4643E+14
Sb-127	6.7532E-02	2.5288E-10	1.1991E+15	4.4939E+15
Te-127	1.6073E-01	6.0904E-11	2.8880E+14	6.5642E+15
Te-127m	9.4920E-02	1.0063E-08	4.7717E+16	2.5034E+15
Te-129	2.8180E-01	1.3456E-11	6.2818E+13	6.0520E+15
Te-129m	3.2590E-01	1.0818E-08	5.0502E+16	9.2446E+15
Te-131m	1.7269E-03	2.1656E-12	9.9556E+12	1.8403E+15
Te-132	7.4789E-01	2.4635E-09	1.1239E+16	6.0899E+16
I-131	7.1517E+03	5.7687E-05	2.6519E+20	2.8059E+20
I-132	2.8793E+00	2.7894E-10	1.2726E+15	6.1800E+17
I-133	2.8278E+00	2.4962E-09	1.1303E+16	2.7375E+19
I-135	3.0264E-09	8.6176E-19	3.8442E+06	1.7678E+18
Xe-133	2.9561E+05	1.5793E-03	7.1508E+21	1.1760E+22
Xe-135	4.8209E-03	1.8878E-12	8.4212E+12	4.7519E+20
Cs-134	7.0878E+00	5.4781E-06	2.4619E+19	1.8387E+17
Cs-136	1.2127E+00	1.6546E-08	7.3267E+16	4.0214E-16
Cs-137	5.3896E+00	6.1963E-05	2.7237E+20	1.3928E+17
Ba-140	2.5444E-00	3.4755E-08	1.4950E+17	8.4901E+16
La-140	2.9153E+00	5.2449E-09	2.2561E+16	8.4332E+16
Ce-141	8.7042E-02	3.0548E-09	1.3047E+16	2.4772E+15
Ce-143	2.4562E-04	3.6986E-13	1.5576E+12	1.7143E+14
Ce-144	9.1570E-02	2.8710E-08	1.2007E+17	2.3895E+15
Pr-143	2.7983E-02	4.1556E-10	1.7500E+15	9.0008E+14
Nd-147	8.4872E-03	1.0491E-10	4.2979E+14	2.9580E+14
Np-239	3.8681E-02	1.6674E-10	4.2013E+14	5.4143E-15
Pu-238	2.8447E-04	1.6617E-08	4.2045E+16	7.3390E+12
Pu-239	3.0516E-05	4.9096E-07	1.2371E+18	7.8644E+11
Pu-240	4.8527E-05	2.1296E-07	5.3437E+17	1.2525E+12
Pu-241	1.1949E-02	1.1600E-07	2.8986E+17	3.0860E+14
Am-241	6.9644E-06	2.0291E-09	5.0705E+15	1.7364E+11
Cm-242	1.5768E-03	4.7576E-10	1.1839E+15	4.1487E+13
Cm-244	9.7133E-05	1.2006E-09	2.9632E+15	2.5082E+12

SGTS Filter Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	7.1508E-21	0.0000E-00	
Elemental I (atoms)	2.5676E-20	0.0000E+00	
Organic I (atoms)	7.9410E+18	0.0000E+00	
Aerosols (kg)	7.1055E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.5258E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5259E-01
Total I (Ci)			7.1574E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3472E+22
Elemental I (atoms)	0.0000E+00	1.0609E+21
Organic I (atoms)	0.0000E+00	3.2812E+19
Aerosols (kg)	0.0000E+00	1.6221E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported

SGTS Filter to Environment Transport Group Inventory:

Noble gases (atoms)	0.0000E+00	1.4114E+22
Elemental I (atoms)	0.0000E+00	5.0374E+20
Organic I (atoms)	0.0000E+00	1.5580E+19
Aerosols (kg)	0.0000E+00	9.0894E-05

Detailed model information at time (H) = 336.0000

EAB Doses:

Time (h) = 336.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.3350E-01	1.1093E+02	3.5328E-00
Accumulated dose (rem)	1.3821E+00	8.7440E+02	2.8147E-01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Co-58	8.6010E+02	2.7049E-05	2.8085E+20	5.0926E+19
Co-60	5.2814E+02	4.6722E-04	4.6894E+21	2.9127E+19
Rb-86	2.1458E+04	2.6371E-04	1.8466E-21	1.5750E+21
Sr-89	1.1296E+06	3.8883E-02	2.6310E+23	6.8925E+22
Sr-90	1.7432E+05	1.2779E+00	8.5508E+24	9.5926E+21
Sr-91	3.9335E-05	1.0851E-14	7.1809E+10	4.3127E+21
Y-90	1.7068E+05	3.1371E-04	2.0991E+21	6.7633E+21
Y-91	1.8981E+04	7.7400E-04	5.1221E+21	1.1291E+21
Y-93	1.3760E-06	4.1244E-16	2.6707E-09	3.7540E+19
Zr-95	2.1958E+04	1.0221E-03	6.4791E-21	1.3105E+21
Zr-97	2.6175E-02	1.3692E-11	8.5008E+13	1.1403E+20
Nb-95	2.5034E+04	6.4021E-04	4.0584E+21	1.3955E+21
Mo-99	9.8646E+03	2.0568E-05	1.2511E+20	5.5540E+21
Tc-99m	1.0114E+04	1.9234E-06	1.1700E+19	5.3338E+21
Ru-103	2.2382E+05	6.9349E-03	4.0547E+22	1.4075E+22
Ru-106	1.1111E+05	3.3212E-02	1.8868E+23	6.1980E+21
Rh-105	2.9376E+02	3.4803E-07	1.9961E+18	1.9665E+21
Sb-127	2.5147E+04	9.4166E-05	4.4652E+20	6.7258E+21
Te-127	7.4903E+04	2.8382E-05	1.3458E+20	8.8644E+21
Te-127m	5.0095E+04	5.3108E-03	2.5183E+22	2.8550E+21
Te-129	1.4434E+05	6.8923E-06	3.2176E+19	8.1835E+21
Te-129m	1.6692E+05	5.5410E-03	2.5867E+22	1.0741E+22
Te-131m	3.0407E+02	3.8133E-07	1.7530E+18	5.7204E+21
Te-132	2.6087E+05	8.5927E-04	3.9202E+21	9.7202E+22
I-131	6.4151E+06	5.1745E-02	2.3787E+23	7.1056E+23
I-132	3.1137E+05	3.0166E-05	1.3762E+20	1.1728E+23
I-133	6.0843E+02	5.3710E-07	2.4319E+18	2.4827E+23
I-135	2.1007E-08	5.9819E-18	2.6684E+07	7.1378E+22
Xe-133	1.3038E+06	6.9655E-03	3.1539E+22	1.7133E+23
Xe-135	7.1117E-04	2.7848E-13	1.2423E+12	5.9692E+22
Cs-134	3.7751E+06	2.9178E+00	1.3113E+25	2.0923E+23
Cs-136	5.8212E+05	7.9426E-03	3.5170E+22	4.8596E+22
Cs-137	2.8756E+06	3.3060E+01	1.4532E+26	1.5836E-23
Ba-140	1.2181E+06	1.6639E-02	7.1572E+22	1.0285E+23
La-140	1.4056E+06	2.5288E-03	1.0878E+22	8.6159E+22
Ce-141	4.4521E+04	1.5625E-03	6.6735E+21	2.8807E+21
Ce-143	4.7836E+01	7.2033E-08	3.0335E+17	4.8740E+20
Ce-144	4.8640E+04	1.5250E-02	6.3777E+22	2.7245E+21
Pr-143	1.3493E+04	2.0038E-04	8.4385E+20	1.0537E+21
Nd-147	3.9929E-03	4.9357E-05	2.0220E+20	3.6268E+20
Np-239	1.1461E+04	4.9401E-05	1.2448E+20	1.0208E-22
Pu-238	1.5187E+02	8.8713E-03	2.2447E+22	8.3474E-18
Pu-239	1.6291E+01	2.6210E-01	6.6042E+23	8.9351E+17
Pu-240	2.5903E+01	1.1368E-01	2.8524E+23	1.4247E+18
Pu-241	6.3767E+03	6.1902E-02	1.5468E+23	3.5108E+20
Am-241	3.7734E+00	1.0994E-03	2.7472E+21	1.9605E+17
Cm-242	8.3453E+02	2.5180E-04	6.2660E+20	4.7388E+19
Cm-244	5.1837E+01	6.4073E-04	1.5814E+21	2.8534E+18

Suppression pool Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump
Noble gases (atoms)	3.1539E+22	0.0000E+00
Elemental I (atoms)	1.1544E+22	0.0000E+00

Suppression pool Transport Group Inventory:

Organic I (atoms)	3.5702E+20	0.0000E+00	
Aerosols (kg)	3.7892E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.7168E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7193E-03
Total I (Ci)			6.7271E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8924E+22
Elemental I (atoms)	1.0975E+22	1.2194E+21
Organic I (atoms)	3.3942E+20	3.7714E+19
Aerosols (kg)	1.9098E+01	1.9098E-04

RB Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Co-58	1.2736E-04	4.0052E-12	4.1586E+13	7.1966E+12
Co-60	7.8202E-05	6.9181E-11	6.9437E+14	4.1268E+12
Rb-86	3.1773E-03	3.9048E-11	2.7343E+14	2.2080E+14
Sr-89	1.6726E-01	5.7574E-09	3.8957E+16	9.7293E+15
Sr-90	2.5811E-02	1.8922E-07	1.2661E-18	1.3592E+15
Sr-91	5.8243E-12	1.6067E-21	1.0633E+04	3.3722E+14
Y-90	2.5273E-02	4.6452E-11	3.1082E+14	9.9407E+14
Y-91	2.8106E-03	1.1461E-10	7.5844E+14	1.6025E+14
Zr-95	3.2513E-03	1.5134E-10	9.5938E+14	1.8513E+14
Zr-97	3.8758E-09	2.0275E-18	1.2587E+07	1.1197E+13
Nb-95	3.7069E-03	9.4797E-11	6.0093E+14	1.9768E+14
Mo-99	1.4607E-03	3.0455E-12	1.8526E+13	7.1884E+14
Tc-99m	1.4975E-03	2.8480E-13	1.7324E+12	6.9394E+14
Ru-103	3.3141E-02	1.0269E-09	6.0038E+15	1.9845E+15
Ru-106	1.6452E-02	4.9177E-09	2.7939E+16	8.7779E+14
Rh-105	4.3497E-05	5.1534E-14	2.9557E+11	2.3491E+14
Sb-127	3.7236E-03	1.3943E-11	6.6117E+13	8.9609E+14
Te-127	1.1091E-02	4.2026E-12	1.9928E+13	1.2088E+15
Te-127m	7.4176E-03	7.8638E-10	3.7289E+15	4.0421E+14
Te-129	2.1373E-02	1.0206E-12	4.7643E+12	1.0462E+15
Te-129m	2.4717E-02	8.2046E-10	3.8302E+15	1.5133E+15
Te-131m	4.5025E-05	5.6464E-14	2.5957E+11	6.5538E+14
Te-132	3.8627E-02	1.2723E-10	5.8047E+14	1.2783E+16
I-131	4.7585E+02	3.8382E-06	1.7645E+19	4.9109E+19
I-132	4.3858E+00	4.2489E-10	1.9385E+15	2.0850E+18
I-133	4.5131E-02	3.9840E-11	1.8039E+14	1.3011E+19
Xe-133	1.9305E+04	1.0313E-04	4.6699E+20	2.3246E+21
Xe-135	1.0530E-05	4.1234E-15	1.8394E+10	4.6608E+20
Cs-134	5.5899E-01	4.3204E-07	1.9416E+18	2.9640E+16
Cs-136	8.6195E-02	1.1761E-09	5.2077E+15	6.7792E+15
Cs-137	4.2579E-01	4.8952E-06	2.1518E+19	2.2438E+16
Ba-140	1.8037E-01	2.4637E-09	1.0598E+16	1.4341E+16
La-140	2.0812E-01	3.7444E-10	1.6106E+15	1.2602E+16
Ce-141	6.5923E-03	2.3136E-10	9.8815E+14	4.0576E+14
Ce-143	7.0831E-06	1.0666E-14	4.4918E+10	5.6950E+13
Ce-144	7.2022E-03	2.2581E-09	9.4435E+15	3.8580E+14
Pr-143	1.9980E-03	2.9670E-11	1.2495E+14	1.4833E+14
Nd-147	5.9124E-04	7.3084E-12	2.9940E+13	5.0426E+13
Np-239	1.6970E-03	7.3149E-12	1.8432E+13	1.2985E+15
Pu-238	2.2488E-05	1.3136E-09	3.3238E+15	1.1828E+12
Pu-239	2.4123E-06	3.8810E-08	9.7790E+16	1.2665E+11
Pu-240	3.8355E-06	1.6832E-08	4.2235E+16	2.0188E+11
Pu-241	9.4420E-04	9.1659E-09	2.2904E+16	4.9746E+13
Am-241	5.5873E-07	1.6279E-10	4.0679E+14	2.7839E+10
Cm-242	1.2357E-04	3.7284E-11	9.2781E+13	6.7069E+12
Cm-244	7.6755E-06	9.4874E-11	2.3416E+14	4.0431E+11

RB Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump
Noble gases (atoms)	4.6699E+20	0.0000E+00
Elemental I (atoms)	1.7085E+19	0.0000E+00

RB Transport Group Inventory:

Organic I (atoms)	5.2840E+17	0.0000E+00	
Aerosols (kg)	5.6106E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.0874E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		8.0897E-09
Total I (Ci)			4.8028E-02

Suppression pool to RB Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8924E+22
Elemental I (atoms)	1.0975E+22	1.2194E+21
Organic I (atoms)	3.3942E+20	3.7714E+19
Aerosols (kg)	1.9098E-01	1.9098E-04

RB to SGTS Filter Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.5681E+22
Elemental I (atoms)	0.0000E+00	1.1379E+21
Organic I (atoms)	0.0000E+00	3.5193E+19
Aerosols (kg)	0.0000E+00	1.8532E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Co-58	1.6226E-03	5.1028E-11	5.2982E+14	5.4795E+13
Co-60	9.9632E-04	8.8140E-10	8.8465E+15	3.1959E+13
Rb-86	4.0489E-02	4.9761E-10	3.4845E+15	1.5984E+15
Sr-89	2.1310E+00	7.3352E-08	4.9633E+17	7.3551E+16
Sr-90	3.2884E-01	2.4108E-06	1.6131E-19	1.0532E+16
Sr-91	7.4204E-11	2.0470E-20	1.3547E+05	3.5871E+14
Y-90	3.2198E-01	5.9181E-10	3.9600E+15	8.8480E+15
Y-91	3.5808E-02	1.4601E-09	9.6628E+15	1.2220E-15
Zr-95	4.1423E-02	1.9282E-09	1.2223E+16	1.4069E+15
Zr-97	4.9380E-08	2.5831E-17	1.6037E+08	1.9793E+13
Nb-95	4.7227E-02	1.2078E-09	7.6561E+15	1.5280E+15
Mo-99	1.8609E-02	3.8801E-11	2.3602E+14	3.3676E+15
Tc-99m	1.9079E-02	3.6284E-12	2.2072E+13	3.2731E+15
Ru-103	4.2223E-01	1.3083E-08	7.6491E+16	1.4895E+16
Ru-106	2.0961E-01	6.2653E-08	3.5595E+17	6.7793E+15
Rh-105	5.5418E-04	6.5656E-13	3.7656E+12	7.5230E+14
Sb-127	4.7440E-02	1.7764E-10	8.4235E+14	4.8584E+15
Te-127	1.4130E-01	5.3542E-11	2.5389E+14	7.4944E+15
Te-127m	9.4503E-02	1.0019E-08	4.7508E+16	3.1101E+15
Te-129	2.7230E-01	1.3002E-11	6.0699E+13	7.3884E+15
Te-129m	3.1490E-01	1.0453E-08	4.8798E+16	1.1297E+16
Te-131m	5.7363E-04	7.1937E-13	3.3070E+12	1.8470E+15
Te-132	4.9213E-01	1.6210E-09	7.3954E+15	6.4813E+16
I-131	6.0614E+03	4.8892E-05	2.2476E+20	3.2281E+20
I-132	1.8120E+00	1.7555E-10	8.0089E+14	6.3374E+17
I-133	5.7510E-01	5.0767E-10	2.2987E+15	2.7384E+19
I-135	1.9857E-11	5.6542E-21	2.5222E-04	1.7678E+18
Xe-133	2.3334E+05	1.2466E-03	5.6445E+21	1.3448E+22
Xe-135	1.2745E-04	4.9908E-14	2.2263E+11	4.7519E+20
Cs-134	7.1234E+00	5.5057E-06	2.4743E+19	2.2938E+17
Cs-136	1.0984E+00	1.4987E-08	6.6363E+16	4.7610E+16
Cs-137	5.4260E+00	6.2381E-05	2.7421E+20	1.7392E+17
Ba-140	2.2979E+00	3.1389E-08	1.3502E+17	1.0040E-17
La-140	2.6516E+00	4.7705E-09	2.0520E+16	1.0202E+17
Ce-141	8.3989E-02	2.9476E-09	1.2589E+16	3.0249E+15
Ce-143	9.0242E-05	1.3589E-13	5.7227E+11	1.7242E+14
Ce-144	9.1759E-02	2.8769E-08	1.2031E+17	2.9767E+15
Pr-143	2.5455E-02	3.7801E-10	1.5919E+15	1.0711E+15
Nd-147	7.5327E-03	9.3112E-11	3.8145E+14	3.4704E+14
Np-239	2.1620E-02	9.3195E-11	2.3483E+14	5.6021E+15
Pu-238	2.8651E-04	1.6736E-08	4.2346E+16	9.1676E+12
Pu-239	3.0733E-05	4.9445E-07	1.2459E+18	9.8260E+11
Pr-143	2.5455E-02	3.7801E-10	1.5919E+15	1.0711E+15
Nd-147	7.5327E-03	9.3112E-11	3.8145E+14	3.4704E+14

Pu-240	4.8865E-05	2.1445E-07	5.3810E+17	1.5644E+12
Pu-241	1.2030E-02	1.1678E-07	2.9180E-17	3.8540E-14
Am-241	7.1185E-06	2.0740E-09	5.1827E+15	2.1874E+11
Cm-242	1.5743E-03	4.7502E-10	1.1821E+15	5.1579E+13
Cm-244	9.7789E-05	1.2087E-09	2.9833E+15	3.1325E+12

SGTS Filter Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	5.6445E+21	0.0000E+00	
Elemental I (atoms)	2.1761E+20	0.0000E+00	
Organic I (atoms)	6.7301E-18	0.0000E+00	
Aerosols (kg)	7.1498E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1406E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.1406E-01
Total I (Ci)			6.0638E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.5681E+22
Elemental I (atoms)	0.0000E+00	1.1379E+21
Organic I (atoms)	0.0000E+00	3.5193E+19
Aerosols (kg)	0.0000E+00	1.8532E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6142E+22
Elemental I (atoms)	0.0000E+00	5.7898E+20
Organic I (atoms)	0.0000E+00	1.7907E+19
Aerosols (kg)	0.0000E-00	1.1351E-04

Detailed model information at time (H) = 384.0000

EAB Doses:

Time (h) = 384.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0592E-01	9.3165E+01	2.9641E+00
Accumulated dose (rem)	1.4880E+00	9.6757E+02	3.1111E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Co-58	7.9562E+02	2.5021E-05	2.5980E+20	5.6213E+19
Co-60	4.9785E+02	4.4042E-04	4.4205E+21	3.2404E+19
Rb-86	1.8792E+04	2.3096E-04	1.6173E+21	1.7034E-21
Sr-89	1.0368E+06	3.5686E-02	2.4147E+23	7.5842E+22
Sr-90	1.6441E-05	1.2053E+00	8.0651E+24	1.0675E+22
Sr-91	1.1180E-06	3.0842E-16	2.0410E+09	4.3127E+21
Y-90	1.6275E+05	2.9914E-04	2.0017E+21	7.8231E+21
Y-91	1.7486E+04	7.1304E-04	4.7187E+21	1.2455E+21
Y-93	4.8157E-08	1.4434E-17	9.3466E+07	3.7540E+19
Zr-95	2.0269E+04	9.4350E-04	5.9810E+21	1.4453E+21
Zr-97	3.4479E-03	1.8036E-12	1.1198E+13	1.1403E+20
Nb-95	2.3487E+04	6.0064E-04	3.8075E+21	1.5504E+21
Mo-99	5.6210E+03	1.1720E-05	7.1291E+19	5.6022E+21
Tc-99m	5.7628E+03	1.0960E-06	6.6667E+18	5.3807E+21
Ru-103	2.0381E+05	6.3151E-03	3.6922E+22	1.5440E+22
Ru-106	1.0442E+05	3.1212E-02	1.7732E+23	6.8864E+21
Rh-105	1.0815E-02	1.2813E-07	7.3487E+17	1.9677E+21
Sb-127	1.6549E+04	6.1969E-05	2.9385E+20	6.8571E+21
Te-127	6.3310E+04	2.3989E-05	1.1375E+20	9.2886E+21
Te-127m	4.6704E+04	4.9513E-03	2.3478E+22	3.1642E+21
Te-129	1.3066E+05	6.2389E-06	2.9125E+19	8.8446E+21
Te-129m	1.5110E+05	5.0157E-03	2.3415E+22	1.1756E+22
Te-131m	9.4622E+01	1.1866E-07	5.4550E+17	5.7215E+21
Te-132	1.6081E+05	5.2969E-04	2.4165E+21	9.8524E+22
Te-127m	4.6704E+04	4.9513E-03	2.3478E+22	3.1642E+21
Te-129	1.3066E+05	6.2389E-06	2.9125E+19	8.8446E+21

I-131	5.0931E+06	4.1082E-02	1.8886E-23	7.4716E+23
I-132	1.9194E+05	1.8595E-05	8.4835E-19	1.1865E+23
I-133	1.1593E+02	1.0234E-07	4.6337E-17	2.4827E+23
I-135	1.2913E-10	3.6771E-20	1.6403E+05	7.1378E+22
Xe-133	9.4432E+05	5.0450E-03	2.2843E+22	1.7846E-23
Xe-135	1.7261E-05	6.7590E-15	3.0151E+10	5.9692E-22
Cs-134	3.5546E+06	2.7474E+00	1.2347E+25	2.3264E+23
Cs-136	4.9399E-05	6.7401E-03	2.9845E+22	5.2027E+22
Cs-137	2.7123E-06	3.1182E+01	1.3707E+26	1.7620E+23
Ba-140	1.0306E+06	1.4077E-02	6.0554E+22	1.1002E+23
La-140	1.1933E+06	2.1468E-03	9.2347E-21	9.4383E+22
Ce-141	4.0244E+04	1.4124E-03	6.0324E-21	3.1513E+21
Ce-143	1.6465E+01	2.4793E-08	1.0441E-17	4.8759E+20
Ce-144	4.5660E+04	1.4316E-02	5.9870E+22	3.0257E+21
Pr-143	1.1494E+04	1.7069E-04	7.1884E+20	1.1334E+21
Nd-147	3.3199E+03	4.1038E-05	1.6812E+20	3.8598E+20
Np-239	6.0010E-03	2.5867E-05	6.5178E+19	1.0262E-22
Pu-238	1.4329E+02	8.3702E-03	2.1179E+22	9.2902E+18
Pu-239	1.5369E+01	2.4727E-01	6.2305E+23	9.9463E+17
Pu-240	2.4435E+01	1.0723E-01	2.6907E-23	1.5855E+18
Pu-241	6.0137E+03	5.8378E-02	1.4588E+23	3.9066E+20
Am-241	3.6123E+00	1.0525E-03	2.6300E+21	2.1964E-17
Cm-242	7.8056E+02	2.3551E-04	5.8608E+20	5.2546E+19
Cm-244	4.8889E+01	6.0429E-04	1.4914E+21	3.1752E+18

Suppression pool Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	2.2843E-22	0.0000E+00	
Elemental I (atoms)	9.1636E+21	0.0000E+00	
Organic I (atoms)	2.8341E+20	0.0000E+00	
Aerosols (kg)	3.5723E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3629E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3644E-03
Total I (Ci)			5.2852E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0501E+22
Elemental I (atoms)	1.1517E+22	1.2797E+21
Organic I (atoms)	3.5619E+20	3.9577E-19
Aerosols (kg)	2.1245E+01	2.1245E-04

RB Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Co-58	1.1781E-04	3.7049E-12	3.8468E+13	7.9795E+12
Co-60	7.3717E-05	6.5214E-11	6.5454E+14	4.6121E+12
Rb-86	2.7826E-03	3.4198E-11	2.3947E+14	2.3981E+14
Sr-89	1.5351E-01	5.2840E-09	3.5754E+16	1.0753E+16
Sr-90	2.4345E-02	1.7847E-07	1.1942E+18	1.5194E+15
Y-90	2.4099E-02	4.4295E-11	2.9639E-14	1.1510E+15
Y-91	2.5892E-03	1.0558E-10	6.9870E+14	1.7749E+14
Zr-95	3.0013E-03	1.3971E-10	8.8561E+14	2.0510E+14
Zr-97	5.1054E-10	2.6706E-19	1.6580E+06	1.1197E+13
Nb-95	3.4778E-03	8.8938E-11	5.6379E+14	2.2062E+14
Mo-99	8.3230E-04	1.7354E-12	1.0556E+13	7.2598E+14
Tc-99m	8.5331E-04	1.6228E-13	9.8715E+11	7.0089E+14
Ru-103	3.0179E-02	9.3508E-10	5.4672E+15	2.1867E+15
Ru-106	1.5462E-02	4.6216E-09	2.6256E+16	9.7972E+14
Rh-105	1.6014E-05	1.8972E-14	1.0881E+11	2.3508E+14
Sb-127	2.4504E-03	9.1759E-12	4.3510E+13	9.1553E+14
Te-127	9.3744E-03	3.5521E-12	1.6844E+13	1.2716E+15
Te-127m	6.9155E-03	7.3315E-10	3.4765E+15	4.4998E+14
Te-129	1.9347E-02	9.2380E-13	4.3126E+12	1.1441E+15
Te-129m	2.2374E-02	7.4268E-10	3.4671E+15	1.6637E+15
Te-131m	1.4011E-05	1.7571E-14	8.0773E+10	6.5555E+14
Te-132	2.3811E-02	7.8431E-11	3.5782E+14	1.2979E+16
Te-127m	6.9155E-03	7.3315E-10	3.4765E+15	4.4998E+14
Te-129	1.9347E-02	9.2380E-13	4.3126E+12	1.1441E+15

I-131	3.7779E+02	3.0473E-06	1.4009E+19	5.1824E+19
I-132	2.7036E-00	2.6192E-10	1.1949E+15	2.1107E+18
I-133	8.5991E-03	7.5910E-12	3.4371E+13	1.3011E+19
Xe-133	1.3983E+04	7.4700E-05	3.3824E+20	2.4301E+21
Xe-135	2.5558E-07	1.0008E-16	4.4645E+08	4.6608E+20
Cs-134	5.2634E-01	4.0681E-07	1.8282E+18	3.3106E+16
Cs-136	7.3145E-02	9.9801E-10	4.4192E-15	7.2871E+15
Cs-137	4.0161E-01	4.6172E-06	2.0296E+19	2.5081E+16
Ba-140	1.5260E-01	2.0845E-09	8.9664E+15	1.5402E+16
La-140	1.7669E-01	3.1789E-10	1.3674E+15	1.3820E+16
Ce-141	5.9590E-03	2.0914E-10	8.9323E+14	4.4582E-14
Ce-143	2.4380E-06	3.6712E-15	1.5460E-10	5.6978E+13
Ce-144	6.7610E-03	2.1198E-09	8.8650E+15	4.3040E+14
Pr-143	1.7020E-03	2.5275E-11	1.0644E+14	1.6013E+14
Nd-147	4.9158E-04	6.0765E-12	2.4894E+13	5.3876E+13
Np-239	8.8857E-04	3.8302E-12	9.6510E+12	1.3065E-15
Pu-238	2.1218E-05	1.2394E-09	3.1360E+15	1.3224E+12
Pu-239	2.2758E-06	3.6613E-08	9.2256E-16	1.4162E+11
Pu-240	3.6181E-06	1.5878E-08	3.9842E+16	2.2569E+11
Pu-241	8.9046E-04	8.6441E-09	2.1600E+16	5.5605E+13
Am-241	5.3488E-07	1.5584E-10	3.8943E+14	3.1332E-10
Cm-242	1.1558E-04	3.4873E-11	8.6781E+13	7.4707E-12
Cm-244	7.2390E-06	8.9478E-11	2.2084E+14	4.5195E+11

RB Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	3.3824E+20	0.0000E+00	
Elemental I (atoms)	1.3564E+19	0.0000E+00	
Organic I (atoms)	4.1950E-17	0.0000E+00	
Aerosols (kg)	5.2895E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.4206E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.4220E-09
Total I (Ci)			3.8050E-02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0501E+22
Elemental I (atoms)	1.1517E+22	1.2797E+21
Organic I (atoms)	3.5619E+20	3.9577E+19
Aerosols (kg)	2.1245E+01	2.1245E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.7281E+22
Elemental I (atoms)	0.0000E+00	1.1990E+21
Organic I (atoms)	0.0000E+00	3.7083E-19
Aerosols (kg)	0.0000E+00	2.0711E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Co-58	1.5742E-03	4.9506E-11	5.1402E+14	6.5025E+13
Co-60	9.8502E-04	8.7140E-10	8.7462E+15	3.8300E+13
Rb-86	3.7188E-02	4.5704E-10	3.2004E+15	1.8468E+15
Sr-89	2.0513E+00	7.0606E-08	4.7775E+17	8.6934E+16
Sr-90	3.2530E-01	2.3848E-06	1.5957E+19	1.2625E+16
Y-90	3.2202E-01	5.9187E-10	3.9604E+15	1.0899E+16
Y-91	3.4598E-02	1.4108E-09	9.3362E+15	1.4473E+15
Zr-95	4.0104E-02	1.8668E-09	1.1834E+16	1.6678E+15
Zr-97	6.8219E-09	3.5686E-18	2.2155E+07	1.9793E+13
Nb-95	4.6471E-02	1.1884E-09	7.5334E+15	1.8277E+15
Mo-99	1.1121E-02	2.3188E-11	1.4105E+14	3.4607E+15
Tc-99m	1.1402E-02	2.1684E-12	1.3191E+13	3.3637E+15
Ru-103	4.0325E-01	1.2495E-08	7.3053E+16	1.7537E+16
Ru-106	2.0660E-01	6.1754E-08	3.5084E+17	8.1113E+15
Nb-95	4.6471E-02	1.1884E-09	7.5334E+15	1.8277E+15
Mo-99	1.1121E-02	2.3188E-11	1.4105E+14	3.4607E+15

Rh-105	2.1398E-04	2.5351E-13	1.4540E+12	7.5459E+14
Sb-127	3.2743E-02	1.2261E-10	5.8140E-14	5.1121E+15
Te-127	1.2526E-01	4.7464E-11	2.2507E+14	8.3150E+15
Te-127m	9.2406E-02	9.7965E-09	4.6453E+16	3.7083E+15
Te-129	2.5851E-01	1.2344E-11	5.7626E+13	8.6675E+15
Te-129m	2.9896E-01	9.9239E-09	4.6328E-16	1.3261E+16
Te-131m	1.8722E-04	2.3478E-13	1.0793E+12	1.8492E+15
Te-132	3.1817E-01	1.0480E-09	4.7813E+15	6.7366E+16
I-131	5.0474E+03	4.0713E-05	1.8716E+20	3.5826E+20
I-132	1.1347E+00	1.0993E-10	5.0150E-14	6.4359E+17
I-133	1.1492E-01	1.0145E-10	4.5934E+14	2.7386E+19
Xe-133	1.7977E-05	9.6039E-04	4.3486E+21	1.4763E+22
Xe-135	3.2892E-06	1.2880E-15	5.7456E+09	4.7519E-20
Cs-134	7.0342E+00	5.4368E-06	2.4434E-19	2.7469E+17
Cs-136	9.7755E-01	1.3338E-08	5.9061E+16	5.4246E+16
Cs-137	5.3673E+00	6.1706E-05	2.7124E+20	2.0846E+17
Ba-140	2.0391E+00	2.7853E-08	1.1981E+17	1.1426E+17
La-140	2.3610E+00	4.2477E-09	1.8271E+16	1.1793E+17
Ce-141	7.9626E-02	2.7945E-09	1.1935E+16	3.5484E+15
Ce-143	3.2577E-05	4.9055E-14	2.0658E+11	1.7278E+14
Ce-144	9.0342E-02	2.8325E-08	1.1846E+17	3.5594E+15
Pr-143	2.2742E-02	3.3773E-10	1.4223E+15	1.2252E+15
Nd-147	6.5686E-03	8.1195E-11	3.3263E+14	3.9210E+14
Np-239	1.1873E-02	5.1180E-11	1.2896E+14	5.7062E+15
Pu-238	2.8352E-04	1.6561E-08	4.1904E+16	1.0992E-13
Pu-239	3.0409E-05	4.8924E-07	1.2327E+18	1.1783E+12
Pu-240	4.8346E-05	2.1217E-07	5.3237E+17	1.8755E+12
Pu-241	1.1898E-02	1.1550E-07	2.8862E+17	4.6197E+14
Am-241	7.1472E-06	2.0824E-09	5.2036E+15	2.6438E-11
Cm-242	1.5444E-03	4.6598E-10	1.1596E+15	6.1560E+13
Cm-244	9.6729E-05	1.1956E-09	2.9509E+15	3.7550E+12

SGTS Filter Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	4.3486E+21	0.0000E+00	
Elemental I (atoms)	1.8120E+20	0.0000E+00	
Organic I (atoms)	5.6042E+18	0.0000E+00	
Aerosols (kg)	7.0691E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.7825E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7825E-01
Total I (Ci)			5.0486E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.7281E+22
Elemental I (atoms)	0.0000E+00	1.1990E+21
Organic I (atoms)	0.0000E+00	3.7083E+19
Aerosols (kg)	0.0000E+00	2.0711E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7723E+22
Elemental I (atoms)	0.0000E+00	6.4216E+20
Organic I (atoms)	0.0000E+00	1.9861E+19
Aerosols (kg)	0.0000E+00	1.3606E-04

Detailed model information at time (H) = 432.0000

EAB Doses:

Time (h) = 432.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.2567E-02	7.7090E+01	2.4509E+00
Accumulated dose (rem)	1.5706E+00	1.0447E+03	3.3562E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 432.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.2567E-02	7.7090E+01	2.4509E+00

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Co-58	7.3598E+02	2.3146E-05	2.4032E+20	6.1104E+19
Co-60	4.6929E+02	4.1516E-04	4.1669E-21	3.5493E+19
Rb-86	1.6458E+04	2.0227E-04	1.4164E+21	1.8159E+21
Sr-89	9.5151E+05	3.2752E-02	2.2161E+23	8.2190E+22
Sr-90	1.5508E-05	1.1369E+00	7.6071E+24	1.1695E+22
Sr-91	3.1777E-08	8.7661E-18	5.8012E+07	4.3127E+21
Y-90	1.5450E+05	2.8398E-04	1.9002E-21	8.8312E-21
Y-91	1.6109E+04	6.5688E-04	4.3470E+21	1.3528E+21
Y-93	1.6853E-09	5.0514E-19	3.2710E+06	3.7540E+19
Zr-95	1.8711E-04	8.7095E-04	5.5211E+21	1.5698E+21
Zr-97	4.5418E-04	2.3758E-13	1.4750E+12	1.1403E+20
Nb-95	2.2024E+04	5.6322E-04	3.5703E-21	1.6957E-21
Mo-99	3.2029E+03	6.6780E-06	4.0622E+19	5.6297E+21
Tc-99m	3.2837E+03	6.2449E-07	3.7988E+18	5.4075E+21
Ru-103	1.8559E-05	5.7506E-03	3.3622E+22	1.6683E+22
Ru-106	9.8133E+04	2.9332E-02	1.6664E+23	7.5333E+21
Rh-105	3.9815E+01	4.7171E-08	2.7054E+17	1.9682E-21
Sb-127	1.0891E+04	4.0781E-05	1.9338E+20	6.9435E+21
Te-127	5.4720E+04	2.0734E-05	9.8319E+19	9.6511E+21
Te-127m	4.3530E+04	4.6149E-03	2.1883E+22	3.4524E+21
Te-129	1.1827E+05	5.6475E-06	2.6364E+19	9.4431E+21
Te-129m	1.3678E+05	4.5402E-03	2.1195E+22	1.2675E+22
Te-131m	2.9445E+01	3.6926E-08	1.6975E+17	5.7219E+21
Te-132	9.9128E+04	3.2652E-04	1.4896E+21	9.9338E+22
I-131	4.0436E+06	3.2616E-02	1.4994E+23	7.7623E+23
I-132	1.1832E+05	1.1463E-05	5.2295E-19	1.1949E+23
I-133	2.2088E+01	1.9499E-08	8.8289E+16	2.4827E+23
Xe-133	6.8392E+05	3.6538E-03	1.6544E+22	1.8361E+23
Xe-135	4.1892E-07	1.6404E-16	7.3177E+08	5.9692E+22
Cs-134	3.3470E+06	2.5869E+00	1.1626E+25	2.5468E+23
Cs-136	4.1920E+05	5.7196E-03	2.5327E+22	5.4938E+22
Cs-137	2.5582E+06	2.9411E+01	1.2928E+26	1.9304E+23
Ba-140	8.7195E+05	1.1910E-02	5.1233E+22	1.1609E+23
La-140	1.0113E+06	1.8194E-03	7.8262E+21	1.0136E+23
Ce-141	3.6378E+04	1.2767E-03	5.4529E+21	3.3959E+21
Ce-143	5.6670E+00	8.5336E-09	3.5938E+16	4.8765E-20
Ce-144	4.2863E+04	1.3439E-02	5.6202E+22	3.3084E+21
Pr-143	9.7901E+03	1.4539E-04	6.1226E+20	1.2012E+21
Nd-147	2.7603E+03	3.4120E-05	1.3978E+20	4.0535E+20
Np-239	3.1422E+03	1.3544E-05	3.4128E+19	1.0290E+22
Pu-238	1.3520E+02	7.8973E-03	1.9983E+22	1.0180E+19
Pu-239	1.4499E+01	2.3327E-01	5.8777E+23	1.0900E+18
Pu-240	2.3050E+01	1.0116E-01	2.5382E+23	1.7372E+18
Pu-241	5.6714E-03	5.5055E-02	1.3757E+23	4.2798E+20
Am-241	3.4574E+00	1.0074E-03	2.5172E+21	2.4222E-17
Cm-242	7.3008E+02	2.2028E-04	5.4817E+20	5.7371E+19
Cm-244	4.6108E+01	5.6993E-04	1.4066E+21	3.4786E+18

Suppression pool Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	1.6544E+22	0.0000E+00	
Elemental I (atoms)	7.2745E+21	0.0000E+00	
Organic I (atoms)	2.2498E+20	0.0000E+00	
Aerosols (kg)	3.3680E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0820E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0829E-03
Total I (Ci)			4.1619E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 432.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.1643E+22
Elemental I (atoms)	1.1947E+22	1.3275E+21
Organic I (atoms)	3.6951E+20	4.1056E+19
Aerosols (kg)	2.3269E+01	2.3269E-04
Noble gases (atoms)	0.0000E+00	4.1643E+22
Elemental I (atoms)	1.1947E+22	1.3275E+21

RB Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Co-58	1.0898E-04	3.4272E-12	3.5585E+13	8.7036E+12
Co-60	6.9489E-05	6.1474E-11	6.1700E+14	5.0694E+12
Rb-86	2.4370E-03	2.9950E-11	2.0972E+14	2.5646E+14
Sr-89	1.4089E-01	4.8496E-09	3.2815E+16	1.1693E+16
Sr-90	2.2962E-02	1.6834E-07	1.1264E+18	1.6705E+15
Y-90	2.2877E-02	4.2049E-11	2.8136E+14	1.3003E+15
Y-91	2.3853E-03	9.7265E-11	6.4367E+14	1.9337E+14
Zr-95	2.7705E-03	1.2896E-10	8.1751E+14	2.2353E+14
Zr-97	6.7251E-11	3.5179E-20	2.1840E+05	1.1197E+13
Nb-95	3.2611E-03	8.3396E-11	5.2866E+14	2.4213E+14
Mo-99	4.7426E-04	9.8883E-13	6.0150E+12	7.3005E+14
Tc-99m	4.8623E-04	9.2470E-14	5.6249E-11	7.0485E+14
Ru-103	2.7481E-02	8.5150E-10	4.9785E+15	2.3708E+15
Ru-106	1.4531E-02	4.3433E-09	2.4675E+16	1.0755E+15
Rh-105	5.8954E-06	6.9846E-15	4.0059E+10	2.3515E+14
Sb-127	1.6126E-03	6.0385E-12	2.8634E+13	9.2832E+14
Te-127	8.1024E-03	3.0701E-12	1.4558E+13	1.3253E+15
Te-127m	6.4455E-03	6.8333E-10	3.2402E+15	4.9265E+14
Te-129	1.7512E-02	8.3623E-13	3.9038E+12	1.2327E+15
Te-129m	2.0252E-02	6.7227E-10	3.1384E+15	1.7997E+15
Te-131m	4.3599E-06	5.4676E-15	2.5135E+10	6.5560E+14
Te-132	1.4678E-02	4.8348E-11	2.2057E+14	1.3099E+16
I-131	2.9994E+02	2.4193E-06	1.1122E+19	5.3980E+19
I-132	1.6666E+00	1.6146E-10	7.3660E+14	2.1266E+18
I-133	1.6384E-03	1.4464E-12	6.5490E+12	1.3011E+19
Xe-133	1.0127E-04	5.4102E-05	2.4497E+20	2.5064E+21
Xe-135	6.2030E-09	2.4290E-18	1.0835E+07	4.6608E+20
Cs-134	4.9560E-01	3.8305E-07	1.7215E+18	3.6370E+16
Cs-136	6.2071E-02	8.4691E-10	3.7502E+15	7.7182E+15
Cs-137	3.7880E-01	4.3549E-06	1.9143E+19	2.7574E+16
Ba-140	1.2911E-01	1.7636E-09	7.5862E+15	1.6300E+16
La-140	1.4974E-01	2.6940E-10	1.1588E+15	1.4853E+16
Ce-141	5.3866E-03	1.8905E-10	8.0742E+14	4.8204E+14
Ce-143	8.3913E-07	1.2636E-15	5.3213E+09	5.6987E+13
Ce-144	6.3468E-03	1.9899E-09	8.3219E+15	4.7226E+14
Pr-143	1.4496E-03	2.1527E-11	9.0658E+13	1.7017E+14
Nd-147	4.0872E-04	5.0522E-12	2.0697E+13	5.6744E+13
Np-239	4.6527E-04	2.0055E-12	5.0534E+12	1.3106E+15
Pu-238	2.0019E-05	1.1694E-09	2.9589E+15	1.4541E+12
Pu-239	2.1469E-06	3.4540E-08	8.7031E+16	1.5575E+11
Pu-240	3.4131E-06	1.4978E-08	3.7584E+16	2.4814E+11
Pu-241	8.3977E-04	8.1521E-09	2.0371E+16	6.1132E+13
Am-241	5.1194E-07	1.4916E-10	3.7272E+14	3.4675E+10
Cm-242	1.0810E-04	3.2618E-11	8.1169E+13	8.1851E+12
Cm-244	6.8273E-06	8.4390E-11	2.0828E+14	4.9687E+11

RB Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4497E+20	0.0000E+00	
Elemental I (atoms)	1.0768E+19	0.0000E+00	
Organic I (atoms)	3.3304E+17	0.0000E+00	
Aerosols (kg)	4.9870E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.0974E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.0983E-09
Total I (Ci)			3.0160E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 432.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.1643E+22
Elemental I (atoms)	1.1947E+22	1.3275E+21
Organic I (atoms)	3.6951E+20	4.1056E+19
Aerosols (kg)	2.3269E+01	2.3269E-04

RB to SGTS Filter Transport Group Inventory:

Elemental I (atoms)	1.1947E+22	1.3275E+21
Organic I (atoms)	3.6951E+20	4.1056E+19

	Pathway	
Time (h) = 432.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8441E-22
Elemental I (atoms)	0.0000E+00	1.2475E+21
Organic I (atoms)	0.0000E+00	3.8583E+19
Aerosols (kg)	0.0000E-00	2.2765E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Co-58	1.5085E-03	4.7440E-11	4.9257E-14	7.4885E-13
Co-60	9.6189E-04	8.5094E-10	8.5408E+15	4.4527E+13
Rb-86	3.3737E-02	4.1463E-10	2.9035E+15	2.0735E+15
Sr-89	1.9503E+00	6.7130E-08	4.5423E+17	9.9731E+16
Sr-90	3.1785E-01	2.3302E-06	1.5592E+19	1.4682E+16
Y-90	3.1668E-01	5.8206E-10	3.8947E+15	1.2931E+16
Y-91	3.3018E-02	1.3464E-09	8.9099E+15	1.6636E+15
Zr-95	3.8350E-02	1.7852E-09	1.1316E+16	1.9188E+15
Zr-97	9.3091E-10	4.8696E-19	3.0232E+06	1.9793E+13
Nb-95	4.5141E-02	1.1544E-09	7.3179E+15	2.1207E+15
Mo-99	6.5648E-03	1.3688E-11	8.3262E+13	3.5160E+15
Tc-99m	6.7305E-03	1.2800E-12	7.7862E-12	3.4175E+15
Ru-103	3.8040E-01	1.1787E-08	6.8914E+16	2.0043E+16
Ru-106	2.0114E-01	6.0121E-08	3.4156E+17	9.4156E+15
Rh-105	8.1606E-05	9.6684E-14	5.5452E+11	7.5547E+14
Sb-127	2.2322E-02	8.3587E-11	3.9636E+14	5.2861E+15
Te-127	1.1216E-01	4.2498E-11	2.0152E+14	9.0457E+15
Te-127m	8.9222E-02	9.4589E-09	4.4853E+16	4.2892E+15
Te-129	2.4241E-01	1.1575E-11	5.4037E+13	9.8739E+15
Te-129m	2.8034E-01	9.3059E-09	4.3443E+16	1.5113E+16
Te-131m	6.0352E-05	7.5685E-14	3.4793E+11	1.8499E+15
Te-132	2.0318E-01	6.6925E-10	3.0533E+15	6.9006E+16
I-131	4.1514E+03	3.3486E-05	1.5394E+20	3.8760E+20
I-132	7.0786E-01	6.8577E-11	3.1286E+14	6.4973E+17
I-133	2.2682E-02	2.0023E-11	9.0663E+13	2.7386E+19
Xe-133	1.3622E+05	7.2775E-04	3.2952E+21	1.5768E+22
Xe-135	8.3503E-08	3.2699E-17	1.4586E+08	4.7519E+20
Cs-134	6.8611E+00	5.3029E-06	2.3832E+19	3.1914E+17
Cs-136	8.5932E-01	1.1725E-08	5.1918E+16	6.0114E+16
Cs-137	5.2442E-00	6.0290E-05	2.6502E+20	2.4240E+17
Ba-140	1.7872E+00	2.4412E-08	1.0501E+17	1.2648E+17
La-140	2.0728E+00	3.7292E-09	1.6041E+16	1.3199E+17
Ce-141	7.4563E-02	2.6168E-09	1.1177E+16	4.0414E+15
Ce-143	1.1616E-05	1.7491E-14	7.3660E+10	1.7291E+14
Ce-144	8.7855E-02	2.7545E-08	1.1519E+17	4.1294E+15
Pr-143	2.0066E-02	2.9799E-10	1.2549E+15	1.3619E+15
Nd-147	5.6576E-03	6.9935E-11	2.8650E+14	4.3114E+14
Np-239	6.4404E-03	2.7761E-11	6.9951E+13	5.7630E+15
Pu-238	2.7711E-04	1.6187E-08	4.0958E+16	1.2785E+13
Pu-239	2.9718E-05	4.7812E-07	1.2047E+18	1.3706E+12
Pu-240	4.7245E-05	2.0734E-07	5.2025E+17	2.1813E+12
Pu-241	1.1624E-02	1.1284E-07	2.8198E+17	5.3721E-14
Am-241	7.0865E-06	2.0647E-09	5.1594E+15	3.0991E+11
Cm-242	1.4964E-03	4.5151E-10	1.1236E+15	7.1286E+13
Cm-244	9.4506E-05	1.1682E-09	2.8831E+15	4.3667E+12

SGTS Filter Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2952E+21	0.0000E+00	
Elemental I (atoms)	1.4903E+20	0.0000E+00	
Organic I (atoms)	4.6093E+18	0.0000E+00	
Aerosols (kg)	6.9040E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.4661E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4661E-01
Total I (Ci)			4.1521E+03

RB to SGTS Filter Transport Group Inventory:

Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)	1.4661E-01
Total I (Ci)		4.1521E+03

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8441E+22
Elemental I (atoms)	0.0000E+00	1.2475E+21
Organic I (atoms)	0.0000E+00	3.8583E+19
Aerosols (kg)	0.0000E-00	2.2765E-04

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.8930E+22
Elemental I (atoms)	0.0000E+00	6.9445E+20
Organic I (atoms)	0.0000E+00	2.1478E+19
Aerosols (kg)	0.0000E+00	1.5822E-04

Detailed model information at time (H) = 480.0000

EAB Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.3611E-02	6.3120E+01	2.0059E+00
Accumulated dose (rem)	1.6342E+00	1.1078E+03	3.5567E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Co-58	6.8081E+02	2.1410E-05	2.2230E+20	6.5628E+19
Co-60	4.4238E+02	3.9135E-04	3.9280E+21	3.8405E+19
Rb-86	1.4414E+04	1.7714E-04	1.2404E+21	1.9143E+21
Sr-89	8.7328E-05	3.0059E-02	2.0339E+23	8.8016E+22
Sr-90	1.4627E+05	1.0723E+00	7.1750E+24	1.2657E+22
Sr-91	9.0320E-10	2.4916E-19	1.6489E+06	4.3127E+21
Y-90	1.4628E+05	2.6887E-04	1.7991E+21	9.7868E+21
Y-91	1.4840E+04	6.0514E-04	4.0047E+21	1.4516E+21
Y-93	5.8980E-11	1.7678E-20	1.1447E+05	3.7540E+19
Zr-95	1.7272E+04	8.0399E-04	5.0965E+21	1.6847E+21
Zr-97	5.9826E-05	3.1295E-14	1.9429E+11	1.1403E+20
Nb-95	2.0641E+04	5.2785E-04	3.3461E+21	1.8320E+21
Mo-99	1.8250E+03	3.8052E-06	2.3147E+19	5.6454E+21
Tc-99m	1.8711E+03	3.5584E-07	2.1646E+18	5.4227E+21
Ru-103	1.6900E+05	5.2366E-03	3.0617E+22	1.7815E+22
Ru-106	9.2224E+04	2.7566E-02	1.5661E+23	8.1413E+21
Rh-105	1.4658E+01	1.7366E-08	9.9600E+16	1.9683E+21
Sb-127	7.1670E+03	2.6838E-05	1.2726E+20	7.0004E+21
Te-127	4.8171E+04	1.8253E-05	8.6552E+19	9.9673E+21
Te-127m	4.0564E+04	4.3004E-03	2.0392E+22	3.7209E+21
Te-129	1.0706E+05	5.1121E-06	2.3865E+19	9.9848E+21
Te-129m	1.2381E+05	4.1098E-03	1.9186E+22	1.3507E+22
Te-131m	9.1627E+00	1.1491E-08	5.2823E+16	5.7220E+21
Te-132	6.1106E+04	2.0128E-04	9.1827E+20	9.9840E+22
I-131	3.2103E+06	2.5895E-02	1.1904E+23	7.9930E+23
I-132	7.2936E+04	7.0660E-06	3.2237E+19	1.2001E+23
I-133	4.2087E+00	3.7152E-09	1.6822E+16	2.4827E+23
Xe-133	4.9531E+05	2.6462E-03	1.1982E+22	1.8735E+23
Xe-135	1.0167E-08	3.9813E-18	1.7760E+07	5.9692E+22
Cs-134	3.1515E+06	2.4358E+00	1.0947E+25	2.7544E+23
Cs-136	3.5573E+05	4.8537E-03	2.1492E+22	5.7408E+22
Cs-137	2.4129E+06	2.7741E+01	1.2194E+26	2.0892E+23
Ba-140	7.3773E+05	1.0077E-02	4.3347E+22	1.2122E+23
La-140	8.5631E+05	1.5406E-03	6.6269E+21	1.0727E+23
Ce-141	3.2884E+04	1.1541E-03	4.9291E+21	3.6170E+21
Ce-143	1.9506E+00	2.9372E-09	1.2369E+16	4.8767E+20
Ce-144	4.0237E+04	1.2616E-02	5.2759E+22	3.5739E+21
Pr-143	8.3381E+03	1.2382E-04	5.2145E+20	1.2590E+21
Nd-147	2.2950E+03	2.8369E-05	1.1622E+20	4.2145E+20
Np-239	1.6453E+03	7.0920E-06	1.7870E+19	1.0305E-22
Pu-238	1.2756E+02	7.4512E-03	1.8854E+22	1.1019E+19
Pu-239	1.3678E+01	2.2005E-01	5.5447E+23	1.1800E+18
Pr-143	8.3381E+03	1.2382E-04	5.2145E+20	1.2590E+21
Nd-147	2.2950E+03	2.8369E-05	1.1622E+20	4.2145E+20

Pu-240	2.1744E-01	9.5423E-02	2.3944E+23	1.8803E+18
Pu-241	5.3486E-03	5.1921E-02	1.2974E+23	4.6318E+20
Am-241	3.3084E+00	9.6394E-04	2.4087E-21	2.6383E+17
Cm-242	6.8287E+02	2.0604E-04	5.1272E+20	6.1883E+19
Cm-244	4.3486E-01	5.3751E-04	1.3266E-21	3.7647E+18

Suppression pool Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	1.1982E+22	0.0000E+00	
Elemental I (atoms)	5.7750E+21	0.0000E+00	
Organic I (atoms)	1.7861E+20	0.0000E+00	
Aerosols (kg)	3.1755E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.5898E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		8.5957E-04
Total I (Ci)			3.2832E+06

Suppression pool to RB Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.2471E+22
Elemental I (atoms)	1.2289E+22	1.3655E+21
Organic I (atoms)	3.8007E+20	4.2231E+19
Aerosols (kg)	2.5177E+01	2.5177E-04

RB Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Co-58	1.0081E-04	3.1703E-12	3.2917E+13	9.3735E+12
Co-60	6.5504E-05	5.7948E-11	5.8162E+14	5.5006E+12
Rb-86	2.1342E-03	2.6230E-11	1.8367E+14	2.7105E+14
Sr-89	1.2931E-01	4.4509E-09	3.0117E+16	1.2556E+16
Sr-90	2.1658E-02	1.5878E-07	1.0624E+18	1.8130E+15
Y-90	2.1660E-02	3.9812E-11	2.6639E+14	1.4418E+15
Y-91	2.1974E-03	8.9604E-11	5.9297E+14	2.0801E+14
Zr-95	2.5575E-03	1.1905E-10	7.5465E+14	2.4054E+14
Zr-97	8.8585E-12	4.6339E-21	2.8769E+04	1.1197E+13
Nb-95	3.0563E-03	7.8160E-11	4.9546E+14	2.6230E+14
Mo-99	2.7024E-04	5.6345E-13	3.4274E+12	7.3237E+14
Tc-99m	2.7706E-04	5.2690E-14	3.2051E+11	7.0711E+14
Ru-103	2.5025E-02	7.7539E-10	4.5335E+15	2.5384E+15
Ru-106	1.3656E-02	4.0817E-09	2.3189E+16	1.1655E+15
Rh-105	2.1704E-06	2.5714E-15	1.4748E+10	2.3517E+14
Sb-127	1.0612E-03	3.9739E-12	1.8843E+13	9.3674E+14
Te-127	7.1327E-03	2.7027E-12	1.2816E+13	1.3721E+15
Te-127m	6.0063E-03	6.3676E-10	3.0194E+15	5.3242E+14
Te-129	1.5852E-02	7.5695E-13	3.5337E+12	1.3129E+15
Te-129m	1.8333E-02	6.0854E-10	2.8409E+15	1.9229E+15
Te-131m	1.3567E-06	1.7014E-15	7.8216E+09	6.5562E+14
Te-132	9.0480E-03	2.9803E-11	1.3597E+14	1.3174E+16
I-131	2.3813E+02	1.9208E-06	8.8299E+18	5.5691E+19
I-132	1.0273E+00	9.9527E-11	4.5407E+14	2.1364E+18
I-133	3.1218E-04	2.7558E-13	1.2478E+12	1.3011E+19
Xe-133	7.3342E+03	3.9182E-05	1.7741E+20	2.5617E+21
Xe-135	1.5055E-10	5.8951E-20	2.6297E+05	4.6608E+20
Cs-134	4.6665E-01	3.6067E-07	1.6209E+18	3.9443E+16
Cs-136	5.2674E-02	7.1869E-10	3.1824E+15	8.0839E+15
Cs-137	3.5729E-01	4.1076E-06	1.8056E+19	2.9925E+16
Ba-140	1.0924E-01	1.4921E-09	6.4184E+15	1.7060E+16
La-140	1.2679E-01	2.2812E-10	9.8126E+14	1.5728E+16
Ce-141	4.8691E-03	1.7089E-10	7.2986E+14	5.1478E+14
Ce-143	2.8882E-07	4.3492E-16	1.8316E+09	5.6991E+13
Ce-144	5.9580E-03	1.8680E-09	7.8121E+15	5.1156E+14
Pr-143	1.2346E-03	1.8335E-11	7.7212E+13	1.7873E+14
Nd-147	3.3982E-04	4.2006E-12	1.7209E+13	5.9129E+13
Np-239	2.4362E-04	1.0501E-12	2.6460E+12	1.3128E+15
Pu-238	1.8888E-05	1.1033E-09	2.7917E+15	1.5784E+12
Pu-239	2.0253E-06	3.2583E-08	8.2101E+16	1.6907E+11
Pu-240	3.2196E-06	1.4129E-08	3.5454E+16	2.6933E+11
Nd-147	3.3982E-04	4.2006E-12	1.7209E+13	5.9129E+13
Np-239	2.4362E-04	1.0501E-12	2.6460E+12	1.3128E+15

Pu-241	7.9197E-04	7.6881E-09	1.9211E+16	6.6343E+13
Am-241	4.8988E-07	1.4273E-10	3.5666E+14	3.7875E+10
Cm-242	1.0111E-04	3.0508E-11	7.5919E+13	8.8532E+12
Cm-244	6.4391E-06	7.9590E-11	1.9644E+14	5.3924E+11

RB Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	1.7741E+20	0.0000E+00	
Elemental I (atoms)	8.5492E+18	0.0000E+00	
Organic I (atoms)	2.6441E+17	0.0000E+00	
Aerosols (kg)	4.7020E-06	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.0470E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.0475E-09
Total I (Ci)			2.3915E-02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 480.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.2471E+22
Elemental I (atoms)	1.2289E+22	1.3655E+21
Organic I (atoms)	3.8007E+20	4.2231E+19
Aerosols (kg)	2.5177E+01	2.5177E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 480.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9280E+22
Elemental I (atoms)	0.0000E+00	1.2860E+21
Organic I (atoms)	0.0000E+00	3.9775E+19
Aerosols (kg)	0.0000E+00	2.4701E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Co-58	1.4328E-03	4.5060E-11	4.6785E+14	8.4288E+13
Co-60	9.3101E-04	8.2363E-10	8.2667E+15	5.0580E+13
Rb-86	3.0337E-02	3.7284E-10	2.6108E+15	2.2782E+15
Sr-89	1.8379E+00	6.3261E-08	4.2805E+17	1.1184E+17
Sr-90	3.0783E-01	2.2567E-06	1.5100E+19	1.6683E+16
Y-90	3.0786E-01	5.6586E-10	3.7863E+15	1.4918E+16
Y-91	3.1233E-02	1.2736E-09	8.4281E+15	1.8690E+15
Zr-95	3.6350E-02	1.6920E-09	1.0726E+16	2.1576E+15
Zr-97	1.2591E-10	6.5863E-20	4.0890E+05	1.9793E+13
Nb-95	4.3440E-02	1.1109E-09	7.0421E+15	2.4038E+15
Mo-99	3.8409E-03	8.0083E-12	4.8715E+13	3.5485E+15
Tc-99m	3.9379E-03	7.4890E-13	4.5555E+12	3.4492E+15
Ru-103	3.5568E-01	1.1021E-08	6.4435E+16	2.2395E+16
Ru-106	1.9409E-01	5.8014E-08	3.2959E+17	1.0679E+16
Rh-105	3.0848E-05	3.6548E-14	2.0961E+11	7.5580E+14
Sb-127	1.5083E-02	5.6481E-11	2.6783E+14	5.4042E+15
Te-127	1.0138E-01	3.8414E-11	1.8215E+14	9.7028E+15
Te-127m	8.5369E-02	9.0504E-09	4.2916E+16	4.8474E+15
Te-129	2.2531E-01	1.0759E-11	5.0225E+13	1.1000E+16
Te-129m	2.6056E-01	8.6493E-09	4.0378E+16	1.6842E+16
Te-131m	1.9283E-05	2.4183E-14	1.1117E+11	1.8501E+15
Te-132	1.2860E-01	4.2360E-10	1.9326E+15	7.0049E+16
I-131	3.3843E+03	2.7298E-05	1.2549E+20	4.1161E+20
I-132	4.4035E-01	4.2661E-11	1.9463E+14	6.5355E+17
I-133	4.4375E-03	3.9172E-12	1.7737E+13	2.7386E+19
Xe-133	1.0203E+05	5.4508E-04	2.4681E+21	1.6525E-22
Xe-135	2.0955E-09	8.2056E-19	3.6604E+06	4.7519E+20
Cs-134	6.6332E+00	5.1268E-06	2.3041E+19	3.6229E+17
Cs-136	7.4873E-01	1.0216E-08	4.5236E+16	6.5248E+16
Cs-137	5.0787E+00	5.8388E-05	2.5666E+20	2.7541E+17
Ba-140	1.5526E+00	2.1208E-08	9.1226E+16	1.3714E+17
La-140	1.8022E+00	3.2423E-09	1.3947E+16	1.4427E+17
Ce-141	6.9206E-02	2.4288E-09	1.0374E+16	4.5009E+15
Cs-136	7.4873E-01	1.0216E-08	4.5236E+16	6.5248E+16
Cs-137	5.0787E+00	5.8388E-05	2.5666E+20	2.7541E+17

Ce-143	4.1051E-06	6.1816E-15	2.6032E+10	1.7296E+14
Ce-144	8.4682E-02	2.6550E-08	1.1103E+17	4.6811E+15
Pr-143	1.7548E-02	2.6059E-10	1.0974E+15	1.4820E+15
Nd-147	4.8300E-03	5.9704E-11	2.4459E+14	4.6461E-14
Np-239	3.4626E-03	1.4926E-11	3.7608E+13	5.7937E-15
Pu-238	2.6846E-04	1.5681E-08	3.9679E+16	1.4530E-13
Pu-239	2.8786E-05	4.6311E-07	1.1669E+18	1.5577E-12
Pu-240	4.5761E-05	2.0082E-07	5.0391E+17	2.4787E+12
Pu-241	1.1256E-02	1.0927E-07	2.7305E+17	6.1037E+14
Am-241	6.9628E-06	2.0287E-09	5.0693E+15	3.5483E+11
Cm-242	1.4371E-03	4.3362E-10	1.0791E-15	8.0666E+13
Cm-244	9.1519E-05	1.1312E-09	2.7920E-15	4.9615E+12

SGTS Filter Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4681E+21	0.0000E+00	
Elemental I (atoms)	1.2150E+20	0.0000E+00	
Organic I (atoms)	3.7576E+18	0.0000E+00	
Aerosols (kg)	6.6836E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1951E-01
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1951E-01
Total I (Ci)			3.3847E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 480.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9280E+22
Elemental I (atoms)	0.0000E+00	1.2860E+21
Organic I (atoms)	0.0000E+00	3.9775E+19
Aerosols (kg)	0.0000E+00	2.4701E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 480.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9840E+22
Elemental I (atoms)	0.0000E+00	7.3725E+20
Organic I (atoms)	0.0000E+00	2.2802E+19
Aerosols (kg)	0.0000E+00	1.7975E-04

Detailed model information at time (H) = 528.0000

EAB Doses:

Time (h) = 528.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.8628E-02	5.1287E+01	1.6299E+00
Accumulated dose (rem)	1.6828E+00	1.1591E+03	3.7197E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Co-58	6.2977E+02	1.9805E-05	2.0564E+20	6.9813E+19
Co-60	4.1701E+02	3.6891E-04	3.7027E+21	4.1150E+19
Rb-86	1.2623E+04	1.5514E-04	1.0864E+21	2.0006E+21
Sr-89	8.0149E+05	2.7588E-02	1.8667E+23	9.3364E+22
Sr-90	1.3796E+05	1.0114E+00	6.7675E+24	1.3565E+22
Sr-91	2.5671E-11	7.0818E-21	4.6865E+04	4.3127E+21
Y-90	1.3829E+05	2.5417E-04	1.7007E+21	1.0691E+22
Y-91	1.3672E+04	5.5748E-04	3.6893E+21	1.5427E+21
Zr-95	1.5944E+04	7.4216E-04	4.7047E+21	1.7907E+21
Zr-97	7.8806E-06	4.1223E-15	2.5593E+10	1.1403E+20
Nb-95	1.9335E+04	4.9447E-04	3.1345E+21	1.9596E+21
Mo-99	1.0399E+03	2.1683E-06	1.3189E+19	5.6543E+21
Tc-99m	1.0662E+03	2.0276E-07	1.2334E+18	5.4314E+21
Ru-103	1.5390E+05	4.7685E-03	2.7880E+22	1.8846E+22
Ru-106	8.6670E+04	2.5906E-02	1.4718E+23	8.7127E+21
Rh-105	5.3962E+00	6.3932E-09	3.6668E+16	1.9684E+21
Sb-127	4.7165E+03	1.7661E-05	8.3748E+19	7.0378E+21
Tc-99m	1.0662E+03	2.0276E-07	1.2334E+18	5.4314E+21
Ru-103	1.5390E+05	4.7685E-03	2.7880E+22	1.8846E+22

Te-127	4.3027E+04	1.6304E-05	7.7310E+19	1.0248E+22
Te-127m	3.7794E-04	4.0068E-03	1.8999E-22	3.9711E+21
Te-129	9.6909E+04	4.6274E-06	2.1602E+19	1.0475E+22
Te-129m	1.1207E+05	3.7202E-03	1.7367E+22	1.4260E+22
Te-131m	2.8513E+00	3.5757E-09	1.6438E+16	5.7220E+21
Te-132	3.7668E+04	1.2407E-04	5.6605E+20	1.0015E+23
I-131	2.5487E+06	2.0558E-02	9.4508E+22	8.1762E-23
I-132	4.4961E-04	4.3557E-06	1.9872E-19	1.2033E+23
I-133	8.0190E-01	7.0789E-10	3.2053E+15	2.4827E+23
Xe-133	3.5872E+05	1.9164E-03	8.6774E+21	1.9005E+23
Xe-135	2.4675E-10	9.6625E-20	4.3103E+05	5.9692E+22
Cs-134	2.9675E+06	2.2935E+00	1.0307E+25	2.9498E+23
Cs-136	3.0187E-05	4.1189E-03	1.8238E+22	5.9504E-22
Cs-137	2.2759E+06	2.6165E+01	1.1502E-26	2.2389E+23
Ba-140	6.2417E+05	8.5259E-03	3.6674E+22	1.2556E+23
La-140	7.2478E+05	1.3040E-03	5.6090E+21	1.1227E+23
Ce-141	2.9725E+04	1.0432E-03	4.4556E+21	3.8168E+21
Ce-143	6.7136E-01	1.0110E-09	4.2575E+15	4.8768E+20
Ce-144	3.7772E-04	1.1843E-02	4.9527E+22	3.8230E-21
Pr-143	7.1013E+03	1.0546E-04	4.4410E-20	1.3082E+21
Nd-147	1.9082E+03	2.3587E-05	9.6629E+19	4.3484E+20
Np-239	8.6150E+02	3.7135E-06	9.3570E+18	1.0313E+22
Pu-238	1.2036E+02	7.0302E-03	1.7789E+22	1.1811E+19
Pu-239	1.2903E+01	2.0758E-01	5.2305E+23	1.2649E+18
Pu-240	2.0512E-01	9.0015E-02	2.2587E+23	2.0152E+18
Pu-241	5.0441E+03	4.8966E-02	1.2236E+23	4.9637E+20
Am-241	3.1652E+00	9.2221E-04	2.3044E+21	2.8451E+17
Cm-242	6.3871E+02	1.9271E-04	4.7956E+20	6.6104E+19
Cm-244	4.1013E+01	5.0694E-04	1.2512E+21	4.0346E+18

Suppression pool Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	8.6774E+21	0.0000E+00	
Elemental I (atoms)	4.5846E+21	0.0000E+00	
Organic I (atoms)	1.4179E+20	0.0000E+00	
Aerosols (kg)	2.9941E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.8194E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.8231E-04
Total I (Ci)			2.5937E-06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3070E+22
Elemental I (atoms)	1.2560E+22	1.3956E+21
Organic I (atoms)	3.8846E+20	4.3163E+19
Aerosols (kg)	2.6976E+01	2.6976E-04

RB Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Co-58	9.3251E-05	2.9326E-12	3.0449E+13	9.9932E+12
Co-60	6.1747E-05	5.4625E-11	5.4826E+14	5.9070E+12
Rb-86	1.8691E-03	2.2972E-11	1.6086E+14	2.8382E+14
Sr-89	1.1868E-01	4.0850E-09	2.7641E+16	1.3348E+16
Sr-90	2.0428E-02	1.4976E-07	1.0021E+18	1.9474E+15
Y-90	2.0476E-02	3.7636E-11	2.5183E+14	1.5756E+15
Y-91	2.0244E-03	8.2547E-11	5.4627E+14	2.2149E+14
Zr-95	2.3608E-03	1.0989E-10	6.9662E+14	2.5625E+14
Nb-95	2.8630E-03	7.3217E-11	4.6413E+14	2.8120E+14
Mo-99	1.5398E-04	3.2106E-13	1.9530E+12	7.3369E+14
Tc-99m	1.5787E-04	3.0024E-14	1.8263E+11	7.0840E+14
Ru-103	2.2788E-02	7.0608E-10	4.1283E+15	2.6910E+15
Ru-106	1.2833E-02	3.8359E-09	2.1793E+16	1.2501E+15
Rh-105	7.9903E-07	9.4665E-16	5.4294E+09	2.3518E+14
Sb-127	6.9838E-04	2.6152E-12	1.2401E+13	9.4228E+14
Te-127	6.3711E-03	2.4141E-12	1.1447E+13	1.4136E+15
Te-127m	5.5962E-03	5.9329E-10	2.8133E+15	5.6947E+14
Ru-106	1.2833E-02	3.8359E-09	2.1793E+16	1.2501E+15
Rh-105	7.9903E-07	9.4665E-16	5.4294E+09	2.3518E+14

Te-129	1.4349E-02	6.8519E-13	3.1987E+12	1.3855E+15
Te-129m	1.6595E-02	5.5085E-10	2.5716E+15	2.0344E+15
Te-131m	4.2219E-07	5.2945E-16	2.4339E+09	6.5562E+14
Te-132	5.5775E-03	1.8372E-11	8.3816E+13	1.3219E+16
I-131	1.8905E-02	1.5249E-06	7.0102E+18	5.7050E+19
I-132	6.3328E-01	6.1352E-11	2.7990E+14	2.1424E+18
I-133	5.9482E-05	5.2509E-14	2.3775E+11	1.3011E+19
Xe-133	5.3116E-03	2.8377E-05	1.2849E+20	2.6018E-21
Cs-134	4.3939E-01	3.3961E-07	1.5262E+18	4.2337E-16
Cs-136	4.4699E-02	6.0988E-10	2.7006E+15	8.3943E+15
Cs-137	3.3700E-01	3.8743E-06	1.7030E+19	3.2142E+16
Ba-140	9.2421E-02	1.2624E-09	5.4304E+15	1.7703E+16
La-140	1.0732E-01	1.9308E-10	8.3054E+14	1.6468E+16
Ce-141	4.4014E-03	1.5447E-10	6.5974E+14	5.4437E+14
Ce-143	9.9410E-08	1.4969E-16	6.3041E+08	5.6992E+13
Ce-144	5.5930E-03	1.7536E-09	7.3335E+15	5.4845E+14
Pr-143	1.0515E-03	1.5615E-11	6.5759E+13	1.8602E+14
Nd-147	2.8254E-04	3.4926E-12	1.4308E+13	6.1112E+13
Np-239	1.2756E-04	5.4986E-13	1.3855E+12	1.3140E+15
Pu-238	1.7821E-05	1.0410E-09	2.6340E+15	1.6957E+12
Pu-239	1.9105E-06	3.0737E-08	7.7449E+16	1.8164E+11
Pu-240	3.0372E-06	1.3329E-08	3.3445E+16	2.8931E+11
Pu-241	7.4689E-04	7.2505E-09	1.8118E+16	7.1258E+13
Am-241	4.6867E-07	1.3655E-10	3.4122E+14	4.0936E+10
Cm-242	9.4574E-05	2.8535E-11	7.1010E+13	9.4782E+12
Cm-244	6.0729E-06	7.5064E-11	1.8526E+14	5.7921E+11

RB Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	1.2849E+20	0.0000E+00	
Elemental I (atoms)	6.7873E+18	0.0000E+00	
Organic I (atoms)	2.0992E+17	0.0000E+00	
Aerosols (kg)	4.4334E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.2130E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.2133E-09
Total I (Ci)			1.8969E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3070E+22
Elemental I (atoms)	1.2560E+22	1.3956E+21
Organic I (atoms)	3.8846E+20	4.3163E+19
Aerosols (kg)	2.6976E+01	2.6976E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9888E+22
Elemental I (atoms)	0.0000E+00	1.3166E+21
Organic I (atoms)	0.0000E+00	4.0720E+19
Aerosols (kg)	0.0000E+00	2.6527E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Co-58	1.3521E-03	4.2522E-11	4.4150E+14	9.3189E+13
Co-60	8.9530E-04	7.9203E-10	7.9495E+15	5.6418E+13
Rb-86	2.7104E-02	3.3310E-10	2.3325E+15	2.4616E+15
Sr-89	1.7208E+00	5.9230E-08	4.0078E+17	1.2321E+17
Sr-90	2.9620E-01	2.1714E-06	1.4530E+19	1.8614E+16
Y-90	2.9690E-01	5.4570E-10	3.6514E+15	1.6840E+16
Y-91	2.9352E-02	1.1969E-09	7.9207E+15	2.0626E+15
Zr-95	3.4231E-02	1.5934E-09	1.0101E+16	2.3831E+15
Zr-97	1.6919E-11	8.8505E-21	5.4947E+04	1.9793E+13
Nb-95	4.1512E-02	1.0616E-09	6.7296E+15	2.6753E+15
Mo-99	2.2327E-03	4.6552E-12	2.8317E+13	3.5674E+15
Y-91	2.9352E-02	1.1969E-09	7.9207E+15	2.0626E+15
Zr-95	3.4231E-02	1.5934E-09	1.0101E+16	2.3831E+15

Tc-99m	2.2891E-03	4.3533E-13	2.6481E-12	3.4676E+15
Ru-103	3.3041E-01	1.0238E-08	5.9858E+16	2.4588E+16
Ru-106	1.8608E-01	5.5619E-08	3.1599E+17	1.1894E+16
Rh-105	1.1586E-05	1.3726E-14	7.8724E+10	7.5592E+14
Sb-127	1.0126E-02	3.7918E-11	1.7980E+14	5.4838E+15
Te-127	9.2378E-02	3.5003E-11	1.6598E+14	1.0299E-16
Te-127m	8.1143E-02	8.6024E-09	4.0791E-16	5.3796E+15
Te-129	2.0806E-01	9.9349E-12	4.6380E+13	1.2043E+16
Te-129m	2.4061E-01	7.9871E-09	3.7286E+16	1.8444E+16
Te-131m	6.1216E-06	7.6768E-15	3.5291E+10	1.8502E+15
Te-132	8.0872E-02	2.6638E-10	1.2153E+15	7.0707E-16
I-131	2.7410E+03	2.2110E-05	1.0164E+20	4.3112E-20
I-132	2.7336E-01	2.6482E-11	1.2082E+14	6.5592E+17
I-133	8.6252E-04	7.6139E-13	3.4475E+12	2.7386E+19
Xe-133	7.5778E+04	4.0484E-04	1.8331E+21	1.7089E+22
Xe-135	5.2148E-11	2.0420E-20	9.1091E+04	4.7519E+20
Cs-134	6.3715E+00	4.9245E-06	2.2131E+19	4.0386E+17
Cs-136	6.4816E-01	8.8437E-09	3.9160E+16	6.9706E+16
Cs-137	4.8866E+00	5.6180E-05	2.4695E+20	3.0726E+17
Ba-140	1.3401E+00	1.8305E-08	7.8738E+16	1.4637E+17
La-140	1.5561E+00	2.7996E-09	1.2042E+16	1.5490E+17
Ce-141	6.3818E-02	2.2397E-09	9.5660E+15	4.9260E+15
Ce-143	1.4414E-06	2.1705E-15	9.1406E+09	1.7298E+14
Ce-144	8.1096E-02	2.5426E-08	1.0633E+17	5.2110E+15
Pr-143	1.5246E-02	2.2641E-10	9.5347E+14	1.5867E+15
Nd-147	4.0967E-03	5.0640E-11	2.0746E+14	4.9308E+14
Np-239	1.8496E-03	7.9727E-12	2.0089E+13	5.8102E-15
Pu-238	2.5840E-04	1.5094E-08	3.8192E+16	1.6214E+13
Pu-239	2.7702E-05	4.4568E-07	1.1230E+18	1.7382E+12
Pu-240	4.4037E-05	1.9326E-07	4.8493E+17	2.7657E+12
Pu-241	1.0830E-02	1.0513E-07	2.6270E+17	6.8097E+14
Am-241	6.7955E-06	1.9800E-09	4.9475E+15	3.9880E+11
Cm-242	1.3713E-03	4.1375E-10	1.0296E+15	8.9643E-13
Cm-244	8.8054E-05	1.0884E-09	2.6862E+15	5.5355E+12

SGTS Filter Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	1.8331E+21	0.0000E+00	
Elemental I (atoms)	9.8403E+19	0.0000E+00	
Organic I (atoms)	3.0434E+18	0.0000E+00	
Aerosols (kg)	6.4286E-05	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.6799E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.6799E-02
Total I (Ci)			2.7413E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9888E+22
Elemental I (atoms)	0.0000E+00	1.3166E+21
Organic I (atoms)	0.0000E+00	4.0720E+19
Aerosols (kg)	0.0000E+00	2.6527E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0519E+22
Elemental I (atoms)	0.0000E+00	7.7203E-20
Organic I (atoms)	0.0000E+00	2.3877E+19
Aerosols (kg)	0.0000E+00	2.0053E-04

Detailed model information at time (H) = 576.0000

EAB Doses:

Time (h) = 576.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.6986E-02	4.1439E+01	1.3175E+00

EAB Doses:

Accumulated dose (rem) 1.7198E+00 1.2005E+03 3.8515E-01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Co-58	5.8256E-02	1.8321E-05	1.9022E-20	7.3684E+19
Co-60	3.9309E+02	3.4775E-04	3.4903E+21	4.3737E+19
Rb-86	1.1055E+04	1.3587E-04	9.5142E+20	2.0761E+21
Sr-89	7.3559E+05	2.5320E-02	1.7132E+23	9.8271E+22
Sr-90	1.3013E-05	9.5395E-01	6.3832E-24	1.4422E+22
Y-90	1.3061E+05	2.4006E-04	1.6063E+21	1.1545E+22
Y-91	1.2595E+04	5.1357E-04	3.3987E+21	1.6265E+21
Zr-95	1.4718E+04	6.8510E-04	4.3429E+21	1.8886E+21
Zr-97	1.0381E-06	5.4301E-16	3.3712E+09	1.1403E+20
Nb-95	1.8104E+04	4.6298E-04	2.9349E+21	2.0791E+21
Mo-99	5.9257E+02	1.2355E-06	7.5155E+18	5.6594E+21
Tc-99m	6.0752E-02	1.1554E-07	7.0281E+17	5.4363E+21
Ru-103	1.4014E+05	4.3423E-03	2.5388E+22	1.9785E+22
Ru-106	8.1451E+04	2.4346E-02	1.3832E+23	9.2496E+21
Rh-105	1.9866E+00	2.3537E-09	1.3499E+16	1.9684E+21
Sb-127	3.1039E+03	1.1623E-05	5.5113E+19	7.0624E+21
Te-127	3.8865E+04	1.4727E-05	6.9831E+19	1.0500E-22
Te-127m	3.5210E+04	3.7328E-03	1.7701E+22	4.2043E+21
Te-129	8.7722E+04	4.1888E-06	1.9554E+19	1.0919E+22
Te-129m	1.0145E+05	3.3675E-03	1.5721E+22	1.4942E+22
Te-131m	8.8726E-01	1.1127E-09	5.1151E+15	5.7221E+21
Te-132	2.3220E+04	7.6483E-05	3.4893E+20	1.0034E+23
I-131	2.0235E+06	1.6322E-02	7.5032E+22	8.3216E+23
I-132	2.7715E+04	2.6850E-06	1.2250E+19	1.2053E+23
I-133	1.5279E-01	1.3488E-10	6.1072E+14	2.4827E+23
Xe-133	2.5980E+05	1.3879E-03	6.2844E+21	1.9201E+23
Xe-135	5.9886E-12	2.3451E-21	1.0461E+04	5.9692E+22
Cs-134	2.7941E+06	2.1596E+00	9.7054E+24	3.1338E+23
Cs-136	2.5617E+05	3.4953E-03	1.5477E+22	6.1283E+22
Cs-137	2.1467E+06	2.4679E+01	1.0848E+26	2.3802E+23
Ba-140	5.2809E+05	7.2135E-03	3.1029E+22	1.2923E+23
La-140	6.1333E+05	1.1035E-03	4.7465E+21	1.1650E+23
Ce-141	2.6869E+04	9.4300E-04	4.0276E+21	3.9975E-21
Ce-143	2.3108E-01	3.4797E-10	1.4654E+15	4.8768E+20
Ce-144	3.5458E+04	1.1117E-02	4.6493E+22	4.0569E+21
Pr-143	6.0478E+03	8.9812E-05	3.7822E+20	1.3502E+21
Nd-147	1.5865E+03	1.9611E-05	8.0341E+19	4.4598E+20
Np-239	4.5109E+02	1.9444E-06	4.8994E+18	1.0317E-22
Pu-238	1.1356E+02	6.6330E-03	1.6784E+22	1.2558E+19
Pu-239	1.2172E+01	1.9582E-01	4.9342E+23	1.3450E+18
Pu-240	1.9349E+01	8.4914E-02	2.1307E+23	2.1425E+18
Pu-241	4.7570E+03	4.6179E-02	1.1539E+23	5.2768E-20
Am-241	3.0276E+00	8.8211E-04	2.2042E+21	3.0429E+17
Cm-242	5.9740E+02	1.8025E-04	4.4855E+20	7.0052E+19
Cm-244	3.8681E+01	4.7811E-04	1.1800E+21	4.2891E+18

Suppression pool Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	6.2844E+21	0.0000E+00	
Elemental I (atoms)	3.6397E+21	0.0000E+00	
Organic I (atoms)	1.1257E+20	0.0000E+00	
Aerosols (kg)	2.8231E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.4140E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.4162E-04
Total I (Ci)			2.0512E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 576.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3504E+22
Elemental I (atoms)	1.2776E+22	1.4195E+21
Organic I (atoms)	3.9512E+20	4.3903E+19
Aerosols (kg)	2.8672E+01	2.8673E-04

Time (h) = 576.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3504E+22

RB Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Co-58	8.6261E-05	2.7128E-12	2.8167E+13	1.0566E+13
Co-60	5.8206E-05	5.1492E-11	5.1682E+14	6.2902E+12
Rb-86	1.6370E-03	2.0118E-11	1.4088E+14	2.9500E+14
Sr-89	1.0892E-01	3.7491E-09	2.5368E+16	1.4075E+16
Sr-90	1.9268E-02	1.4125E-07	9.4516E+17	2.0742E+15
Y-90	1.9339E-02	3.5546E-11	2.3785E+14	1.7021E+15
Y-91	1.8649E-03	7.6045E-11	5.0325E+14	2.3391E+14
Zr-95	2.1793E-03	1.0144E-10	6.4306E+14	2.7074E+14
Nb-95	2.6807E-03	6.8554E-11	4.3457E+14	2.9890E+14
Mo-99	8.7742E-05	1.8294E-13	1.1128E+12	7.3444E+14
Tc-99m	8.9957E-05	1.7108E-14	1.0407E+11	7.0913E+14
Ru-103	2.0751E-02	6.4297E-10	3.7593E+15	2.8300E+15
Ru-106	1.2061E-02	3.6049E-09	2.0481E+16	1.3296E+15
Rh-105	2.9416E-07	3.4851E-16	1.9988E+09	2.3518E+14
Sb-127	4.5960E-04	1.7210E-12	8.1607E+12	9.4593E+14
Te-127	5.7548E-03	2.1806E-12	1.0340E+13	1.4509E+15
Te-127m	5.2136E-03	5.5273E-10	2.6209E+15	6.0399E+14
Te-129	1.2989E-02	6.2023E-13	2.8955E-12	1.4513E+15
Te-129m	1.5021E-02	4.9863E-10	2.3278E+15	2.1353E+15
Te-131m	1.3138E-07	1.6476E-16	7.5739E+08	6.5562E+14
Te-132	3.4382E-03	1.1325E-11	5.1667E+13	1.3248E+16
I-131	1.5010E+02	1.2107E-06	5.5656E+18	5.8129E+19
I-132	3.9038E-01	3.7820E-11	1.7254E+14	2.1461E+18
I-133	1.1334E-05	1.0005E-14	4.5301E+10	1.3011E+19
Xe-133	3.8468E+03	2.0551E-05	9.3055E+19	2.6308E+21
Cs-134	4.1373E-01	3.1977E-07	1.4371E+18	4.5062E+16
Cs-136	3.7932E-02	5.1755E-10	2.2917E+15	8.6577E-15
Cs-137	3.1786E-01	3.6543E-06	1.6063E+19	3.4234E+16
Ba-140	7.8195E-02	1.0681E-09	4.5945E+15	1.8247E+16
La-140	9.0817E-02	1.6339E-10	7.0283E+14	1.7095E+16
Ce-141	3.9786E-03	1.3963E-10	5.9637E+14	5.7112E+14
Ce-143	3.4216E-08	5.1524E-17	2.1698E+08	5.6992E+13
Ce-144	5.2504E-03	1.6461E-09	6.8842E+15	5.8308E+14
Pr-143	8.9551E-04	1.3299E-11	5.6004E+13	1.9223E+14
Nd-147	2.3492E-04	2.9038E-12	1.1896E+13	6.2760E+13
Np-239	6.6794E-05	2.8791E-13	7.2546E+11	1.3146E+15
Pu-238	1.6814E-05	9.8216E-10	2.4852E+15	1.8063E+12
Pu-239	1.8023E-06	2.8996E-08	7.3061E+16	1.9350E+11
Pu-240	2.8650E-06	1.2573E-08	3.1549E+16	3.0816E+11
Pu-241	7.0438E-04	6.8378E-09	1.7086E+16	7.5894E+13
Am-241	4.4829E-07	1.3062E-10	3.2638E+14	4.3865E+10
Cm-242	8.8458E-05	2.6690E-11	6.6417E+13	1.0063E+13
Cm-244	5.7275E-06	7.0795E-11	1.7473E+14	6.1690E+11

RB Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	9.3055E+19	0.0000E+00	
Elemental I (atoms)	5.3886E+18	0.0000E+00	
Organic I (atoms)	1.6666E+17	0.0000E+00	
Aerosols (kg)	4.1802E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.5508E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5510E-09
Total I (Ci)			1.5049E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 576.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3504E+22
Elemental I (atoms)	1.2776E+22	1.4195E+21
Organic I (atoms)	3.9512E+20	4.3903E+19
Aerosols (kg)	2.8672E+01	2.8673E-04

RB to SGTS Filter Transport Group Inventory:

Organic I (atoms)	3.9512E+20	4.3903E+19
Aerosols (kg)	2.8672E+01	2.8673E-04

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0328E+22
Elemental I (atoms)	0.0000E+00	1.3409E+21
Organic I (atoms)	0.0000E+00	4.1471E+19
Aerosols (kg)	0.0000E+00	2.8248E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Co-58	1.2698E-03	3.9934E-11	4.1463E+14	1.0157E+14
Co-60	8.5682E-04	7.5799E-10	7.6079E+15	6.2018E+13
Rb-86	2.4099E-02	2.9617E-10	2.0739E+15	2.6251E+15
Sr-89	1.6034E+00	5.5189E-08	3.7344E+17	1.3383E+17
Sr-90	2.8364E-01	2.0793E-06	1.3913E+19	2.0467E+16
Y-90	2.8469E-01	5.2326E-10	3.5013E+15	1.8689E+16
Y-91	2.7453E-02	1.1194E-09	7.4081E+15	2.2441E+15
Zr-95	3.2081E-02	1.4933E-09	9.4662E+15	2.5950E+15
Nb-95	3.9461E-02	1.0092E-09	6.3972E+15	2.9339E+15
Mo-99	1.2916E-03	2.6930E-12	1.6382E+13	3.5784E+15
Tc-99m	1.3242E-03	2.5184E-13	1.5319E+12	3.4783E+15
Ru-103	3.0547E-01	9.4649E-09	5.5339E+16	2.6619E+16
Ru-106	1.7754E-01	5.3067E-08	3.0149E+17	1.3057E+16
Rh-105	4.3303E-06	5.1303E-15	2.9424E+10	7.5597E+14
Sb-127	6.7656E-03	2.5334E-11	1.2013E+14	5.5370E+15
Te-127	8.4715E-02	3.2100E-11	1.5221E+14	1.0844E+16
Te-127m	7.6748E-02	8.1365E-09	3.8582E+16	5.8842E+15
Te-129	1.9121E-01	9.1303E-12	4.2623E+13	1.3003E+16
Te-129m	2.2113E-01	7.3402E-09	3.4266E+16	1.9919E+16
Te-131m	1.9340E-06	2.4253E-15	1.1149E+10	1.8502E+15
Te-132	5.0612E-02	1.6671E-10	7.6057E+14	7.1120E+16
I-131	2.2094E+03	1.7821E-05	8.1926E+19	4.4688E+20
I-132	1.6941E-01	1.6413E-11	7.4878E+13	6.5739E+17
I-133	1.6684E-04	1.4728E-13	6.6689E+11	2.7386E+19
Xe-133	5.5935E+04	2.9883E-04	1.3531E+21	1.7507E+22
Cs-134	6.0907E+00	4.7075E-06	2.1156E+19	4.4368E+17
Cs-136	5.5841E-01	7.6191E-09	3.3738E+16	7.3556E+16
Cs-137	4.6793E+00	5.3797E-05	2.3648E+20	3.3784E+17
Ba-140	1.1511E+00	1.5723E-08	6.7634E+16	1.5432E+17
La-140	1.3369E+00	2.4052E-09	1.0346E+16	1.6406E+17
Ce-141	5.8567E-02	2.0555E-09	8.7789E+15	5.3169E+15
Ce-143	5.0368E-07	7.5846E-16	3.1941E+09	1.7298E+14
Ce-144	7.7289E-02	2.4232E-08	1.0134E+17	5.7172E+15
Pr-143	1.3183E-02	1.9576E-10	8.2442E+14	1.6774E+15
Nd-147	3.4581E-03	4.2747E-11	1.7512E+14	5.1717E+14
Np-239	9.8325E-04	4.2383E-12	1.0679E+13	5.8189E+15
Pu-238	2.4752E-04	1.4458E-08	3.6583E+16	1.7831E+13
Pu-239	2.6530E-05	4.2683E-07	1.0755E+18	1.9116E+12
Pu-240	4.2175E-05	1.8509E-07	4.6443E+17	3.0412E-12
Pu-241	1.0369E-02	1.0066E-07	2.5152E+17	7.4872E+14
Am-241	6.5992E-06	1.9227E-09	4.8046E+15	4.4161E+11
Cm-242	1.3022E-03	3.9289E-10	9.7771E+14	9.8186E+13
Cm-244	8.4313E-05	1.0421E-09	2.5721E+15	6.0864E+12

SGTS Filter Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3531E+21	0.0000E+00	
Elemental I (atoms)	7.9317E+19	0.0000E+00	
Organic I (atoms)	2.4531E+18	0.0000E+00	
Aerosols (kg)	6.1539E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.8024E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.8024E-02
Total I (Ci)			2.2096E+03

RB to SGTS Filter Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0328E+22

RB to SGTS Filter Transport Group Inventory:

Elemental I (atoms)	0.0000E-00	1.3409E+21
Organic I (atoms)	0.0000E+00	4.1471E+19
Aerosols (kg)	0.0000E+00	2.8248E-04

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	2.1021E+22
Elemental I (atoms)	0.0000E+00	8.0014E+20
Organic I (atoms)	0.0000E+00	2.4747E+19
Aerosols (kg)	0.0000E+00	2.2046E-04

Detailed model information at time (H) = 624.0000

EAB Doses:

Time (h) = 624.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.8044E-02	3.3342E-01	1.0611E+00
Accumulated dose (rem)	1.7478E+00	1.2338E+03	3.9576E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Co-58	5.3889E+02	1.6947E-05	1.7596E+20	7.7265E+19
Co-60	3.7055E+02	3.2781E-04	3.2902E+21	4.6176E+19
Rb-86	9.6821E+03	1.1899E-04	8.3324E+20	2.1423E+21
Sr-89	6.7511E+05	2.3238E-02	1.5724E+23	1.0278E-23
Sr-90	1.2274E-05	8.9977E-01	6.0206E+24	1.5229E+22
Y-90	1.2329E+05	2.2661E-04	1.5163E+21	1.2352E+22
Y-91	1.1603E+04	4.7312E-04	3.1310E+21	1.7038E+21
Zr-95	1.3586E+04	6.3242E-04	4.0090E+21	1.9790E+21
Zr-97	1.3674E-07	7.1528E-17	4.4407E+08	1.1403E+20
Nb-95	1.6944E+04	4.3330E-04	2.7467E+21	2.1910E+21
Mo-99	3.3765E+02	7.0401E-07	4.2824E-18	5.6623E+21
Tc-99m	3.4617E+02	6.5835E-08	4.0047E+17	5.4391E+21
Ru-103	1.2762E+05	3.9541E-03	2.3119E+22	2.0640E+22
Ru-106	7.6546E+04	2.2880E-02	1.2999E+23	9.7542E+21
Rh-105	7.3137E-01	8.6650E-10	4.9697E+15	1.9684E+21
Sb-127	2.0426E+03	7.6488E-06	3.6269E+19	7.0786E+21
Te-127	3.5403E+04	1.3415E-05	6.3610E+19	1.0728E+22
Te-127m	3.2801E+04	3.4774E-03	1.6489E+22	4.4215E+21
Te-129	7.9406E+04	3.7917E-06	1.7701E+19	1.1321E+22
Te-129m	9.1830E+04	3.0483E-03	1.4230E+22	1.5559E+22
Te-131m	2.7610E-01	3.4625E-10	1.5917E+15	5.7221E+21
Te-132	1.4313E+04	4.7147E-05	2.1510E+20	1.0046E+23
I-131	1.6065E+06	1.2958E-02	5.9570E+22	8.4371E+23
I-132	1.7085E+04	1.6551E-06	7.5511E+18	1.2065E+23
I-133	2.9112E-02	2.5699E-11	1.1636E+14	2.4827E+23
Xe-133	1.8815E+05	1.0052E-03	4.5514E+21	1.9343E+23
Cs-134	2.6309E+06	2.0334E+00	9.1386E+24	3.3071E+23
Cs-136	2.1739E+05	2.9661E-03	1.3134E+22	6.2793E+22
Cs-137	2.0247E-06	2.3278E+01	1.0232E+26	2.5134E+23
Ba-140	4.4680E+05	6.1031E-03	2.6253E+22	1.3234E+23
La-140	5.1897E+05	9.3369E-04	4.0163E+21	1.2009E+23
Ce-141	2.4288E+04	8.5241E-04	3.6407E+21	4.1608E+21
Ce-143	7.9535E-02	1.1977E-10	5.0437E+14	4.8769E+20
Ce-144	3.3286E+04	1.0436E-02	4.3645E+22	4.2764E+21
Pr-143	5.1507E+03	7.6489E-05	3.2212E+20	1.3859E+21
Nd-147	1.3191E+03	1.6305E-05	6.6798E+19	4.5523E+20
Np-239	2.3620E+02	1.0181E-06	2.5654E+18	1.0319E-22
Pu-238	1.0714E+02	6.2583E-03	1.5835E+22	1.3263E+19
Pu-239	1.1482E+01	1.8472E-01	4.6545E+23	1.4206E+18
Pu-240	1.8253E+01	8.0102E-02	2.0099E+23	2.2626E+18
Pu-241	4.4862E+03	4.3550E-02	1.0882E+23	5.5720E+20
Am-241	2.8954E+00	8.4359E-04	2.1080E+21	3.2320E+17
Cm-242	5.5877E+02	1.6859E-04	4.1954E+20	7.3744E+19
Cm-244	3.6481E+01	4.5092E-04	1.1129E+21	4.5292E+18
Pu-241	4.4862E+03	4.3550E-02	1.0882E+23	5.5720E+20
Am-241	2.8954E+00	8.4359E-04	2.1080E+21	3.2320E+17

Suppression pool Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	4.5514E+21	0.0000E+00	
Elemental I (atoms)	2.8895E+21	0.0000E+00	
Organic I (atoms)	8.9366E-19	0.0000E+00	
Aerosols (kg)	2.6620E-01	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.2982E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.2996E-04
Total I (Ci)			1.6236E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3818E+22
Elemental I (atoms)	1.2947E+22	1.4385E+21
Organic I (atoms)	4.0041E+20	4.4490E+19
Aerosols (kg)	3.0272E+01	3.0272E-04

RB Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Co-58	7.9794E-05	2.5094E-12	2.6055E+13	1.1097E+13
Co-60	5.4867E-05	4.8539E-11	4.8718E+14	6.6513E+12
Rb-86	1.4336E-03	1.7619E-11	1.2338E+14	3.0480E+14
Sr-89	9.9965E-02	3.4409E-09	2.3282E+16	1.4742E+16
Sr-90	1.8174E-02	1.3323E-07	8.9148E+17	2.1938E-15
Y-90	1.8255E-02	3.3554E-11	2.2452E+14	1.8216E+15
Y-91	1.7180E-03	7.0056E-11	4.6361E+14	2.4535E+14
Zr-95	2.0117E-03	9.3643E-11	5.9361E+14	2.8413E+14
Nb-95	2.5088E-03	6.4160E-11	4.0671E+14	3.1547E+14
Mo-99	4.9996E-05	1.0424E-13	6.3411E+11	7.3487E+14
Tc-99m	5.1258E-05	9.7482E-15	5.9298E+10	7.0955E+14
Ru-103	1.8896E-02	5.8549E-10	3.4232E+15	2.9566E+15
Ru-106	1.1334E-02	3.3879E-09	1.9247E+16	1.4044E+15
Rh-105	1.0830E-07	1.2830E-16	7.3587E+08	2.3519E+14
Sb-127	3.0245E-04	1.1326E-12	5.3704E+12	9.4833E+14
Te-127	5.2421E-03	1.9863E-12	9.4188E+12	1.4847E+15
Te-127m	4.8568E-03	5.1490E-10	2.4416E+15	6.3615E+14
Te-129	1.1758E-02	5.6144E-13	2.6210E+12	1.5108E+15
Te-129m	1.3597E-02	4.5136E-10	2.1071E+15	2.2267E+15
Te-131m	4.0882E-08	5.1269E-17	2.3569E+08	6.5562E+14
Te-132	2.1194E-03	6.9811E-12	3.1849E+13	1.3265E+16
I-131	1.1916E+02	9.6120E-07	4.4187E+18	5.8985E+19
I-132	2.4064E-01	2.3313E-11	1.0636E+14	2.1484E+18
I-133	2.1594E-06	1.9063E-15	8.6315E+09	1.3011E+19
Xe-133	2.7860E+03	1.4884E-05	6.7393E+19	2.6518E+21
Cs-134	3.8957E-01	3.0109E-07	1.3532E+18	4.7628E+16
Cs-136	3.2189E-02	4.3919E-10	1.9448E+15	8.8813E-15
Cs-137	2.9981E-01	3.4468E-06	1.5151E+19	3.6207E+16
Ba-140	6.6158E-02	9.0369E-10	3.8872E+15	1.8707E+16
La-140	7.6844E-02	1.3825E-10	5.9470E+14	1.7626E+16
Ce-141	3.5964E-03	1.2622E-10	5.3908E+14	5.9530E+14
Ce-143	1.1777E-08	1.7734E-17	7.4683E+07	5.6992E+13
Ce-144	4.9287E-03	1.5453E-09	6.4625E+15	6.1559E+14
Pr-143	7.6267E-04	1.1326E-11	4.7696E+13	1.9751E+14
Nd-147	1.9532E-04	2.4144E-12	9.8909E+12	6.4131E+13
Np-239	3.4974E-05	1.5076E-13	3.7986E+11	1.3149E+15
Pu-238	1.5864E-05	9.2667E-10	2.3448E+15	1.9106E+12
Pu-239	1.7001E-06	2.7352E-08	6.8920E+16	2.0469E+11
Pu-240	2.7027E-06	1.1861E-08	2.9761E+16	3.2595E+11
Pu-241	6.6428E-04	6.4485E-09	1.6114E+16	8.0265E+13
Am-241	4.2872E-07	1.2491E-10	3.1213E+14	4.6666E+10
Cm-242	8.2737E-05	2.4964E-11	6.2122E+13	1.0609E+13
Cm-244	5.4018E-06	6.6769E-11	1.6479E+14	6.5244E+11

RB Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump		
Noble gases (atoms)	6.7393E+19	0.0000E+00		
Cm-244	5.4018E-06	6.6769E-11	1.6479E+14	6.5244E+11

Elemental I (atoms)	4.2781E+18	0.0000E-00	
Organic I (atoms)	1.3231E+17	0.0000E+00	
Aerosols (kg)	3.9416E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0252E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.0253E-09
Total I (Ci)			1.1940E+02

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.3818E+22
Elemental I (atoms)	1.2947E+22	1.4385E+21
Organic I (atoms)	4.0041E+20	4.4490E+19
Aerosols (kg)	3.0272E+01	3.0272E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0647E+22
Elemental I (atoms)	0.0000E+00	1.3602E+21
Organic I (atoms)	0.0000E+00	4.2067E+19
Aerosols (kg)	0.0000E+00	2.9872E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Co-58	1.1883E-03	3.7369E-11	3.8800E+14	1.0942E+14
Co-60	8.1705E-04	7.2281E-10	7.2548E+15	6.7366E+13
Rb-86	2.1350E-02	2.6239E-10	1.8374E+15	2.7702E+15
Sr-89	1.4886E+00	5.1239E-08	3.4671E+17	1.4371E+17
Sr-90	2.7063E-01	1.9840E-06	1.3275E+19	2.2238E+16
Y-90	2.7185E-01	4.9967E-10	3.3434E+15	2.0458E+16
Y-91	2.5584E-02	1.0432E-09	6.9038E+15	2.4136E+15
Zr-95	2.9957E-02	1.3945E-09	8.8397E+15	2.7932E+15
Nb-95	3.7360E-02	9.5543E-10	6.0566E+15	3.1793E+15
Mo-99	7.4452E-04	1.5523E-12	9.4427E+12	3.5848E+15
Tc-99m	7.6331E-04	1.4516E-13	8.8303E+11	3.4845E+15
Ru-103	2.8139E-01	8.7189E-09	5.0977E+16	2.8494E+16
Ru-106	1.6878E-01	5.0450E-08	2.8662E+17	1.4163E+16
Rh-105	1.6127E-06	1.9106E-15	1.0958E+10	7.5599E+14
Sb-127	4.5040E-03	1.6866E-11	7.9974E+13	5.5726E+15
Te-127	7.8062E-02	2.9579E-11	1.4026E+14	1.1345E+16
Te-127m	7.2325E-02	7.6676E-09	3.6358E+16	6.3605E-15
Te-129	1.7509E-01	8.3606E-12	3.9030E+13	1.3884E+16
Te-129m	2.0248E-01	6.7214E-09	3.1378E+16	2.1272E+16
Te-131m	6.0880E-07	7.6347E-16	3.5097E+09	1.8502E+15
Te-132	3.1561E-02	1.0396E-10	4.7428E+14	7.1378E+16
I-131	1.7745E+03	1.4313E-05	6.5798E+19	4.5957E+20
I-132	1.0486E-01	1.0159E-11	4.6348E+13	6.5830E+17
I-133	3.2158E-05	2.8388E-14	1.2854E+11	2.7386E+19
Xe-133	4.1100E+04	2.1957E-04	9.9420E+20	1.7815E+22
Cs-134	5.8014E+00	4.4839E-06	2.0151E+19	4.8168E-17
Cs-136	4.7936E-01	6.5405E-09	2.8961E+16	7.6866E+16
Cs-137	4.4647E+00	5.1329E-05	2.2563E+20	3.6706E+17
Ba-140	9.8519E-01	1.3457E-08	5.7887E+16	1.6114E+17
La-140	1.1443E+00	2.0588E-09	8.8559E+15	1.7192E+17
Ce-141	5.3555E-02	1.8796E-09	8.0276E+15	5.6750E+15
Ce-143	1.7537E-07	2.6409E-16	1.1121E+09	1.7298E+14
Ce-144	7.3396E-02	2.3012E-08	9.6236E+16	6.1987E+15
Pr-143	1.1357E-02	1.6866E-10	7.1027E+14	1.7557E+15
Nd-147	2.9086E-03	3.5953E-11	1.4729E+14	5.3747E+14
Np-239	5.2081E-04	2.2450E-12	5.6567E+12	5.8236E+15
Pu-238	2.3624E-04	1.3799E-08	3.4917E+16	1.9376E+13
Pu-239	2.5317E-05	4.0732E-07	1.0263E+18	2.0772E+12
Pu-240	4.0247E-05	1.7662E-07	4.4319E+17	3.3046E+12
Pu-241	9.8921E-03	9.6028E-08	2.3996E+17	8.1347E+14
Am-241	6.3842E-06	1.8601E-09	4.6481E+15	4.8310E+11
Pu-238	2.3624E-04	1.3799E-08	3.4917E+16	1.9376E+13
Pu-239	2.5317E-05	4.0732E-07	1.0263E+18	2.0772E+12

Cm-242	1.2321E-03	3.7175E-10	9.2509E+14	1.0628E+14
Cm-244	8.0440E-05	9.9428E-10	2.4540E+15	6.6129E+12

SGTS Filter Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	9.9420E+20	0.0000E+00	
Elemental I (atoms)	6.3703E-19	0.0000E+00	
Organic I (atoms)	1.9702E-18	0.0000E+00	
Aerosols (kg)	5.8699E-05	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.2665E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.2665E-02
Total I (Ci)			1.7746E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0647E+22
Elemental I (atoms)	0.0000E+00	1.3602E+21
Organic I (atoms)	0.0000E+00	4.2067E+19
Aerosols (kg)	0.0000E+00	2.9872E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1391E+22
Elemental I (atoms)	0.0000E+00	8.2275E+20
Organic I (atoms)	0.0000E+00	2.5446E+19
Aerosols (kg)	0.0000E+00	2.3951E-04

Detailed model information at time (H) = 672.0000

EAB Doses:

Time (h) = 672.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.1227E-02	2.6742E+01	8.5247E-01
Accumulated dose (rem)	1.7691E+00	1.2606E+03	4.0428E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Co-58	4.9850E+02	1.5677E-05	1.6277E+20	8.0578E+19
Co-60	3.4930E+02	3.0901E-04	3.1015E+21	4.8476E+19
Rb-86	8.4794E+03	1.0421E-04	7.2974E+20	2.2002E+21
Sr-89	6.1961E-05	2.1327E-02	1.4431E+23	1.0691E+23
Sr-90	1.1576E+05	8.4867E-01	5.6787E+24	1.5991E+22
Y-90	1.1634E+05	2.1384E-04	1.4308E+21	1.3113E+22
Y-91	1.0689E+04	4.3586E-04	2.8844E+21	1.7750E+21
Zr-95	1.2542E+04	5.8379E-04	3.7007E+21	2.0624E+21
Zr-97	1.8012E-08	9.4220E-18	5.8495E+07	1.1403E+20
Nb-95	1.5851E+04	4.0536E-04	2.5696E+21	2.2957E+21
Mo-99	1.9240E+02	4.0115E-07	2.4402E+18	5.6639E+21
Tc-99m	1.9725E+02	3.7513E-08	2.2819E+17	5.4408E+21
Ru-103	1.1621E+05	3.6007E-03	2.1052E+22	2.1418E+22
Ru-106	7.1937E+04	2.1502E-02	1.2216E+23	1.0228E+22
Rh-105	2.6926E-01	3.1900E-10	1.8296E+15	1.9684E+21
Sb-127	1.3442E+03	5.0336E-06	2.3868E+19	7.0893E+21
Te-127	3.2450E+04	1.2296E-05	5.8305E+19	1.0937E+22
Te-127m	3.0554E+04	3.2392E-03	1.5360E+22	4.6238E+21
Te-129	7.1878E+04	3.4322E-06	1.6023E+19	1.1685E+22
Te-129m	8.3124E+04	2.7593E-03	1.2881E+22	1.6117E+22
Te-131m	8.5917E-02	1.0775E-10	4.9531E+14	5.7221E+21
Te-132	8.8233E+03	2.9063E-05	1.3259E+20	1.0053E+23
I-131	1.2754E+06	1.0288E-02	4.7294E+22	8.5287E+23
I-132	1.0532E+04	1.0203E-06	4.6548E+18	1.2072E+23
I-133	5.5470E-03	4.8966E-12	2.2172E+13	2.4827E+23
Xe-133	1.3626E+05	7.2798E-04	3.2962E+21	1.9446E+23
Cs-134	2.4773E+06	1.9147E+00	8.6048E+24	3.4702E+23
I-131	1.2754E+06	1.0288E-02	4.7294E+22	8.5287E+23
I-132	1.0532E+04	1.0203E-06	4.6548E+18	1.2072E+23

Cs-136	1.8448E+05	2.5170E-03	1.1145E+22	6.4074E+22
Cs-137	1.9098E+06	2.1956E+01	9.6511E+25	2.6391E+23
Ba-140	3.7802E+05	5.1636E-03	2.2211E+22	1.3497E+23
La-140	4.3910E+05	7.9000E-04	3.3982E+21	1.2312E+23
Ce-141	2.1955E+04	7.7053E-04	3.2909E+21	4.3084E+21
Ce-143	2.7375E-02	4.1223E-11	1.7360E+14	4.8769E+20
Ce-144	3.1247E+04	9.7969E-03	4.0971E+22	4.4825E+21
Pr-143	4.3866E+03	6.5142E-05	2.7433E+20	1.4163E+21
Nd-147	1.0967E+03	1.3557E-05	5.5539E+19	4.6293E-20
Np-239	1.2368E+02	5.3311E-07	1.3433E+18	1.0320E+22
Pu-238	1.0109E+02	5.9047E-03	1.4941E-22	1.3928E+19
Pu-239	1.0831E+01	1.7426E-01	4.3908E+23	1.4918E+18
Pu-240	1.7218E-01	7.5562E-02	1.8960E+23	2.3759E+18
Pu-241	4.2309E+03	4.1071E-02	1.0263E+23	5.8504E+20
Am-241	2.7684E+00	8.0661E-04	2.0156E+21	3.4129E-17
Cm-242	5.2263E+02	1.5769E-04	3.9241E-20	7.7198E+19
Cm-244	3.4406E+01	4.2528E-04	1.0496E+21	4.7556E+18

Suppression pool Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2962E+21	0.0000E+00	
Elemental I (atoms)	2.2940E+21	0.0000E+00	
Organic I (atoms)	7.0948E+19	0.0000E+00	
Aerosols (kg)	2.5101E-01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.4124E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.4133E-04
Total I (Ci)			1.2860E-06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4045E+22
Elemental I (atoms)	1.3082E+22	1.4536E+21
Organic I (atoms)	4.0461E+20	4.4957E+19
Aerosols (kg)	3.1780E+01	3.1781E-04

RB Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Co-58	7.3813E-05	2.3213E-12	2.4102E+13	1.1587E+13
Co-60	5.1721E-05	4.5755E-11	4.5924E+14	6.9917E+12
Rb-86	1.2556E-03	1.5431E-11	1.0805E+14	3.1338E+14
Sr-89	9.1746E-02	3.1580E-09	2.1368E+16	1.5354E+16
Sr-90	1.7141E-02	1.2566E-07	8.4085E+17	2.3066E+15
Y-90	1.7227E-02	3.1663E-11	2.1187E+14	1.9343E+15
Y-91	1.5827E-03	6.4538E-11	4.2710E+14	2.5589E+14
Zr-95	1.8570E-03	8.6443E-11	5.4797E+14	2.9648E+14
Nb-95	2.3470E-03	6.0022E-11	3.8048E+14	3.3097E+14
Mo-99	2.8489E-05	5.9399E-14	3.6132E+11	7.3511E+14
Tc-99m	2.9208E-05	5.5547E-15	3.3789E+10	7.0978E+14
Ru-103	1.7207E-02	5.3316E-10	3.1172E+15	3.0719E+15
Ru-106	1.0652E-02	3.1838E-09	1.8088E+16	1.4746E+15
Rh-105	3.9869E-08	4.7235E-17	2.7091E+08	2.3519E+14
Sb-127	1.9904E-04	7.4533E-13	3.5342E+12	9.4991E+14
Te-127	4.8049E-03	1.8206E-12	8.6332E+12	1.5156E+15
Te-127m	4.5242E-03	4.7964E-10	2.2744E+15	6.6611E+14
Te-129	1.0643E-02	5.0821E-13	2.3725E-12	1.5646E+15
Te-129m	1.2308E-02	4.0857E-10	1.9073E+15	2.3094E+15
Te-131m	1.2722E-08	1.5954E-17	7.3342E+07	6.5562E+14
Te-132	1.3065E-03	4.3034E-12	1.9633E+13	1.3276E+16
I-131	9.4608E+01	7.6312E-07	3.5081E+18	5.9665E+19
I-132	1.4834E-01	1.4371E-11	6.5564E+13	2.1498E+18
I-133	4.1145E-07	3.6321E-16	1.6446E+09	1.3011E+19
Xe-133	2.0177E+03	1.0779E-05	4.8808E+19	2.6670E+21
Cs-134	3.6681E-01	2.8351E-07	1.2741E+18	5.0044E+16
Cs-136	2.7315E-02	3.7270E-10	1.6503E+15	9.0709E+15
Cs-137	2.8278E-01	3.2510E-06	1.4291E+19	3.8067E+16
Ba-140	5.5974E-02	7.6458E-10	3.2889E+15	1.9096E+16
Xe-133	2.0177E+03	1.0779E-05	4.8808E+19	2.6670E+21
Cs-134	3.6681E-01	2.8351E-07	1.2741E+18	5.0044E+16

La-140	6.5019E-02	1.1698E-10	5.0318E+14	1.8074E+16
Ce-141	3.2509E-03	1.1409E-10	4.8729E+14	6.1716E+14
Ce-143	4.0535E-09	6.1039E-18	2.5705E+07	5.6992E-13
Ce-144	4.6268E-03	1.4506E-09	6.0666E+15	6.4611E+14
Pr-143	6.4953E-04	9.6457E-12	4.0621E+13	2.0201E+14
Nd-147	1.6240E-04	2.0074E-12	8.2237E+12	6.5271E+13
Np-239	1.8313E-05	7.8938E-14	1.9890E+11	1.3151E+15
Pu-238	1.4968E-05	8.7431E-10	2.2123E+15	2.0091E-12
Pu-239	1.6038E-06	2.5802E-08	6.5015E+16	2.1524E-11
Pu-240	2.5495E-06	1.1189E-08	2.8075E+16	3.4272E+11
Pu-241	6.2647E-04	6.0815E-09	1.5196E+16	8.4388E+13
Am-241	4.0992E-07	1.1944E-10	2.9845E+14	4.9345E+10
Cm-242	7.7387E-05	2.3349E-11	5.8105E+13	1.1121E+13
Cm-244	5.0946E-06	6.2972E-11	1.5542E+14	6.8597E-11

RB Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	4.8808E+19	0.0000E+00	
Elemental I (atoms)	3.3965E-18	0.0000E+00	
Organic I (atoms)	1.0505E+17	0.0000E+00	
Aerosols (kg)	3.7167E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6078E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6079E-09
Total I (Ci)			9.4756E+01

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4045E+22
Elemental I (atoms)	1.3082E+22	1.4536E+21
Organic I (atoms)	4.0461E-20	4.4957E+19
Aerosols (kg)	3.1780E+01	3.1781E-04

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0878E+22
Elemental I (atoms)	0.0000E+00	1.3755E+21
Organic I (atoms)	0.0000E+00	4.2541E+19
Aerosols (kg)	0.0000E+00	3.1402E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Co-58	1.1089E-03	3.4874E-11	3.6209E+14	1.1676E+14
Co-60	7.7702E-04	6.8739E-10	6.8993E+15	7.2460E+13
Rb-86	1.8863E-02	2.3183E-10	1.6234E+15	2.8985E+15
Sr-89	1.3783E+00	4.7443E-08	3.2102E+17	1.5287E+17
Sr-90	2.5752E-01	1.8879E-06	1.2632E+19	2.3926E+16
Y-90	2.5880E-01	4.7569E-10	3.1829E+15	2.2145E+16
Y-91	2.3778E-02	9.6958E-10	6.4164E+15	2.5712E+15
Zr-95	2.7899E-02	1.2987E-09	8.2323E+15	2.9781E+15
Nb-95	3.5260E-02	9.0172E-10	5.7161E+15	3.4113E+15
Mo-99	4.2799E-04	8.9237E-13	5.4282E+12	3.5884E+15
Tc-99m	4.3880E-04	8.3449E-14	5.0762E+11	3.4881E+15
Ru-103	2.5851E-01	8.0098E-09	4.6831E+16	3.0218E+16
Ru-106	1.6003E-01	4.7832E-08	2.7175E+17	1.5214E+16
Rh-105	5.9896E-07	7.0963E-16	4.0700E+09	7.5600E+14
Sb-127	2.9903E-03	1.1197E-11	5.3096E+13	5.5962E+15
Te-127	7.2185E-02	2.7352E-11	1.2970E+14	1.1808E+16
Te-127m	6.7969E-02	7.2058E-09	3.4169E+16	6.8087E+15
Te-129	1.5989E-01	7.6350E-12	3.5643E+13	1.4690E+16
Te-129m	1.8491E-01	6.1381E-09	2.8655E+16	2.2509E+16
Te-131m	1.9112E-07	2.3968E-16	1.1018E+09	1.8502E+15
Te-132	1.9628E-02	6.4651E-11	2.9495E+14	7.1538E-16
I-131	1.4213E+03	1.1464E-05	5.2702E+19	4.6974E+20
I-132	6.4848E-02	6.2824E-12	2.8662E+13	6.5886E+17
Te-129m	1.8491E-01	6.1381E-09	2.8655E+16	2.2509E+16
Te-131m	1.9112E-07	2.3968E-16	1.1018E+09	1.8502E+15

I-133	6.1816E-06	5.4568E-15	2.4708E+10	2.7386E+19
Xe-133	3.0096E+04	1.6078E-04	7.2801E+20	1.8040E+22
Cs-134	5.5109E+00	4.2594E-06	1.9142E+19	5.1783E+17
Cs-136	4.1038E-01	5.5993E-09	2.4794E+16	7.9704E+16
Cs-137	4.2484E+00	4.8843E-05	2.1470E+20	3.9490E+17
Ba-140	8.4092E-01	1.1487E-08	4.9410E+16	1.6696E+17
La-140	9.7679E-01	1.7574E-09	7.5594E+15	1.7863E+17
Ce-141	4.8839E-02	1.7140E-09	7.3207E+15	6.0020E+15
Ce-143	6.0897E-08	9.1701E-17	3.8618E+08	1.7298E+14
Ce-144	6.9510E-02	2.1793E-08	9.1141E+16	6.6552E+15
Pr-143	9.7581E-03	1.4491E-10	6.1026E+14	1.8231E+15
Nd-147	2.4397E-03	3.0158E-11	1.2355E+14	5.5452E+14
Np-239	2.7512E-04	1.1859E-12	2.9882E+12	5.8260E+15
Pu-238	2.2487E-04	1.3135E-08	3.3236E+16	2.0850E+13
Pu-239	2.4094E-05	3.8764E-07	9.7674E+17	2.2351E+12
Pu-240	3.8302E-05	1.6809E-07	4.2177E+17	3.5556E+12
Pu-241	9.4116E-03	9.1364E-08	2.2830E+17	8.7515E+14
Am-241	6.1584E-06	1.7943E-09	4.4836E+15	5.2317E+11
Cm-242	1.1626E-03	3.5078E-10	8.7292E+14	1.1393E+14
Cm-244	7.6537E-05	9.4604E-10	2.3349E+15	7.1144E+12

SGTS Filter Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	7.2801E+20	0.0000E+00	
Elemental I (atoms)	5.1024E+19	0.0000E+00	
Organic I (atoms)	1.5781E+18	0.0000E+00	
Aerosols (kg)	5.5839E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.0192E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.0192E-02
Total I (Ci)			1.4213E+03

RB to SGTS Filter Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0878E+22
Elemental I (atoms)	0.0000E+00	1.3755E+21
Organic I (atoms)	0.0000E+00	4.2541E+19
Aerosols (kg)	0.0000E+00	3.1402E-04

SGTS Filter to Environment Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1663E+22
Elemental I (atoms)	0.0000E+00	8.4088E+20
Organic I (atoms)	0.0000E+00	2.6007E-19
Aerosols (kg)	0.0000E+00	2.5765E-04

Detailed model information at time (H) = 720.0000

EAB Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.6058E-02	2.1398E+01	6.8369E-01
Accumulated dose (rem)	1.7851E+00	1.2820E+03	4.1112E+01

Suppression pool Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Co-58	4.6113E+02	1.4502E-05	1.5057E+20	8.3642E+19
Co-60	3.2926E+02	2.9128E-04	2.9236E+21	5.0643E+19
Rb-86	7.4261E+03	9.1267E-05	6.3909E+20	2.2510E+21
Sr-89	5.6867E+05	1.9574E-02	1.3245E+23	1.1070E+23
Sr-90	1.0919E+05	8.0047E-01	5.3562E+24	1.6709E+22
Y-90	1.0976E+05	2.0175E-04	1.3500E+21	1.3831E+22
Y-91	9.8471E+03	4.0153E-04	2.6572E+21	1.8405E+21
Zr-95	1.1577E+04	5.3890E-04	3.4161E+21	2.1395E+21
Zr-97	2.3726E-09	1.2411E-18	7.7053E+06	1.1403E+20
Sr-90	1.0919E+05	8.0047E-01	5.3562E+24	1.6709E+22
Y-90	1.0976E+05	2.0175E-04	1.3500E+21	1.3831E+22

Nb-95	1.4822E+04	3.7906E-04	2.4029E+21	2.3937E+21
Mo-99	1.0963E+02	2.2858E-07	1.3904E+18	5.6649E+21
Tc-99m	1.1240E+02	2.1376E-08	1.3003E+17	5.4417E+21
Ru-103	1.0582E+05	3.2789E-03	1.9171E+22	2.2127E+22
Ru-106	6.7605E+04	2.0207E-02	1.1480E+23	1.0674E+22
Rh-105	9.9126E-02	1.1744E-10	6.7357E+14	1.9684E+21
Sb-127	8.8462E+02	3.3125E-06	1.5707E+19	7.0963E+21
Te-127	2.9879E+04	1.1322E-05	5.3685E+19	1.1129E+22
Te-127m	2.8461E+04	3.0173E-03	1.4308E-22	4.8123E+21
Te-129	6.5064E-04	3.1068E-06	1.4504E+19	1.2014E+22
Te-129m	7.5244E+04	2.4977E-03	1.1660E+22	1.6623E+22
Te-131m	2.6736E-02	3.3529E-11	1.5413E+14	5.7221E+21
Te-132	5.4390E+03	1.7915E-05	8.1734E+19	1.0058E-23
I-131	1.0126E+06	8.1678E-03	3.7548E+22	8.6015E+23
I-132	6.4920E+03	6.2894E-07	2.8694E+18	1.2077E+23
I-133	1.0569E-03	9.3299E-13	4.2245E+12	2.4827E+23
Xe-133	9.8686E+04	5.2722E-04	2.3872E+21	1.9520E+23
Cs-134	2.3326E+06	1.8028E+00	8.1022E+24	3.6239E+23
Cs-136	1.5655E+05	2.1360E-03	9.4581E+21	6.5161E+22
Cs-137	1.8013E+06	2.0709E+01	9.1030E+25	2.7576E+23
Ba-140	3.1983E+05	4.3688E-03	1.8792E+22	1.3719E+23
La-140	3.7152E-05	6.6841E-04	2.8752E+21	1.2568E+23
Ce-141	1.9846E+04	6.9651E-04	2.9748E+21	4.4418E+21
Ce-143	9.4224E-03	1.4189E-11	5.9752E+13	4.8769E+20
Ce-144	2.9333E+04	9.1967E-03	3.8461E+22	4.6760E+21
Pr-143	3.7359E+03	5.5479E-05	2.3364E+20	1.4422E+21
Nd-147	9.1187E+02	1.1272E-05	4.6177E+19	4.6933E+20
Np-239	6.4758E+01	2.7914E-07	7.0336E+17	1.0320E+22
Pu-238	9.5374E+01	5.5710E-03	1.4096E+22	1.4555E+19
Pu-239	1.0217E+01	1.6438E-01	4.1419E+23	1.5590E+18
Pu-240	1.6242E+01	7.1280E-02	1.7886E+23	2.4828E+18
Pu-241	3.9900E+03	3.8733E-02	9.6788E+22	6.1130E+20
Am-241	2.6465E-00	7.7110E-04	1.9268E+21	3.5859E+17
Cm-242	4.8883E+02	1.4749E-04	3.6703E+20	8.0428E+19
Cm-244	3.2450E+01	4.0109E-04	9.8994E+20	4.9692E+18

Suppression pool Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	2.3872E+21	0.0000E+00	
Elemental I (atoms)	1.8212E+21	0.0000E+00	
Organic I (atoms)	5.6326E+19	0.0000E+00	
Aerosols (kg)	2.3669E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.7092E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.7097E-04
Total I (Ci)			1.0191E+06

Suppression pool to RB Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4210E+22
Elemental I (atoms)	1.3190E+22	1.4656E+21
Organic I (atoms)	4.0794E+20	4.5327E-19
Aerosols (kg)	3.3203E-01	3.3203E-04

RB Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Co-58	6.8280E-05	2.1473E-12	2.2295E+13	1.2041E+13
Co-60	4.8754E-05	4.3131E-11	4.3290E+14	7.3126E+12
Rb-86	1.0996E-03	1.3514E-11	9.4631E+13	3.2089E+14
Sr-89	8.4203E-02	2.8983E-09	1.9611E+16	1.5916E+16
Sr-90	1.6168E-02	1.1853E-07	7.9309E+17	2.4130E+15
Y-90	1.6253E-02	2.9873E-11	1.9989E+14	2.0406E+15
Y-91	1.4581E-03	5.9455E-11	3.9346E+14	2.6560E+14
Zr-95	1.7142E-03	7.9796E-11	5.0583E+14	3.0788E+14
Nb-95	2.1948E-03	5.6128E-11	3.5580E+14	3.4548E+14
Mo-99	1.6233E-05	3.3846E-14	2.0589E+11	7.3525E+14
Tc-99m	1.6643E-05	3.1651E-15	1.9253E+10	7.0992E+14
Y-91	1.4581E-03	5.9455E-11	3.9346E+14	2.6560E+14
Zr-95	1.7142E-03	7.9796E-11	5.0583E+14	3.0788E+14

Ru-103	1.5669E-02	4.8550E-10	2.8386E+15	3.1768E+15
Ru-106	1.0010E-02	2.9921E-09	1.6999E+16	1.5406E+15
Rh-105	1.4678E-08	1.7390E-17	9.9736E+07	2.3519E-14
Sb-127	1.3099E-04	4.9049E-13	2.3258E+12	9.5095E-14
Te-127	4.4242E-03	1.6764E-12	7.9492E+12	1.5440E+15
Te-127m	4.2142E-03	4.4678E-10	2.1185E+15	6.9402E-14
Te-129	9.6341E-03	4.6003E-13	2.1476E+12	1.6134E+15
Te-129m	1.1141E-02	3.6984E-10	1.7265E+15	2.3842E+15
Te-131m	3.9588E-09	4.9646E-18	2.2823E-07	6.5562E+14
Te-132	8.0536E-04	2.6528E-12	1.2103E-13	1.3282E+16
I-131	7.5111E-01	6.0586E-07	2.7852E+18	6.0205E+19
I-132	9.1442E-02	8.8588E-12	4.0416E+13	2.1507E-18
I-133	7.8397E-08	6.9206E-17	3.1336E+08	1.3011E+19
Xe-133	1.4613E+03	7.8066E-06	3.5348E-19	2.6780E+21
Cs-134	3.4539E-01	2.6695E-07	1.1997E+18	5.2318E+16
Cs-136	2.3180E-02	3.1627E-10	1.4005E+15	9.2319E-15
Cs-137	2.6672E-01	3.0664E-06	1.3479E+19	3.9822E+16
Ba-140	4.7358E-02	6.4689E-10	2.7826E+15	1.9426E+16
La-140	5.5011E-02	9.8972E-11	4.2573E+14	1.8454E+16
Ce-141	2.9386E-03	1.0313E-10	4.4048E-14	6.3691E+14
Ce-143	1.3952E-09	2.1009E-18	8.8476E+06	5.6992E+13
Ce-144	4.3433E-03	1.3618E-09	5.6950E+15	6.7476E+14
Pr-143	5.5317E-04	8.2148E-12	3.4595E+13	2.0585E+14
Nd-147	1.3502E-04	1.6690E-12	6.8375E+12	6.6218E+13
Np-239	9.5889E-06	4.1333E-14	1.0415E+11	1.3151E+15
Pu-238	1.4122E-05	8.2491E-10	2.0873E-15	2.1020E+12
Pu-239	1.5129E-06	2.4340E-08	6.1330E+16	2.2519E+11
Pu-240	2.4050E-06	1.0555E-08	2.6484E+16	3.5855E-11
Pu-241	5.9081E-04	5.7353E-09	1.4331E+16	8.8275E+13
Am-241	3.9188E-07	1.1418E-10	2.8531E+14	5.1906E+10
Cm-242	7.2382E-05	2.1839E-11	5.4347E+13	1.1599E+13
Cm-244	4.8048E-06	5.9391E-11	1.4658E-14	7.1759E+11

RB Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	3.5348E+19	0.0000E+00	
Elemental I (atoms)	2.6965E+18	0.0000E+00	
Organic I (atoms)	8.3398E+16	0.0000E+00	
Aerosols (kg)	3.5047E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2765E-09
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2765E-09
Total I (Ci)			7.5203E+01

Suppression pool to RB Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.4210E+22
Elemental I (atoms)	1.3190E+22	1.4656E+21
Organic I (atoms)	4.0794E+20	4.5327E+19
Aerosols (kg)	3.3203E+01	3.3203E-04

RB to SGTS Filter Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.1045E+22
Elemental I (atoms)	0.0000E+00	1.3876E+21
Organic I (atoms)	0.0000E+00	4.2916E-19
Aerosols (kg)	0.0000E-00	3.2846E-04

SGTS Filter Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Co-58	1.0327E-03	3.2478E-11	3.3722E+14	1.2360E+14
Co-60	7.3742E-04	6.5236E-10	6.5477E+15	7.7298E+13
Rb-86	1.6632E-02	2.0441E-10	1.4313E+15	3.0118E+15
Sr-89	1.2736E+00	4.3838E-08	2.9663E+17	1.6134E+17
Sr-90	2.4454E-01	1.7927E-06	1.1996E+19	2.5530E+16
Co-58	1.0327E-03	3.2478E-11	3.3722E+14	1.2360E+14
Co-60	7.3742E-04	6.5236E-10	6.5477E+15	7.7298E+13

Y-90	2.4583E-01	4.5184E-10	3.0234E+15	2.3748E+16
Y-91	2.2054E-02	8.9927E-10	5.9511E+15	2.7176E+15
Zr-95	2.5928E-02	1.2069E-09	7.6508E+15	3.1500E+15
Nb-95	3.3196E-02	8.4894E-10	5.3815E+15	3.6299E+15
Mo-99	2.4553E-04	5.1193E-13	3.1140E+12	3.5905E+15
Tc-99m	2.5173E-04	4.7873E-14	2.9121E+11	3.4901E+15
Ru-103	2.3700E-01	7.3433E-09	4.2934E+16	3.1801E+16
Ru-106	1.5141E-01	4.5256E-08	2.5711E+17	1.6209E+16
Rh-105	2.2200E-07	2.6302E-16	1.5085E+09	7.5600E+14
Sb-127	1.9812E-03	7.4187E-12	3.5178E+13	5.6118E+15
Te-127	6.6917E-02	2.5356E-11	1.2023E+14	1.2236E+16
Te-127m	6.3741E-02	6.7575E-09	3.2043E+16	7.2295E+15
Te-129	1.4572E-01	6.9580E-12	3.2482E+13	1.5425E+16
Te-129m	1.6852E-01	5.5938E-09	2.6114E+16	2.3637E+16
Te-131m	5.9878E-08	7.5091E-17	3.4520E+08	1.8502E+15
Te-132	1.2181E-02	4.0123E-11	1.8305E+14	7.1638E+16
I-131	1.1360E+03	9.1635E-06	4.2125E+19	4.7787E+20
I-132	4.0072E-02	3.8822E-12	1.7711E+13	6.5920E+17
I-133	1.1858E-06	1.0468E-15	4.7397E+09	2.7386E+19
Xe-133	2.1981E+04	1.1743E-04	5.3171E+20	1.8205E+22
Cs-134	5.2242E+00	4.0378E-06	1.8146E+19	5.5212E+17
Cs-136	3.5061E-01	4.7838E-09	2.1183E+16	8.2130E+16
Cs-137	4.0343E+00	4.6381E-05	2.0388E+20	4.2136E+17
Ba-140	7.1630E-01	9.7843E-09	4.2087E+16	1.7193E+17
La-140	8.3205E-01	1.4970E-09	6.4392E+15	1.8436E+17
Ce-141	4.4447E-02	1.5599E-09	6.6623E+15	6.2999E+15
Ce-143	2.1102E-08	3.1777E-17	1.3382E+08	1.7298E+14
Ce-144	6.5694E-02	2.0597E-08	8.6137E+16	7.0872E+15
Pr-143	8.3668E-03	1.2425E-10	5.2325E+14	1.8809E+15
Nd-147	2.0422E-03	2.5244E-11	1.0342E+14	5.6880E+14
Np-239	1.4503E-04	6.2516E-13	1.5752E+12	5.8273E+15
Pu-238	2.1360E-04	1.2477E-08	3.1570E+16	2.2251E+13
Pu-239	2.2883E-05	3.6815E-07	9.2763E+17	2.3852E+12
Pu-240	3.6376E-05	1.5964E-07	4.0057E+17	3.7942E+12
Pu-241	8.9361E-03	8.6747E-08	2.1677E+17	9.3376E+14
Am-241	5.9272E-06	1.7269E-09	4.3153E-15	5.6178E+11
Cm-242	1.0948E-03	3.3032E-10	8.2200E-14	1.2115E-14
Cm-244	7.2674E-05	8.9829E-10	2.2171E+15	7.5911E+12

SGTS Filter Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	5.3171E+20	0.0000E+00	
Elemental I (atoms)	4.0784E+19	0.0000E+00	
Organic I (atoms)	1.2614E+18	0.0000E+00	
Aerosols (kg)	5.3010E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.0119E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.0119E-02
Total I (Ci)			1.1361E+03

RB to SGTS Filter Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.1045E+22
Elemental I (atoms)	0.0000E+00	1.3876E+21
Organic I (atoms)	0.0000E+00	4.2916E+19
Aerosols (kg)	0.0000E+00	3.2846E-04

SGTS Filter to Environment Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1861E+22
Elemental I (atoms)	0.0000E+00	8.5539E+20
Organic I (atoms)	0.0000E+00	2.6455E+19
Aerosols (kg)	0.0000E+00	2.7489E-04

Organic I (atoms) 0.0000E+00 2.6455E+19
Aerosols (kg) 0.0000E+00 2.7489E-04

##

I-131 Summary

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Time (hr)	Suppression pool I-131 (Curies)	RB I-131 (Curies)	SGTS Filter I-131 (Curies)
0.000	5.9360E+03	1.0039E-05	5.9639E-10
0.167	1.7800E+06	8.8746E-01	1.5885E-02
0.467	4.9774E-06	6.9701E+00	1.0209E-01
0.500	5.3318E-06	7.9936E+00	1.2279E-01
0.900	1.2423E-07	2.9024E+01	6.9216E-01
1.200	1.7727E+07	5.5480E+01	1.7258E+00
1.500	2.3018E+07	9.0807E-01	3.5276E+00
1.800	2.8297E+07	1.3476E-02	5.3136E+00
2.000	3.1810E+07	1.6872E-02	8.8212E+00
2.300	3.1765E+07	2.2169E-02	1.3669E+01
2.600	3.1720E+07	2.7322E-02	1.9805E+01
2.900	3.1675E+07	3.2334E+02	2.7190E+01
3.200	3.1631E+07	3.7210E+02	3.5787E+01
3.500	3.1586E+07	4.1951E+02	4.5557E+01
3.800	3.1541E+07	4.6563E+02	5.6464E+01
4.100	3.1496E+07	5.1048E+02	6.8472E+01
4.400	3.1452E+07	5.5409E+02	8.1548E+01
4.700	3.1407E+07	5.9650E+02	9.5656E+01
5.000	3.1363E+07	6.3774E+02	1.1077E+02
5.300	3.1318E+07	6.7784E+02	1.2684E+02
5.600	3.1274E+07	7.1682E+02	1.4386E+02
5.900	3.1230E-07	7.5473E+02	1.6178E+02
6.200	3.1186E+07	7.9158E+02	1.8058E-02
6.500	3.1141E+07	8.2740E+02	2.0023E+02
6.800	3.1097E+07	8.6222E+02	2.2070E+02
7.100	3.1053E+07	8.9606E+02	2.4197E+02
7.400	3.1009E+07	9.2895E+02	2.6400E+02
7.700	3.0965E+07	9.6092E-02	2.8677E+02
8.000	3.0921E+07	9.9199E+02	3.1026E+02
8.300	3.0878E+07	1.0222E+03	3.3445E+02
8.600	3.0834E+07	1.0515E+03	3.5930E+02
8.900	3.0790E+07	1.0800E+03	3.8480E+02
9.200	3.0746E+07	1.1077E+03	4.1092E+02
9.500	3.0703E+07	1.1346E+03	4.3764E+02
9.800	3.0659E+07	1.1607E+03	4.6494E+02
10.100	3.0616E+07	1.1861E+03	4.9281E+02
10.400	3.0572E+07	1.2107E+03	5.2121E+02
24.000	2.8664E-07	1.8008E+03	2.1273E+03
96.000	2.0323E+07	1.5065E+03	8.3385E+03
720.000	1.0126E+06	7.5111E+01	1.1360E+03

Time (hr)	Environment I-131 (Curies)
0.000	5.4670E-16
0.167	4.3813E-06
0.467	9.6115E-05
0.500	1.2077E-04
0.900	1.0426E-03
1.200	3.3274E-03
1.500	8.3826E-03
1.800	1.7944E-02
2.000	2.7870E-02
2.300	4.9914E-02
2.600	8.2838E-02
2.900	1.2915E-01
3.200	1.9129E-01
3.500	2.7162E-01
3.800	3.7241E-01
4.100	4.9590E-01
4.400	6.4422E-01
4.700	8.1945E-01
5.000	1.0236E+00
5.300	1.2586E+00
4.100	4.9590E-01
4.400	6.4422E-01

5.600	1.5264E-00
5.900	1.8288E-00
6.200	2.1676E-00
6.500	2.5444E-00
6.800	2.9609E-00
7.100	3.4187E-00
7.400	3.9194E-00
7.700	4.4644E-00
8.000	5.0553E+00
8.300	5.6933E+00
8.600	6.3799E+00
8.900	7.1163E+00
9.200	7.9038E+00
9.500	8.7437E+00
9.800	9.6370E+00
10.100	1.0585E+01
10.400	1.1588E+01
24.000	1.2709E+02
96.000	2.8853E+03
720.000	2.3592E+04

##
Cumulative Dose Summary
##

	EAB	
Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E+00
0.167	3.3941E-06	1.2348E-07
0.467	7.4251E-05	2.6807E-06
0.500	9.3253E-05	3.3626E-06
0.900	8.0163E-04	2.8650E-05
1.200	2.5503E-03	9.0647E-05
1.500	6.4052E-03	2.2667E-04
1.800	1.3670E-02	4.8207E-04
2.000	2.1191E-02	7.4584E-04
2.300	3.4055E-02	1.1962E-03
2.600	5.3201E-02	1.8654E-03
2.900	8.0044E-02	2.8029E-03
3.200	1.1594E-01	4.0560E-03
3.500	1.6219E-01	5.6707E-03
3.800	2.2004E-01	7.6910E-03
4.100	2.9069E-01	1.0160E-02
4.400	3.7529E-01	1.3118E-02
4.700	4.7493E-01	1.6605E-02
5.000	5.9068E-01	2.0659E-02
5.300	7.2353E-01	2.5317E-02
5.600	8.7446E-01	3.0614E-02
5.900	1.0444E+00	3.6584E-02
6.200	1.2342E+00	4.3260E-02
6.500	1.4448E+00	5.0674E-02
6.800	1.6769E+00	5.8854E-02
7.100	1.9314E+00	6.7830E-02
7.400	2.2090E+00	7.7629E-02
7.700	2.5103E+00	8.8278E-02
8.000	2.8362E+00	9.9802E-02
8.300	2.8934E+00	1.0206E-01
8.600	2.9548E+00	1.0448E-01
8.900	3.0205E+00	1.0708E-01
9.200	3.0906E+00	1.0985E-01
9.500	3.1652E+00	1.1281E-01
9.800	3.2443E+00	1.1595E-01
10.100	3.3281E+00	1.1928E-01
10.400	3.4165E+00	1.2279E-01
24.000	1.3118E+01	5.0663E-01
96.000	1.7981E+02	5.9931E+00
720.000	1.2820E+03	4.1112E+01

10.400	3.4165E+00	1.2279E-01
24.000	1.3118E+01	5.0663E-01

```
##########################################################################
                        Worst Two-Hour Doses
##########################################################################

EAB
   Time    Whole Body     Thyroid         TEDE
   (hr)      (rem)         (rem)          (rem)
   24.0   1.0514E-02   4.6305E+00   1.5240E-01
```

Attachment A3: RADTRAD Output: BYPASS_Turbine Building Source.o1

```
 ##########################################################################
    RADTRAD Version 3.03 (Spring 2001) run on  7/16/2005  at 15:48:31
 ##########################################################################

 ##########################################################################
                       File information
 ##########################################################################

 Plant file           = C:\Program Files\radtrad3.03\SSES Final Source Term
Runs\BYPASS_Turbine Building Source.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



     #####    ####   #####    #  #     #  #####   #    #  #####
     #    #  #       #        #  ##    #  #    #  #    #    #
     #    #  #       #        #  # #   #  #    #  #    #    #
     #####    ####   ####     #  #  #  #  #####   #    #    #
     #            #  #        #  #   # #  #       #    #    #
     #            #  #        #  #    ##  #       #    #    #
     #        ####   #        #  #     #  #        ####     #

 Radtrad 3.03 4/15/2001
 LOCA PPL-SSES   Primary Containment Leakage directly to Env.
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   3
 Compartment 1:
 Primary Containment
   3
  3.8820E+05
   0
   0
   0
   1
   0
 Compartment 2:
 Turbine Building
   3
  1.0000E+00
   0
   0
   0
   0
   0
 Compartment 3:
 Environment
   2
  0.0000E+00
   0
   0
   0
   0
   0
 Pathways:
   2
 Pathway 1:
 Primary Containment to Turbine Building- Bypass Leakage
   1
 Pathways:
   2
```

```
  2
  2
Pathway 2:
Turbine Building to Environment
  2
  3
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\sses_dba.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E-00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  3
Compartment 1:
  1
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  1
  1
  0.0000E+00   0.0000E-00
Compartment 2:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
  2
Pathway 1:
  0
  0
  0
  2
Pathway 1:
```

```
  0
  0
  1
  4
  0.0000E+00   3.6000E-02   0.0000E+00   0.0000E+00   0.0000E+00
  1.6670E-01   3.6000E-02   0.0000E+00   0.0000E+00   0.0000E+00
  2.4000E+01   1.8000E-02   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  2
  0.0000E+00   1.0000E-07   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  1
Location 1:
EAB LOCA
  3
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E-00
  0
Effective Volume Location:
  0
Simulation Parameters:
 10
  0.0000E+00   0.0000E+00
  5.0000E-01   1.0000E+00
  1.0000E-00   1.0000E+00
  2.0000E+00   2.0000E+00
  4.0000E+00   4.0000E+00
  8.0000E+00   8.0000E+00
  1.6000E+01   8.0000E+00
  2.4000E+01   2.4000E+01
  9.6000E+01   4.8000E+01
  7.2000E+02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o1
  1
  1
  1
  1
  1
End of Scenario File

  1
  1
```

```
##############################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/16/2005  at 15:48:31
##############################################################################

##############################################################################
                    Plant Description
##############################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   3

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Primary Containment
Compartment volume =   3.8820E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Turbine Building- Bypass Le

Compartment number  2
Name: Turbine Building
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   1: Primary Containment to Turbine Building- Bypass Le
   Exit Pathway Number    2: Turbine Building to Environment

Compartment number  3
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  3
   Inlet Pathway Number   2: Turbine Building to Environment

Total number of pathways =   2
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/16/2005  at 15:48:31
##########################################################################

##########################################################################
                      Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE      RELEASE MASS
             0.500000 hr        1.5000 hrs      0.0000 hrs          (gm)
NOBLES       5.0000E-02         9.5000E-01      0.0000E+00        4.943E+03
IODINE       5.0000E-02         2.5000E-01      0.0000E+00        3.427E+02
CESIUM       5.0000E-02         2.0000E-01      0.0000E+00        5.418E+04
TELLURIUM    0.0000E+00         5.0000E-02      0.0000E+00        4.850E-01
STRONTIUM    0.0000E+00         2.0000E-02      0.0000E+00        1.993E+03
BARIUM       0.0000E+00         2.0000E-02      0.0000E+00        5.377E+01
RUTHENIUM    0.0000E+00         2.5000E-03      0.0000E+00        6.682E+01
CERIUM       0.0000E+00         5.0000E-04      0.0000E+00        6.980E+02
LANTHANUM    0.0000E+00         2.0000E-04      0.0000E+00        7.481E+00

Inventory Power =      4032. MWt

Nuclide  Group  Specific     half      Whole Body   Inhaled     Inhaled
 Name           Inventory    life      DCF          Thyroid     Effective
                (Ci/MWt)     (s)       (Sv-m3/Bq-s) (Sv/Bq)     (Sv/Bq)
 Co-58     7   1.470E+02  6.117E+06   4.760E-14   8.720E-10   2.940E-09
 Co-60     7   7.910E+01  1.663E+08   1.260E-13   1.620E-08   5.910E-08
 Kr-85     1   3.670E+02  3.383E+08   1.190E-16   0.000E+00   0.000E+00
 Kr-85m    1   6.650E+03  1.613E+04   7.480E-15   0.000E+00   0.000E+00
 Kr-87     1   1.330E+04  4.578E+03   4.120E-14   0.000E+00   0.000E+00
 Kr-88     1   1.850E+04  1.022E+04   1.020E-13   0.000E+00   0.000E+00
 Rb-86     3   5.380E+01  1.612E+06   4.810E-15   1.330E-09   1.790E-09
 Sr-89     5   2.550E+04  4.363E+06   7.730E-17   7.960E-12   1.120E-08
 Sr-90     5   3.250E+03  9.190E+08   7.530E-18   2.690E-10   3.510E-07
 Sr-91     5   3.250E+04  3.420E+04   4.924E-14   9.930E-12   4.547E-10
 Sr-92     5   3.450E+04  9.756E+03   6.790E-14   3.920E-12   2.180E-10
 Y-90      9   3.370E+03  2.304E+05   1.900E-16   5.170E-13   2.280E-09
 Y-91      9   3.320E+04  5.055E+06   2.600E-16   8.500E-12   1.320E-08
 Y-92      9   3.470E+04  1.274E+04   1.300E-14   1.050E-12   2.110E-10
 Y-93      9   2.650E+04  3.636E+04   4.800E-15   9.260E-13   5.820E-10
 Zr-95     9   4.760E+04  5.528E+06   3.600E-14   1.440E-09   6.390E-09
 Zr-97     9   4.710E+04  6.084E+04   4.432E-14   2.315E-11   1.171E-09
 Nb-95     9   4.760E+04  3.037E+06   3.740E-14   3.580E-10   1.570E-09
 Mo-99     7   5.010E+04  2.376E+05   7.280E-15   1.520E-11   1.070E-09
 Tc-99m    7   4.440E+04  2.167E+04   5.890E-15   5.010E-11   8.800E-12
 Ru-103    7   4.270E+04  3.394E+06   2.251E-14   2.570E-10   2.421E-09
 Ru-105    7   2.950E+04  1.598E+04   3.810E-14   4.150E-12   1.230E-10
 Ru-106    7   1.700E+04  3.181E+07   1.040E-14   1.720E-09   1.290E-07
 Rh-105    7   2.750E+04  1.273E+05   3.720E-15   2.880E-12   2.580E-10
 Sb-127    4   2.330E+03  3.326E-05   3.330E-14   6.150E-11   1.630E-09
 Sb-129    4   8.610E+03  1.555E+04   7.140E-14   9.720E-12   1.740E-10
 Te-127    4   2.310E+03  3.366E+04   2.420E-16   1.840E-12   8.600E-11
 Te-127m   4   3.940E+02  9.418E+06   1.470E-16   9.660E-11   5.810E-09
 Te-129    4   8.160E+03  4.176E+03   2.750E-15   5.090E-13   2.090E-11
 Te-129m   4   1.650E+03  2.903E+06   3.337E-15   1.563E-10   6.484E-09
 Te-131m   4   5.330E+03  1.080E+05   7.463E-14   3.669E-08   1.758E-09
 Te-132    4   3.820E+04  2.815E+05   1.030E-14   6.280E-08   2.550E-09
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E+04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E+04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E+04  3.156E+03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E+04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E+04  4.532E+05   1.560E-15   0.000E+00   0.000E+00
 Xe-135    1   1.740E+04  3.272E+04   1.190E-14   0.000E+00   0.000E+00

 I-133     2   5.510E+04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E+04  3.156E+03   1.300E-13   2.880E-10   3.550E-11
```

Cs-134	3	5.700E+03	6.507E-07	7.570E-14	1.110E-08	1.250E-08
Cs-136	3	1.820E-03	1.132E+06	1.060E-13	1.730E-09	1.980E-09
Cs-137	3	4.290E-03	9.467E+08	2.725E-14	7.930E-09	8.630E-09
Ba-139	6	4.840E+04	4.962E+03	2.170E-15	2.400E-12	4.640E-11
Ba-140	6	4.860E-04	1.101E+06	8.580E-15	2.560E-10	1.010E-09
La-140	9	5.180E-04	1.450E+05	1.170E-13	6.870E-11	1.310E-09
La-141	9	4.410E-04	1.415E+04	2.390E-15	9.400E-12	1.570E-10
La-142	9	4.320E-04	5.550E+03	1.440E-13	8.740E-12	6.840E-11
Ce-141	8	4.460E-04	2.808E+06	3.430E-15	2.550E-11	2.420E-09
Ce-143	8	4.140E+04	1.188E+05	1.290E-14	6.230E-12	9.160E-10
Ce-144	8	3.750E-04	2.456E+07	2.773E-15	2.920E-10	1.010E-07
Pr-143	9	3.990E+04	1.172E+06	2.100E-17	1.680E-18	2.190E-09
Nd-147	9	1.800E+04	9.487E+05	6.190E-15	1.820E-11	1.850E-09
Np-239	8	5.260E+05	2.035E+05	7.690E-15	7.620E-12	6.780E-10
Pu-238	8	1.130E+02	2.769E+09	4.880E-18	3.860E-10	7.790E-05
Pu-239	8	1.200E+01	7.594E+11	4.240E-18	3.750E-10	8.330E-05
Pu-240	8	1.930E+01	2.063E+11	4.750E-18	3.760E-10	8.330E-05
Pu-241	8	4.760E+03	4.544E+08	7.250E-20	9.150E-12	1.340E-06
Am-241	9	6.300E-00	1.364E-10	8.180E-16	1.600E-09	1.200E-04
Cm-242	9	1.650E+03	1.407E+07	5.690E-18	9.410E-10	4.670E-06
Cm-244	9	9.670E+01	5.715E+08	4.910E-18	1.010E-09	6.700E-05

Nuclide	Daughter	Fraction	Daughter	Fraction	Daughter	Fraction
Kr-85m	Kr-85	0.21	none	0.00	none	0.00
Kr-87	Rb-87	1.00	none	0.00	none	0.00
Kr-88	Rb-88	1.00	none	0.00	none	0.00
Sr-90	Y-90	1.00	none	0.00	none	0.00
Sr-91	Y-91m	0.58	Y-91	0.42	none	0.00
Sr-92	Y-92	1.00	none	0.00	none	0.00
Y-93	Zr-93	1.00	none	0.00	none	0.00
Zr-95	Nb-95m	0.01	Nb-95	0.99	none	0.00
Zr-97	Nb-97m	0.95	Nb-97	0.05	none	0.00
Mo-99	Tc-99m	0.88	Tc-99	0.12	none	0.00
Tc-99m	Tc-99	1.00	none	0.00	none	0.00
Ru-103	Rh-103m	1.00	none	0.00	none	0.00
Ru-105	Rh-105	1.00	none	0.00	none	0.00
Ru-106	Rh-106	1.00	none	0.00	none	0.00
Sb-127	Te-127m	0.18	Te-127	0.82	none	0.00
Sb-129	Te-129m	0.22	Te-129	0.77	none	0.00
Te-127m	Te-127	0.98	none	0.00	none	0.00
Te-129	I-129	1.00	none	0.00	none	0.00
Te-129m	Te-129	0.65	I-129	0.35	none	0.00
Te-131m	Te-131	0.22	I-131	0.78	none	0.00
Te-132	I-132	1.00	none	0.00	none	0.00
I-131	Xe-131m	0.01	none	0.00	none	0.00
I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions

Aerosol	=	9.5000E-01
Elemental	=	4.8500E-02
Organic	=	1.5000E-03

COMPARTMENT DATA

Aerosol	=	9.5000E-01
Elemental	=	4.8500E-02

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Natural Deposition: Elemental Removal Data

Time (hr)	Removal Coef. (hr^-1)
0.0000E+00	0.0000E-00

Compartment number 2: Turbine Building

Compartment number 3: Environment

PATHWAY DATA

Pathway number 1: Primary Containment to Turbine Building- Bypass Le

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	3.6000E-02	0.0000E+00	0.0000E+00	0.0000E+00
1.6670E-01	3.6000E-02	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E-01	1.8000E-02	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00

Pathway number 2: Turbine Building to Environment

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.0000E-07	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

LOCATION DATA
Location EAB LOCA is in compartment 3

Location X/Q Data

Time (hr)	X/Q (s * m^-3)
0.0000E+00	8.3000E-04
7.2000E+02	0.0000E+00

Location Breathing Rate Data

Time (hr)	Breathing Rate (m^3 * sec^-1)
0.0000E+00	3.5000E-04
8.0000E+00	1.8000E-04
2.4000E+01	2.3000E-04
7.2000E+02	0.0000E+00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS

Time	Time step
0.0000E+00	0.0000E+00
5.0000E-01	1.0000E+00
1.0000E+00	1.0000E+00
2.0000E+00	2.0000E+00
4.0000E+00	4.0000E+00
8.0000E+00	8.0000E+00
1.6000E+01	8.0000E+00
2.4000E+01	2.4000E+01
9.6000E+01	4.8000E+01
7.2000E+02	0.0000E+00

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/16/2005  at 15:48:31
##########################################################################

     ####    #     #  #####  #####    #     #  #####
    #    #   #     #    #    #    #   #     #    #
    #    #   #     #    #    #    #   #     #    #
    #    #   #     #    #    #####    #     #    #
    #    #   #     #    #    #        #     #    #
    #    #   #     #    #    #        #     #    #
     ####     ####      #    #         ####      #

##########################################################################
          Dose, Detailed model and Detailed Inventory Output
##########################################################################

Detailed model information at time (H) =     0.1667

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E-00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.0647E+00

EAB LOCA Doses:

Time (h) =   0.1667    Whole Body   Thyroid       TEDE
Delta dose (rem)        6.7027E-10  1.1958E-07  5.6289E-09
Accumulated dose (rem)  6.7027E-10  1.1958E-07  5.6289E-09

Primary Containment Compartment Nuclide Inventory:

Time (h) =   0.1667       Ci           kg          Atoms       Decay
Kr-85                  2.4667E+04  6.2873E-02  4.4545E+23  4.1482E+17
Kr-85m                 4.3559E+05  5.2930E-05  3.7500E+20  7.4079E+18
Kr-87                  8.1629E+05  2.8818E-05  1.9948E+20  1.4286E+19
Kr-88                  1.1939E+06  9.5211E-05  6.5156E+20  2.0437E+19
Rb-86                  3.3956E+03  4.1732E-05  2.9222E+20  5.7788E+16
I-131                  1.6774E+06  1.3530E-02  6.2200E+22  2.8534E+19
I-132                  2.3729E+06  2.2989E-04  1.0488E+21  4.1008E+19
I-133                  3.4704E+06  3.0636E-03  1.3872E+22  5.9163E+19
I-134                  3.3753E+06  1.2652E-04  5.6862E+20  6.0857E+19
I-135                  3.2550E+06  9.2687E-04  4.1346E+21  5.5782E+19
Xe-133                 3.5354E+06  1.8887E-02  8.5520E+22  5.9439E+19
Xe-135                 1.1909E+06  4.6635E-04  2.0803E+21  1.9724E+19
Cs-134                 3.5985E+05  2.7813E-01  1.2499E+24  6.1234E+18
Cs-136                 1.1486E+05  1.5671E-03  6.9393E+21  1.9548E+18
Cs-137                 2.7083E+05  3.1137E+00  1.3687E+25  4.6087E+18

Primary Containment Transport Group Inventory:
Time (h) =   0.1667    Atmosphere     Sump
Noble gases (atoms)    5.3428E+23  0.0000E+00
Elemental I (atoms)    4.2114E+21  0.0000E+00
Organic I (atoms)      1.3025E+20  0.0000E+00
Aerosols (kg)          3.4103E+00  0.0000E+00
Dose Effective (Ci/cc) I-131 (Thyroid)          2.1531E-04
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    2.7464E-04
Total I (Ci)                                    1.4151E+07

                       Deposition Recirculating
Time (h) =   0.1667     Surfaces     Filter
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    2.7464E-04
Total I (Ci)                                    1.4151E+07
```

Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	2.2053E-01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4779E-17
Elemental I (atoms)	0.0000E+00	1.9576E-15
Organic I (atoms)	0.0000E+00	6.0544E-13
Aerosols (kg)	0.0000E+00	1.6151E-06

Turbine Building Compartment Nuclide Inventory:

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Kr-85	1.1440E-02	2.9159E-08	2.0659E+17	1.5601E+11
Kr-85m	2.0201E-01	2.4547E-11	1.7391E+14	2.7817E+12
Kr-87	3.7857E-01	1.3365E-11	9.2513E+13	5.3433E+12
Kr-88	5.5368E-01	4.4156E-11	3.0218E+14	7.6671E+12
Rb-86	1.6080E-03	1.9762E-11	1.3839E+14	2.2060E+10
I-131	7.9347E-01	6.4003E-09	2.9422E+16	1.0884E-13
I-132	1.1141E+00	1.0793E-10	4.9240E+14	1.5543E+13
I-133	1.6417E+00	1.4492E-09	6.5618E+15	2.2560E+13
I-134	1.5966E+00	5.9851E-11	2.6898E+14	2.3026E+13
I-135	1.5398E+00	4.3845E-10	1.9558E+15	2.1255E+13
Xe-133	1.6396E+00	8.7594E-09	3.9662E+16	2.2354E+13
Xe-135	5.5241E-01	2.1631E-10	9.6495E+14	7.4288E+12
Cs-134	1.7041E-01	1.3171E-07	5.9191E+17	2.3376E+12
Cs-136	5.4391E-02	7.4213E-10	3.2862E+15	7.4622E+11
Cs-137	1.2826E-01	1.4745E-06	6.4815E+18	1.7593E+12

Turbine Building Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	2.4778E+17	0.0000E+00	
Elemental I (atoms)	1.9529E+15	0.0000E+00	
Organic I (atoms)	6.0400E+13	0.0000E+00	
Aerosols (kg)	1.6150E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.9536E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.0422E-05
Total I (Ci)			6.6856E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4779E+17
Elemental I (atoms)	0.0000E+00	1.9576E+15
Organic I (atoms)	0.0000E+00	6.0544E+13
Aerosols (kg)	0.0000E+00	1.6151E-06

Turbine Building to Environment Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.2612E+10
Elemental I (atoms)	0.0000E+00	6.5241E+08
Organic I (atoms)	0.0000E+00	2.0178E+07
Aerosols (kg)	0.0000E+00	5.4321E-13

Detailed model information at time (H) = 0.5000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	7.5973E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol

1.0000E+00 1.0000E+00 1.0000E+00 1.2019E+00

EAB LOCA Doses:

Time (h) = 0.5000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.5095E-08	2.9135E-06	1.3581E-07
Accumulated dose (rem)	1.5765E-08	3.0331E-06	1.4144E-07

Primary Containment Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	7.3988E+04	1.8858E-01	1.3361E+24	2.9113E-18
Kr-85m	1.2408E+06	1.5078E-04	1.0682E+21	5.0235E+19
Kr-87	2.0416E+06	7.2078E-05	4.9892E+20	8.8963E+19
Kr-88	3.3011E+06	2.6326E-04	1.8016E+21	1.3588E+20
Rb-86	9.0169E+03	1.1082E-04	7.7599E+20	3.7341E+17
I-131	4.4822E+06	3.6154E-02	1.6620E+23	1.8513E+20
I-132	6.0592E+06	5.8701E-04	2.6781E+21	2.5841E+20
I-133	9.1810E+06	8.1046E-03	3.6697E+22	3.8135E+20
I-134	6.9372E+06	2.6005E-04	1.1687E+21	3.3397E+20
I-135	8.4082E+06	2.3942E-03	1.0680E+22	3.5401E+20
Xe-133	1.0602E+07	5.6642E-02	2.5647E+23	4.1714E+20
Xe-135	3.6815E+06	1.4416E-03	6.4308E+21	1.4154E+20
Cs-134	9.5604E+05	7.3893E-01	3.3208E+24	3.9580E+19
Cs-136	3.0493E+05	4.1606E-03	1.8423E+22	1.2629E+19
Cs-137	7.1956E+05	8.2725E+00	3.6364E+25	2.9790E+19

Primary Containment Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	1.6024E+24	0.0000E+00	
Elemental I (atoms)	1.2547E+22	0.0000E+00	
Organic I (atoms)	3.8806E+20	0.0000E+00	
Aerosols (kg)	9.0604E+00	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.7283E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.2527E-04
Total I (Ci)			3.5068E+07

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.8297E+00	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2291E+18
Elemental I (atoms)	0.0000E+00	1.7530E+16
Organic I (atoms)	0.0000E+00	5.4218E+14
Aerosols (kg)	0.0000E+00	1.3400E-05

Turbine Building Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	1.0292E-01	2.6233E-07	1.8585E+18	2.9343E-12
Kr-85m	1.7260E+00	2.0974E-10	1.4860E+15	5.0305E-13
Kr-87	2.8400E+00	1.0026E-10	6.9402E+14	8.7598E-13
Kr-88	4.5920E+00	3.6621E-10	2.5061E+15	1.3556E+14
Rb-86	1.3335E-02	1.6389E-10	1.1476E+15	3.8937E-11
I-131	6.6049E+00	5.3277E-08	2.4492E+17	1.9266E+14
I-132	8.6856E+00	8.4145E-10	3.8389E+15	2.6182E+14
I-133	1.3530E+01	1.1943E-08	5.4079E+16	3.9634E+14
I-134	1.0223E+01	3.8322E-10	1.7223E+15	3.3509E+14
I-135	1.2391E+01	3.5283E-09	1.5739E+16	3.6675E+14
Xe-133	1.4748E+01	7.8792E-08	3.5676E+17	4.2042E+14
Xe-135	5.1227E+00	2.0060E-09	8.9484E+15	1.4322E+14
Cs-134	1.4139E+00	1.0928E-06	4.9111E+18	4.1275E+13
I-134	1.0223E+01	3.8322E-10	1.7223E+15	3.3509E+14
I-135	1.2391E+01	3.5283E-09	1.5739E+16	3.6675E+14

Cs-136	4.5096E-01	6.1530E-09	2.7246E+16	1.3169E+13
Cs-137	1.0642E+00	1.2234E-05	5.3778E+19	3.1065E+13

Turbine Building Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	2.2289E+18	0.0000E+00	
Elemental I (atoms)	1.7448E+16	0.0000E+00	
Organic I (atoms)	5.3962E+14	0.0000E+00	
Aerosols (kg)	1.3399E-05	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.2764E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.1459E-04
Total I (Ci)			5.1434E+01

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 0.5000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2291E+18
Elemental I (atoms)	0.0000E+00	1.7530E+16
Organic I (atoms)	0.0000E+00	5.4218E+14
Aerosols (kg)	0.0000E+00	1.3400E-05

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 0.5000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2291E+12
Elemental I (atoms)	0.0000E+00	1.7511E+10
Organic I (atoms)	0.0000E+00	5.4158E+08
Aerosols (kg)	0.0000E+00	1.3810E-11

Detailed model information at time (H) = 1.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	3.9463E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.2454E+00

EAB LOCA Doses:

Time (h) = 1.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0957E-07	2.1883E-05	1.1022E-06
Accumulated dose (rem)	1.2533E-07	2.4915E-05	1.2436E-06

Primary Containment Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	4.4492E+02	1.3992E-05	1.4528E+20	1.8220E+16
Co-60	2.3951E+02	2.1188E-04	2.1266E+21	9.8075E+15
Kr-85	5.4258E+05	1.3830E+00	9.7981E+24	2.6564E+19
Kr-85m	8.4221E+06	1.0234E-03	7.2506E+21	4.2883E+20
Kr-87	1.1400E+07	4.0248E-04	2.7860E+21	6.4384E+20
Kr-88	2.1427E-07	1.7088E-03	1.1694E+22	1.1165E+21
Rb-86	2.0195E-04	2.4820E-04	1.7380E+21	1.4276E+18
Sr-89	6.1734E+05	2.1249E-02	1.4378E+23	2.5282E+19
Sr-90	7.8726E+04	5.7714E-01	3.8618E+24	3.2237E-18
Sr-91	7.3187E+05	2.0189E-04	1.3361E+21	3.0380E+19
Sr-92	6.4710E+05	5.1482E-05	3.3699E+20	2.7806E+19
Y-90	1.0614E+03	1.9508E-06	1.3053E+19	3.7770E+16
Y-91	8.0841E+03	3.2964E-04	2.1815E+21	3.3003E+17
Y-92	4.5501E+04	4.7287E-06	3.0953E+19	1.0221E+18
Y-93	5.9934E+03	1.7964E-06	1.1633E+19	2.4859E+17
Zr-95	1.1525E+04	5.3648E-04	3.4008E+21	4.7198E+17
Zr-97	1.0951E+04	5.7284E-06	3.5564E+19	4.5187E+17
Nb-95	1.1530E+04	2.9487E-04	1.8692E+21	4.7213E+17
Mo-99	1.5011E+05	3.1299E-04	1.9039E+21	6.1590E+18
Y-93	5.9934E+03	1.7964E-06	1.1633E+19	2.4859E+17
Zr-95	1.1525E+04	5.3648E-04	3.4008E+21	4.7198E+17

Tc-99m	1.3434E+05	2.5548E-05	1.5541E+20	5.4709E+18
Ru-103	1.2920E+05	4.0032E-03	2.3405E+22	5.2912E+18
Ru-105	7.6413E+04	1.1368E-05	6.5197E+19	3.2220E-18
Ru-106	5.1471E-04	1.5385E-02	8.7405E-22	2.1077E+18
Rh-105	8.3258E+04	9.8641E-05	5.6574E+20	3.4069E+18
Sb-127	1.4005E+05	5.2442E-04	2.4867E+21	5.7428E+18
Sb-129	4.4412E+05	7.8976E-05	3.6869E+20	1.8742E+19
Te-127	1.3984E+05	5.2986E-05	2.5125E+20	5.7057E+18
Te-127m	2.3860E+04	2.5296E-03	1.1995E+22	9.7704E+17
Te-129	4.7226E-05	2.2551E-05	1.0527E-20	1.9046E+19
Te-129m	9.9927E+04	3.3170E-03	1.5485E+22	4.0917E+18
Te-131m	3.1540E+05	3.9554E-04	1.8183E+21	1.2971E+19
Te-132	2.2929E+06	7.5526E-03	3.4457E+22	9.4048E+19
I-131	1.1664E+07	9.4080E-02	4.3249E+23	7.7554E-20
I-132	1.5254E+07	1.4778E-03	6.7421E+21	1.0498E-21
I-133	2.3533E+07	2.0774E-02	9.4064E-22	1.5804E+21
I-134	1.2177E+07	4.5645E-04	2.0513E+21	1.0703E+21
I-135	2.0795E+07	5.9214E-03	2.6414E+22	1.4303E+21
Xe-133	7.7671E+07	4.1495E-01	1.8789E+24	3.8044E+21
Xe-135	2.7434E+07	1.0743E-02	4.7922E+22	1.3303E+21
Cs-134	2.1429E+06	1.6562E+00	7.4433E+24	1.5140E-20
Cs-136	6.8274E+05	9.3154E-03	4.1249E+22	4.8274E+19
Cs-137	1.6129E+06	1.8542E+01	8.1507E+25	1.1395E+20
Ba-139	7.0905E+05	4.3349E-05	1.8781E+20	3.1954E+19
Ba-140	1.1746E+06	1.6044E-02	6.9015E+22	4.8118E+19
La-140	1.8349E+04	3.3013E-05	1.4201E+20	6.1657E+17
La-141	8.9552E+03	1.5835E-06	6.7631E+18	3.7905E-17
La-142	6.6751E+03	4.6630E-07	1.9775E+18	2.9772E+17
Ce-141	2.7003E+04	9.4770E-04	4.0477E+21	1.1058E+18
Ce-143	2.4550E+04	3.6968E-05	1.5568E+20	1.0092E+18
Ce-144	2.2707E+04	7.1194E-03	2.9773E+22	9.2985E+17
Pr-143	9.6749E+03	1.4367E-04	6.0505E+20	3.9592E+17
Nd-147	4.3488E+03	5.3756E-05	2.2022E+20	1.7816E-17
Np-239	3.1466E+05	1.3563E-03	3.4176E+21	1.2914E+19
Pu-238	6.8432E+01	3.9973E-03	1.0114E+22	2.8022E+15
Pu-239	7.2681E+00	1.1693E-01	2.9464E+23	2.9761E+14
Pu-240	1.1688E+01	5.1292E-02	1.2870E+23	4.7860E+14
Pu-241	2.8826E+03	2.7983E-02	6.9923E+22	1.1804E+17
Am-241	1.5264E+00	4.4473E-04	1.1113E+21	6.2499E-13
Cm-242	3.9962E+02	1.2057E-04	3.0005E+20	1.6364E+16
Cm-244	2.3424E+01	2.8953E-04	7.1459E+20	9.5918E+14

Primary Containment Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump	
Noble gases (atoms)	1.1747E+25	0.0000E+00	
Elemental I (atoms)	3.3165E+22	0.0000E+00	
Organic I (atoms)	1.0257E+21	0.0000E+00	
Aerosols (kg)	2.1185E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.4815E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8596E-03
Total I (Ci)			8.3422E+07

Time (h) = 1.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.1977E+00	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0801E+19
Elemental I (atoms)	0.0000E+00	8.1266E+16
Organic I (atoms)	0.0000E+00	2.5134E+15
Aerosols (kg)	0.0000E+00	5.5822E-05

Turbine Building Compartment Nuclide Inventory:

Elemental I (atoms)	0.0000E+00	8.1266E+16
Organic I (atoms)	0.0000E+00	2.5134E+15

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Co-58	6.3822E-04	2.0071E-11	2.0840E+14	1.8925E-10
Co-60	3.4356E-04	3.0393E-10	3.0505E+15	1.0187E-10
Kr-85	9.6059E-01	2.4484E-06	1.7347E+19	3.7115E-13
Kr-85m	1.4910E+01	1.8118E-09	1.2837E+16	5.9537E-14
Kr-87	2.0183E+01	7.1255E-10	4.9323E+15	8.7876E-14
Kr-88	3.7935E-01	3.0253E-09	2.0703E+16	1.5443E-15
Rb-86	5.4259E-02	6.6684E-10	4.6695E+15	2.7475E+12
Sr-89	8.8555E-01	3.0481E-08	2.0625E+17	2.6259E+13
Sr-90	1.1293E-01	8.2788E-07	5.5396E+18	3.3484E+12
Sr-91	1.0498E+00	2.8961E-10	1.9165E+15	3.1454E+13
Sr-92	9.2824E-01	7.3849E-11	4.8340E+14	2.8554E+13
Y-90	1.6259E-03	2.9885E-12	1.9997E+13	4.2394E+10
Y-91	1.1615E-02	4.7362E-10	3.1343E+15	3.4337E+11
Y-92	8.1114E-02	8.4297E-12	5.5179E+13	1.5534E+12
Y-93	8.5973E-03	2.5769E-12	1.6686E+13	2.5742E+11
Zr-95	1.6532E-02	7.6956E-10	4.8783E+15	4.9022E+11
Zr-97	1.5708E-02	8.2171E-12	5.1015E+13	4.6849E+11
Nb-95	1.6540E-02	4.2297E-10	2.6813E+15	4.9039E+11
Mo-99	2.1533E-01	4.4897E-10	2.7311E+15	6.3943E+12
Tc-99m	1.9270E-01	3.6648E-11	2.2293E+14	5.6822E+12
Ru-103	1.8533E-01	5.7423E-09	3.3574E-16	5.4956E+12
Ru-105	1.0961E-01	1.6306E-11	9.3522E-13	3.3235E+12
Ru-106	7.3832E-02	2.2069E-08	1.2538E+17	2.1892E+12
Rh-105	1.1943E-01	1.4150E-10	8.1153E+14	3.5385E+12
Sb-127	2.0089E-01	7.5225E-10	3.5671E+15	5.9629E+12
Sb-129	6.3706E-01	1.1329E-10	5.2886E+14	1.9328E+13
Te-127	2.0059E-01	7.6006E-11	3.6041E+14	5.9262E+12
Te-127m	3.4227E-02	3.6286E-09	1.7206E+16	1.0148E+12
Te-129	6.7744E-01	3.2348E-11	1.5101E+14	1.9734E+13
Te-129m	1.4334E-01	4.7581E-09	2.2213E+16	4.2499E+12
Te-131m	4.5243E-01	5.6738E-10	2.6083E+15	1.3459E+13
Te-132	3.2891E+00	1.0834E-08	4.9427E+16	9.7646E+13
I-131	2.9251E+01	2.3594E-07	1.0846E+18	1.4315E+15
I-132	3.5936E+01	3.4815E-09	1.5883E+16	1.8330E+15
I-133	5.9026E+01	5.2106E-08	2.3593E+17	2.9111E+15
I-134	3.0541E+01	1.1449E-09	5.1452E+15	1.8544E+15
I-135	5.2158E+01	1.4852E-08	6.6253E+16	2.6206E+15
Xe-133	1.3750E+02	7.3456E-07	3.3260E+18	5.3147E-15
Xe-135	4.8433E+01	1.8966E-08	8.4603E+16	1.8567E-15
Cs-134	5.7573E+00	4.4498E-06	1.9998E+19	2.9141E-14
Cs-136	1.8343E+00	2.5028E-08	1.1082E+17	9.2899E+13
Cs-137	4.3333E+00	4.9818E-05	2.1899E+20	2.1933E+14
Ba-139	1.0171E+00	6.2182E-11	2.6940E+14	3.2444E+13
Ba-140	1.6849E+00	2.3015E-08	9.8999E+16	4.9974E+13
La-140	2.8772E-02	5.1763E-11	2.2266E+14	7.1539E+11
La-141	1.2846E-02	2.2714E-12	9.7014E+12	3.9064E+11
La-142	9.5751E-03	6.6888E-13	2.8367E+12	3.0303E+11
Ce-141	3.8733E-02	1.3594E-09	5.8059E+15	1.1485E+12
Ce-143	3.5216E-02	5.3030E-11	2.2332E+14	1.0473E+12
Ce-144	3.2572E-02	1.0212E-08	4.2709E+16	9.6580E+11
Pr-143	1.3882E-02	2.0615E-10	8.6816E+14	4.1135E+11
Nd-147	6.2381E-03	7.7110E-11	3.1590E+14	1.8503E+11
Np-239	4.5136E-01	1.9456E-09	4.9023E+15	1.3406E+13
Pu-238	9.8162E-05	5.7339E-09	1.4508E+16	2.9106E+09
Pu-239	1.0426E-05	1.6773E-07	4.2264E-17	3.0912E+08
Pu-240	1.6766E-05	7.3576E-08	1.8462E-17	4.9711E+08
Pu-241	4.1349E-03	4.0140E-08	1.0030E-17	1.2260E+11
Am-241	2.1896E-06	6.3795E-10	1.5941E+15	6.4918E+07
Cm-242	5.7323E-04	1.7296E-10	4.3040E-14	1.6997E+10
Cm-244	3.3601E-05	4.1532E-10	1.0250E-15	9.9627E+08

Turbine Building Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump
Noble gases (atoms)	2.0796E+19	0.0000E+00
Elemental I (atoms)	8.0674E+16	0.0000E+00
Organic I (atoms)	2.4951E+15	0.0000E+00
Aerosols (kg)	5.5819E-05	0.0000E+00
Time (h) = 1.0000	Atmosphere	Sump
Noble gases (atoms)	2.0796E+19	0.0000E+00

Dose Effective (Ci/cc) I-131 (Thyroid) 1.4419E-03
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid) 1.8076E-03
Total I (Ci) 2.0691E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 1.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0801E+19
Elemental I (atoms)	0.0000E+00	8.1266E+16
Organic I (atoms)	0.0000E+00	2.5134E+15
Aerosols (kg)	0.0000E+00	5.5822E-05

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 1.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9714E-13
Elemental I (atoms)	0.0000E+00	1.5064E-11
Organic I (atoms)	0.0000E+00	4.6590E-09
Aerosols (kg)	0.0000E+00	1.0920E-10

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	3.2982E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	1.3923E+00

EAB LOCA Doses:

Time (h) = 2.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	9.5083E-07	1.9887E-04	1.1248E-05
Accumulated dose (rem)	1.0762E-06	2.2379E-04	1.2491E-05

Primary Containment Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	1.1503E+03	3.6176E-05	3.7562E+20	1.3142E+17
Co-60	6.1947E+02	5.4802E-04	5.5004E+21	7.0756E+16
Kr-85	1.4798E+06	3.7717E+00	2.6722E+25	1.6749E+20
Kr-85m	1.9677E+07	2.3910E-03	1.6940E+22	2.4326E+21
Kr-87	1.8027E+07	6.3643E-04	4.4054E+21	2.8361E+21
Kr-88	4.5782E+07	3.6511E-03	2.4986E+22	5.9669E+21
Rb-86	3.8661E+04	4.7514E-04	3.3271E+21	5.5253E+18
Sr-89	1.5958E+06	5.4930E-02	3.7168E+23	1.8233E+20
Sr-90	2.0362E+05	1.4928E+00	9.9885E+24	2.3258E+19
Sr-91	1.7598E+06	4.8546E-04	3.2126E+21	2.0911E+20
Sr-92	1.2960E+06	1.0311E-04	6.7492E+20	1.7060E+20
Y-90	3.6987E+03	6.7984E-06	4.5490E+19	3.4515E+17
Y-91	2.1062E+04	8.5884E-04	5.6836E+21	2.3932E-18
Y-92	2.1123E+05	2.1952E-05	1.4370E+20	1.6167E-19
Y-93	1.4474E+04	4.3383E-06	2.8092E+19	1.7158E-18
Zr-95	2.9796E+04	1.3870E-03	8.7922E+21	3.4041E+18
Zr-97	2.7186E+04	1.4221E-05	8.8290E+19	3.1747E+18
Nb-95	2.9823E+04	7.6267E-04	4.8346E+21	3.4062E+18
Mo-99	3.8421E+05	8.0109E-04	4.8730E+21	4.4133E+19
Tc-99m	3.4685E+05	6.5964E-05	4.0126E+20	3.9433E+19
Ru-103	3.3392E+05	1.0347E-02	6.0493E+22	3.8155E+19
Ru-105	1.6908E+05	2.5152E-05	1.4426E+20	2.1036E+19
Ru-106	1.3312E+05	3.9789E-02	2.2605E+23	1.5205E+19
Rh-105	2.1472E+05	2.5439E-04	1.4590E+21	2.4546E+19
Sb-127	3.5952E+05	1.3463E-03	6.3838E+21	4.1230E+19
Sb-129	9.7842E+05	1.7399E-04	8.1225E+20	1.2203E+20
Te-127	3.6140E+05	1.3694E-04	6.4935E+20	4.1146E+19
Te-127m	6.1716E+04	6.5428E-03	3.1025E+22	7.0490E+18
Rh-105	2.1472E+05	2.5439E-04	1.4590E+21	2.4546E+19
Sb-127	3.5952E+05	1.3463E-03	6.3838E+21	4.1230E+19

Te-129	1.1256E+06	5.3748E-05	2.5091E+20	1.3115E+20
Te-129m	2.5844E+05	8.5788E-03	4.0049E+22	2.9519E+19
Te-131m	7.9716E+05	9.9969E-04	4.5956E+21	9.2191E+19
Te-132	5.8783E-06	1.9362E-02	8.8336E+22	6.7462E+20
I-131	2.3540E-07	1.8988E-01	8.7287E+23	3.2333E+21
I-132	2.8311E+07	2.7427E-03	1.2513E+22	4.1333E+21
I-133	4.6087E+07	4.0684E-02	1.8421E+23	6.4577E+21
I-134	1.1182E+07	4.1916E-04	1.8838E+21	2.7734E+21
I-135	3.7913E+07	1.0796E-02	4.8158E+22	5.5747E+21
Xe-133	2.1134E+08	1.1291E+00	5.1124E+24	2.3953E+22
Xe-135	7.6110E+07	2.9803E-02	1.3295E+23	8.5406E+21
Cs-134	4.1084E+06	3.1754E+00	1.4271E+25	5.8656E+20
Cs-136	1.3061E+06	1.7821E-02	7.8913E-22	1.8675E+20
Cs-137	3.0923E+06	3.5552E-01	1.5627E+26	4.4148E+20
Ba-139	1.1091E+06	6.7809E-05	2.9378E-20	1.6896E-20
Ba-140	3.0312E+06	4.1405E-02	1.7810E+23	3.4664E-20
La-140	6.9910E+04	1.2578E-04	5.4103E+20	6.1631E+18
La-141	1.9417E+04	3.4334E-06	1.4664E+19	2.4435E+18
La-142	1.1013E+04	7.6933E-07	3.2627E+18	1.6244E+18
Ce-141	6.9818E+04	2.4503E-03	1.0465E+22	7.9761E+18
Ce-143	6.2179E+04	9.3631E-05	3.9431E+20	7.1828E+18
Ce-144	5.8726E+04	1.8412E-02	7.7001E+22	6.7080E+18
Pr-143	2.5059E+04	3.7214E-04	1.5672E+21	2.8591E+18
Nd-147	1.1219E+04	1.3867E-04	5.6810E+20	1.2832E+18
Np-239	8.0394E+05	3.4654E-03	8.7318E+21	9.2432E+19
Pu-238	1.7700E-02	1.0339E-02	2.6161E+22	2.0217E+16
Pu-239	1.8801E+01	3.0249E-01	7.6218E+23	2.1473E+15
Pu-240	3.0230E+01	1.3267E-01	3.3289E+23	3.4529E+15
Pu-241	7.4557E+03	7.2377E-02	1.8086E+23	8.5159E+17
Am-241	3.9489E+00	1.1505E-03	2.8750E+21	4.5097E+14
Cm-242	1.0334E+03	3.1181E-04	7.7593E+20	1.1805E+17
Cm-244	6.0586E+01	7.4887E-04	1.8483E+21	6.9200E+15

Primary Containment Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2014E+25	0.0000E+00	
Elemental I (atoms)	7.3437E+22	0.0000E+00	
Organic I (atoms)	2.2712E+21	0.0000E+00	
Aerosols (kg)	4.1200E+01	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.9555E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6592E-03
Total I (Ci)			1.4703E+08

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.6162E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4257E+20
Elemental I (atoms)	0.0000E+00	3.7866E+17
Organic I (atoms)	0.0000E-00	1.1711E+16
Aerosols (kg)	0.0000E+00	2.3187E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Co-58	5.1705E-03	1.6261E-10	1.6883E+15	3.9295E+11
Co-60	2.7844E-03	2.4633E-09	2.4723E+16	2.1158E+11
Kr-85	6.5870E+00	1.6789E-05	1.1895E+20	5.1995E+14
Kr-85m	8.7587E+01	1.0643E-08	7.5404E+16	7.3954E+15
Kr-87	8.0245E+01	2.8329E-09	1.9610E+16	8.1356E+15
Kr-88	2.0379E+02	1.6252E-08	1.1122E+17	1.7913E+16
Rb-86	2.2011E-01	2.7051E-09	1.8943E+16	2.1001E+13
Kr-85	6.5870E+00	1.6789E-05	1.1895E+20	5.1995E+14
Kr-85m	8.7587E+01	1.0643E-08	7.5404E+16	7.3954E+15

Sr-89	7.1731E+00	2.4690E-07	1.6707E+18	5.4517E+14
Sr-90	9.1526E-01	6.7097E-06	4.4897E+19	6.9546E+13
Sr-91	7.9099E+00	2.1820E-09	1.4440E+16	6.1891E+14
Sr-92	5.8253E-00	4.6345E-10	3.0337E+15	4.9161E+14
Y-90	1.9472E-02	3.5790E-11	2.3948E+14	1.2397E+12
Y-91	9.5174E-02	3.8809E-09	2.5682E+16	7.1924E+12
Y-92	1.2991E+00	1.3501E-10	8.8374E+14	7.4765E+13
Y-93	6.5058E-02	1.9500E-11	1.2627E+14	5.0815E+12
Zr-95	1.3393E-01	6.2342E-09	3.9519E+16	1.0179E+13
Zr-97	1.2220E-01	6.3921E-11	3.9685E+14	9.4387E+12
Nb-95	1.3405E-01	3.4281E-09	2.1731E+16	1.0185E+13
Mo-99	1.7270E+00	3.6008E-09	2.1903E+16	1.3178E+14
Tc-99m	1.5591E+00	2.9650E-10	1.8036E+15	1.1789E+14
Ru-103	1.5009E+00	4.6506E-08	2.7191E+17	1.1408E+14
Ru-105	7.5997E-01	1.1306E-10	6.4842E+14	6.1520E+13
Ru-106	5.9835E-01	1.7885E-07	1.0161E+18	4.5467E+13
Rh-105	9.6514E-01	1.1435E-09	6.5581E+15	7.3375E+13
Sb-127	1.6160E+00	6.0513E-09	2.8694E+16	1.2316E+14
Sb-129	4.3978E+00	7.8206E-10	3.6509E+15	3.5665E+14
Te-127	1.6244E+00	6.1553E-10	2.9187E+15	1.2302E+14
Te-127m	2.7740E-01	2.9409E-08	1.3945E+17	2.1078E+13
Te-129	5.0594E+00	2.4159E-10	1.1278E+15	3.8799E+14
Te-129m	1.1616E+00	3.8560E-08	1.8001E+17	8.8268E+13
Te-131m	3.5831E+00	4.4935E-09	2.0657E+16	2.7479E+14
Te-132	2.6422E+01	8.7031E-08	3.9706E+17	2.0148E+15
I-131	1.2836E+02	1.0353E-06	4.7595E+18	1.1868E+16
I-132	1.3888E-02	1.3455E-08	6.1384E+16	1.3752E+16
I-133	2.5135E-02	2.2188E-07	1.0047E+18	2.3591E+16
I-134	6.0984E+01	2.2860E-09	1.0274E+16	8.7663E+15
I-135	2.0677E+02	5.8878E-08	2.6264E+17	2.0123E+16
Xe-133	9.4000E+02	5.0219E-06	2.2739E+19	7.4293E+16
Xe-135	3.3126E+02	1.2971E-07	5.7864E+17	2.6155E+16
Cs-134	2.3391E+01	1.8079E-05	8.1248E+19	2.2301E+15
Cs-136	7.4363E+00	1.0146E-07	4.4928E+17	7.0976E+14
Cs-137	1.7606E+01	2.0241E-04	8.8973E+20	1.6785E+15
Ba-139	4.9854E+00	3.0479E-10	1.3205E+15	4.6850E+14
Ba-140	1.3625E+01	1.8611E-07	8.0055E+17	1.0362E+15
La-140	3.8139E-01	6.8617E-10	2.9516E+15	2.3332E+13
La-141	8.7278E-02	1.5433E-11	6.5914E+13	7.1247E+12
La-142	4.9502E-02	3.4580E-12	1.4665E+13	4.5428E+12
Ce-141	3.1378E-01	1.1012E-08	4.7034E+16	2.3847E+13
Ce-143	2.7948E-01	4.2086E-10	1.7724E+15	2.1416E+13
Ce-144	2.6396E-01	8.2761E-08	3.4611E+17	2.0058E+13
Pr-143	1.1274E-01	1.6743E-09	7.0508E+15	8.5571E+12
Nd-147	5.0425E-02	6.2332E-10	2.5535E+15	3.8356E+12
Np-239	3.6136E+00	1.5576E-08	3.9248E+16	2.7592E+14
Pu-238	7.9559E-04	4.6472E-08	1.1759E+17	6.0453E+10
Pu-239	8.4510E-05	1.3596E-06	3.4259E+18	6.4211E+09
Pu-240	1.3588E-04	5.9632E-07	1.4963E+18	1.0325E+10
Pu-241	3.3512E-02	3.2532E-07	8.1292E+17	2.5464E+12
Am-241	1.7751E-05	5.1718E-09	1.2923E+16	1.3486E+09
Cm-242	4.6451E-03	1.4015E-09	3.4877E+15	3.5298E+11
Cm-244	2.7232E-04	3.3661E-09	8.3077E+15	2.0693E+10

Turbine Building Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	1.4247E-20	0.0000E+00	
Elemental I (atoms)	3.7415E-17	0.0000E+00	
Organic I (atoms)	1.1572E-16	0.0000E+00	
Aerosols (kg)	2.3185E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.2531E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.7264E-03
Total I (Ci)			7.8634E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 2.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4257E+20

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Elemental I (atoms)	0.0000E-00	3.7866E+17
Organic I (atoms)	0.0000E+00	1.1711E+16
Aerosols (kg)	0.0000E+00	2.3187E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 2.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.6323E-14
Elemental I (atoms)	0.0000E-00	1.4065E-12
Organic I (atoms)	0.0000E-00	4.3501E-10
Aerosols (kg)	0.0000E-00	9.1659E-10

Detailed model information at time (H) = 4.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0673E+00

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.1772E-01

EAB LOCA Doses:

Time (h) = 4.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.6789E-06	1.0925E-03	6.3670E-05
Accumulated dose (rem)	5.7550E-06	1.3163E-03	7.6161E-05

Primary Containment Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	1.3596E+02	4.2757E-06	4.4395E+19	2.5133E+17
Co-60	7.3274E+01	6.4822E-05	6.5062E+20	1.3535E+17
Kr-85	1.4798E+06	3.7718E+00	2.6723E+25	5.6171E+20
Kr-85m	1.4440E+07	1.7546E-03	1.2431E+22	6.9410E+21
Kr-87	6.0601E+06	2.1395E-04	1.4809E+21	5.7605E+21
Kr-88	2.8100E+07	2.2409E-03	1.5335E+22	1.5617E+22
Rb-86	4.5590E+03	5.6030E-05	3.9235E+20	9.5522E+18
Sr-89	1.8855E+05	6.4902E-03	4.3916E+22	3.4867E+20
Sr-90	2.4086E+04	1.7658E-01	1.1815E+24	4.4489E+19
Sr-91	1.7990E+05	4.9627E-05	3.2842E+20	3.8397E+20
Sr-92	9.1915E+04	7.3126E-06	4.7867E+19	2.8544E+20
Y-90	9.4454E+02	1.7361E-06	1.1617E+19	8.6968E+17
Y-91	2.5692E+03	1.0476E-04	6.9330E+20	4.6112E+18
Y-92	5.5509E+04	5.7688E-06	3.7762E+19	4.8591E+19
Y-93	1.4925E+03	4.4735E-07	2.8968E+18	3.1581E+18
Zr-95	3.5214E+03	1.6392E-04	1.0391E-21	6.5100E+18
Zr-97	2.9625E+03	1.5497E-06	9.6212E-18	5.9332E+18
Nb-95	3.5276E+03	9.0213E-05	5.7187E-20	6.5156E+18
Mo-99	4.4503E+04	9.2790E-05	5.6444E+20	8.3915E+19
Tc-99m	4.0774E+04	7.7543E-06	4.7169E+19	7.5331E+19
Ru-103	3.9441E+04	1.2221E-03	7.1452E+21	7.2956E-19
Ru-105	1.4636E-04	2.1773E-06	1.2488E+19	3.6967E+19
Ru-106	1.5744E-04	4.7059E-03	2.6735E+22	2.9085E-19
Rh-105	2.5083E+04	2.9717E-05	1.7044E+20	4.6840E-19
Sb-127	4.1894E-04	1.5688E-04	7.4388E+20	7.8530E-19
Sb-129	8.3966E-04	1.4932E-05	6.9705E+19	2.1397E-20
Te-127	4.2635E+04	1.6155E-05	7.6605E+19	7.8663E-19
Te-127m	7.3004E+03	7.7396E-04	3.6700E+21	1.3484E-19
Te-129	1.0764E+05	5.1399E-06	2.3995E+19	2.3831E-20
Te-129m	3.0555E+04	1.0143E-03	4.7350E+21	5.6462E-19
Te-131m	9.0037E+04	1.1291E-04	5.1906E+20	1.7404E+20
Te-132	6.8312E+05	2.2501E-03	1.0266E+22	1.2839E-21
I-131	4.1586E+06	3.3544E-02	1.5420E+23	5.9390E-21
I-132	3.1575E+06	3.0589E-04	1.3956E+21	6.9006E+21
I-133	7.6705E+06	6.7712E-03	3.0660E+22	1.1643E+22
I-134	4.0921E+05	1.5340E-05	6.8938E+19	3.5651E+21
I-135	5.4689E+06	1.5573E-03	6.9467E+21	9.6318E+21
I-131	4.1586E+06	3.3544E-02	1.5420E+23	5.9390E-21
I-132	3.1575E+06	3.0589E-04	1.3956E+21	6.9006E+21

Xe-133	2.0923E+08	1.1178E+00	5.0613E+24	7.9980E-22
Xe-135	6.7138E+07	2.6290E-02	1.1728E+23	2.7659E-22
Cs-134	4.8594E+05	3.7558E-01	1.6879E-24	1.0149E-21
Cs-136	1.5382E+05	2.0988E-03	9.2935E-21	3.2274E+20
Cs-137	3.6579E+05	4.2053E+00	1.8485E+25	7.6392E+20
Ba-139	4.7988E-04	2.9338E-06	1.2711E+19	2.5422E+20
Ba-140	3.5693E+05	4.8756E-03	2.0972E+22	6.6222E+20
La-140	2.0105E+04	3.6172E-05	1.5559E+20	1.6705E+19
La-141	1.6141E+03	2.8542E-07	1.2190E+18	4.2500E+18
La-142	5.3006E+02	3.7028E-08	1.5703E+17	2.4963E+18
Ce-141	8.2474E+03	2.8945E-04	1.2362E+21	1.5253E+19
Ce-143	7.0525E+03	1.0620E-05	4.4723E+19	1.3576E-19
Ce-144	6.9452E+03	2.1775E-03	9.1065E+21	1.2831E-19
Pr-143	2.9822E+03	4.4287E-05	1.8651E+20	5.4767E+18
Nd-147	1.3201E+03	1.6317E-05	6.6848E+19	2.4509E+18
Np-239	9.2792E+04	3.9998E-04	1.0078E+21	1.7557E+20
Pu-238	2.0937E+01	1.2230E-03	3.0946E+21	3.8672E+16
Pu-239	2.2246E+00	3.5791E-02	9.0182E+22	4.1079E+15
Pu-240	3.5759E+00	1.5693E-02	3.9377E+22	6.6050E+15
Pu-241	8.8192E+02	8.5612E-03	2.1393E+22	1.6290E+18
Am-241	4.6743E-01	1.3619E-04	3.4032E+20	8.6281E-14
Cm-242	1.2220E+02	3.6870E-05	9.1751E+19	2.2579E-17
Cm-244	7.1665E+00	8.8582E-05	2.1863E+20	1.3237E+16

Primary Containment Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1930E+25	0.0000E+00	
Elemental I (atoms)	7.1254E+22	0.0000E+00	
Organic I (atoms)	2.2037E+21	0.0000E+00	
Aerosols (kg)	4.8726E+00	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.1061E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.1720E-04
Total I (Ci)			2.0865E+07

Time (h) = 4.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.2486E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.9839E+20
Elemental I (atoms)	0.0000E+00	1.1839E+18
Organic I (atoms)	0.0000E+00	3.6616E+16
Aerosols (kg)	0.0000E+00	4.2123E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Co-58	1.0449E-02	3.2862E-10	3.4121E+15	2.7416E+12
Co-60	5.6316E-03	4.9821E-09	5.0004E+16	1.4769E-12
Kr-85	2.3055E+01	5.8763E-05	4.1633E-20	4.5779E+15
Kr-85m	2.2496E+02	2.7336E-08	1.9367E+17	5.2515E+16
Kr-87	9.4414E+01	3.3332E-09	2.3072E+16	3.5346E+16
Kr-88	4.3778E+02	3.4913E-08	2.3892E+17	1.1291E+17
Rb-86	3.9658E-01	4.8740E-09	3.4130E+16	1.1216E+14
Sr-89	1.4492E+01	4.9882E-07	3.3752E+18	3.8029E+15
Sr-90	1.8512E+00	1.3571E-05	9.0808E+19	4.8547E+14
Sr-91	1.3826E-01	3.8142E-09	2.5241E+16	3.9420E+15
Sr-92	7.0643E+00	5.6202E-10	3.6789E+15	2.5166E+15
Y-90	7.5381E-02	1.3855E-10	9.2708E+14	1.4099E+13
Y-91	1.9797E-01	8.0723E-09	5.3421E+16	5.1062E+13
Y-92	4.5026E+00	4.6793E-10	3.0630E+15	9.0239E+14
Y-93	1.1471E-01	3.4382E-11	2.2264E+14	3.2540E+13
Zr-95	2.7064E-01	1.2598E-08	7.9860E+16	7.1012E+13
Y-90	7.5381E-02	1.3855E-10	9.2708E+14	1.4099E+13
Y-91	1.9797E-01	8.0723E-09	5.3421E+16	5.1062E+13

Zr-97	2.2769E-01	1.1911E-10	7.3945E+14	6.2560E-13
Nb-95	2.7112E-01	6.9335E-09	4.3952E+16	7.1099E-13
Mo-99	3.4204E+00	7.1316E-09	4.3381E+16	9.0768E-14
Tc-99m	3.1338E+00	5.9597E-10	3.6253E+15	8.2025E-14
Ru-103	3.0313E+00	9.3925E-08	5.4916E+17	7.9562E-14
Ru-105	1.1249E+00	1.6734E-10	9.5977E+14	3.5405E+14
Ru-106	1.2100E+00	3.6168E-07	2.0548E+18	3.1736E+14
Rh-105	1.9278E+00	2.2840E-09	1.3099E+16	5.0900E+14
Sb-127	3.2199E+00	1.2057E-08	5.7173E+16	8.5157E+14
Sb-129	6.4534E+00	1.1476E-09	5.3573E+15	2.0419E+15
Te-127	3.2768E+00	1.2416E-09	5.8876E+15	8.5757E+14
Te-127m	5.6109E-01	5.9484E-08	2.8206E+17	1.4714E+14
Te-129	8.2730E+00	3.9504E-10	1.8442E+15	2.3970E+15
Te-129m	2.3484E+00	7.7954E-08	3.6391E+17	6.1602E+14
Te-131m	6.9200E+00	8.6781E-09	3.9894E+16	1.8628E+15
Te-132	5.2502E+01	1.7294E-07	7.8898E+17	1.3907E+16
I-131	2.4522E+02	1.9780E-06	9.0931E+18	6.6881E+16
I-132	1.7874E+02	1.7316E-08	7.9000E+16	6.2342E+16
I-133	4.5236E+02	3.9933E-07	1.8081E+18	1.2790E+17
I-134	2.4133E+01	9.0464E-10	4.0656E+15	2.1049E+16
I-135	3.2252E+02	9.1838E-08	4.0968E+17	9.9642E+16
Xe-133	3.2614E+03	1.7424E-05	7.8893E+19	6.5053E+17
Xe-135	1.0601E+03	4.1511E-07	1.8517E+18	2.2098E+17
Cs-134	4.2272E+01	3.2672E-05	1.4683E+20	1.1933E+16
Cs-136	1.3381E+01	1.8257E-07	8.0843E+17	3.7875E+15
Cs-137	3.1819E+01	3.6582E-04	1.6080E+21	8.9824E+15
Ba-139	3.6882E+00	2.2548E-10	9.7689E+14	1.8329E+15
Ba-140	2.7433E+01	3.7472E-07	1.6119E+18	7.2126E+15
La-140	1.6101E+00	2.8968E-09	1.2461E+16	2.9026E+14
La-141	1.2406E-01	2.1936E-11	9.3690E+13	4.0023E+13
La-142	4.0739E-02	2.8459E-12	1.2069E+13	1.8784E+13
Ce-141	6.3383E-01	2.2245E-08	9.5008E+16	1.6634E+14
Ce-143	5.4203E-01	8.1621E-10	3.4373E+15	1.4556E+14
Ce-144	5.3379E-01	1.6736E-07	6.9990E+17	1.4000E+14
Pr-143	2.2931E-01	3.4053E-09	1.4341E+16	5.9930E+13
Nd-147	1.0146E-01	1.2541E-09	5.1377E+15	2.6686E+13
Np-239	7.1317E+00	3.0741E-08	7.7460E+16	1.8963E+15
Pu-238	1.6092E-03	9.3996E-08	2.3784E+17	4.2200E+11
Pu-239	1.7098E-04	2.7508E-06	6.9311E+18	4.4831E+10
Pu-240	2.7483E-04	1.2061E-06	3.0264E+18	7.2075E+10
Pu-241	6.7782E-02	6.5799E-07	1.6442E+18	1.7776E+13
Am-241	3.5926E-05	1.0468E-08	2.6156E+16	9.4179E+09
Cm-242	9.3918E-03	2.8337E-09	7.0517E+15	2.4635E+12
Cm-244	5.5080E-04	6.8082E-09	1.6803E+16	1.4445E+11

Turbine Building Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	4.9753E+20	0.0000E+00	
Elemental I (atoms)	1.1563E+18	0.0000E+00	
Organic I (atoms)	3.5760E+16	0.0000E+00	
Aerosols (kg)	4.2114E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1687E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4120E-02
Total I (Ci)			1.2230E+03

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.9839E+20
Elemental I (atoms)	0.0000E+00	1.1839E+18
Organic I (atoms)	0.0000E+00	3.6616E+16
Aerosols (kg)	0.0000E+00	4.2123E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 4.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3052E+15

Turbine Building to Environment Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	1.0639E+13
Organic I (atoms)	0.0000E+00	3.2904E+11
Aerosols (kg)	0.0000E+00	5.2112E-09

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.3648E+02

EAB LOCA Doses:

Time (h) = 8.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.0835E-05	2.8276E-03	1.6121E-04
Accumulated dose (rem)	1.6590E-05	4.1439E-03	2.3737E-04

Primary Containment Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	6.7590E+00	2.1256E-07	2.2070E+18	2.6987E+17
Co-60	3.6485E+00	3.2276E-06	3.2395E+19	1.4535E+17
Kr-85	1.4798E+06	3.7718E+00	2.6722E-25	1.3501E+21
Kr-85m	7.7763E+06	9.4492E-04	6.6947E+21	1.2677E+22
Kr-87	6.8484E-05	2.4177E-05	1.6736E+20	7.0741E+21
Kr-88	1.0585E+07	8.4418E-04	5.7770E+21	2.5175E+22
Rb-86	2.2561E+02	2.7728E-06	1.9416E+19	1.0173E+19
Sr-89	9.3676E+03	3.2244E-04	2.1818E+21	3.7438E+20
Sr-90	1.1994E+03	8.7925E-03	5.8833E+22	4.7776E+19
Sr-91	6.6905E+03	1.8457E-06	1.2214E+19	4.0666E+20
Sr-92	1.6453E+03	1.3090E-07	8.5683E+17	2.9514E+20
Y-90	9.5916E+01	1.7630E-07	1.1796E+18	1.0346E+18
Y-91	1.3412E+02	5.4689E-06	3.6192E+19	4.9667E+18
Y-92	2.7337E+03	2.8410E-07	1.8597E+18	5.6508E+19
Y-93	5.6478E+01	1.6928E-08	1.0962E+17	3.3472E+18
Zr-95	1.7503E+02	8.1474E-06	5.1647E-19	6.9903E+18
Zr-97	1.2520E+02	6.5491E-08	4.0660E-17	6.3196E+18
Nb-95	1.7565E+02	4.4920E-06	2.8475E+19	6.9970E+18
Mo-99	2.1249E-03	4.4304E-06	2.6950E+19	8.9917E+19
Tc-99m	1.9887E+03	3.7822E-07	2.3007E+18	8.0837E+19
Ru-103	1.9582E+03	6.0675E-05	3.5475E+20	7.8334E+19
Ru-105	3.9031E+02	5.8065E-08	3.3302E+17	3.8664E+19
Ru-106	7.8372E+02	2.3426E-04	1.3309E+21	3.1233E+19
Rh-105	1.1956E+03	1.4165E-06	8.1239E+18	5.0225E+19
Sb-127	2.0245E+03	7.5807E-06	3.5947E+19	8.4200E+19
Sb-129	2.2007E+03	3.9134E-07	1.8269E+18	2.2366E+20
Te-127	2.1037E+03	7.9713E-07	3.7798E+18	8.4447E+19
Te-127m	3.6353E+02	3.8540E-05	1.8275E+20	1.4480E+19
Te-129	3.3866E+03	1.6171E-07	7.5492E+17	2.5099E+20
Te-129m	1.5186E+03	5.0410E-05	2.3533E+20	6.0629E+19
Te-131m	4.0876E+03	5.1261E-06	2.3565E+19	1.8602E+20
Te-132	3.2831E+04	1.0814E-04	4.9336E+20	1.3762E+21
I-131	1.6847E+06	1.3589E-02	6.2469E+22	7.1255E+21
I-132	4.5555E+05	4.4133E-05	2.0135E+20	7.5091E+21
I-133	2.7587E-06	2.4353E-03	1.1027E-22	1.3723E-22
I-134	7.1153E+03	2.6672E-07	1.1987E-18	3.6083E-21
I-135	1.4774E+06	4.2069E-04	1.8766E-21	1.0950E-22
Xe-133	2.0475E+08	1.0939E+00	4.9529E-24	1.9026E+23
Xe-135	5.0025E+07	1.9589E-02	8.7384E+22	5.8669E+22
Cs-134	2.4194E+04	1.8699E-02	8.4037E+22	1.0812E+21
Cs-136	7.5923E+03	1.0359E-04	4.5870E+20	3.4368E+20
Cs-137	1.8214E+04	2.0940E-01	9.2047E+23	8.1384E+20
Ba-139	3.1968E+02	1.9544E-08	8.4672E+16	2.5836E+20
Ba-140	1.7613E+04	2.4059E-04	1.0349E+21	7.1081E+20
La-140	2.1126E+03	3.8008E-06	1.6349E+19	2.0275E+19
La-141	3.9694E+01	7.0189E-09	2.9978E+16	4.4334E+18
Cs-137	1.8214E+04	2.0940E-01	9.2047E+23	8.1384E+20
Ba-139	3.1968E+02	1.9544E-08	8.4672E+16	2.5836E+20

La-142	4.3698E+00	3.0526E-10	1.2946E+15	2.5440E+18
Ce-141	4.0943E-02	1.4369E-05	6.1371E+19	1.6377E+19
Ce-143	3.2288E+02	4.8620E-07	2.0475E+18	1.4516E+19
Ce-144	3.4570E+02	1.0839E-04	4.5327E+20	1.3779E+19
Pr-143	1.5010E+02	2.2290E-06	9.3870E+18	5.8849E+18
Nd-147	6.5044E+01	8.0402E-07	3.2938E+18	2.6305E+18
Np-239	4.3994E-03	1.8964E-05	4.7783E+19	1.8807E+20
Pu-238	1.0426E+00	6.0900E-05	1.5410E+20	4.1530E+16
Pu-239	1.1083E-01	1.7831E-03	4.4930E+21	4.4115E+15
Pu-240	1.7806E-01	7.8143E-04	1.9608E+21	7.0930E+15
Pu-241	4.3914E+01	4.2630E-04	1.0652E+21	1.7493E+18
Am-241	2.3308E-02	6.7910E-06	1.6969E+19	9.2662E+14
Cm-242	6.0805E+00	1.8346E-06	4.5655E+18	2.4246E+17
Cm-244	3.5685E-01	4.4109E-06	1.0886E+19	1.4215E+16

Primary Containment Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1775E+25	0.0000E+00	
Elemental I (atoms)	6.7801E+22	0.0000E+00	
Organic I (atoms)	2.0969E+21	0.0000E+00	
Aerosols (kg)	2.4255E-01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9917E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.3302E-04
Total I (Ci)			6.3835E+06

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7116E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2073E+21
Elemental I (atoms)	0.0000E+00	2.7306E+18
Organic I (atoms)	0.0000E+00	8.4452E+16
Aerosols (kg)	0.0000E+00	4.5027E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Co-58	1.1241E-02	3.5352E-10	3.6706E+15	8.6216E+12
Co-60	6.0679E-03	5.3680E-09	5.3878E+16	4.6484E+12
Kr-85	5.5990E+01	1.4271E-04	1.0111E+21	2.5855E+16
Kr-85m	2.9422E+02	3.5752E-08	2.5330E+17	2.0078E+17
Kr-87	2.5912E+01	9.1478E-10	6.3321E+15	6.5864E+16
Kr-88	4.0051E+02	3.1940E-08	2.1858E+17	3.5382E+17
Rb-86	4.2113E-01	5.1757E-09	3.6243E+16	3.3341E+14
Sr-89	1.5580E+01	5.3626E-07	3.6286E+18	1.1955E+16
Sr-90	1.9947E+00	1.4623E-05	9.7847E+19	1.5280E+15
Sr-91	1.1127E+01	3.0696E-09	2.0314E+16	1.0685E+16
Sr-92	2.7364E+00	2.1770E-10	1.4250E+15	4.9944E+15
Y-90	1.6219E-01	2.9811E-10	1.9947E+15	7.7479E+13
Y-91	2.2356E-01	9.1159E-09	6.0327E+16	1.6532E+14
Y-92	4.6545E+00	4.8372E-10	3.1663E+15	3.5143E+15
Y-93	9.3931E-02	2.8154E-11	1.8231E+14	8.8956E+13
Zr-95	2.9110E-01	1.3550E-08	8.5897E+16	2.2329E+14
Zr-97	2.0822E-01	1.0892E-10	6.7622E+14	1.8073E+14
Nb-95	2.9213E-01	7.4708E-09	4.7358E+16	2.2378E+14
Mo-99	3.5340E+00	7.3684E-09	4.4821E+16	2.7937E+15
Tc-99m	3.3076E+00	6.2903E-10	3.8263E+15	2.5586E+15
Ru-103	3.2568E+00	1.0091E-07	5.9000E+17	2.5003E+15
Ru-105	6.4914E-01	9.6570E-11	5.5386E+14	8.2375E+14
Ru-106	1.3034E+00	3.8960E-07	2.2134E+18	9.9871E+14
Rh-105	1.9884E+00	2.3558E-09	1.3511E+16	1.5724E+15
Sb-127	3.3670E+00	1.2608E-08	5.9784E+16	2.6377E+15
Ru-103	3.2568E+00	1.0091E-07	5.9000E+17	2.5003E+15
Ru-105	6.4914E-01	9.6570E-11	5.5386E+14	8.2375E+14

Sb-129	3.6600E+00	6.5086E-10	3.0384E+15	4.7154E+15
Te-127	3.4987E+00	1.3257E-09	6.2864E+15	2.6886E+15
Te-127m	6.0460E-01	6.4097E-08	3.0394E+17	4.6313E+14
Te-129	5.6324E+00	2.6895E-10	1.2555E+15	6.0304E+15
Te-129m	2.5257E+00	8.3838E-08	3.9138E+17	1.9374E+15
Te-131m	6.7982E+00	8.5255E-09	3.9192E+16	5.5836E+15
Te-132	5.4602E+01	1.7985E-07	8.2054E+17	4.2952E+16
I-131	2.9162E+02	2.3523E-06	1.0814E+19	2.1211E+17
I-132	1.0485E+02	1.0158E-08	4.6341E+16	1.3563E+17
I-133	4.7749E+02	4.2151E-07	1.9086E+18	3.8004E+17
I-134	1.2316E+00	4.6166E-11	2.0748E+14	2.5229E+16
I-135	2.5572E+02	7.2816E-08	3.2482E+17	2.5582E+17
Xe-133	7.7565E+03	4.1438E-05	1.8763E+20	3.6251E+18
Xe-135	1.9549E-03	7.6550E-07	3.4148E+18	1.0621E+18
Cs-134	4.5160E+01	3.4904E-05	1.5686E+20	3.5588E+16
Cs-136	1.4172E+01	1.9336E-07	8.5622E+17	1.1243E+16
Cs-137	3.3999E+01	3.9087E-04	1.7182E+21	2.6790E+16
Ba-139	5.3166E-01	3.2504E-11	1.4082E+14	2.7182E+15
Ba-140	2.9293E+01	4.0013E-07	1.7212E+18	2.2592E+16
La-140	3.5741E+00	6.4303E-09	2.7660E+16	1.6749E+15
La-141	6.6017E-02	1.1673E-11	4.9857E+13	8.9968E+13
La-142	7.2675E-03	5.0768E-13	2.1531E-12	2.9332E+13
Ce-141	6.8089E-01	2.3897E-08	1.0206E+17	5.2276E+14
Ce-143	5.3699E-01	8.0862E-10	3.4053E+15	4.3823E+14
Ce-144	5.7494E-01	1.8026E-07	7.5386E+17	4.4056E+14
Pr-143	2.4974E-01	3.7087E-09	1.5618E+16	1.8976E+14
Nd-147	1.0818E-01	1.3372E-09	5.4781E+15	8.3521E+13
Np-239	7.3168E+00	3.1539E-08	7.9470E+16	5.8149E+15
Pu-238	1.7340E-03	1.0129E-07	2.5628E+17	1.3283E+12
Pu-239	1.8433E-04	2.9656E-06	7.4725E+18	1.4115E+11
Pu-240	2.9614E-04	1.2996E-06	3.2611E+18	2.2686E-11
Pu-241	7.3035E-02	7.0899E-07	1.7716E+18	5.5948E+13
Am-241	3.8765E-05	1.1295E-08	2.8223E+16	2.9664E-10
Cm-242	1.0113E-02	3.0513E-09	7.5930E+15	7.7508E+12
Cm-244	5.9349E-04	7.3359E-09	1.8106E+16	4.5464E+11

Turbine Building Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	1.2026E+21	0.0000E+00	
Elemental I (atoms)	2.6118E+18	0.0000E+00	
Organic I (atoms)	8.0777E+16	0.0000E+00	
Aerosols (kg)	4.5004E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3389E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5691E-02
Total I (Ci)			1.1309E+03

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2073E+21
Elemental I (atoms)	0.0000E+00	2.7306E+18
Organic I (atoms)	0.0000E+00	8.4452E+16
Aerosols (kg)	0.0000E+00	4.5027E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 8.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4721E+16
Elemental I (atoms)	0.0000E+00	5.6137E+13
Organic I (atoms)	0.0000E+00	1.7362E+12
Aerosols (kg)	0.0000E+00	1.5821E-08

Detailed model information at time (H) = 16.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol

Detailed model information at time (H) = 16.0000

0.0000E+00 0.0000E+00 0.0000E-00 5.2996E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.9183E+04

EAB LOCA Doses:

Time (h) = 16.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.8895E-05	3.2724E-03	1.8576E-04
Accumulated dose (rem)	3.5485E-05	7.4163E-03	4.2313E-04

Primary Containment Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	8.3090E-02	2.6131E-09	2.7131E+16	2.7136E+17
Co-60	4.4992E-02	3.9803E-08	3.9950E+17	1.4615E+17
Kr-85	1.4797E+06	3.7715E+00	2.6721E+25	2.9270E-21
Kr-85m	2.2553E+06	2.7405E-04	1.9416E+21	1.7430E+22
Kr-87	8.7459E-03	3.0876E-07	2.1372E+18	7.2393E+21
Kr-88	1.5021E+06	1.1980E-04	8.1980E+20	3.0132E+22
Rb-86	2.7483E+00	3.3777E-08	2.3652E+17	1.0223E+19
Sr-89	1.1501E+02	3.9586E-06	2.6786E+19	3.7644E+20
Sr-90	1.4792E+01	1.0844E-04	7.2559E+20	4.8041E+19
Sr-91	4.6030E+01	1.2698E-08	8.4032E+16	4.0797E-20
Sr-92	2.6223E+00	2.0862E-10	1.3656E+15	2.9540E-20
Y-90	2.3155E+00	4.2560E-09	2.8478E+16	1.0599E+18
Y-91	1.7511E+00	7.1402E-08	4.7252E+17	4.9967E+18
Y-92	1.2532E+01	1.3024E-09	8.5252E+15	5.7023E+19
Y-93	4.0228E-01	1.2057E-10	7.8077E+14	3.3584E+18
Zr-95	2.1509E+00	1.0012E-07	6.3469E+17	7.0289E+18
Zr-97	1.1122E+00	5.8179E-10	3.6120E+15	6.3455E+18
Nb-95	2.1661E+00	5.5396E-08	3.5116E+17	7.0357E+18
Mo-99	2.4095E+01	5.0238E-08	3.0560E+17	9.0378E+19
Tc-99m	2.3416E+01	4.4531E-09	2.7088E+16	8.1267E+19
Ru-103	2.4010E+01	7.4393E-07	4.3496E+18	7.8765E+19
Ru-105	1.3807E+00	2.0540E-10	1.1780E+15	3.8732E+19
Ru-106	9.6598E+00	2.8873E-06	1.6404E+19	3.1406E+19
Rh-105	1.2999E+01	1.5401E-08	8.8330E+16	5.0482E+19
Sb-127	2.3514E+01	8.8050E-08	4.1752E+17	8.4641E+19
Sb-129	7.5192E+00	1.3371E-09	6.2422E+15	2.2404E+20
Te-127	2.5375E+01	9.6152E-09	4.5594E+16	8.4906E+19
Te-127m	4.4833E+00	4.7530E-07	2.2538E+18	1.4560E+19
Te-129	2.5509E+01	1.2180E-09	5.6862E+15	2.5161E+20
Te-129m	1.8624E+01	6.1822E-07	2.8861E+18	6.0964E+19
Te-131m	4.1906E+01	5.2553E-08	2.4159E-17	1.8689E+20
Te-132	3.7720E+02	1.2424E-06	5.6683E+18	1.3834E+21
I-131	1.5155E+06	1.2224E-02	5.6194E+22	8.7900E+21
I-132	4.0560E+04	3.9294E-06	1.7927E+19	7.6893E+21
I-133	1.9562E+06	1.7269E-03	7.8193E+21	1.6153E+22
I-134	1.1794E-01	4.4210E-10	1.9869E+15	3.6094E+21
I-135	5.9111E+05	1.6832E-04	7.5084E+20	1.1956E+22
Xe-133	1.9601E+08	1.0472E+00	4.7416E+24	4.0376E+23
Xe-135	2.7535E+07	1.0782E-02	4.8099E-22	9.8808E+22
Cs-134	2.9830E+02	2.3055E-04	1.0361E+21	1.0866E+21
Cs-136	9.2001E+01	1.2553E-06	5.5585E+18	3.4535E+20
Cs-137	2.2464E+02	2.5826E-03	1.1352E+22	8.1785E-20
Ba-139	7.0563E-02	4.3140E-12	1.8690E+13	2.5840E+20
Ba-140	2.1332E+02	2.9139E-06	1.2534E+19	7.1468E+20
La-140	5.0500E+01	9.0856E-08	3.9082E+17	2.0830E+19
La-141	1.1941E-01	2.1114E-11	9.0178E+13	4.4402E+18
La-142	1.4772E-03	1.0319E-13	4.3763E-11	2.5445E+18
Ce-141	5.0157E+00	1.7603E-07	7.5183E+17	1.6467E+19
Ce-143	3.3662E+00	5.0690E-09	2.1347E+16	1.4585E+19
Ce-144	4.2601E+00	1.3357E-06	5.5858E+18	1.3855E+19
Pr-143	1.8819E+00	2.7947E-08	1.1769E+17	5.9181E+18
Nd-147	7.8551E-01	9.7098E-09	3.9778E+16	2.6448E+18
Np-239	4.9189E+01	2.1203E-07	5.3425E+17	1.8902E+20
Pu-238	1.2859E-02	7.5113E-07	1.9006E+18	4.1760E+16
Pu-239	1.3683E-03	2.2014E-05	5.5469E+19	4.4360E+15
Pr-143	1.8819E+00	2.7947E-08	1.1769E+17	5.9181E+18
Nd-147	7.8551E-01	9.7098E-09	3.9778E+16	2.6448E+18

Pu-240	2.1961E-03	9.6377E-06	2.4183E+19	7.1322E+15
Pu-241	5.4158E-01	5.2574E-06	1.3137E+19	1.7590E+18
Am-241	2.8825E-04	8.3986E-08	2.0987E+17	9.3176E+14
Cm-242	7.4887E-02	2.2595E-08	5.6228E+16	2.4380E+17
Cm-244	4.4010E-03	5.4399E-08	1.3426E+17	1.4294E+16

Primary Containment Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1513E-25	0.0000E+00	
Elemental I (atoms)	6.2776E-22	0.0000E+00	
Organic I (atoms)	1.9415E-21	0.0000E+00	
Aerosols (kg)	2.9900E-03	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6906E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9004E-04
Total I (Ci)			4.1034E+06

Time (h) = 16.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7355E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6161E+21
Elemental I (atoms)	0.0000E+00	5.6360E+18
Organic I (atoms)	0.0000E+00	1.7431E+17
Aerosols (kg)	0.0000E+00	4.5260E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Co-58	1.1269E-02	3.5439E-10	3.6796E+15	2.0535E+13
Co-60	6.1019E-03	5.3981E-09	5.4180E-16	1.1144E-13
Kr-85	1.2185E+02	3.1058E-04	2.2004E+21	1.2259E-17
Kr-85m	1.8572E+02	2.2567E-08	1.5989E+17	4.6955E+17
Kr-87	7.2021E-01	2.5426E-11	1.7600E+14	7.3779E+16
Kr-88	1.2370E+02	9.8651E-09	6.7510E+16	6.2174E-17
Rb-86	4.1807E-01	5.1381E-09	3.5979E+16	7.8122E+14
Sr-89	1.5597E+01	5.3687E-07	3.6327E+18	2.8594E-16
Sr-90	2.0061E+00	1.4707E-05	9.8405E-19	3.6633E+15
Sr-91	6.2426E+00	1.7221E-09	1.1396E-16	1.9707E+16
Sr-92	3.5563E-01	2.8294E-11	1.8520E-14	6.2400E+15
Y-90	3.1648E-01	5.8170E-10	3.8923E+15	3.2860E+14
Y-91	2.3798E-01	9.7040E-09	6.4219E-16	4.1199E+14
Y-92	1.7222E+00	1.7898E-10	1.1715E+15	6.7699E+15
Y-93	5.4557E-02	1.6352E-11	1.0589E+14	1.6632E+14
Zr-95	2.9171E-01	1.3579E-08	8.6077E-16	5.3434E+14
Zr-97	1.5084E-01	7.8903E-11	4.8986E+14	3.7072E+14
Nb-95	2.9377E-01	7.5128E-09	4.7624E+16	5.3643E+14
Mo-99	3.2678E+00	6.8134E-09	4.1445E+16	6.4220E+15
Tc-99m	3.1756E+00	6.0394E-10	3.6737E-15	5.9258E+15
Ru-103	3.2562E+00	1.0089E-07	5.8989E-17	5.9763E+15
Ru-105	1.8725E-01	2.7856E-11	1.5977E+14	1.2204E+15
Ru-106	1.3101E+00	3.9159E-07	2.2247E+18	2.3936E+15
Rh-105	1.7630E+00	2.0887E-09	1.1979E+16	3.5764E+15
Sb-127	3.1890E+00	1.1941E-08	5.6624E-16	6.1359E+15
Sb-129	1.0198E+00	1.8134E-10	8.4657E-14	6.9211E+15
Te-127	3.4414E+00	1.3040E-09	6.1834E-15	6.3300E+15
Te-127m	6.0803E-01	6.4461E-08	3.0566E+17	1.1103E+15
Te-129	3.4595E+00	1.6519E-10	7.7117E-14	9.9719E+15
Te-129m	2.5258E+00	8.3844E-08	3.9141E+17	4.6337E+15
Te-131m	5.6833E+00	7.1272E-09	3.2764E+16	1.2228E+16
Te-132	5.1156E+01	1.6850E-07	7.6874E+17	9.9377E+16
I-131	3.5206E+02	2.8398E-06	1.3054E+19	5.5782E+17
I-132	6.4051E+01	6.2052E-09	2.8310E+16	2.1354E+17
Te-129m	2.5258E+00	8.3844E-08	3.9141E+17	4.6337E+15
Te-131m	5.6833E+00	7.1272E-09	3.2764E+16	1.2228E+16

I-133	4.5425E+02	4.0099E-07	1.8157E+18	8.8170E+17
I-134	2.7386E-03	1.0266E-13	4.6136E+11	2.5445E+16
I-135	1.3726E+02	3.9084E-08	1.7435E+17	4.6075E+17
Xe-133	1.6165E+04	8.6358E-05	3.9102E+20	1.6703E+19
Xe-135	2.3534E+03	9.2156E-07	4.1109E+18	3.5128E+18
Cs-134	4.5376E-01	3.5071E-05	1.5762E+20	8.3900E+16
Cs-136	1.3995E+01	1.9095E-07	8.4554E+17	2.6273E+16
Cs-137	3.4171E+01	3.9285E-04	1.7269E+21	6.3166E+16
Ba-139	9.5699E-03	5.8506E-13	2.5348E+12	2.8570E+15
Ba-140	2.8931E+01	3.9519E-07	1.6999E+18	5.3666E+16
La-140	6.9017E+00	1.2417E-08	5.3412E+16	7.1840E+15
La-141	1.6194E-02	2.8635E-12	1.2230E+13	1.2782E+14
La-142	2.0034E-04	1.3995E-14	5.9352E+10	3.1433E+13
Ce-141	6.8019E-01	2.3872E-08	1.0196E-17	1.2492E-15
Ce-143	4.5653E-01	6.8746E-10	2.8951E-15	9.6733E-14
Ce-144	5.7776E-01	1.8115E-07	7.5756E+17	1.0558E-15
Pr-143	2.5533E-01	3.7917E-09	1.5968E+16	4.5920E+14
Nd-147	1.0653E-01	1.3169E-09	5.3947E+15	1.9811E+14
Np-239	6.6710E+00	2.8755E-08	7.2456E+16	1.3275E+16
Pu-238	1.7440E-03	1.0187E-07	2.5776E+17	3.1845E+12
Pu-239	1.8557E-04	2.9856E-06	7.5228E+18	3.3856E+11
Pu-240	2.9784E-04	1.3071E-06	3.2797E+18	5.4387E+11
Pu-241	7.3450E-02	7.1302E-07	1.7817E+18	1.3413E+14
Am-241	3.9094E-05	1.1391E-08	2.8463E+16	7.1215E+10
Cm-242	1.0156E-02	3.0644E-09	7.6257E+15	1.8569E+13
Cm-244	5.9687E-04	7.3776E-09	1.8209E+16	1.0899E+12

Turbine Building Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	2.5958E+21	0.0000E+00	
Elemental I (atoms)	5.2176E+18	0.0000E+00	
Organic I (atoms)	1.6137E+17	0.0000E+00	
Aerosols (kg)	4.5213E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5257E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7206E-02
Total I (Ci)			1.0076E+03

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6161E+21
Elemental I (atoms)	0.0000E+00	5.6360E+18
Organic I (atoms)	0.0000E+00	1.7431E+17
Aerosols (kg)	0.0000E+00	4.5260E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 16.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1599E+17
Elemental I (atoms)	0.0000E+00	2.4585E+14
Organic I (atoms)	0.0000E+00	7.6035E+12
Aerosols (kg)	0.0000E+00	3.7505E-08

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.2261E+06

EAB LOCA Doses:

Time (h) = 24.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	1.6389E-05	3.6573E-03	1.9465E-04

EAB LOCA Doses:

Accumulated dose (rem) 5.1875E-05 1.1074E-02 6.1777E-04

Primary Containment Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	1.2963E-03	4.0767E-11	4.2329E+14	2.7138E-17
Co-60	7.0415E-04	6.2293E-10	6.2523E+15	1.4616E-17
Kr-85	1.4796E+06	3.7712E+00	2.6718E+25	4.5036E+21
Kr-85m	6.5407E+05	7.9479E-05	5.6310E+20	1.8809E+22
Kr-87	1.1169E-02	3.9431E-09	2.7294E+16	7.2414E+21
Kr-88	2.1317E+05	1.7000E-05	1.1634E+20	3.0836E+22
Rb-86	4.2488E-02	5.2218E-10	3.6566E+15	1.0223E-19
Sr-89	1.7919E-00	6.1679E-08	4.1735E+17	3.7647E+20
Sr-90	2.3152E-01	1.6973E-06	1.1357E+19	4.8044E+19
Sr-91	4.0190E-01	1.1087E-10	7.3371E+14	4.0798E+20
Sr-92	5.3040E-03	4.2198E-13	2.7622E+12	2.9540E+20
Y-90	5.2555E-02	9.6598E-11	6.4636E+14	1.0603E+18
Y-91	2.8204E-02	1.1501E-09	7.6107E-15	4.9970E+18
Y-92	5.2745E-02	5.4815E-12	3.5881E-13	5.7025E+19
Y-93	3.6363E-03	1.0899E-12	7.0577E+12	3.3584E+18
Zr-95	3.3546E-02	1.5615E-09	9.8986E+15	7.0293E+18
Zr-97	1.2539E-02	6.5591E-12	4.0722E+13	6.3457E+18
Nb-95	3.3901E-02	8.6697E-10	5.4958E+15	7.0361E+18
Mo-99	3.4675E-01	7.2298E-10	4.3979E+15	9.0382E+19
Tc-99m	3.4748E-01	6.6083E-11	4.0198E+14	8.1271E+19
Ru-103	3.7360E-01	1.1576E-08	6.7682E+16	7.8770E+19
Ru-105	6.1984E-03	9.2210E-13	5.2886E+12	3.8732E+19
Ru-106	1.5110E-01	4.5165E-08	2.5660E+17	3.1408E+19
Rh-105	1.7572E-01	2.0818E-10	1.1940E+15	5.0485E+19
Sb-127	3.4661E-01	1.2979E-09	6.1545E+15	8.4645E+19
Sb-129	3.2605E-02	5.7982E-12	2.7068E+13	2.2404E-20
Te-127	3.8698E-01	1.4663E-10	6.9531E+14	8.4911E-19
Te-127m	7.0162E-02	7.4382E-09	3.5271E+16	1.4561E+19
Te-129	2.9622E-01	1.4144E-11	6.6030E+13	2.5161E+20
Te-129m	2.8961E-01	9.6137E-09	4.4880E+16	6.0967E+19
Te-131m	5.4523E-01	6.8375E-10	3.1433E+15	1.8689E+20
Te-132	5.4999E+00	1.8116E-08	8.2649E+16	1.3834E+21
I-131	1.4710E+06	1.1865E-02	5.4546E+22	1.0381E+22
I-132	3.6688E+03	3.5543E-07	1.6215E-18	7.7057E+21
I-133	1.4969E+06	1.3214E-03	5.9833E+21	1.7981E+22
I-134	2.1094E-02	7.9074E-13	3.5537E+12	3.6094E-21
I-135	2.5521E+05	7.2670E-05	3.2417E+20	1.2382E+22
Xe-133	1.8763E+08	1.0024E+00	4.5388E+24	6.0813E+23
Xe-135	1.5115E+07	5.9187E-03	2.6403E+22	1.2086E+23
Cs-134	4.6676E+00	3.6076E-06	1.6213E+19	1.0866E+21
Cs-136	1.4149E+00	1.9305E-08	8.5482E+16	3.4537E+20
Cs-137	3.5160E+00	4.0422E-05	1.7769E+20	8.1789E+20
Ba-139	1.9767E-05	1.2085E-15	5.2358E-09	2.5840E+20
Ba-140	3.2790E+00	4.4790E-08	1.9267E+17	7.1472E+20
La-140	1.1180E+00	2.0114E-09	8.6521E+15	2.0840E-19
La-141	4.5585E-04	8.0605E-14	3.4427E+11	4.4402E+18
La-142	6.3375E-07	4.4271E-17	1.8775E+08	2.5445E+18
Ce-141	7.7958E-02	2.7360E-09	1.1686E+16	1.6468E+19
Ce-143	4.4540E-02	6.7069E-11	2.8245E+14	1.4586E+19
Ce-144	6.6627E-02	2.0889E-08	8.7361E+16	1.3856E+19
Pr-143	2.9778E-02	4.4222E-10	1.8623E+15	5.9184E+18
Nd-147	1.2039E-02	1.4882E-10	6.0966E-14	2.6449E+18
Np-239	6.9797E-01	3.0086E-09	7.5808E+15	1.8903E+20
Pu-238	2.0128E-04	1.1757E-08	2.9750E+16	4.1762E+16
Pu-239	2.1437E-05	3.4488E-07	8.6900E+17	4.4362E+15
Pu-240	3.4374E-05	1.5085E-07	3.7852E+17	7.1327E+15
Pu-241	8.4767E-03	8.2288E-08	2.0562E+17	1.7591E+18
Am-241	4.5243E-06	1.3182E-09	3.2939E+15	9.3181E+14
Cm-242	1.1705E-03	3.5317E-10	8.7885E+14	2.4382E+17
Cm-244	6.8884E-05	8.5144E-10	2.1014E+15	1.4295E+16

Primary Containment Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump		
Noble gases (atoms)	3.1284E+25	0.0000E+00		
Cm-244	6.8884E-05	8.5144E-10	2.1014E+15	1.4295E+16

Elemental I (atoms)	5.9028E+22	0.0000E+00	
Organic I (atoms)	1.8256E+21	0.0000E+00	
Aerosols (kg)	4.6783E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5716E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7216E-04
Total I (Ci)			3.2268E+06

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E-00
Aerosols (kg)	5.7358E+01	0.0000E-00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0142E+21
Elemental I (atoms)	0.0000E+00	8.3541E+18
Organic I (atoms)	0.0000E+00	2.5837E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Co-58	1.1232E-02	3.5324E-10	3.6677E+15	3.2624E+13
Co-60	6.1013E-03	5.3976E-09	5.4175E+16	1.7646E+13
Kr-85	1.8770E+02	4.7842E-04	3.3895E+21	2.9191E+17
Kr-85m	8.2977E+01	1.0083E-08	7.1435E+16	6.1150E+17
Kr-87	1.4169E-02	5.0023E-13	3.4626E+12	7.3980E+16
Kr-88	2.7043E+01	2.1567E-09	1.4759E+16	6.9256E+17
Rb-86	4.1293E-01	5.0749E-09	3.5537E+16	1.2240E+15
Sr-89	1.5527E+01	5.3444E-07	3.6162E+18	4.5177E+16
Sr-90	2.0061E+00	1.4707E-05	9.8406E+19	5.8010E+15
Sr-91	3.4824E+00	9.6067E-10	6.3575E+15	2.4746E+16
Sr-92	4.5959E-02	3.6564E-12	2.3934E-13	6.4013E+15
Y-90	4.5762E-01	8.4112E-10	5.6282E+15	7.3054E+14
Y-91	2.4488E-01	9.9853E-09	6.6080E-16	6.6914E+14
Y-92	4.6173E-01	4.7985E-11	3.1410E+14	7.7887E+15
Y-93	3.1508E-02	9.4440E-12	6.1154E+13	2.1105E+14
Zr-95	2.9067E-01	1.3530E-08	8.5769E+16	8.4464E+14
Zr-97	1.0865E-01	5.6834E-11	3.5284E+14	5.0775E+14
Nb-95	2.9375E-01	7.5121E-09	4.7620E+16	8.4934E+14
Mo-99	3.0045E+00	6.2645E-09	3.8107E+16	9.7620E+15
Tc-99m	3.0109E+00	5.7260E-10	3.4831E+15	9.0557E+15
Ru-103	3.2372E+00	1.0030E-07	5.8645E+17	9.4361E+15
Ru-105	5.3708E-02	7.9899E-12	4.5825E+13	1.3343E+15
Ru-106	1.3093E+00	3.9135E-07	2.2234E+18	3.7892E+15
Rh-105	1.5225E+00	1.8039E-09	1.0346E+16	5.3243E+15
Sb-127	3.0033E+00	1.1246E-08	5.3328E+16	9.4342E+15
Sb-129	2.8252E-01	5.0240E-11	2.3454E+14	7.5331E+15
Te-127	3.3531E+00	1.2705E-09	6.0247E+15	9.8285E+15
Te-127m	6.0794E-01	6.4451E-08	3.0562E+17	1.7581E+15
Te-129	2.5667E+00	1.2256E-10	5.7214E+14	1.2386E+16
Te-129m	2.5095E+00	8.3301E-08	3.8887E+17	7.3166E+15
Te-131m	4.7243E+00	5.9246E-09	2.7236E+16	1.7757E+16
Te-132	4.7655E+01	1.5697E-07	7.1614E+17	1.5200E+17
I-131	4.0768E+02	3.2884E-06	1.5117E+19	9.6734E+17
I-132	5.7312E+01	5.5523E-09	2.5331E+16	2.6950E+17
I-133	4.1458E+02	3.6597E-07	1.6571E+18	1.3506E+18
I-134	5.8422E-06	2.1900E-16	9.8421E+08	2.5445E+16
I-135	7.0681E+01	2.0126E-08	8.9780E+16	5.6912E+17
Xe-133	2.3836E+04	1.2734E-04	5.7659E+20	3.8647E+19
Xe-135	1.9874E+03	7.7822E-07	3.4715E+18	5.9157E+18
Cs-134	4.5363E+01	3.5061E-05	1.5757E+20	1.3225E+17
Cs-136	1.3751E+01	1.8762E-07	8.3078E+17	4.1055E+16
Cs-137	3.4171E+01	3.9285E-04	1.7269E+21	9.9579E+16
Ba-139	1.7128E-04	1.0471E-14	4.5367E+10	2.8594E+15
Xe-135	1.9874E+03	7.7822E-07	3.4715E+18	5.9157E+18
Cs-134	4.5363E+01	3.5061E-05	1.5757E+20	1.3225E+17

Ba-140	2.8412E+01	3.8810E-07	1.6694E+18	8.4219E+16
La-140	9.7332E+00	1.7511E-08	7.5325E+16	1.5825E+16
La-141	3.9499E-03	6.9843E-13	2.9830E+12	1.3706E+14
La-142	5.4913E-06	3.8360E-16	1.6268E+09	3.1490E+13
Ce-141	6.7546E-01	2.3706E-08	1.0125E+17	1.9715E+15
Ce-143	3.8593E-01	5.8114E-10	2.4474E+15	1.4151E+15
Ce-144	5.7731E-01	1.8100E-07	7.5696E+17	1.6712E+15
Pr-143	2.5812E-01	3.8332E-09	1.6143E+16	7.3240E+14
Nd-147	1.0432E-01	1.2895E-09	5.2826E+15	3.1045E+14
Np-239	6.0478E+00	2.6069E-08	6.5687E+16	2.0046E+16
Pu-238	1.7441E-03	1.0187E-07	2.5778E+17	5.0429E+12
Pu-239	1.8574E-04	2.9883E-06	7.5298E+18	5.3640E+11
Pu-240	2.9785E-04	1.3071E-06	3.2798E+18	8.6126E+11
Pu-241	7.3449E-02	7.1301E-07	1.7817E+18	2.1240E+14
Am-241	3.9203E-05	1.1422E-08	2.8542E+16	1.1293E+11
Cm-242	1.0142E-02	3.0601E-09	7.6151E+15	2.9384E+13
Cm-244	5.9687E-04	7.3776E-09	1.8209E+16	1.7260E+12

Turbine Building Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	3.9697E+21	0.0000E+00	
Elemental I (atoms)	7.5363E+18	0.0000E+00	
Organic I (atoms)	2.3308E+17	0.0000E+00	
Aerosols (kg)	4.5197E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6918E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8591E-02
Total I (Ci)			9.5025E-02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.0142E+21
Elemental I (atoms)	0.0000E+00	8.3541E-18
Organic I (atoms)	0.0000E+00	2.5837E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 24.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7370E+17
Elemental I (atoms)	0.0000E+00	5.5409E+14
Organic I (atoms)	0.0000E+00	1.7137E+13
Aerosols (kg)	0.0000E+00	5.9205E-08

Detailed model information at time (H) = 48.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.3528E+07

EAB LOCA Doses:

Time (h) = 48.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.0903E-05	1.4994E-02	7.5130E-04
Accumulated dose (rem)	9.2777E-05	2.6068E-02	1.3691E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.1645E-04	3.6621E-12	3.8023E+13	2.7138E+17
Co-60	6.3852E-05	5.6487E-11	5.6695E+14	1.4616E+17
Kr-85	1.4792E+06	3.7703E+00	2.6712E+25	9.2329E+21
Kr-85m	1.5956E+04	1.9389E-06	1.3737E+19	1.9358E+22
Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.1645E-04	3.6621E-12	3.8023E+13	2.7138E+17

Kr-87	2.3264E-04	8.2131E-15	5.6851E+10	7.2414E-21
Kr-88	6.0922E+02	4.8585E-08	3.3249E-17	3.0952E-22
Rb-86	3.7137E-03	4.5641E-11	3.1960E-14	1.0223E-19
Sr-89	1.6033E-01	5.5187E-09	3.7342E+16	3.7647E-20
Sr-90	2.1000E-02	1.5395E-07	1.0301E+18	4.8044E+19
Sr-91	6.3283E-03	1.7458E-12	1.1553E+13	4.0798E+20
Sr-92	1.0383E-06	8.2605E-17	5.4072E+08	2.9540E+20
Y-90	8.5093E-03	1.5640E-11	1.0465E+14	1.0604E+18
Y-91	2.6133E-03	1.0656E-10	7.0519E+14	4.9971E+18
Y-92	5.5608E-05	5.7791E-15	3.7829E+10	5.7025E+19
Y-93	6.3534E-05	1.9043E-14	1.2331E+11	3.3584E+18
Zr-95	3.0102E-03	1.4012E-10	8.8824E+14	7.0293E-18
Zr-97	4.2504E-04	2.2234E-13	1.3804E-12	6.3457E-18
Nb-95	3.0737E-03	7.8605E-11	4.9829E-14	7.0362E+18
Mo-99	2.4447E-02	5.0971E-11	3.1006E+14	9.0383E+19
Tc-99m	2.5018E-02	4.7578E-12	2.8942E+13	8.1272E+19
Ru-103	3.3297E-02	1.0317E-09	6.0322E+15	7.8770E+19
Ru-105	1.3266E-05	1.9736E-15	1.1319E+10	3.8732E+19
Ru-106	1.3681E-02	4.0893E-09	2.3233E+16	3.1408E+19
Rh-105	1.0007E-02	1.1855E-11	6.7996E+13	5.0485E+19
Sb-127	2.6261E-02	9.8338E-11	4.6630E+14	8.4645E+19
Sb-129	6.2888E-05	1.1183E-14	5.2207E+10	2.2404E+20
Te-127	3.1135E-02	1.1798E-11	5.5942E+13	8.4911E+19
Te-127m	6.3570E-03	6.7394E-10	3.1957E+15	1.4561E+19
Te-129	2.2345E-02	1.0670E-12	4.9810E-12	2.5161E-20
Te-129m	2.5738E-02	8.5438E-10	3.9885E+15	6.0968E-19
Te-131m	2.8407E-02	3.5624E-11	1.6376E+14	1.8689E+20
Te-132	4.0330E-01	1.3284E-09	6.0606E+15	1.3834E+21
I-131	1.3494E+06	1.0884E-02	5.0036E+22	1.4886E+22
I-132	3.3406E+00	3.2364E-10	1.4765E+15	7.7073E+21
I-133	6.7270E+05	5.9383E-04	2.6888E+21	2.1275E+22
I-134	1.2106E-10	4.5381E-21	2.0395E+04	3.6094E+21
I-135	2.0599E+04	5.8657E-06	2.6166E+19	1.2680E+22
Xe-133	1.6452E+08	8.7891E-01	3.9796E+24	1.1702E+24
Xe-135	2.4721E+06	9.6804E-04	4.3183E+21	1.4320E+23
Cs-134	4.2302E-01	3.2695E-07	1.4694E+18	1.0866E+21
Cs-136	1.2173E-01	1.6609E-09	7.3546E+15	3.4537E+20
Cs-137	3.1892E-01	3.6666E-06	1.6117E+19	8.1790E+20
Ba-140	2.8169E-01	3.8478E-09	1.6552E-16	7.1472E-20
La-140	1.6572E-01	2.9815E-10	1.2825E+15	2.0842E+19
La-141	5.9998E-07	1.0609E-16	4.5311E+08	4.4402E+18
Ce-141	6.9227E-03	2.4296E-10	1.0377E+15	1.6468E+19
Ce-143	2.4405E-03	3.6750E-12	1.5476E+13	1.4586E+19
Ce-144	6.0291E-03	1.8903E-09	7.9053E+15	1.3856E+19
Pr-143	2.7246E-03	4.0461E-11	1.7039E+14	5.9185E+18
Nd-147	1.0253E-03	1.2674E-11	5.1920E+13	2.6449E+18
Np-239	4.7171E-02	2.0333E-10	5.1234E+14	1.8903E+20
Pu-238	1.8261E-05	1.0666E-09	2.6989E+15	4.1762E+16
Pu-239	1.9489E-06	3.1354E-08	7.9004E+16	4.4362E+15
Pu-240	3.1182E-06	1.3684E-08	3.4337E+16	7.1327E+15
Pu-241	7.6883E-04	7.4635E-09	1.8650E+16	1.7591E+18
Am-241	4.1378E-07	1.2056E-10	3.0125E+14	9.3182E-14
Cm-242	1.0573E-04	3.1900E-11	7.9384E-13	2.4382E+17
Cm-244	6.2479E-06	7.7228E-11	1.9061E-14	1.4295E+16

Primary Containment Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0696E+25	0.0000E+00	
Elemental I (atoms)	5.1169E+22	0.0000E+00	
Organic I (atoms)	1.5825E+21	0.0000E-00	
Aerosols (kg)	4.2400E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3299E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3927E-04
Total I (Ci)			2.0427E+06

Time (h) = 48.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00

Deposition Recirculating

Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.0836E+21
Elemental I (atoms)	0.0000E+00	1.2024E+19
Organic I (atoms)	0.0000E+00	3.7188E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Co-58	1.1121E-02	3.4975E-10	3.6315E+15	6.8354E+13
Co-60	6.0983E-03	5.3949E-09	5.4148E+16	3.7145E+13
Kr-85	2.8640E+02	7.2999E-04	5.1719E+21	1.0563E+18
Kr-85m	3.0895E+00	3.7541E-10	2.6598E+15	6.9094E+17
Kr-87	4.5044E-08	1.5902E-18	1.1007E+07	7.3983E+16
Kr-88	1.1796E-01	9.4071E-12	6.4376E+13	7.0875E+17
Rb-86	3.9782E-01	4.8892E-09	3.4236E+16	2.5197E+15
Sr-89	1.5313E+01	5.2708E-07	3.5664E+18	9.4470E+16
Sr-90	2.0057E+00	1.4704E-05	9.8386E+19	1.2213E+16
Sr-91	6.0440E-01	1.6673E-10	1.1034E+15	3.0000E+16
Sr-92	9.9165E-05	7.8894E-15	5.1642E+10	6.4252E+15
Y-90	8.1442E-01	1.4969E-09	1.0016E+16	2.7537E+15
Y-91	2.5008E-01	1.0197E-08	6.7483E+16	1.4634E+15
Y-92	5.3538E-03	5.5639E-13	3.6420E+12	8.1230E+15
Y-93	6.0680E-03	1.8188E-12	1.1777E+13	2.6043E+14
Zr-95	2.8750E-01	1.3383E-08	8.4833E-16	1.7688E+15
Zr-97	4.0594E-02	2.1235E-11	1.3183E+14	7.2873E+14
Nb-95	2.9356E-01	7.5073E-09	4.7590E+16	1.7877E+15
Mo-99	2.3348E+00	4.8681E-09	2.9612E+16	1.8251E+16
Tc-99m	2.3894E+00	4.5440E-10	2.7641E+15	1.7245E+16
Ru-103	3.1801E+00	9.8536E-08	5.7611E+17	1.9693E-16
Ru-105	1.2670E-03	1.8849E-13	1.0811E+12	1.3791E+15
Ru-106	1.3066E+00	3.9056E-07	2.2189E+18	7.9705E+15
Rh-105	9.5571E-01	1.1323E-09	6.4940E+15	9.2196E-15
Sb-127	2.5081E+00	9.3919E-09	4.4535E+16	1.8220E+16
Sb-129	6.0062E-03	1.0681E-12	4.9861E+12	7.7627E+15
Te-127	2.9736E+00	1.1268E-09	5.3429E+15	1.9617E+16
Te-127m	6.0714E-01	6.4366E-08	3.0521E+17	3.7002E+15
Te-129	2.1341E+00	1.0190E-10	4.7572E+14	1.7820E+16
Te-129m	2.4582E+00	8.1599E-08	3.8093E+17	1.5257E+16
Te-131m	2.7130E+00	3.4023E-09	1.5641E+16	2.9349E+16
Te-132	3.8518E+01	1.2687E-07	5.7883E+17	2.8922E+17
I-131	4.6428E+02	3.7449E-06	1.7216E+19	2.3708E+18
I-132	4.5976E+01	4.4541E-09	2.0320E+16	4.1174E+17
I-133	2.3121E+02	2.0410E-07	9.2416E+17	2.3630E+18
I-135	7.0802E+00	2.0161E-09	8.9934E+15	6.5823E+17
Xe-133	3.1901E+04	1.7043E-04	7.7167E+20	1.2922E+20
Xe-135	4.9704E+02	1.9463E-07	8.6822E+17	9.4409E+18
Cs-134	4.5315E+01	3.5024E-05	1.5740E+20	2.7719E+17
Cs-136	1.3040E+01	1.7792E-07	7.8785E+17	8.3868E+16
Cs-137	3.4164E+01	3.9277E-04	1.7265E+21	2.0881E+17
Ba-139	9.8177E-10	6.0022E-20	2.6004E+05	2.8595E+15
Ba-140	2.6904E-01	3.6749E-07	1.5808E+18	1.7261E+17
La-140	1.5858E+01	2.8530E-08	1.2272E+17	5.6806E+16
La-141	5.7302E-05	1.0132E-14	4.3275E+10	1.4000E+14
La-142	1.1306E-10	7.8980E-21	3.3495E+04	3.1492E+13
Ce-141	6.6113E-01	2.3203E-08	9.9100E+16	4.1078E+15
Ce-143	2.3308E-01	3.5099E-10	1.4781E+15	2.3841E+15
Ce-144	5.7582E-01	1.8054E-07	7.5501E+17	3.5144E-15
Pr-143	2.6031E-01	3.8657E-09	1.6280E+16	1.5621E+15
Nd-147	9.7921E-02	1.2104E-09	4.9587E+15	6.3360E+14
Np-239	4.5051E+00	1.9419E-08	4.8932E+16	3.6793E+16
Pu-238	1.7440E-03	1.0187E-07	2.5777E+17	1.0618E+13
Pu-239	1.8613E-04	2.9946E-06	7.5454E+18	1.1308E+12
Pr-143	2.6031E-01	3.8657E-09	1.6280E+16	1.5621E+15
Nd-147	9.7921E-02	1.2104E-09	4.9587E+15	6.3360E+14

Pu-240	2.9780E-04	1.3069E-06	3.2794E+18	1.8133E+12
Pu-241	7.3429E-02	7.1281E-07	1.7812E+18	4.4717E+14
Am-241	3.9520E-05	1.1515E-08	2.8773E+16	2.3873E+11
Cm-242	1.0098E-02	3.0467E-09	7.5817E+15	6.1735E+13
Cm-244	5.9672E-04	7.3758E-09	1.8204E+16	3.6338E+12

Turbine Building Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	5.9445E+21	0.0000E+00	
Elemental I (atoms)	9.9526E+18	0.0000E+00	
Organic I (atoms)	3.0781E+17	0.0000E+00	
Aerosols (kg)	4.5152E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.7772E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8658E-02
Total I (Ci)			7.4854E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.0836E+21
Elemental I (atoms)	0.0000E+00	1.2024E+19
Organic I (atoms)	0.0000E+00	3.7188E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.8854E+17
Elemental I (atoms)	0.0000E+00	1.8228E+15
Organic I (atoms)	0.0000E+00	5.6376E+13
Aerosols (kg)	0.0000E+00	1.2426E-07

Detailed model information at time (H) = 72.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.4924E+08

EAB LOCA Doses:

Time (h) = 72.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.7856E-05	1.5692E-02	7.6676E-04
Accumulated dose (rem)	1.3063E-04	4.1760E-02	2.1358E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	1.0460E-05	3.2896E-13	3.4155E+12	2.7138E+17
Co-60	5.7900E-06	5.1222E-12	5.1411E+13	1.4616E+17
Kr-85	1.4788E+06	3.7693E+00	2.6705E+25	1.3961E+22
Kr-85m	3.8927E+02	4.7301E-08	3.3512E-17	1.9372E+22
Kr-87	4.8457E-10	1.7107E-20	1.1842E-05	7.2414E+21
Kr-88	1.7411E+00	1.3886E-10	9.5023E+14	3.0952E+22
Rb-86	3.2459E-04	3.9892E-12	2.7934E-13	1.0224E+19
Sr-89	1.4346E-02	4.9379E-10	3.3412E+15	3.7647E+20
Sr-90	1.9049E-03	1.3965E-08	9.3440E+16	4.8044E+19
Sr-91	9.9645E-05	2.7488E-14	1.8191E+11	4.0798E+20
Sr-92	2.0325E-10	1.6171E-20	1.0585E+05	2.9540E+20
Y-90	1.0336E-03	1.8998E-12	1.2712E+13	1.0604E+18
Y-91	2.3560E-04	9.6070E-12	6.3577E+13	4.9971E+18
Y-92	4.8273E-08	5.0167E-18	3.2839E+07	5.7025E+19
Y-93	1.1101E-06	3.3273E-16	2.1545E+09	3.3584E+18
Zr-95	2.7012E-04	1.2574E-11	7.9706E+13	7.0293E+18
Y-90	1.0336E-03	1.8998E-12	1.2712E+13	1.0604E+18
Y-91	2.3560E-04	9.6070E-12	6.3577E+13	4.9971E+18

Zr-97	1.4408E-05	7.5366E-15	4.6790E+10	6.3457E+18
Nb-95	2.7863E-04	7.1255E-12	4.5169E+13	7.0362E+18
Mo-99	1.7235E-03	3.5935E-12	2.1859E+13	9.0383E+19
Tc-99m	1.7668E-03	3.3600E-13	2.0439E+12	8.1272E+19
Ru-103	2.9676E-03	9.1952E-11	5.3762E+14	7.8770E+19
Ru-105	2.8394E-08	4.2241E-18	2.4227E+07	3.8732E+19
Ru-106	1.2387E-03	3.7025E-10	2.1035E+15	3.1408E+19
Rh-105	5.6717E-04	6.7196E-13	3.8540E+12	5.0485E+19
Sb-127	1.9897E-03	7.4507E-12	3.5330E+13	8.4645E+19
Sb-129	1.2129E-07	2.1570E-17	1.0069E+08	2.2404E+20
Te-127	2.4663E-03	9.3451E-13	4.4313E+12	8.4911E+19
Te-127m	5.7549E-04	6.1011E-11	2.8930E+14	1.4561E+19
Te-129	1.9779E-03	9.4443E-14	4.4089E+11	2.5161E+20
Te-129m	2.2871E-03	7.5920E-11	3.5442E+14	6.0968E+19
Te-131m	1.4800E-03	1.8560E-12	8.5322E+12	1.8689E+20
Te-132	2.9574E-02	9.7412E-11	4.4442E+14	1.3834E+21
I-131	1.2379E+06	9.9847E-03	4.5900E+22	1.9019E+22
I-132	5.3033E-02	5.1378E-12	2.3440E+13	7.7073E+21
I-133	3.0231E+05	2.6686E-04	1.2083E+21	2.2755E+22
I-135	1.6628E+03	4.7347E-07	2.1121E+18	1.2704E+22
Xe-133	1.4420E+08	7.7035E-01	3.4881E+24	1.6629E+24
Xe-135	4.0036E+05	1.5678E-04	6.9935E+20	1.4684E+23
Cs-134	3.8338E-02	2.9631E-08	1.3317E+17	1.0866E+21
Cs-136	1.0473E-02	1.4290E-10	6.3277E+14	3.4537E+20
Cs-137	2.8928E-02	3.3258E-07	1.4619E+18	8.1790E+20
Ba-140	2.4200E-02	3.3056E-10	1.4219E+15	7.1472E+20
La-140	1.8419E-02	3.3137E-11	1.4254E+14	2.0842E+19
La-141	7.8968E-10	1.3963E-19	5.9638E+05	4.4402E+18
Ce-141	6.1472E-04	2.1574E-11	9.2144E+13	1.6468E+19
Ce-143	1.3372E-04	2.0137E-13	8.4802E+11	1.4586E+19
Ce-144	5.4558E-04	1.7106E-10	7.1536E+14	1.3856E+19
Pr-143	2.4349E-04	3.6160E-12	1.5228E+13	5.9185E+18
Nd-147	8.7315E-05	1.0793E-12	4.4216E+12	2.6449E+18
Np-239	3.1880E-03	1.3742E-11	3.4625E+13	1.8903E+20
Pu-238	1.6566E-06	9.6767E-11	2.4485E-14	4.1762E+16
Pu-239	1.7708E-07	2.8489E-09	7.1785E-15	4.4362E+15
Pu-240	2.8285E-07	1.2413E-09	3.1147E-15	7.1327E+15
Pu-241	6.9733E-05	6.7694E-10	1.6915E-15	1.7591E+18
Am-241	3.7841E-08	1.1025E-11	2.7550E+13	9.3182E+14
Cm-242	9.5500E-06	2.8814E-12	7.1704E+12	2.4382E+17
Cm-244	5.6670E-07	7.0047E-12	1.7288E+13	1.4295E+16

Primary Containment Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0194E+25	0.0000E+00	
Elemental I (atoms)	4.5697E+22	0.0000E+00	
Organic I (atoms)	1.4133E+21	0.0000E+00	
Aerosols (kg)	3.8435E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1719E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1997E-04
Total I (Ci)			1.5418E+06

Time (h) = 72.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.1167E+21
Elemental I (atoms)	0.0000E+00	1.5257E+19
Organic I (atoms)	0.0000E+00	4.7187E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Elemental I (atoms)	0.0000E+00	1.5257E+19
Organic I (atoms)	0.0000E+00	4.7187E+17

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Co-58	1.1011E-02	3.4629E-10	3.5956E+15	1.0373E+14
Co-60	6.0952E-03	5.3922E-09	5.4121E+16	5.6635E+13
Kr-85	3.8505E+02	9.8143E-04	6.9533E+21	2.1361E-18
Kr-85m	1.0135E-01	1.2316E-11	8.7256E+13	6.9377E+17
Kr-88	4.5334E-04	3.6154E-14	2.4741E+11	7.0882E+17
Rb-86	3.8326E-01	4.7102E-09	3.2983E+16	3.7681E+15
Sr-89	1.5102E+01	5.1982E-07	3.5173E+18	1.4308E+17
Sr-90	2.0053E+00	1.4701E-05	9.8365E+19	1.8624E+16
Sr-91	1.0490E-01	2.8937E-11	1.9150E+14	3.0912E+16
Sr-92	2.1397E-07	1.7023E-17	1.1143E+08	6.4252E+15
Y-90	1.0894E+00	2.0024E-09	1.3398E+16	5.7811E+15
Y-91	2.4850E-01	1.0133E-08	6.7058E+16	2.2608E-15
Y-92	5.1207E-05	5.3217E-15	3.4834E+10	8.1267E+15
Y-93	1.1686E-03	3.5026E-13	2.2681E+12	2.6993E+14
Zr-95	2.8436E-01	1.3236E-08	8.3907E+16	2.6828E+15
Zr-97	1.5167E-02	7.9339E-12	4.9257E+13	8.1130E+14
Nb-95	2.9332E-01	7.5011E-09	4.7550E+16	2.7254E+15
Mo-99	1.8144E+00	3.7829E-09	2.3012E+16	2.4849E+16
Tc-99m	1.8599E+00	3.5371E-10	2.1516E+15	2.3663E+16
Ru-103	3.1241E+00	9.6798E-08	5.6595E+17	2.9770E+16
Ru-105	2.9891E-05	4.4467E-15	2.5503E+10	1.3801E+15
Ru-106	1.3040E+00	3.8977E-07	2.2144E+18	1.2143E+16
Rh-105	5.9707E-01	7.0738E-10	4.0571E+15	1.1657E+16
Sb-127	2.0946E+00	7.8434E-09	3.7192E+16	2.5557E+16
Sb-129	1.2769E-04	2.2706E-14	1.0600E+11	7.7675E+15
Te-127	2.5963E+00	9.8377E-10	4.6649E+15	2.8211E+16
Te-127m	6.0582E-01	6.4226E-08	3.0455E+17	5.6390E+15
Te-129	2.0821E+00	9.9421E-11	4.6413E+14	2.2891E+16
Te-129m	2.4077E+00	7.9922E-08	3.7310E+17	2.3034E+16
Te-131m	1.5580E+00	1.9538E-09	8.9819E+15	3.6006E+16
Te-132	3.1132E+01	1.0255E-07	4.6784E+17	4.0013E+17
I-131	5.0865E+02	4.1028E-06	1.8861E+19	3.9347E+18
I-132	3.7160E+01	3.6000E-09	1.6424E-16	5.2655E+17
I-133	1.2408E+02	1.0953E-07	4.9596E+17	2.9167E+18
I-135	6.8247E-01	1.9433E-10	8.6689E+14	6.6703E+17
Xe-133	3.7594E+04	2.0084E-04	9.0940E+20	2.4155E+20
Xe-135	1.0777E+02	4.2202E-08	1.8826E+17	1.0266E+19
Cs-134	4.5267E+01	3.4987E-05	1.5724E+20	4.2197E+17
Cs-136	1.2366E+01	1.6873E-07	7.4714E+17	1.2447E+17
Cs-137	3.4157E+01	3.9269E-04	1.7262E+21	3.1801E+17
Ba-140	2.5475E+01	3.4798E-07	1.4969E+18	2.5632E+17
La-140	1.9410E+01	3.4920E-08	1.5021E+17	1.1300E+17
La-141	8.3130E-07	1.4699E-16	6.2781E+08	1.4005E+14
Ce-141	6.4709E-01	2.2710E-08	9.6995E+16	6.1988E+15
Ce-143	1.4077E-01	2.1198E-10	8.9271E+14	2.9694E+15
Ce-144	5.7434E-01	1.8007E-07	7.5307E+17	5.3528E+15
Pr-143	2.5642E-01	3.8079E-09	1.6036E+16	2.3887E+15
Nd-147	9.1917E-02	1.1362E-09	4.6547E+15	9.3693E+14
Np-239	3.3560E+00	1.4466E-08	3.6450E+16	4.9268E+16
Pu-238	1.7439E-03	1.0187E-07	2.5776E+17	1.6193E+13
Pu-239	1.8641E-04	2.9991E-06	7.5568E+18	1.7263E+12
Pu-240	2.9776E-04	1.3067E-06	3.2789E+18	2.7653E+12
Pu-241	7.3409E-02	7.1262E-07	1.7807E+18	6.8187E+14
Am-241	3.9836E-05	1.1607E-08	2.9003E+16	3.6556E+11
Cm-242	1.0053E-02	3.0333E-09	7.5484E+15	9.3944E+13
Cm-244	5.9657E-04	7.3739E-09	1.8200E+16	5.5412E+12

Turbine Building Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	7.8629E+21	0.0000E+00	
Elemental I (atoms)	1.1941E+19	0.0000E+00	
Organic I (atoms)	3.6931E+17	0.0000E+00	
Aerosols (kg)	4.5115E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8701E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9183E-02
Total I (Ci)			6.7057E+02

Aerosols (kg)	4.5115E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8701E-02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.1167E-21
Elemental I (atoms)	0.0000E+00	1.5257E+19
Organic I (atoms)	0.0000E+00	4.7187E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 72.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9836E+18
Elemental I (atoms)	0.0000E-00	3.4075E+15
Organic I (atoms)	0.0000E+00	1.0539E+14
Aerosols (kg)	0.0000E+00	1.8925E-07

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.6461E+09

EAB LOCA Doses:

Time (h) = 96.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.8778E-05	1.6393E-02	7.8713E-04
Accumulated dose (rem)	1.6941E-04	5.8153E-02	2.9230E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	9.3961E-07	2.9549E-14	3.0681E+11	2.7138E+17
Co-60	5.2504E-07	4.6448E-13	4.6619E+12	1.4616E+17
Kr-85	1.4785E+06	3.7684E+00	2.6699E+25	1.8688E+22
Kr-85m	9.4964E+00	1.1539E-09	8.1755E+15	1.9372E+22
Kr-88	4.9761E-03	3.9684E-13	2.7157E+12	3.0952E+22
Rb-86	2.8370E-05	3.4867E-13	2.4416E+12	1.0224E+19
Sr-89	1.2836E-03	4.4182E-11	2.9896E+14	3.7647E+20
Sr-90	1.7278E-04	1.2667E-09	8.4756E+15	4.8044E+19
Sr-91	1.5690E-06	4.3283E-16	2.8644E-09	4.0798E+20
Y-90	1.1206E-04	2.0597E-13	1.3782E+12	1.0604E+18
Y-91	2.1141E-05	8.6207E-13	5.7049E+12	4.9971E+18
Y-92	4.0317E-11	4.1900E-21	2.7427E+04	5.7025E+19
Y-93	1.9395E-08	5.8134E-18	3.7644E+07	3.3584E+18
Zr-95	2.4239E-05	1.1283E-12	7.1524E+12	7.0293E+18
Zr-97	4.8838E-07	2.5547E-16	1.5861E+09	6.3457E+18
Nb-95	2.5253E-05	6.4580E-13	4.0938E+12	7.0362E+18
Mo-99	1.2151E-04	2.5335E-13	1.5411E+12	9.0383E+19
Tc-99m	1.2458E-04	2.3692E-14	1.4412E+11	8.1272E+19
Ru-103	2.6449E-04	8.1952E-12	4.7915E+13	7.8770E+19
Ru-105	6.0772E-11	9.0408E-21	5.1852E+04	3.8732E+19
Ru-106	1.1215E-04	3.3523E-11	1.9045E+14	3.1408E+19
Rh-105	3.2141E-05	3.8080E-14	2.1840E+11	5.0485E+19
Sb-127	1.5075E-04	5.6451E-13	2.6768E+12	8.4645E+19
Sb-129	2.3395E-10	4.1602E-20	1.9421E+05	2.2404E+20
Te-127	1.9567E-04	7.4142E-14	3.5157E+11	8.4911E+19
Te-127m	5.2061E-05	5.5193E-12	2.6172E+13	1.4561E+19
Te-129	1.7574E-04	8.3915E-15	3.9174E+10	2.5161E+20
Te-129m	2.0323E-04	6.7462E-12	3.1494E+13	6.0968E+19
Te-131m	7.7108E-05	9.6699E-14	4.4453E+11	1.8689E+20
Te-132	2.1686E-03	7.1432E-12	3.2589E+13	1.3834E+21
I-131	1.1355E+06	9.1594E-03	4.2106E+22	2.2810E+22
I-132	3.7502E-03	3.6332E-13	1.6575E+12	7.7073E+21
Te-129m	2.0323E-04	6.7462E-12	3.1494E+13	6.0968E+19
Te-131m	7.7108E-05	9.6699E-14	4.4453E+11	1.8689E+20

I-133	1.3585E+05	1.1993E-04	5.4302E+20	2.3421E+22
I-135	1.3421E+02	3.8218E-08	1.7048E+17	1.2706E+22
Xe-133	1.2636E-08	6.7507E-01	3.0567E+24	2.0948E-24
Xe-135	6.4525E+04	2.5267E-05	1.1271E+20	1.4743E+23
Cs-134	3.4745E-03	2.6854E-09	1.2069E+16	1.0866E+21
Cs-136	9.0109E-04	1.2295E-11	5.4441E-13	3.4537E+20
Cs-137	2.6240E-03	3.0167E-08	1.3261E+17	8.1790E-20
Ba-140	2.0790E-03	2.8398E-11	1.2215E+14	7.1472E+20
La-140	1.8333E-03	3.2983E-12	1.4188E+13	2.0842E+19
Ce-141	5.4586E-05	1.9157E-12	8.1822E+12	1.6468E+19
Ce-143	7.3273E-06	1.1034E-14	4.6466E-10	1.4586E+19
Ce-144	4.9370E-05	1.5479E-11	6.4734E+13	1.3856E+19
Pr-143	2.1461E-05	3.1871E-13	1.3422E+12	5.9185E+18
Nd-147	7.4359E-06	9.1917E-14	3.7656E+11	2.6449E+18
Np-239	2.1545E-04	9.2871E-13	2.3401E+12	1.8903E+20
Pu-238	1.5029E-07	8.7788E-12	2.2213E+13	4.1762E+16
Pu-239	1.6083E-08	2.5875E-10	6.5197E+14	4.4362E-15
Pu-240	2.5658E-08	1.1260E-10	2.8254E+14	7.1327E+15
Pu-241	6.3248E-06	6.1398E-11	1.5342E+14	1.7591E+18
Am-241	3.4604E-09	1.0082E-12	2.5193E-12	9.3182E+14
Cm-242	8.6261E-07	2.6027E-13	6.4768E+11	2.4382E+17
Cm-244	5.1401E-08	6.3535E-13	1.5681E+12	1.4295E+16

Primary Containment Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9756E-25	0.0000E+00	
Elemental I (atoms)	4.1370E+22	0.0000E+00	
Organic I (atoms)	1.2795E+21	0.0000E+00	
Aerosols (kg)	3.4844E-08	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0536E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0660E-04
Total I (Ci)			1.2715E+06

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0118E+22
Elemental I (atoms)	0.0000E-00	1.8165E+19
Organic I (atoms)	0.0000E+00	5.6181E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Co-58	1.0903E-02	3.4287E-10	3.5600E+15	1.3876E+14
Co-60	6.0921E-03	5.3894E-09	5.4093E+16	7.6116E+13
Kr-85	4.8364E+02	1.2327E-03	8.7336E+21	3.5312E+18
Kr-85m	3.1064E-03	3.7747E-13	2.6744E+12	6.9386E+17
Kr-88	1.6278E-06	1.2981E-16	8.8836E+08	7.0882E+17
Rb-86	3.6923E-01	4.5378E-09	3.1776E+16	4.9707E+15
Sr-89	1.4894E+01	5.1266E-07	3.4689E+18	1.9103E+17
Sr-90	2.0048E+00	1.4697E-05	9.8345E+19	2.5034E+16
Sr-91	1.8206E-02	5.0223E-12	3.3236E-13	3.1070E+16
Sr-92	4.6167E-10	3.6730E-20	2.4043E+05	6.4252E+15
Y-90	1.3013E+00	2.3919E-09	1.6005E+16	9.5823E+15
Y-91	2.4579E-01	1.0022E-08	6.6325E+16	3.0510E+15
Y-92	4.7136E-07	4.8986E-17	3.2065E+08	8.1267E+15
Y-93	2.2505E-04	6.7455E-14	4.3680E+11	2.7177E+14
Zr-95	2.8125E-01	1.3092E-08	8.2991E+16	3.5869E+15
Zr-97	5.6668E-03	2.9643E-12	1.8404E+13	8.4215E+14
Nb-95	2.9302E-01	7.4934E-09	4.7501E+16	3.6623E+15
Y-92	4.7136E-07	4.8986E-17	3.2065E+08	8.1267E+15
Y-93	2.2505E-04	6.7455E-14	4.3680E+11	2.7177E+14

Mo-99	1.4099E+00	2.9397E-09	1.7882E+16	2.9975E+16
Tc-99m	1.4455E+00	2.7490E-10	1.6722E+15	2.8653E+16
Ru-103	3.0690E+00	9.5091E-08	5.5597E+17	3.9668E+16
Ru-105	7.0516E-07	1.0490E-16	6.0165E-08	1.3801E+15
Ru-106	1.3014E+00	3.8898E-07	2.2099E+18	1.6308E+16
Rh-105	3.7294E-01	4.4185E-10	2.5342E+15	1.3179E+16
Sb-127	1.7492E+00	6.5501E-09	3.1060E+16	3.1684E+16
Sb-129	2.7145E-06	4.8272E-16	2.2535E-09	7.7677E+15
Te-127	2.2704E+00	8.6029E-10	4.0793E+15	3.5715E+16
Te-127m	6.0408E-01	6.4042E-08	3.0368E+17	7.5728E+15
Te-129	2.0391E+00	9.7369E-11	4.5455E+14	2.7852E+16
Te-129m	2.3582E-00	7.8278E-08	3.6543E-17	3.0651E+16
Te-131m	8.9471E-01	1.1220E-09	5.1580E+15	3.9829E+16
Te-132	2.5163E+01	8.2884E-08	3.7814E+17	4.8978E+17
I-131	5.4246E+02	4.3756E-06	2.0115E+19	5.6227E-18
I-132	3.0035E-01	2.9097E-09	1.3275E+16	6.1934E+17
I-133	6.4828E+01	5.7227E-08	2.5912E+17	3.2100E+18
I-135	6.4045E-02	1.8237E-11	8.1351E+13	6.6787E+17
Xe-133	4.1382E+04	2.2108E-04	1.0010E+21	3.6884E+20
Xe-135	2.1720E+01	8.5053E-09	3.7941E+16	1.0439E+19
Cs-134	4.5219E+01	3.4950E-05	1.5707E+20	5.6661E+17
Cs-136	1.1727E+01	1.6001E-07	7.0853E+17	1.6297E+17
Cs-137	3.4150E+01	3.9261E-04	1.7258E+21	4.2719E-17
Ba-140	2.4123E+01	3.2951E-07	1.4174E+18	3.3557E+17
La-140	2.1285E+01	3.8295E-08	1.6473E+17	1.7772E+17
La-141	1.2060E-08	2.1325E-18	9.1078E+06	1.4005E+14
Ce-141	6.3334E-01	2.2228E-08	9.4934E+16	8.2454E+15
Ce-143	8.5021E-02	1.2803E-10	5.3916E+14	3.3228E+15
Ce-144	5.7286E-01	1.7961E-07	7.5112E+17	7.1864E+15
Pr-143	2.4911E-01	3.6993E-09	1.5579E+16	3.1970E+15
Nd-147	8.6281E-02	1.0665E-09	4.3693E+15	1.2217E+15
Np-239	2.5000E+00	1.0776E-08	2.7153E+16	5.8562E+16
Pu-238	1.7439E-03	1.0186E-07	2.5774E+17	2.1768E+13
Pu-239	1.8661E-04	3.0023E-06	7.5650E+18	2.3225E+12
Pu-240	2.9772E-04	1.3066E-06	3.2784E+18	3.7171E+12
Pu-241	7.3388E-02	7.1242E-07	1.7802E+18	9.1651E+14
Am-241	4.0153E-05	1.1699E-08	2.9233E+16	4.9339E+11
Cm-242	1.0009E-02	3.0200E-09	7.5152E+15	1.2601E+14
Cm-244	5.9642E-04	7.3721E-09	1.8195E+16	7.4480E+12

Turbine Building Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	9.7347E+21	0.0000E+00	
Elemental I (atoms)	1.3572E+19	0.0000E+00	
Organic I (atoms)	4.1976E+17	0.0000E+00	
Aerosols (kg)	4.5082E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9544E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9807E-02
Total I (Ci)			6.3739E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0118E+22
Elemental I (atoms)	0.0000E+00	1.8165E+19
Organic I (atoms)	0.0000E+00	5.6181E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 96.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2515E+18
Elemental I (atoms)	0.0000E+00	5.2523E+15
Organic I (atoms)	0.0000E+00	1.6244E+14
Aerosols (kg)	0.0000E+00	2.5419E-07

Detailed model information at time (H) = 144.0000

Elemental I (atoms)	0.0000E+00	5.2523E+15
Organic I (atoms)	0.0000E+00	1.6244E+14

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E-00	2.0026E+11

EAB LOCA Doses:

Time (h) = 144.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.0495E-05	3.4471E-02	1.6242E-03
Accumulated dose (rem)	2.4991E-04	9.2625E-02	4.5471E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	7.5818E-09	2.3844E-16	2.4757E+09	2.7138E+17
Co-60	4.3172E-09	3.8193E-15	3.8334E+10	1.4616E+17
Kr-85	1.4778E+06	3.7666E+00	2.6686E+25	2.8139E-22
Kr-85m	5.6517E-03	6.8676E-13	4.8656E+12	1.9372E+22
Kr-88	4.0644E-08	3.2414E-18	2.2182E+07	3.0952E+22
Rb-86	2.1674E-07	2.6637E-15	1.8652E+10	1.0224E+19
Sr-89	1.0276E-05	3.5371E-13	2.3934E+12	3.7647E+20
Sr-90	1.4216E-06	1.0422E-11	6.9734E+13	4.8044E+19
Sr-91	3.8901E-10	1.0731E-19	7.1017E+05	4.0798E+20
Y-90	1.1278E-06	2.0729E-15	1.3870E-10	1.0604E-18
Y-91	1.6993E-07	6.9290E-15	4.5854E+10	4.9971E+18
Y-93	5.9209E-12	1.7747E-21	1.1492E+04	3.3584E+18
Zr-95	1.9518E-07	9.0853E-15	5.7593E+10	7.0293E+18
Zr-97	5.6116E-10	2.9355E-19	1.8224E+06	6.3457E+18
Nb-95	2.0732E-07	5.3018E-15	3.3609E+10	7.0362E+18
Mo-99	6.0397E-07	1.2593E-15	7.6601E+09	9.0383E+19
Tc-99m	6.1921E-07	1.1776E-16	7.1633E+08	8.1272E+19
Ru-103	2.1009E-06	6.5097E-14	3.8060E+11	7.8770E+19
Ru-106	9.1941E-07	2.7481E-13	1.5613E+12	3.1408E+19
Rh-105	1.0322E-07	1.2229E-16	7.0137E+08	5.0485E+19
Sb-127	8.6540E-07	3.2406E-15	1.5366E+10	8.4645E+19
Te-127	1.2526E-06	4.7461E-16	2.2505E+09	8.4911E+19
Te-127m	4.2535E-07	4.5094E-14	2.1383E+11	1.4561E+19
Te-129	1.3876E-06	6.6260E-17	3.0932E+08	2.5161E+20
Te-129m	1.6047E-06	5.3269E-14	2.4868E+11	6.0968E+19
Te-131m	2.0931E-07	2.6248E-16	1.2066E+09	1.8689E+20
Te-132	1.1661E-05	3.8410E-14	1.7523E+11	1.3834E+21
I-131	9.5556E+05	7.7077E-03	3.5433E+22	2.9478E+22
I-132	2.0158E-05	1.9529E-15	8.9095E+09	7.7073E+21
I-133	2.7437E+04	2.4220E-05	1.0967E+20	2.3854E+22
I-135	8.7447E-01	2.4901E-10	1.1108E+15	1.2706E+22
Xe-133	9.7014E+07	5.1829E-01	2.3468E+24	2.8047E+24
Xe-135	1.6659E+03	6.5236E-07	2.9101E+18	1.4754E-23
Cs-134	2.8538E-05	2.2057E-11	9.9126E-13	1.0866E+21
Cs-136	6.6702E-06	9.1009E-14	4.0299E+11	3.4537E+20
Cs-137	2.1589E-05	2.4820E-10	1.0910E+15	8.1790E+20
Ba-140	1.5343E-05	2.0958E-13	9.0153E+11	7.1472E+20
La-140	1.5728E-05	2.8297E-14	1.2172E+11	2.0842E+19
Ce-141	4.3041E-07	1.5106E-14	6.4517E+10	1.6468E+19
Ce-143	2.1999E-08	3.3128E-17	1.3951E+08	1.4586E-19
Ce-144	4.0427E-07	1.2675E-13	5.3008E+11	1.3856E-19
Pr-143	1.6310E-07	2.4221E-15	1.0200E-10	5.9185E+18
Nd-147	5.3930E-08	6.6664E-16	2.7310E+09	2.6449E+18
Np-239	9.8407E-07	4.2419E-15	1.0688E+10	1.8903E+20
Pu-238	1.2369E-09	7.2252E-14	1.8282E+11	4.1762E+16
Pu-239	1.3255E-10	2.1326E-12	5.3734E+12	4.4362E+15
Pu-240	2.1113E-10	9.2656E-13	2.3250E+12	7.1327E+15
Pu-241	5.2031E-08	5.0509E-13	1.2621E+12	1.7591E+18
Am-241	2.8931E-11	8.4293E-15	2.1063E+10	9.3182E+14
Cm-242	7.0380E-09	2.1235E-15	5.2843E+09	2.4382E+17
Cm-244	4.2287E-10	5.2270E-15	1.2901E+10	1.4295E+16
Pu-240	2.1113E-10	9.2656E-13	2.3250E+12	7.1327E+15
Pu-241	5.2031E-08	5.0509E-13	1.2621E+12	1.7591E+18

Primary Containment Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9032E+25	0.0000E+00	
Elemental I (atoms)	3.4476E+22	0.0000E+00	
Organic I (atoms)	1.0663E-21	0.0000E+00	
Aerosols (kg)	2.8642E-10	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.7343E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		8.7595E-05
Total I (Ci)			9.8300E-05

Time (h) = 144.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 144.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4043E+22
Elemental I (atoms)	0.0000E+00	2.3219E+19
Organic I (atoms)	0.0000E+00	7.1812E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Co-58	1.0688E-02	3.3613E-10	3.4900E+15	2.0778E+14
Co-60	6.0860E-03	5.3840E-09	5.4039E+16	1.1505E+14
Kr-85	6.8065E+02	1.7349E-03	1.2291E+22	7.2665E+18
Kr-85m	2.6031E-06	3.1632E-16	2.2411E+09	6.9387E+17
Kr-88	1.8721E-11	1.4930E-21	1.0217E+04	7.0882E+17
Rb-86	3.4269E-01	4.2117E-09	2.9492E+16	7.2455E+15
Sr-89	1.4486E-01	4.9863E-07	3.3740E+18	2.8494E+17
Sr-90	2.0040E-00	1.4691E-05	9.8304E+19	3.7850E+16
Sr-91	5.4839E-04	1.5128E-13	1.0011E+12	3.1102E+16
Y-90	1.5904E+00	2.9232E-09	1.9560E+16	1.8837E+16
Y-91	2.4001E-01	9.7869E-09	6.4767E+16	4.6040E+15
Y-92	3.9166E-11	4.0703E-21	2.6644E+04	8.1267E+15
Y-93	8.3467E-06	2.5018E-15	1.6200E+10	2.7219E+14
Zr-95	2.7514E-01	1.2808E-08	8.1189E+16	5.3655E+15
Zr-97	7.9107E-04	4.1381E-13	2.5691E+12	8.5798E+14
Nb-95	2.9226E-01	7.4740E-09	4.7378E+16	5.5327E+15
Mo-99	8.5141E-01	1.7752E-09	1.0798E+16	3.7055E+16
Tc-99m	8.7290E-01	1.6601E-10	1.0098E+15	3.5545E+16
Ru-103	2.9617E+00	9.1767E-08	5.3654E+17	5.8945E+16
Ru-105	3.9245E-10	5.8382E-20	3.3484E+05	1.3801E+15
Ru-106	1.2961E+00	3.8741E-07	2.2010E+18	2.4611E+16
Rh-105	1.4551E-01	1.7239E-10	9.8872E+14	1.4724E+16
Sb-127	1.2200E+00	4.5682E-09	2.1662E+16	4.1075E+16
Sb-129	1.2269E-09	2.1817E-19	1.0185E+06	7.7677E+15
Te-127	1.7657E+00	6.6906E-10	3.1726E+15	4.8093E+16
Te-127m	5.9961E-01	6.3568E-08	3.0143E+17	1.1421E+16
Te-129	1.9561E+00	9.3406E-11	4.3605E+14	3.7470E+16
Te-129m	2.2622E+00	7.5093E-08	3.5056E+17	4.5420E+16
Te-131m	2.9506E-01	3.7002E-10	1.7010E+15	4.3285E+16
Te-132	1.6438E+01	5.4146E-08	2.4703E+17	6.2080E+17
I-131	5.8407E+02	4.7112E-06	2.1658E+19	9.2499E+18
I-132	1.9621E-01	1.9009E-09	8.6722E+15	7.5496E+17
I-133	1.6754E+01	1.4790E-08	6.6967E+16	3.4389E+18
I-135	5.3399E-04	1.5205E-13	6.7828E+11	6.6796E+17
Xe-133	4.4723E+04	2.3893E-04	1.0818E+21	6.4764E+20
Xe-135	7.8400E-01	3.0700E-10	1.3695E+15	1.0480E+19
Cs-134	4.5123E+01	3.4875E-05	1.5673E+20	8.5541E+17
Cs-136	1.0547E+01	1.4390E-07	6.3720E+17	2.3411E+17
Cs-137	3.4136E+01	3.9245E-04	1.7251E+21	6.4549E+17
Xe-133	4.4723E+04	2.3893E-04	1.0818E+21	6.4764E+20
Xe-135	7.8400E-01	3.0700E-10	1.3695E+15	1.0480E+19

Ba-140	2.1630E+01	2.9545E-07	1.2709E+18	4.8169E+17
La-140	2.2178E+01	3.9900E-08	1.7163E+17	3.1688E+17
Ce-141	6.0672E-01	2.1293E-08	9.0944E-16	1.2209E+16
Ce-143	3.1013E-02	4.6700E-11	1.9657E+14	3.6652E+15
Ce-144	5.6991E-01	1.7868E-07	7.4726E+17	1.0840E+16
Pr-143	2.3000E-01	3.4156E-09	1.4384E+16	4.7301E+15
Nd-147	7.6026E-02	9.3976E-10	3.8499E+15	1.7398E+15
Np-239	1.3872E+00	5.9797E-09	1.5067E+16	7.0641E+16
Pu-238	1.7437E-03	1.0185E-07	2.5772E+17	3.2917E+13
Pu-239	1.8686E-04	3.0063E-06	7.5749E+18	3.5165E+12
Pu-240	2.9763E-04	1.3062E-06	3.2775E-18	5.6203E-12
Pu-241	7.3348E-02	7.1203E-07	1.7792E+18	1.3856E-15
Am-241	4.0785E-05	1.1883E-08	2.9694E+16	7.5209E+11
Cm-242	9.9214E-03	2.9935E-09	7.4493E+15	1.8973E+14
Cm-244	5.9613E-04	7.3684E-09	1.8186E+16	1.1260E+13

Turbine Building Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3373E-22	0.0000E-00	
Elemental I (atoms)	1.5913E+19	0.0000E+00	
Organic I (atoms)	4.9214E+17	0.0000E+00	
Aerosols (kg)	4.5023E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0729E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.0810E-02
Total I (Ci)			6.2045E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4043E+22
Elemental I (atoms)	0.0000E+00	2.3219E+19
Organic I (atoms)	0.0000E+00	7.1812E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.5828E+18
Elemental I (atoms)	0.0000E+00	9.5338E+15
Organic I (atoms)	0.0000E+00	2.9486E+14
Aerosols (kg)	0.0000E-00	3.8394E-07

Detailed model information at time (H) = 192.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E+00	2.4358E+13

EAB LOCA Doses:

Time (h) = 192.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	8.0857E-05	3.5740E-02	1.6585E-03
Accumulated dose (rem)	3.3076E-04	1.2836E-01	6.2057E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	6.1178E-11	1.9240E-18	1.9977E+07	2.7138E+17
Co-60	3.5499E-11	3.1405E-17	3.1521E+08	1.4616E+17
Kr-85	1.4770E+06	3.7647E+00	2.6673E+25	3.7584E+22
Kr-85m	3.3636E-06	4.0872E-16	2.8957E+09	1.9372E+22
Rb-86	1.6557E-09	2.0349E-17	1.4249E+08	1.0224E+19
Sr-89	8.2269E-08	2.8318E-15	1.9161E+10	3.7647E+20
Co-60	3.5499E-11	3.1405E-17	3.1521E+08	1.4616E+17
Kr-85	1.4770E+06	3.7647E+00	2.6673E+25	3.7584E+22

Sr-90	1.1696E-08	8.5744E-14	5.7374E+11	4.8044E+19
Y-90	1.0285E-08	1.8905E-17	1.2650E+08	1.0604E+18
Y-91	1.3655E-09	5.5681E-17	3.6848E+08	4.9971E+18
Zr-95	1.5716E-09	7.3158E-17	4.6375E-08	7.0293E+18
Nb-95	1.7008E-09	4.3496E-17	2.7572E+08	7.0362E+18
Mo-99	3.0020E-09	6.2592E-18	3.8074E+07	9.0383E+19
Tc-99m	3.0778E-09	5.8532E-19	3.5605E+06	8.1272E+19
Ru-103	1.6688E-08	5.1709E-16	3.0233E+09	7.8770E+19
Ru-106	7.5371E-09	2.2529E-15	1.2799E+10	3.1408E+19
Rh-105	3.3147E-10	3.9271E-19	2.2524E-06	5.0485E-19
Sb-127	4.9678E-09	1.8602E-17	8.8210E+07	8.4645E+19
Te-127	8.2390E-09	3.1219E-18	1.4804E+07	8.4911E+19
Te-127m	3.4694E-09	3.6781E-16	1.7441E+09	1.4561E+19
Te-129	1.0957E-08	5.2319E-19	2.4424E+06	2.5161E+20
Te-129m	1.2671E-08	4.2061E-16	1.9636E+09	6.0968E+19
Te-131m	5.6815E-10	7.1249E-19	3.2754E-06	1.8689E+20
Te-132	6.2703E-08	2.0654E-16	9.4226E+08	1.3834E+21
I-131	8.0411E+05	6.4861E-03	2.9817E+22	3.5090E+22
I-132	1.0839E-07	1.0501E-17	4.7908E+07	7.7073E+21
I-133	5.5410E+03	4.8914E-06	2.2148E+19	2.3941E+22
I-135	5.6976E-03	1.6224E-12	7.2372E+12	1.2706E+22
Xe-133	7.4474E+07	3.9787E-01	1.8015E-24	3.3498E-24
Xe-135	4.2895E-01	1.6797E-08	7.4929E+16	1.4754E+23
Cs-134	2.3439E-07	1.8116E-13	8.1417E+11	1.0866E+21
Cs-136	4.9375E-08	6.7368E-16	2.9831E+09	3.4537E+20
Cs-137	1.7763E-07	2.0421E-12	8.9765E+12	8.1790E+20
Ba-140	1.1324E-07	1.5468E-15	6.6535E+09	7.1472E+20
La-140	1.2399E-07	2.2308E-16	9.5958E+08	2.0842E+19
Ce-141	3.3938E-09	1.1911E-16	5.0872E+08	1.6468E+19
Ce-143	6.6051E-11	9.9462E-20	4.1886E+05	1.4586E+19
Ce-144	3.3104E-09	1.0379E-15	4.3406E+09	1.3856E+19
Pr-143	1.2227E-09	1.8157E-17	7.6464E+07	5.9185E+18
Nd-147	3.9114E-10	4.8349E-18	1.9807E+07	2.6449E+18
Np-239	4.4947E-09	1.9375E-17	4.8819E-07	1.8903E+20
Pu-238	1.0180E-11	5.9466E-16	1.5047E+09	4.1762E+16
Pu-239	1.0917E-12	1.7564E-14	4.4255E+10	4.4362E+15
Pu-240	1.7373E-12	7.6244E-15	1.9131E+10	7.1327E+15
Pu-241	4.2803E-10	4.1551E-15	1.0383E+10	1.7591E+18
Am-241	2.4182E-13	7.0457E-17	1.7606E+08	9.3182E+14
Cm-242	5.7422E-11	1.7326E-17	4.3114E+07	2.4382E+17
Cm-244	3.4789E-12	4.3002E-17	1.0613E+08	1.4295E+16

Primary Containment Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	2.8474E+25	0.0000E+00	
Elemental I (atoms)	2.8944E+22	0.0000E+00	
Organic I (atoms)	8.9517E+20	0.0000E+00	
Aerosols (kg)	2.3547E-12	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.3234E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.3285E-05
Total I (Ci)			8.0965E+05

Time (h) = 192.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7881E+22
Elemental I (atoms)	0.0000E+00	2.7450E+19
Organic I (atoms)	0.0000E+00	8.4896E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Elemental I (atoms)	0.0000E+00	2.7450E+19
Organic I (atoms)	0.0000E+00	8.4896E+17

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Co-58	1.0478E-02	3.2951E-10	3.4213E+15	2.7544E+14
Co-60	6.0799E-03	5.3786E-09	5.3984E+16	1.5394E+14
Kr-85	8.7744E-02	2.2365E-03	1.5845E+22	1.2261E-19
Kr-85m	1.9981E-09	2.4280E-19	1.7202E+06	6.9387E-17
Rb-86	3.1807E-01	3.9090E-09	2.7373E+16	9.3569E+15
Sr-89	1.4090E+01	4.8499E-07	3.2817E+18	3.7629E+17
Sr-90	2.0032E+00	1.4685E-05	9.8262E+19	5.0660E+16
Sr-91	1.6518E-05	4.5568E-15	3.0156E+10	3.1103E+16
Y-90	1.7619E+00	3.2385E-09	2.1669E+16	2.9532E+16
Y-91	2.3433E-01	9.5550E-09	6.3233E+16	6.1203E+15
Y-93	3.0957E-07	9.2787E-17	6.0083E-08	2.7220E-14
Zr-95	2.6917E-01	1.2529E-08	7.9425E-16	7.1055E+15
Zr-97	1.1043E-04	5.7767E-14	3.5864E+11	8.6019E+14
Nb-95	2.9129E-01	7.4494E-09	4.7222E+16	7.3975E+15
Mo-99	5.1414E-01	1.0720E-09	6.5209E+15	4.1330E+16
Tc-99m	5.2712E-01	1.0025E-10	6.0980E+14	3.9707E+16
Ru-103	2.8582E+00	8.8560E-08	5.1778E+17	7.7548E+16
Ru-106	1.2909E+00	3.8584E-07	2.1921E+18	3.2881E+16
Rh-105	5.6770E-02	6.7259E-11	3.8575E-14	1.5327E-16
Sb-127	8.5082E-01	3.1860E-09	1.5107E-16	4.7624E+16
Te-127	1.4111E+00	5.3468E-10	2.5354E+15	5.7840E+16
Te-127m	5.9419E-01	6.2994E-08	2.9871E+17	1.5238E+16
Te-129	1.8765E+00	8.9605E-11	4.1830E+14	4.6696E+16
Te-129m	2.1701E+00	7.2037E-08	3.3629E+17	5.9587E+16
Te-131m	9.7305E-02	1.2203E-10	5.6096E+14	4.4425E+16
Te-132	1.0739E+01	3.5373E-08	1.6138E+17	7.0639E+17
I-131	5.9882E+02	4.8302E-06	2.2205E-19	1.3051E+19
I-132	1.2818E+01	1.2418E-09	5.6654E+15	8.4355E+17
I-133	4.1229E+00	3.6396E-09	1.6480E+16	3.4968E+18
I-135	4.2394E-06	1.2072E-15	5.3850E+09	6.6796E+17
Xe-133	4.4272E+04	2.3652E-04	1.0709E+21	9.3443E+20
Xe-135	2.5917E-02	1.0149E-11	4.5271E+13	1.0482E+19
Cs-134	4.5027E-01	3.4801E-05	1.5640E+20	1.1436E+18
Cs-136	9.4848E+00	1.2941E-07	5.7305E+17	2.9808E+17
Cs-137	3.4122E+01	3.9229E-04	1.7244E+21	8.6369E+17
Ba-140	1.9394E+01	2.6491E-07	1.1395E+18	6.1270E-17
La-140	2.1239E+01	3.8211E-08	1.6436E+17	4.5512E+17
Ce-141	5.8122E-01	2.0398E-08	8.7121E+16	1.6006E+16
Ce-143	1.1312E-02	1.7035E-11	7.1737E+13	3.7901E+15
Ce-144	5.6697E-01	1.7776E-07	7.4341E+17	1.4474E+16
Pr-143	2.0947E-01	3.1107E-09	1.3100E+16	6.1348E+15
Nd-147	6.6989E-02	8.2806E-10	3.3923E+15	2.1964E+15
Np-239	7.6980E-01	3.3182E-09	8.3610E+15	7.7344E+16
Pu-238	1.7436E-03	1.0185E-07	2.5770E+17	4.4065E+13
Pu-239	1.8697E-04	3.0081E-06	7.5795E+18	4.7116E+12
Pu-240	2.9755E-04	1.3058E-06	3.2765E+18	7.5230E+12
Pu-241	7.3307E-02	7.1164E-07	1.7782E+18	1.8544E+15
Am-241	4.1417E-05	1.2067E-08	3.0154E+16	1.0148E+12
Cm-242	9.8345E-03	2.9673E-09	7.3841E+15	2.5288E+14
Cm-244	5.9583E-04	7.3648E-09	1.8177E+16	1.5071E+13

Turbine Building Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	1.6916E+22	0.0000E+00	
Elemental I (atoms)	1.7221E+19	0.0000E+00	
Organic I (atoms)	5.3262E+17	0.0000E+00	
Aerosols (kg)	4.4971E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1174E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.1202E-02
Total I (Ci)			6.1576E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7881E+22
Elemental I (atoms)	0.0000E+00	2.7450E+19

Pathway

Organic I (atoms)	0.0000E+00	8.4896E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 192.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.0947E+19
Elemental I (atoms)	0.0000E+00	1.4336E+16
Organic I (atoms)	0.0000E+00	4.4337E+14
Aerosols (kg)	0.0000E+00	5.1353E-07

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	2.9626E+15

EAB LOCA Doses:

Time (h) = 240.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.7594E-05	3.5877E-02	1.6555E-03
Accumulated dose (rem)	4.0836E-04	1.6424E-01	7.8612E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	4.9365E-13	1.5525E-20	1.6119E+05	2.7138E+17
Co-60	2.9190E-13	2.5823E-19	2.5919E+06	1.4616E+17
Kr-85	1.4763E+06	3.7629E+00	2.6660E+25	4.7026E+22
Kr-85m	2.0018E-09	2.4325E-19	1.7234E+06	1.9372E+22
Rb-86	1.2649E-11	1.5546E-19	1.0886E+06	1.0224E+19
Sr-89	6.5863E-10	2.2671E-17	1.5340E+08	3.7647E+20
Sr-90	9.6231E-11	7.0547E-16	4.7205E+09	4.8044E+19
Y-90	8.9550E-11	1.6460E-19	1.1014E+06	1.0604E+18
Y-91	1.0973E-11	4.4745E-19	2.9611E+06	4.9971E+18
Zr-95	1.2655E-11	5.8908E-19	3.7343E+06	7.0293E+18
Nb-95	1.3944E-11	3.5660E-19	2.2605E+06	7.0362E+18
Mo-99	1.4921E-11	3.1111E-20	1.8925E+05	9.0383E+19
Tc-99m	1.5298E-11	2.9093E-21	1.7697E+04	8.1272E+19
Ru-103	1.3256E-10	4.1074E-18	2.4015E+07	7.8770E+19
Ru-106	6.1787E-11	1.8468E-17	1.0492E+08	3.1408E+19
Sb-127	2.8518E-11	1.0679E-19	5.0637E+05	8.4645E+19
Te-127	5.5816E-11	2.1150E-20	1.0029E+05	8.4911E+19
Te-127m	2.8266E-11	2.9966E-18	1.4209E+07	1.4561E+19
Te-129	8.6515E-11	4.1311E-21	1.9285E+04	2.5161E+20
Te-129m	1.0005E-10	3.3212E-18	1.5504E+07	6.0968E+19
Te-132	3.3716E-10	1.1106E-18	5.0667E+06	1.3834E+21
I-131	6.7667E+05	5.4581E-03	2.5091E+22	3.9812E+22
I-132	5.8285E-10	5.6466E-20	2.5761E+05	7.7073E+21
I-133	1.1190E+03	9.8785E-07	4.4729E+18	2.3959E+22
I-135	3.7122E-05	1.0571E-14	4.7154E+10	1.2706E+22
Xe-133	5.7170E+07	3.0542E-01	1.3829E+24	3.7682E+24
Xe-135	1.1037E+00	4.3219E-10	1.9279E+15	1.4754E+23
Cs-134	1.9252E-09	1.4880E-15	6.6872E+09	1.0866E+21
Cs-136	3.6549E-10	4.9868E-18	2.2082E+07	3.4537E+20
Cs-137	1.4614E-09	1.6802E-14	7.3855E+10	8.1790E+20
Ba-140	8.3572E-10	1.1416E-17	4.9105E+07	7.1472E+20
La-140	9.4362E-10	1.6977E-18	7.3026E+06	2.0842E+19
Ce-141	2.6760E-11	9.3918E-19	4.0113E+06	1.6468E+19
Ce-144	2.7108E-11	8.4992E-18	3.5544E+07	1.3856E+19
Pr-143	9.1162E-12	1.3538E-19	5.7012E+05	5.9185E+18
Nd-147	2.8368E-12	3.5066E-20	1.4365E+05	2.6449E+18
Np-239	2.0530E-11	8.8493E-20	2.2298E+05	1.8903E+20
Pu-238	8.3788E-14	4.8942E-18	1.2384E+07	4.1762E+16
Ce-144	2.7108E-11	8.4992E-18	3.5544E+07	1.3856E+19
[illegible]	9.1162E-12	1.3538E-19	5.7012E+05	5.9185E+18

Pu-239	8.9875E-15	1.4460E-16	3.6434E-08	4.4362E+15
Pu-240	1.4296E-14	6.2738E-17	1.5742E+08	7.1327E+15
Pu-241	3.5212E-12	3.4182E-17	8.5414E+07	1.7591E+18
Am-241	2.0208E-15	5.8877E-19	1.4712E+06	9.3182E-14
Cm-242	4.6850E-13	1.4136E-19	3.5176E+05	2.4382E+17
Cm-244	2.8621E-14	3.5377E-19	8.7314E+05	1.4295E+16

Primary Containment Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	2.8043E-25	0.0000E-00	
Elemental I (atoms)	2.4343E+22	0.0000E+00	
Organic I (atoms)	7.5287E+20	0.0000E+00	
Aerosols (kg)	1.9361E-14	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.1573E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.1584E-05
Total I (Ci)			6.7779E+05

Time (h) = 240.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E-01	0.0000E-00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1654E+22
Elemental I (atoms)	0.0000E+00	3.1005E+19
Organic I (atoms)	0.0000E+00	9.5891E+17
Aerosols (kg)	0.0000E-00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Co-58	1.0272E-02	3.2303E-10	3.3540E+15	3.4177E+14
Co-60	6.0738E-03	5.3732E-09	5.3930E+16	1.9279E+14
Kr-85	1.0740E+03	2.7375E-03	1.9395E+22	1.8512E+19
Rb-86	2.9521E-01	3.6281E-09	2.5406E+16	1.1316E+16
Sr-89	1.3705E+01	4.7172E-07	3.1919E+18	4.6514E+17
Sr-90	2.0023E+00	1.4679E-05	9.8221E+19	6.3464E+16
Sr-91	4.9756E-07	1.3726E-16	9.0835E+08	3.1103E+16
Y-90	1.8635E+00	3.4252E-09	2.2919E+16	4.1081E+16
Y-91	2.2877E-01	9.3286E-09	6.1734E+16	7.6006E-15
Y-93	1.1481E-08	3.4413E-18	2.2284E+07	2.7220E+14
Zr-95	2.6332E-01	1.2257E-08	7.7701E+16	8.8077E+15
Zr-97	1.5416E-05	8.0642E-15	5.0065E+10	8.6050E+14
Nb-95	2.9014E-01	7.4200E-09	4.7036E+16	9.2557E+15
Mo-99	3.1048E-01	6.4734E-10	3.9378E+15	4.3911E+16
Tc-99m	3.1831E-01	6.0536E-11	3.6824E+14	4.2220E+16
Ru-103	2.7583E+00	8.5464E-08	4.9969E+17	9.5500E+16
Ru-106	1.2856E+00	3.8428E-07	2.1832E+18	4.1118E+16
Rh-105	2.2149E-02	2.6241E-11	1.5050E+14	1.5562E+16
Sb-127	5.9338E-01	2.2220E-09	1.0536E+16	5.2191E+16
Te-127	1.1614E+00	4.4007E-10	2.0868E+15	6.5737E+16
Te-127m	5.8814E-01	6.2352E-08	2.9566E+17	1.9018E+16
Te-129	1.8002E+00	8.5958E-11	4.0128E+14	5.5547E+16
Te-129m	2.0818E+00	6.9105E-08	3.2261E+17	7.3178E+16
Te-131m	3.2089E-02	4.0242E-11	1.8500E+14	4.4801E+16
Te-132	7.0155E+00	2.3108E-08	1.0543E+17	7.6230E+17
I-131	5.9420E+02	4.7929E-06	2.2033E+19	1.6880E+19
I-132	8.3738E+00	8.1124E-10	3.7011E+15	9.0143E+17
I-133	9.8195E-01	8.6682E-10	3.9249E+15	3.5108E+18
I-135	3.2574E-08	9.2755E-18	4.1377E+07	6.6796E+17
Xe-133	4.1614E+04	2.2232E-04	1.0066E+21	1.2104E+21
Xe-135	8.1415E-04	3.1881E-13	1.4222E+12	1.0482E+19
Cs-134	4.4931E+01	3.4727E-05	1.5607E+20	1.4312E+18
Cs-136	8.5299E+00	1.1638E-07	5.1536E+17	3.5562E+17
I-135	3.2574E-08	9.2755E-18	4.1377E+07	6.6796E+17
[illegible]	4.1614E+04	2.2232E-04	1.0066E+21	1.2104E+21

Cs-137	3.4108E+01	3.9212E-04	1.7237E+21	1.0818E+18
Ba-140	1.7389E+01	2.3753E-07	1.0217E+18	7.3018E+17
La-140	1.9636E+01	3.5327E-08	1.5196E+17	5.8495E+17
Ce-141	5.5679E-01	1.9541E-08	8.3459E+16	1.9643E+16
Ce-143	4.1263E-03	6.2136E-12	2.6167E+13	3.8356E+15
Ce-144	5.6405E-01	1.7685E-07	7.3958E+17	1.8090E+16
Pr-143	1.8975E-01	2.8178E-09	1.1867E+16	7.4103E+15
Nd-147	5.9026E-02	7.2963E-10	2.9891E+15	2.5987E+15
Np-239	4.2717E-01	1.8413E-09	4.6396E+15	8.1063E+16
Pu-238	1.7434E-03	1.0184E-07	2.5768E+17	5.5212E+13
Pu-239	1.8701E-04	3.0087E-06	7.5810E+18	5.9072E+12
Pu-240	2.9746E-04	1.3054E-06	3.2756E+18	9.4251E+12
Pu-241	7.3267E-02	7.1124E-07	1.7773E+18	2.3230E+15
Am-241	4.2048E-05	1.2251E-08	3.0613E+16	1.2816E+12
Cm-242	9.7483E-03	2.9413E-09	7.3193E+15	3.1548E+14
Cm-244	5.9553E-04	7.3611E-09	1.8168E+16	1.8879E+13

Turbine Building Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	2.0401E+22	0.0000E+00	
Elemental I (atoms)	1.7731E+19	0.0000E+00	
Organic I (atoms)	5.4840E+17	0.0000E+00	
Aerosols (kg)	4.4923E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0991E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.1004E-02
Total I (Ci)			6.0355E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1654E+22
Elemental I (atoms)	0.0000E+00	3.1005E-19
Organic I (atoms)	0.0000E+00	9.5891E+17
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6323E+19
Elemental I (atoms)	0.0000E+00	1.9395E+16
Organic I (atoms)	0.0000E+00	5.9983E+14
Aerosols (kg)	0.0000E+00	6.4298E-07

Detailed model information at time (H) = 288.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.6029E-17

EAB LOCA Doses:

Time (h) = 288.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	7.2118E-05	3.5114E-02	1.6234E-03
Accumulated dose (rem)	4.8048E-04	1.9936E-01	9.4846E-03

Primary Containment Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-60	2.4002E-15	2.1234E-21	2.1312E+04	1.4616E+17
Kr-85	1.4756E+06	3.7611E-00	2.6647E+25	5.6462E+22
Sr-89	5.2729E-12	1.8150E-19	1.2281E+06	3.7647E+20
Sr-90	7.9175E-13	5.8043E-18	3.8838E+07	4.8044E+19
Y-91	8.8181E-14	3.5957E-21	2.3796E+04	4.9971E+18
Co-60	2.4002E-15	2.1234E-21	2.1312E+04	1.4616E+17
Kr-85	1.4756E+06	3.7611E-00	2.6647E+25	5.6462E+22

Zr-95	1.0190E-13	4.7435E-21	3.0069E+04	7.0293E+18
Nb-95	1.1425E-13	2.9218E-21	1.8521E+04	7.0362E+18
Ru-103	1.0530E-12	3.2626E-20	1.9076E+05	7.8770E+19
Ru-106	5.0651E-13	1.5140E-19	8.6013E+05	3.1408E+19
Te-127m	2.3010E-13	2.4394E-20	1.1567E+05	1.4561E+19
Te-129m	7.9001E-13	2.6224E-20	1.2242E+05	6.0968E-19
Te-132	1.8130E-12	5.9718E-21	2.7244E+04	1.3834E-21
I-131	5.6942E+05	4.5930E-03	2.1114E+22	4.3785E+22
I-133	2.2600E-02	1.9950E-07	9.0333E+17	2.3963E+22
I-135	2.4187E-07	6.8872E-17	3.0723E-08	1.2706E+22
Xe-133	4.3886E+07	2.3445E-01	1.0616E+24	4.0894E+24
Xe-135	2.8394E-02	1.1119E-11	4.9598E+13	1.4754E-23
Cs-134	1.5813E-11	1.2222E-17	5.4926E+07	1.0866E+21
Cs-136	2.7055E-12	3.6914E-20	1.6346E+05	3.4537E+20
Cs-137	1.2024E-11	1.3824E-16	6.0765E+08	8.1790E+20
Ba-140	6.1679E-12	8.4250E-20	3.6240E+05	7.1472E+20
La-140	7.0669E-12	1.2714E-20	5.4690E+04	2.0842E-19
Ce-141	2.1101E-13	7.4055E-21	3.1629E+04	1.6468E+19
Ce-144	2.2198E-13	6.9596E-20	2.9105E+05	1.3856E+19
Pu-238	6.8959E-16	4.0281E-20	1.0192E+05	4.1762E-16
Pu-239	7.3975E-17	1.1901E-18	2.9988E+06	4.4362E+15
Pu-240	1.1764E-16	5.1625E-19	1.2954E+06	7.1327E+15
Pu-241	2.8967E-14	2.8120E-19	7.0266E+05	1.7591E+18
Am-241	1.6882E-17	4.9188E-21	1.2291E-04	9.3182E+14

Primary Containment Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7708E+25	0.0000E+00	
Elemental I (atoms)	2.0482E+22	0.0000E+00	
Organic I (atoms)	6.3346E+20	0.0000E+00	
Aerosols (kg)	1.5920E-16	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.1804E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.1806E-05
Total I (Ci)			5.6965E+05

Time (h) = 288.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5376E+22
Elemental I (atoms)	0.0000E+00	3.3996E+19
Organic I (atoms)	0.0000E+00	1.0514E+18
Aerosols (kg)	0.0000E-00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Co-58	1.0070E-02	3.1668E-10	3.2880E+15	4.0679E+14
Co-60	6.0676E-03	5.3678E-09	5.3876E+16	2.3160E+14
Kr-85	1.2704E+03	3.2379E-03	2.2940E+22	2.6020E+19
Rb-86	2.7399E-01	3.3673E-09	2.3580E+16	1.3135E+16
Sr-89	1.3330E+01	4.5882E-07	3.1046E+18	5.5156E-17
Sr-90	2.0015E+00	1.4673E-05	9.8180E+19	7.6264E+16
Sr-91	1.4988E-08	4.1345E-18	2.7361E+07	3.1103E+16
Y-90	1.9236E+00	3.5356E-09	2.3658E+16	5.3135E+16
Y-91	2.2335E-01	9.1076E-09	6.0271E+16	9.0459E+15
Y-93	4.2582E-10	1.2763E-19	8.2647E+05	2.7220E+14
Zr-95	2.5761E-01	1.1991E-08	7.6013E+16	1.0473E+16
Zr-97	2.1520E-06	1.1257E-15	6.9890E+09	8.6054E+14
Nb-95	2.8882E-01	7.3860E-09	4.6821E+16	1.1106E+16
Mo-99	1.8749E-01	3.9091E-10	2.3779E+15	4.5470E+16
Tc-99m	1.9222E-01	3.6556E-11	2.2237E+14	4.3738E+16
Zr-95	2.5761E-01	1.1991E-08	7.6013E+16	1.0473E+16
[illegible]	2.1520E-06	1.1257E-15	6.9890E+09	8.6054E+14

Ru-103	2.6618E+00	8.2477E-08	4.8222E+17	1.1283E+17
Ru-106	1.2804E+00	3.8272E-07	2.1744E+18	4.9321E+16
Rh-105	8.6416E-03	1.0238E-11	5.8720E+13	1.5654E+16
Sb-127	4.1384E-01	1.5496E-09	7.3482E+15	5.5377E+16
Te-127	9.8498E-01	3.7322E-10	1.7698E+15	7.2331E+16
Te-127m	5.8167E-01	6.1666E-08	2.9241E+17	2.2757E+16
Te-129	1.7269E-00	8.2460E-11	3.8495E+14	6.4037E+16
Te-129m	1.9971E-00	6.6293E-08	3.0948E+17	8.6215E+16
Te-131m	1.0583E-02	1.3271E-11	6.1008E+13	4.4925E+16
Te-132	4.5831E+00	1.5096E-08	6.8872E+16	7.9883E+17
I-131	5.7598E+02	4.6460E-06	2.1358E-19	2.0633E+19
I-132	5.4704E+00	5.2997E-10	2.4178E-15	9.3924E-17
I-133	2.2846E-01	2.0167E-10	9.1316E-14	3.5141E+18
I-135	2.4450E-10	6.9622E-20	3.1057E-05	6.6796E+17
Xe-133	3.7799E+04	2.0194E-04	9.1436E-20	1.4651E+21
Xe-135	2.4733E-05	9.6851E-15	4.3204E-10	1.0482E+19
Cs-134	4.4836E+01	3.4653E-05	1.5574E+20	1.7181E-18
Cs-136	7.6712E+00	1.0467E-07	4.6347E+17	4.0736E-17
Cs-137	3.4093E+01	3.9196E-04	1.7230E+21	1.2998E+18
Ba-140	1.5592E+01	2.1298E-07	9.1614E+17	8.3551E+17
La-140	1.7865E+01	3.2141E-08	1.3826E+17	7.0394E+17
Ce-141	5.3338E-01	1.8720E-08	7.9951E+16	2.3128E+16
Ce-143	1.5051E-03	2.2665E-12	9.5449E+12	3.8523E+15
Ce-144	5.6114E-01	1.7594E-07	7.3577E+17	2.1687E+16
Pr-143	1.7151E-01	2.5470E-09	1.0726E+16	8.5643E+15
Nd-147	5.2010E-02	6.4290E-10	2.6338E+15	2.9532E+15
Np-239	2.3704E-01	1.0218E-09	2.5746E+15	8.3127E+16
Pu-238	1.7433E-03	1.0183E-07	2.5765E+17	6.6358E+13
Pu-239	1.8700E-04	3.0086E-06	7.5809E+18	7.1028E+12
Pu-240	2.9738E-04	1.3051E-06	3.2747E+18	1.1327E+13
Pu-241	7.3227E-02	7.1085E-07	1.7763E+18	2.7913E+15
Am-241	4.2679E-05	1.2435E-08	3.1072E+16	1.5524E+12
Cm-242	9.6628E-03	2.9155E-09	7.2552E+15	3.7753E+14
Cm-244	5.9524E-04	7.3574E-09	1.8159E+16	2.2686E+13

Turbine Building Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	2.3855E+22	0.0000E+00	
Elemental I (atoms)	1.7651E+19	0.0000E+00	
Organic I (atoms)	5.4592E+17	0.0000E+00	
Aerosols (kg)	4.4878E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0343E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.0350E-02
Total I (Ci)			5.8168E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5376E+22
Elemental I (atoms)	0.0000E+00	3.3996E+19
Organic I (atoms)	0.0000E+00	1.0514E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 288.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2697E-19
Elemental I (atoms)	0.0000E+00	2.4511E-16
Organic I (atoms)	0.0000E+00	7.5807E+14
Aerosols (kg)	0.0000E+00	7.7229E-07

Detailed model information at time (H) = 336.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1/ Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Natural deposition - Powers' Model, Compartment 1

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	4.3814E+19

EAB LOCA Doses:

Time (h) = 336.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	6.5545E-05	3.3708E-02	1.5708E-03
Accumulated dose (rem)	5.4602E-04	2.3306E-01	1.1055E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Kr-85	1.4749E+06	3.7592E+00	2.6634E+25	6.5894E-22
Sr-90	6.5142E-15	4.7755E-20	3.1954E+05	4.8044E+19
I-131	4.7917E+05	3.8651E-03	1.7768E+22	4.7129E+22
I-133	4.5642E+01	4.0291E-08	1.8243E+17	2.3963E+22
I-135	1.5759E-09	4.4873E-19	2.0017E+06	1.2706E+22
Xe-133	3.3688E+07	1.7998E-01	8.1491E+23	4.3359E+24
Xe-135	7.3042E-04	2.8602E-13	1.2759E+12	1.4754E+23
Cs-134	1.2988E-13	1.0038E-19	4.5113E+05	1.0866E+21
Cs-137	9.8930E-14	1.1374E-18	4.9995E+06	8.1790E+20
Pu-239	6.0881E-19	9.7948E-21	2.4680E+04	4.4362E+15
Pu-240	9.6799E-19	4.2480E-21	1.0659E-04	7.1327E+15

Primary Containment Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7449E+25	0.0000E+00	
Elemental I (atoms)	1.7235E+22	0.0000E+00	
Organic I (atoms)	5.3305E+20	0.0000E+00	
Aerosols (kg)	1.3091E-18	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.3591E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.3592E-05
Total I (Ci)			4.7922E+05

Time (h) = 336.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9059E+22
Elemental I (atoms)	0.0000E+00	3.6512E+19
Organic I (atoms)	0.0000E+00	1.1292E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Co-58	9.8716E-03	3.1045E-10	3.2234E+15	4.7054E+14
Co-60	6.0615E-03	5.3624E-09	5.3821E+16	2.7038E+14
Kr-85	1.4665E-03	3.7378E-03	2.6482E+22	3.4782E+19
Rb-86	2.5430E-01	3.1253E-09	2.1885E+16	1.4823E+16
Sr-89	1.2965E+01	4.4626E-07	3.0196E+18	6.3561E+17
Sr-90	2.0006E+00	1.4667E-05	9.8139E+19	8.9058E+16
Sr-91	4.5145E-10	1.2454E-19	8.2416E+05	3.1103E+16
Y-90	1.9589E+00	3.6006E-09	2.4093E+16	6.5487E+16
Y-91	2.1806E-01	8.8917E-09	5.8843E+16	1.0457E+16
Y-93	1.5793E-11	4.7337E-21	3.0653E+04	2.7220E+14
Zr-95	2.5201E-01	1.1731E-08	7.4363E+16	1.2102E+16
Zr-97	3.0042E-07	1.5715E-16	9.7565E+08	8.6054E+14
Nb-95	2.8732E-01	7.3479E-09	4.6579E+16	1.2947E+16
Mo-99	1.1322E-01	2.3606E-10	1.4359E+15	4.6412E+16
Tc-99m	1.1608E-01	2.2075E-11	1.3428E+14	4.4654E+16
Zr-95	2.5201E-01	1.1731E-08	7.4363E+16	1.2102E+16
Zr-97	3.0042E-07	1.5715E-16	9.7565E+08	8.6054E+14

Ru-103	2.5688E+00	7.9594E-08	4.6536E+17	1.2955E+17
Ru-106	1.2753E+00	3.8118E-07	2.1656E-18	5.7491E+16
Rh-105	3.3715E-03	3.9945E-12	2.2910E+13	1.5690E+16
Sb-127	2.8862E-01	1.0808E-09	5.1248E+15	5.7599E+16
Te-127	8.5968E-01	3.2575E-10	1.5446E+15	7.8000E+16
Te-127m	5.7495E-01	6.0953E-08	2.8903E+17	2.6455E+16
Te-129	1.6566E+00	7.9105E-11	3.6929E-14	7.2182E+16
Te-129m	1.9158E-00	6.3595E-08	2.9688E+17	9.8722E+16
Te-131m	3.4899E-03	4.3766E-12	2.0119E+13	4.4966E-16
Te-132	2.9941E+00	9.8621E-09	4.4993E+16	8.2269E+17
I-131	5.4860E+02	4.4251E-06	2.0343E+19	2.4236E+19
I-132	3.5737E+00	3.4622E-10	1.5795E+15	9.6394E+17
I-133	5.2226E-02	4.6103E-11	2.0875E+14	3.5149E+18
Xe-133	3.3510E+04	1.7902E-04	8.1060E+20	1.6936E-21
Xe-135	7.3369E-07	2.8730E-16	1.2816E+09	1.0482E+19
Cs-134	4.4740E+01	3.4580E-05	1.5541E+20	2.0045E+18
Cs-136	6.8989E+00	9.4130E-08	4.1681E-17	4.5390E+17
Cs-137	3.4079E+01	3.9180E-04	1.7222E+21	1.5178E+18
Ba-140	1.3980E+01	1.9097E-07	8.2144E+17	9.2995E+17
La-140	1.6132E+01	2.9023E-08	1.2484E+17	8.1176E+17
Ce-141	5.1096E-01	1.7933E-08	7.6591E+16	2.6466E+16
Ce-143	5.4902E-04	8.2674E-13	3.4816E+12	3.8583E+15
Ce-144	5.5825E-01	1.7503E-07	7.3198E+17	2.5265E+16
Pr-143	1.5489E-01	2.3002E-09	9.6866E+15	9.6068E+15
Nd-147	4.5828E-02	5.6649E-10	2.3207E+15	3.2656E+15
Np-239	1.3154E-01	5.6699E-10	1.4287E+15	8.4273E+16
Pu-238	1.7431E-03	1.0182E-07	2.5763E+17	7.7504E+13
Pu-239	1.8698E-04	3.0082E-06	7.5798E+18	8.2984E+12
Pu-240	2.9729E-04	1.3047E-06	3.2737E+18	1.3228E+13
Pu-241	7.3186E-02	7.1046E-07	1.7753E+18	3.2594E+15
Am-241	4.3309E-05	1.2618E-08	3.1531E+16	1.8273E+12
Cm-242	9.5781E-03	2.8899E-09	7.1916E+15	4.3904E+14
Cm-244	5.9494E-04	7.3538E-09	1.8150E+16	2.6491E+13

Turbine Building Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7293E+22	0.0000E+00	
Elemental I (atoms)	1.7152E+19	0.0000E+00	
Organic I (atoms)	5.3047E+17	0.0000E+00	
Aerosols (kg)	4.4837E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9375E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9379E-02
Total I (Ci)			5.5223E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9059E+22
Elemental I (atoms)	0.0000E+00	3.6512E+19
Organic I (atoms)	0.0000E+00	1.1292E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 336.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0063E+19
Elemental I (atoms)	0.0000E+00	2.9540E+16
Organic I (atoms)	0.0000E+00	9.1360E+14
Aerosols (kg)	0.0000E+00	9.0148E-07

Detailed model information at time (H) = 384.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	5.3278E+21

EAB LOCA Doses:

Time (h) = 384.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	5.8632E-05	3.1873E-02	1.5051E-03
Accumulated dose (rem)	6.0465E-04	2.6494E-01	1.2561E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Kr-85	1.4742E+06	3.7574E+00	2.6621E+25	7.5322E+22
I-131	4.0323E-05	3.2525E-03	1.4952E+22	4.9943E+22
I-133	9.2176E+00	8.1370E-09	3.6844E+16	2.3964E-22
I-135	1.0268E-11	2.9237E-21	1.3042E+04	1.2706E+22
Xe-133	2.5860E+07	1.3816E-01	6.2556E+23	4.5252E+24
Xe-135	1.8790E-05	7.3577E-15	3.2822E+10	1.4754E+23
Cs-137	8.1396E-16	9.3578E-21	4.1134E-04	8.1790E+20

Primary Containment Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7246E-25	0.0000E+00	
Elemental I (atoms)	1.4503E+22	0.0000E+00	
Organic I (atoms)	4.4856E+20	0.0000E+00	
Aerosols (kg)	1.0766E-20	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.6682E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6682E-05
Total I (Ci)			4.0324E+05

Time (h) = 384.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E-01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2711E+22
Elemental I (atoms)	0.0000E+00	3.8630E+19
Organic I (atoms)	0.0000E+00	1.1947E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Co-58	9.6774E-03	3.0434E-10	3.1599E+15	5.3303E+14
Co-60	6.0554E-03	5.3569E-09	5.3767E+16	3.0911E+14
Kr-85	1.6624E+03	4.2372E-03	3.0020E+22	4.4798E+19
Rb-86	2.3603E-01	2.9007E-09	2.0312E+16	1.6390E+16
Sr-89	1.2610E+01	4.3405E-07	2.9370E+18	7.1736E+17
Sr-90	1.9998E+00	1.4661E-05	9.8098E+19	1.0185E+17
Sr-91	1.3599E-11	3.7513E-21	2.4825E+04	3.1103E+16
Y-90	1.9796E+00	3.6386E-09	2.4347E+16	7.8014E+16
Y-91	2.1289E-01	8.6810E-09	5.7449E+16	1.1835E+16
Zr-95	2.4654E-01	1.1476E-08	7.2748E+16	1.3696E+16
Zr-97	4.1938E-08	2.1938E-17	1.3620E+08	8.6055E+14
Nb-95	2.8568E-01	7.3058E-09	4.6312E+16	1.4778E+16
Mo-99	6.8369E-02	1.4255E-10	8.6713E+14	4.6980E+16
Tc-99m	7.0095E-02	1.3330E-11	8.1089E+13	4.5208E+16
Ru-103	2.4790E+00	7.6811E-08	4.4910E+17	1.4568E+17
Ru-106	1.2701E-00	3.7963E-07	2.1568E+18	6.5628E+16
Rh-105	1.3154E-03	1.5585E-12	8.9383E+12	1.5704E+16
Sb-127	2.0129E-01	7.5375E-10	3.5741E+15	5.9148E+16
Te-127	7.7006E-01	2.9179E-10	1.3836E+15	8.3013E+16
Te-127m	5.6807E-01	6.0224E-08	2.8557E+17	3.0109E+16
Ru-106	1.2701E-00	3.7963E-07	2.1568E+18	6.5628E+16
Rh-105	1.3154E-03	1.5585E-12	8.9383E+12	1.5704E+16

Te-129	1.5892E+00	7.5885E-11	3.5426E+14	7.9996E+16
Te-129m	1.8379E+00	6.1007E-08	2.8480E+17	1.1072E+17
Te-131m	1.1509E-03	1.4433E-12	6.6350E+12	4.4979E+16
Te-132	1.9560E-00	6.4427E-09	2.9393E+16	8.3828E+17
I-131	5.1543E-02	4.1575E-06	1.9112E+19	2.7644E+19
I-132	2.3346E+00	2.2618E-10	1.0319E+15	9.8008E+17
I-133	1.1777E-02	1.0396E-11	4.7072E-13	3.5151E+18
Xe-133	2.9172E+04	1.5585E-04	7.0568E-20	1.8942E+21
Xe-135	2.1380E-08	8.3720E-18	3.7346E-07	1.0482E+19
Cs-134	4.4645E+01	3.4506E-05	1.5508E-20	2.2902E+18
Cs-136	6.2043E+00	8.4653E-08	3.7485E-17	4.9575E+17
Cs-137	3.4065E+01	3.9164E-04	1.7215E+21	1.7356E+18
Ba-140	1.2535E+01	1.7123E-07	7.3654E+17	1.0146E+18
La-140	1.4514E+01	2.6113E-08	1.1232E+17	9.0892E-17
Ce-141	4.8949E-01	1.7179E-08	7.3371E+16	2.9664E-16
Ce-143	2.0026E-04	3.0157E-13	1.2700E+12	3.8605E+15
Ce-144	5.5538E-01	1.7413E-07	7.2821E+17	2.8825E+16
Pr-143	1.3983E-01	2.0765E-09	8.7448E+15	1.0548E+16
Nd-147	4.0381E-02	4.9915E-10	2.0449E+15	3.5408E+15
Np-239	7.2991E-02	3.1463E-10	7.9278E+14	8.4908E+16
Pu-238	1.7429E-03	1.0181E-07	2.5761E+17	8.8648E+13
Pu-239	1.8694E-04	3.0076E-06	7.5783E+18	9.4937E+12
Pu-240	2.9721E-04	1.3043E-06	3.2728E+18	1.5128E+13
Pu-241	7.3146E-02	7.1007E-07	1.7743E+18	3.7271E+15
Am-241	4.3938E-05	1.2802E-08	3.1989E+16	2.1061E+12
Cm-242	9.4942E-03	2.8646E-09	7.1286E+15	5.0001E+14
Cm-244	5.9464E-04	7.3501E-09	1.8141E-16	3.0294E+13

Turbine Building Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0725E+22	0.0000E+00	
Elemental I (atoms)	1.6368E+19	0.0000E+00	
Organic I (atoms)	5.0621E+17	0.0000E+00	
Aerosols (kg)	4.4797E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8203E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8205E-02
Total I (Ci)			5.1777E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2711E+22
Elemental I (atoms)	0.0000E+00	3.8630E+19
Organic I (atoms)	0.0000E+00	1.1947E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 384.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8418E+19
Elemental I (atoms)	0.0000E+00	3.4381E+16
Organic I (atoms)	0.0000E+00	1.0633E+15
Aerosols (kg)	0.0000E+00	1.0306E-06

Detailed model information at time (H) = 432.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	6.4783E+23

EAB LOCA Doses:

Time (h) = 432.0000	Whole Body	Thyroid	TEDE
1.0000E+00	1.0000E+00	1.0000E+00	6.4783E+23

Delta dose (rem)	5.1854E-05	2.9778E-02	1.4319E-03
Accumulated dose (rem)	6.5651E-04	2.9472E-01	1.3992E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Kr-85	1.4734E+06	3.7556E+00	2.6608E+25	8.4745E-22
I-131	3.3932E+05	2.7370E-03	1.2582E+22	5.2311E+22
I-133	1.8616E+00	1.6433E-09	7.4408E+15	2.3964E+22
Xe-133	1.9851E+07	1.0605E-01	4.8020E+23	4.6705E+24
Xe-135	4.8335E-07	1.8927E-16	8.4432E+08	1.4754E+23

Primary Containment Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7088E+25	0.0000E-00	
Elemental I (atoms)	1.2205E+22	0.0000E+00	
Organic I (atoms)	3.7747E+20	0.0000E+00	
Aerosols (kg)	8.8539E-23	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.0868E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.0868E-05
Total I (Ci)			3.3932E+05

Time (h) = 432.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6338E+22
Elemental I (atoms)	0.0000E+00	4.0412E+19
Organic I (atoms)	0.0000E+00	1.2499E+18
Aerosols (kg)	0.0000E-00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Co-58	9.4870E-03	2.9835E-10	3.0978E+15	5.9429E+14
Co-60	6.0493E-03	5.3516E-09	5.3713E+16	3.4781E+14
Kr-85	1.8581E+03	4.7359E-03	3.3553E+22	5.6065E+19
Rb-86	2.1906E-01	2.6923E-09	1.8853E+16	1.7844E+16
Sr-89	1.2265E+01	4.2218E-07	2.8567E+18	7.9688E+17
Sr-90	1.9990E+00	1.4655E-05	9.8057E+19	1.1463E+17
Y-90	1.9916E+00	3.6606E-09	2.4494E+16	9.0644E-16
Y-91	2.0785E-01	8.4753E-09	5.6087E+16	1.3180E+16
Zr-95	2.4118E-01	1.1227E-08	7.1168E+16	1.5255E+16
Zr-97	5.8545E-09	3.0625E-18	1.9013E+07	8.6055E+14
Nb-95	2.8389E-01	7.2600E-09	4.6022E+16	1.6599E+16
Mo-99	4.1286E-02	8.6082E-11	5.2363E+14	4.7324E+16
Tc-99m	4.2328E-02	8.0499E-12	4.8967E+13	4.5542E+16
Ru-103	2.3924E+00	7.4126E-08	4.3340E+17	1.6125E+17
Ru-106	1.2650E+00	3.7810E-07	2.1481E+18	7.3732E+16
Rh-105	5.1322E-04	6.0804E-13	3.4873E+12	1.5709E+16
Sb-127	1.4038E-01	5.2568E-10	2.4927E+15	6.0229E+16
Te-127	7.0535E-01	2.6727E-10	1.2674E+15	8.7552E+16
Te-127m	5.6111E-01	5.9487E-08	2.8208E+17	3.3719E+16
Te-129	1.5245E+00	7.2797E-11	3.3984E+14	8.7492E+16
Te-129m	1.7631E+00	5.8524E-08	2.7321E+17	1.2223E+17
Te-131m	3.7955E-04	4.7598E-13	2.1881E+12	4.4984E+16
Te-132	1.2778E+00	4.2089E-09	1.9202E+16	8.4847E+17
I-131	4.7898E+02	3.8635E-06	1.7761E+19	3.0827E+19
I-132	1.5252E+00	1.4776E-10	6.7410E+14	9.9062E+17
I-133	2.6265E-03	2.3186E-12	1.0498E+13	3.5151E+18
Xe-133	2.5041E+04	1.3378E-04	6.0574E+20	2.0675E+21
Xe-135	6.1444E-10	2.4061E-19	1.0733E+06	1.0482E+19
I-131	4.7898E+02	3.8635E-06	1.7761E+19	3.0827E+19
I-132	1.5252E+00	1.4776E-10	6.7410E+14	9.9062E+17

Cs-134	4.4550E+01	3.4433E-05	1.5475E+20	2.5754E+18
Cs-136	5.5797E+00	7.6131E-08	3.3711E+17	5.3338E+17
Cs-137	3.4051E+01	3.9147E-04	1.7208E+21	1.9534E+18
Ba-140	1.1240E+01	1.5353E-07	6.6041E+17	1.0906E+18
La-140	1.3036E+01	2.3453E-08	1.0088E+17	9.9626E+17
Ce-141	4.6891E-01	1.6457E-08	7.0287E+16	3.2727E+16
Ce-143	7.3050E-05	1.1000E-13	4.6324E+11	3.8613E+15
Ce-144	5.5252E-01	1.7323E-07	7.2446E+17	3.2367E+16
Pr-143	1.2622E-01	1.8744E-09	7.8935E+15	1.1398E+16
Nd-147	3.5581E-02	4.3982E-10	1.8018E+15	3.7833E+15
Np-239	4.0504E-02	1.7459E-10	4.3992E+14	8.5261E+16
Pu-238	1.7428E-03	1.0180E-07	2.5758E+17	9.9791E+13
Pu-239	1.8690E-04	3.0069E-06	7.5765E+18	1.0689E+13
Pu-240	2.9712E-04	1.3039E-06	3.2718E+18	1.7028E+13
Pu-241	7.3106E-02	7.0968E-07	1.7733E+18	4.1947E+15
Am-241	4.4567E-05	1.2985E-08	3.2447E+16	2.3890E+12
Cm-242	9.4110E-03	2.8395E-09	7.0661E+15	5.6045E+14
Cm-244	5.9435E-04	7.3465E-09	1.8132E+16	3.4095E+13

Turbine Building Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	3.4159E+22	0.0000E+00	
Elemental I (atoms)	1.5401E+19	0.0000E+00	
Organic I (atoms)	4.7632E+17	0.0000E+00	
Aerosols (kg)	4.4760E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6915E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6917E-02
Total I (Ci)			4.8051E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 432.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6338E+22
Elemental I (atoms)	0.0000E+00	4.0412E+19
Organic I (atoms)	0.0000E+00	1.2499E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 432.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.7762E+19
Elemental I (atoms)	0.0000E+00	3.8967E+16
Organic I (atoms)	0.0000E+00	1.2052E+15
Aerosols (kg)	0.0000E+00	1.1595E-06

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	7.8770E+25

EAB LOCA Doses:

Time (h) = 480.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	4.5492E-05	2.7552E-02	1.3552E-03
Accumulated dose (rem)	7.0200E-04	3.2227E-01	1.5348E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Kr-85	1.4727E+06	3.7537E+00	2.6595E+25	9.4163E+22
I-131	2.8554E+05	2.3032E-03	1.0588E+22	5.4304E+22
I-133	3.7595E-01	3.3188E-10	1.5027E+15	2.3964E+22

Time (h) = 480.0000	Ci	kg	Atoms	Decay

Xe-133	1.5238E-07	8.1410E-02	3.6862E+23	4.7820E+24
Xe-135	1.2434E-08	4.8689E-18	2.1720E+07	1.4754E+23

Primary Containment Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6963E+25	0.0000E-00	
Elemental I (atoms)	1.0270E+22	0.0000E+00	
Organic I (atoms)	3.1754E+20	0.0000E+00	
Aerosols (kg)	7.2818E-25	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.5976E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5976E-05
Total I (Ci)			2.8554E+05

Time (h) = 480.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9947E+22
Elemental I (atoms)	0.0000E+00	4.1912E+19
Organic I (atoms)	0.0000E+00	1.2962E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Co-58	9.3004E-03	2.9248E-10	3.0368E+15	6.5435E+14
Co-60	6.0432E-03	5.3462E-09	5.3659E+16	3.8647E+14
Kr-85	2.0535E+03	5.2341E-03	3.7083E+22	6.8583E+19
Rb-86	2.0332E-01	2.4988E-09	1.7498E+16	1.9194E+16
Sr-89	1.1930E+01	4.1063E-07	2.7785E+18	8.7422E+17
Sr-90	1.9981E+00	1.4648E-05	9.8016E+19	1.2741E+17
Y-90	1.9983E+00	3.6730E-09	2.4577E+16	1.0333E+17
Y-91	2.0292E-01	8.2745E-09	5.4758E+16	1.4493E+16
Zr-95	2.3595E-01	1.0983E-08	6.9622E+16	1.6780E+16
Zr-97	8.1727E-10	4.2752E-19	2.6542E+06	8.6055E+14
Nb-95	2.8197E-01	7.2109E-09	4.5710E+16	1.8407E+16
Mo-99	2.4931E-02	5.1982E-11	3.1621E+14	4.7531E+16
Tc-99m	2.5561E-02	4.8611E-12	2.9570E+13	4.5744E+16
Ru-103	2.3087E+00	7.1535E-08	4.1825E+17	1.7628E+17
Ru-106	1.2598E+00	3.7657E-07	2.1394E+18	8.1803E+16
Rh-105	2.0023E-04	2.3723E-13	1.3606E+12	1.5711E+16
Sb-127	9.7907E-02	3.6662E-10	1.7385E+15	6.0982E+16
Te-127	6.5805E-01	2.4935E-10	1.1824E+15	9.1749E+16
Te-127m	5.5413E-01	5.8746E-08	2.7857E+17	3.7284E+16
Te-129	1.4625E-00	6.9835E-11	3.2601E+14	9.4682E+16
Te-129m	1.6913E+00	5.6143E-08	2.6209E+17	1.3327E+17
Te-131m	1.2517E-04	1.5697E-13	7.2160E+11	4.4985E+16
Te-132	8.3475E-01	2.7496E-09	1.2544E+16	8.5512E+17
I-131	4.4113E+02	3.5582E-06	1.6357E+19	3.3772E+19
I-132	9.9636E-01	9.6527E-11	4.4038E+14	9.9751E+17
I-133	5.8057E-04	5.1250E-13	2.3206E+12	3.5151E+18
Xe-133	2.1254E+04	1.1355E-04	5.1414E+20	2.2155E+21
Xe-135	1.7464E-11	6.8386E-21	3.0506E-04	1.0482E+19
Cs-134	4.4455E+01	3.4360E-05	1.5442E+20	2.8599E+18
Cs-136	5.0180E+00	6.8466E-08	3.0317E+17	5.6723E+17
Cs-137	3.4037E+01	3.9131E-04	1.7201E+21	2.1710E+18
Ba-140	1.0078E+01	1.3766E-07	5.9215E+17	1.1586E+18
La-140	1.1698E+01	2.1046E-08	9.0529E+16	1.0747E+18
Ce-141	4.4920E-01	1.5765E-08	6.7333E+16	3.5662E+16
Ce-143	2.6646E-05	4.0124E-14	1.6898E+11	3.8616E+15
Ce-144	5.4967E-01	1.7234E-07	7.2073E+17	3.5890E+16
Pr-143	1.1392E-01	1.6918E-09	7.1246E+15	1.2165E+16
La-140	1.1698E+01	2.1046E-08	9.0529E+16	1.0747E+18
Ce-141	4.4920E-01	1.5765E-08	6.7333E+16	3.5662E+16

Nd-147	3.1351E-02	3.8754E-10	1.5876E+15	3.9970E+15
Np-239	2.2476E-02	9.6882E-11	2.4412E+14	8.5457E+16
Pu-238	1.7426E-03	1.0179E-07	2.5756E-17	1.1093E+14
Pu-239	1.8685E-04	3.0061E-06	7.5745E-18	1.1884E+13
Pu-240	2.9704E-04	1.3036E-06	3.2709E-18	1.8928E+13
Pu-241	7.3065E-02	7.0928E-07	1.7724E+18	4.6620E+15
Am-241	4.5196E-05	1.3168E-08	3.2905E+16	2.6759E+12
Cm-242	9.3285E-03	2.8146E-09	7.0042E+15	6.2035E+14
Cm-244	5.9405E-04	7.3428E-09	1.8123E+16	3.7894E+13

Turbine Building Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	3.7597E+22	0.0000E+00	
Elemental I (atoms)	1.4329E+19	0.0000E+00	
Organic I (atoms)	4.4317E+17	0.0000E+00	
Aerosols (kg)	4.4724E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5579E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5580E-02
Total I (Ci)			4.4213E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.9947E+22
Elemental I (atoms)	0.0000E+00	4.1912E+19
Organic I (atoms)	0.0000E+00	1.2962E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8095E-19
Elemental I (atoms)	0.0000E+00	4.3258E+16
Organic I (atoms)	0.0000E-00	1.3379E+15
Aerosols (kg)	0.0000E-00	1.2884E-06

Detailed model information at time (H) = 528.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	9.5773E+27

EAB LOCA Doses:

Time (h) = 528.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.9692E-05	2.5288E-02	1.2781E-03
Accumulated dose (rem)	7.4169E-04	3.4756E-01	1.6626E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Kr-85	1.4720E+06	3.7519E-00	2.6582E+25	1.0358E+23
I-131	2.4029E+05	1.9382E-03	8.9099E+21	5.5980E+22
I-133	7.5926E-02	6.7025E-11	3.0348E+14	2.3964E+22
Xe-133	1.1698E+07	6.2493E-02	2.8296E+23	4.8676E+24
Xe-135	3.1986E-10	1.2525E-19	5.5872E+05	1.4754E+23

Primary Containment Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump
Noble gases (atoms)	2.6865E+25	0.0000E+00
Elemental I (atoms)	8.6426E+21	0.0000E+00
Organic I (atoms)	2.6730E+20	0.0000E+00
Aerosols (kg)	5.9890E-27	0.0000E+00
Time (h) = 528.0000	Atmosphere	Sump
Noble gases (atoms)	2.6865E+25	0.0000E+00

Dose Effective (Ci/cc) I-131 (Thyroid)	2.1859E-05
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)	2.1859E-05
Total I (Ci)	2.4029E+05

Time (h) = 528.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7356E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 528.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3541E+22
Elemental I (atoms)	0.0000E+00	4.3174E+19
Organic I (atoms)	0.0000E+00	1.3353E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Co-58	9.1174E-03	2.8673E-10	2.9771E+15	7.1322E+14
Co-60	6.0371E-03	5.3408E-09	5.3605E+16	4.2509E+14
Kr-85	2.2488E+03	5.7317E-03	4.0609E+22	8.2350E+19
Rb-86	1.8871E-01	2.3192E-09	1.6240E+16	2.0446E+16
Sr-89	1.1603E+01	3.9940E-07	2.7025E+18	9.4944E+17
Sr-90	1.9973E+00	1.4642E-05	9.7975E+19	1.4018E+17
Y-90	2.0020E+00	3.6798E-09	2.4622E+16	1.1605E+17
Y-91	1.9811E-01	8.0784E-09	5.3461E-16	1.5775E+16
Zr-95	2.3082E-01	1.0745E-08	6.8110E+16	1.8272E+16
Zr-97	1.1409E-10	5.9680E-20	3.7052E+05	8.6055E+14
Nb-95	2.7992E-01	7.1585E-09	4.5379E+16	2.0203E+16
Mo-99	1.5055E-02	3.1391E-11	1.9095E+14	4.7656E+16
Tc-99m	1.5435E-02	2.9355E-12	1.7856E+13	4.5866E+16
Ru-103	2.2280E+00	6.9035E-08	4.0363E+17	1.9078E+17
Ru-106	1.2547E+00	3.7505E-07	2.1307E+18	8.9842E+16
Rh-105	7.8123E-05	9.2556E-14	5.3085E+11	1.5712E+16
Sb-127	6.8282E-02	2.5569E-10	1.2124E+15	6.1508E+16
Te-127	6.2291E-01	2.3603E-10	1.1192E+15	9.5692E+16
Te-127m	5.4716E-01	5.8007E-08	2.7506E+17	4.0804E+16
Te-129	1.4030E+00	6.6993E-11	3.1274E+14	1.0158E+17
Te-129m	1.6225E-00	5.3858E-08	2.5143E+17	1.4386E+17
Te-131m	4.1278E-05	5.1766E-14	2.3797E+11	4.4985E+16
Te-132	5.4533E-01	1.7962E-09	8.1949E+15	8.5947E+17
I-131	4.0324E+02	3.2526E-06	1.4953E+19	3.6473E+19
I-132	6.5091E-01	6.3059E-11	2.8769E+14	1.0020E+18
I-133	1.2737E-04	1.1244E-13	5.0910E+11	3.5151E+18
Xe-133	1.7875E+04	9.5495E-05	4.3239E+20	2.3404E+21
Cs-134	4.4361E+01	3.4286E-05	1.5409E+20	3.1438E+18
Cs-136	4.5128E+00	6.1573E-08	2.7265E+17	5.9767E+17
Cs-137	3.4023E+01	3.9115E-04	1.7194E+21	2.3886E+18
Ba-140	9.0362E+00	1.2343E-07	5.3094E+17	1.2197E+18
La-140	1.0493E+01	1.8878E-08	8.1204E+16	1.1450E+18
Ce-141	4.3032E-01	1.5102E-08	6.4503E+16	3.8473E+16
Ce-143	9.7195E-06	1.4636E-14	6.1636E+10	3.8617E+15
Ce-144	5.4684E-01	1.7145E-07	7.1701E+17	3.9396E+16
Pr-143	1.0282E-01	1.5270E-09	6.4305E+15	1.2857E+16
Nd-147	2.7625E-02	3.4147E-10	1.3989E+15	4.1853E+15
Np-239	1.2472E-02	5.3761E-11	1.3546E+14	8.5565E+16
Pu-238	1.7424E-03	1.0178E-07	2.5753E+17	1.2207E+14
Pu-239	1.8680E-04	3.0052E-06	7.5724E+18	1.3078E+13
Pu-240	2.9695E-04	1.3032E-06	3.2700E+18	2.0826E+13
Pu-241	7.3025E-02	7.0889E-07	1.7714E+18	5.1290E+15
Am-241	4.5824E-05	1.3351E-08	3.3362E+16	2.9668E+12
Cm-242	9.2467E-03	2.7900E-09	6.9428E+15	6.7973E+14
Cm-244	5.9376E-04	7.3392E-09	1.8114E+16	4.1691E+13
Pu-241	7.3025E-02	7.0889E-07	1.7714E+18	5.1290E+15
Am-241	4.5824E-05	1.3351E-08	3.3362E+16	2.9668E+12

Turbine Building Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	4.1041E+22	0.0000E+00	
Elemental I (atoms)	1.3210E+19	0.0000E+00	
Organic I (atoms)	4.0857E+17	0.0000E+00	
Aerosols (kg)	4.4690E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.4241E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4241E-02
Total I (Ci)			4.0389E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3541E+22
Elemental I (atoms)	0.0000E+00	4.3174E+19
Organic I (atoms)	0.0000E+00	1.3353E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	6.9420E+19
Elemental I (atoms)	0.0000E+00	4.7231E+16
Organic I (atoms)	0.0000E+00	1.4608E+15
Aerosols (kg)	0.0000E+00	1.4171E-06

Detailed model information at time (H) = 576.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.1644E+30

EAB LOCA Doses:

Time (h) = 576.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	3.4515E-05	2.3053E-02	1.2027E-03
Accumulated dose (rem)	7.7621E-04	3.7061E-01	1.7828E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Kr-85	1.4713E+06	3.7501E+00	2.6569E+25	1.1299E+23
I-131	2.0220E+05	1.6310E-03	7.4978E+21	5.7391E+22
I-133	1.5334E-02	1.3536E-11	6.1290E+13	2.3964E+22
Xe-133	8.9794E+06	4.7972E-02	2.1721E+23	4.9333E+24
Xe-135	8.2281E-12	3.2220E-21	1.4373E+04	1.4754E+23

Primary Containment Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6786E+25	0.0000E+00	
Elemental I (atoms)	7.2729E+21	0.0000E+00	
Organic I (atoms)	2.2493E+20	0.0000E+00	
Aerosols (kg)	4.9258E-29	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8394E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8394E-05
Total I (Ci)			2.0220E+05

	Deposition	Recirculating
Time (h) = 576.0000	Surfaces	Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Time (h) = 576.0000	Surfaces	Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.7123E+22
Elemental I (atoms)	0.0000E+00	4.4236E+19
Organic I (atoms)	0.0000E+00	1.3681E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Co-58	8.9380E-03	2.8109E-10	2.9185E+15	7.7094E+14
Co-60	6.0310E-03	5.3354E-09	5.3551E+16	4.6367E+14
Kr-85	2.4438E+03	6.2288E-03	4.4130E+22	9.7364E+19
Rb-86	1.7515E-01	2.1525E-09	1.5073E+16	2.1609E+16
Sr-89	1.1286E+01	3.8847E-07	2.6286E+18	1.0226E+18
Sr-90	1.9965E+00	1.4636E-05	9.7934E+19	1.5295E+17
Y-90	2.0039E+00	3.6831E-09	2.4645E+16	1.2879E+17
Y-91	1.9342E-01	7.8870E-09	5.2194E+16	1.7026E+16
Zr-95	2.2581E-01	1.0511E-08	6.6631E+16	1.9732E+16
Zr-97	1.5927E-11	8.3312E-21	5.1723E+04	8.6055E+14
Nb-95	2.7776E-01	7.1033E-09	4.5028E+16	2.1985E+16
Mo-99	9.0915E-03	1.8956E-11	1.1531E+14	4.7732E+16
Tc-99m	9.3210E-03	1.7726E-12	1.0783E+13	4.5939E+16
Ru-103	2.1501E+00	6.6622E-08	3.8952E-17	2.0477E+17
Ru-106	1.2497E+00	3.7353E-07	2.1221E+18	9.7848E+16
Rh-105	3.0480E-05	3.6111E-14	2.0711E+11	1.5713E+16
Sb-127	4.7622E-02	1.7832E-10	8.4558E+14	6.1874E+16
Te-127	5.9629E-01	2.2594E-10	1.0714E+15	9.9447E+16
Te-127m	5.4022E-01	5.7271E-08	2.7157E+17	4.4280E+16
Te-129	1.3459E-00	6.4266E-11	3.0002E+14	1.0820E+17
Te-129m	1.5565E+00	5.1666E-08	2.4119E+17	1.5402E+17
Te-131m	1.3613E-05	1.7071E-14	7.8478E+10	4.4986E+16
Te-132	3.5625E-01	1.1735E-09	5.3536E+15	8.6231E+17
I-131	3.6628E+02	2.9545E-06	1.3582E+19	3.8935E+19
I-132	4.2522E-01	4.1195E-11	1.8794E+14	1.0049E+18
I-133	2.7767E-05	2.4511E-14	1.1098E+11	3.5151E+18
Xe-133	1.4918E+04	7.9699E-05	3.6087E+20	2.4451E+21
Cs-134	4.4267E+01	3.4214E-05	1.5376E+20	3.4272E+18
Cs-136	4.0584E+00	5.5374E-08	2.4520E+17	6.2504E+17
Cs-137	3.4009E+01	3.9099E-04	1.7187E+21	2.6061E+18
Ba-140	8.1022E+00	1.1067E-07	4.7606E+17	1.2744E+18
La-140	9.4101E+00	1.6930E-08	7.2824E+16	1.2081E+18
Ce-141	4.1223E-01	1.4468E-08	6.1792E+16	4.1166E+16
Ce-143	3.5453E-06	5.3387E-15	2.2483E+10	3.8618E+15
Ce-144	5.4402E-01	1.7057E-07	7.1332E+17	4.2883E+16
Pr-143	9.2805E-02	1.3782E-09	5.8039E+15	1.3482E+16
Nd-147	2.4341E-02	3.0089E-10	1.2326E+15	4.3512E+15
Np-239	6.9209E-03	2.9833E-11	7.5170E+13	8.5626E+16
Pu-238	1.7422E-03	1.0177E-07	2.5750E-17	1.3321E+14
Pu-239	1.8674E-04	3.0044E-06	7.5703E+18	1.4272E+13
Pu-240	2.9686E-04	1.3028E-06	3.2690E+18	2.2725E+13
Pu-241	7.2985E-02	7.0850E-07	1.7704E+18	5.5957E-15
Am-241	4.6451E-05	1.3534E-08	3.3819E+16	3.2618E+12
Cm-242	9.1657E-03	2.7655E-09	6.8819E+15	7.3860E+14
Cm-244	5.9346E-04	7.3355E-09	1.8105E+16	4.5486E+13

Turbine Building Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	4.4491E+22	0.0000E-00	
Elemental I (atoms)	1.2086E+19	0.0000E+00	
Organic I (atoms)	3.7379E+17	0.0000E+00	
Aerosols (kg)	4.4657E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2935E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2936E-02
Total I (Ci)			3.6671E+02
Aerosols (kg)	4.4657E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2935E-02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.7123E+22
Elemental I (atoms)	0.0000E+00	4.4236E+19
Organic I (atoms)	0.0000E+00	1.3681E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.1736E-19
Elemental I (atoms)	0.0000E+00	5.0880E-16
Organic I (atoms)	0.0000E-00	1.5736E-15
Aerosols (kg)	0.0000E-00	1.5458E-06

Detailed model information at time (H) = 624.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.4157E+32

EAB LOCA Doses:

Time (h) = 624.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.9963E-05	2.0896E-02	1.1303E-03
Accumulated dose (rem)	8.0617E-04	3.9150E-01	1.8959E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Kr-85	1.4706E+06	3.7483E+00	2.6556E+25	1.2239E+23
I-131	1.7016E+05	1.3725E-03	6.3095E+21	5.8579E+22
I-133	3.0968E-03	2.7337E-12	1.2378E+13	2.3964E+22
Xe-133	6.8929E+06	3.6825E-02	1.6674E+23	4.9838E+24

Primary Containment Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6723E+25	0.0000E+00	
Elemental I (atoms)	6.1202E+21	0.0000E+00	
Organic I (atoms)	1.8928E+20	0.0000E+00	
Aerosols (kg)	4.0515E-31	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5479E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5479E-05
Total I (Ci)			1.7016E+05

Time (h) = 624.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.0696E+22
Elemental I (atoms)	0.0000E+00	4.5129E+19
Organic I (atoms)	0.0000E+00	1.3958E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Elemental I (atoms)	0.0000E+00	4.5129E+19
Organic I (atoms)	0.0000E+00	1.3958E+18

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Co-58	8.7622E-03	2.7556E-10	2.8611E+15	8.2752E+14
Co-60	6.0250E-03	5.3300E-09	5.3497E+16	5.0221E+14
Kr-85	2.6386E-03	6.7253E-03	4.7648E+22	1.1362E+20
Rb-86	1.6256E-01	1.9978E-09	1.3990E+16	2.2688E+16
Sr-89	1.0977E+01	3.7784E-07	2.5566E+18	1.0938E+18
Sr-90	1.9956E+00	1.4630E-05	9.7893E+19	1.6571E+17
Y-90	2.0046E+00	3.6845E-09	2.4654E+16	1.4153E+17
Y-91	1.8884E-01	7.7001E-09	5.0957E+16	1.8248E+16
Zr-95	2.2091E-01	1.0283E-08	6.5184E+16	2.1160E+16
Nb-95	2.7550E-01	7.0454E-09	4.4661E+16	2.3753E+16
Mo-99	5.4901E-03	1.1447E-11	6.9631E+13	4.7777E+16
Tc-99m	5.6287E-03	1.0704E-12	6.5115E+12	4.5984E+16
Ru-103	2.0750E+00	6.4293E-08	3.7590E+17	2.1828E+17
Ru-106	1.2446E+00	3.7202E-07	2.1135E+18	1.0582E+17
Rh-105	1.1892E-05	1.4089E-14	8.0806E+10	1.5713E+16
Sb-127	3.3212E-02	1.2437E-10	5.8973E-14	6.2130E+16
Te-127	5.7563E-01	2.1812E-10	1.0343E+15	1.0306E+17
Te-127m	5.3333E-01	5.6541E-08	2.6811E+17	4.7712E+16
Te-129	1.2911E+00	6.1651E-11	2.8781E+14	1.1455E+17
Te-129m	1.4931E+00	4.9564E-08	2.3138E+17	1.6377E+17
Te-131m	4.4893E-06	5.6299E-15	2.5881E+10	4.4986E-16
Te-132	2.3273E-01	7.6659E-10	3.4974E+15	8.6416E+17
I-131	3.3090E+02	2.6691E-06	1.2270E+19	4.1164E+19
I-132	2.7779E-01	2.6912E-11	1.2278E+14	1.0069E+18
I-133	6.0203E-06	5.3145E-15	2.4063E+10	3.5151E+18
Xe-133	1.2370E+04	6.6088E-05	2.9924E+20	2.5322E+21
Cs-134	4.4172E+01	3.4141E-05	1.5343E+20	3.7099E+18
Cs-136	3.6499E+00	4.9800E-08	2.2051E+17	6.4966E+17
Cs-137	3.3995E+01	3.9083E-04	1.7180E+21	2.8235E+18
Ba-140	7.2648E+00	9.9234E-08	4.2686E+17	1.3235E+18
La-140	8.4383E+00	1.5181E-08	6.5303E+16	1.2647E+18
Ce-141	3.9491E-01	1.3860E-08	5.9194E+16	4.3746E+16
Ce-143	1.2932E-06	1.9474E-15	8.2009E+09	3.8618E+15
Ce-144	5.4122E-01	1.6969E-07	7.0965E+17	4.6352E+16
Pr-143	8.3762E-02	1.2439E-09	5.2384E+15	1.4046E+16
Nd-147	2.1448E-02	2.6512E-10	1.0861E+15	4.4973E+15
Np-239	3.8405E-03	1.6554E-11	4.1713E+13	8.5659E+16
Pu-238	1.7420E-03	1.0176E-07	2.5748E+17	1.4435E+14
Pu-239	1.8669E-04	3.0036E-06	7.5681E+18	1.5466E+13
Pu-240	2.9678E-04	1.3024E-06	3.2681E+18	2.4622E+13
Pu-241	7.2944E-02	7.0811E-07	1.7694E+18	6.0622E+15
Am-241	4.7078E-05	1.3717E-08	3.4275E+16	3.5607E+12
Cm-242	9.0853E-03	2.7413E-09	6.8216E+15	7.9694E+14
Cm-244	5.9317E-04	7.3319E-09	1.8096E+16	4.9279E+13

Turbine Building Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	4.7947E+22	0.0000E+00	
Elemental I (atoms)	1.0986E+19	0.0000E+00	
Organic I (atoms)	3.3978E+17	0.0000E+00	
Aerosols (kg)	4.4625E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1686E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1686E-02
Total I (Ci)			3.3118E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.0696E+22
Elemental I (atoms)	0.0000E+00	4.5129E+19
Organic I (atoms)	0.0000E+00	1.3958E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Aerosols (kg)	0.0000E+00	4.5263E-04

Time (h) = 624.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	9.5048E+19
Elemental I (atoms)	0.0000E+00	5.4207E+16
Organic I (atoms)	0.0000E+00	1.6765E-15
Aerosols (kg)	0.0000E+00	1.6744E-06

Detailed model information at time (H) = 672.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.7212E+34

EAB LOCA Doses:

Time (h) = 672.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.6010E-05	1.8847E-02	1.0620E-03
Accumulated dose (rem)	8.3218E-04	4.1035E-01	2.0021E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Kr-85	1.4699E+06	3.7464E+00	2.6543E+25	1.3179E+23
I-131	1.4319E+05	1.1550E-03	5.3095E+21	5.9578E-22
I-133	6.2541E-04	5.5209E-13	2.4998E-12	2.3964E+22
Xe-133	5.2912E+06	2.8268E-02	1.2800E+23	5.0225E+24

Primary Containment Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6671E+25	0.0000E+00	
Elemental I (atoms)	5.1502E+21	0.0000E+00	
Organic I (atoms)	1.5928E+20	0.0000E+00	
Aerosols (kg)	3.3325E-33	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3026E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3026E-05
Total I (Ci)			1.4319E+05

Time (h) = 672.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.4261E+22
Elemental I (atoms)	0.0000E+00	4.5881E+19
Organic I (atoms)	0.0000E+00	1.4190E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Co-58	8.5898E-03	2.7014E-10	2.8048E+15	8.8299E+14
Co-60	6.0189E-03	5.3246E-09	5.3443E+16	5.4071E+14
Kr-85	2.8331E+03	7.2213E-03	5.1162E+22	1.3113E+20
Rb-86	1.5088E-01	1.8543E-09	1.2984E+16	2.3690E+16
Sr-89	1.0677E+01	3.6750E-07	2.4867E+18	1.1630E+18
Sr-90	1.9948E+00	1.4624E-05	9.7852E+19	1.7847E+17
Y-90	2.0047E+00	3.6847E-09	2.4656E+16	1.5428E+17
Y-91	1.8436E-01	7.5176E-09	4.9750E+16	1.9441E+16
Zr-95	2.1611E-01	1.0060E-08	6.3769E+16	2.2557E+16
Nb-95	2.7313E-01	6.9849E-09	4.4278E+16	2.5506E+16
Sr-90	1.9948E+00	1.4624E-05	9.7852E+19	1.7847E+17
Y-90	2.0047E+00	3.6847E-09	2.4656E+16	1.5428E+17

Mo-99	3.3153E-03	6.9124E-12	4.2048E+13	4.7805E+16
Tc-99m	3.3990E-03	6.4641E-13	3.9321E+12	4.6011E+16
Ru-103	2.0025E+00	6.2046E-08	3.6276E+17	2.3131E+17
Ru-106	1.2396E+00	3.7051E-07	2.1050E+18	1.1376E+17
Rh-105	4.6397E-06	5.4969E-15	3.1527E+10	1.5713E+16
Sb-127	2.3163E-02	8.6736E-11	4.1129E+14	6.2308E+16
Te-127	5.5916E-01	2.1187E-10	1.0047E+15	1.0655E+17
Te-127m	5.2650E-01	5.5817E-08	2.6468E+17	5.1100E+16
Te-129	1.2386E+00	5.9142E-11	2.7609E+14	1.2064E+17
Te-129m	1.4324E+00	4.7547E-08	2.2196E+17	1.7312E+17
Te-131m	1.4805E-06	1.8566E-15	8.5350E-09	4.4986E+16
Te-132	1.5204E-01	5.0080E-10	2.2848E+15	8.6537E+17
I-131	2.9753E+02	2.4000E-06	1.1033E+19	4.3173E+19
I-132	1.8147E-01	1.7581E-11	8.0209E+13	1.0081E+18
I-133	1.2992E-06	1.1468E-15	5.1928E+09	3.5151E+18
Xe-133	1.0201E-04	5.4498E-05	2.4676E+20	2.6043E-21
Cs-134	4.4078E+01	3.4068E-05	1.5311E+20	3.9920E+18
Cs-136	3.2824E+00	4.4786E-08	1.9831E+17	6.7180E+17
Cs-137	3.3981E+01	3.9066E-04	1.7172E+21	3.0408E+18
Ba-140	6.5139E+00	8.8977E-08	3.8274E+17	1.3675E+18
La-140	7.5664E+00	1.3613E-08	5.8556E+16	1.3154E+18
Ce-141	3.7831E-01	1.3277E-08	5.6706E+16	4.6217E+16
Ce-143	4.7172E-07	7.1033E-16	2.9914E+09	3.8618E+15
Ce-144	5.3843E-01	1.6881E-07	7.0599E+17	4.9803E+16
Pr-143	7.5600E-02	1.1227E-09	4.7279E+15	1.4555E+16
Nd-147	1.8898E-02	2.3361E-10	9.5702E+14	4.6261E+15
Np-239	2.1311E-03	9.1862E-12	2.3147E+13	8.5678E+16
Pu-238	1.7419E-03	1.0175E-07	2.5745E+17	1.5549E+14
Pu-239	1.8664E-04	3.0027E-06	7.5660E+18	1.6659E+13
Pu-240	2.9669E-04	1.3021E-06	3.2671E+18	2.6520E+13
Pu-241	7.2904E-02	7.0772E-07	1.7685E+18	6.5285E+15
Am-241	4.7704E-05	1.3899E-08	3.4731E+16	3.8637E+12
Cm-242	9.0057E-03	2.7172E-09	6.7618E+15	8.5477E+14
Cm-244	5.9287E-04	7.3282E-09	1.8087E+16	5.3071E+13

Turbine Building Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	5.1408E+22	0.0000E+00	
Elemental I (atoms)	9.9311E+18	0.0000E+00	
Organic I (atoms)	3.0715E+17	0.0000E+00	
Aerosols (kg)	4.4594E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0507E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0508E-02
Total I (Ci)			2.9772E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.4261E+22
Elemental I (atoms)	0.0000E+00	4.5881E+19
Organic I (atoms)	0.0000E+00	1.4190E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 672.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0936E+20
Elemental I (atoms)	0.0000E+00	5.7224E+16
Organic I (atoms)	0.0000E+00	1.7698E+15
Aerosols (kg)	0.0000E+00	1.8028E-06

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Natural deposition - Powers' Model, Compartment 1

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.0925E+36

EAB LOCA Doses:

Time (h) = 720.0000	Whole Body	Thyroid	TEDE
Delta dose (rem)	2.2608E-05	1.6926E-02	9.9815E-04
Accumulated dose (rem)	8.5479E-04	4.2728E-01	2.1019E-02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Kr-85	1.4691E+06	3.7446E+00	2.6530E+25	1.4119E+23
I-131	1.2049E+05	9.7192E-04	4.4680E+21	6.0419E+22
I-133	1.2631E-04	1.1150E-13	5.0485E+11	2.3964E+22
Xe-133	4.0617E+06	2.1699E-02	9.8254E-22	5.0522E+24

Primary Containment Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6628E+25	0.0000E+00	
Elemental I (atoms)	4.3339E+21	0.0000E+00	
Organic I (atoms)	1.3404E+20	0.0000E+00	
Aerosols (kg)	2.7411E-35	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0961E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0961E-05
Total I (Ci)			1.2049E+05

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.7358E+01	0.0000E+00

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.7820E+22
Elemental I (atoms)	0.0000E+00	4.6514E+19
Organic I (atoms)	0.0000E+00	1.4386E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Co-58	8.4208E-03	2.6482E-10	2.7497E-15	9.3737E+14
Co-60	6.0128E-03	5.3193E-09	5.3389E+16	5.7917E+14
Kr-85	3.0275E+03	7.7166E-03	5.4671E+22	1.4988E+20
Rb-86	1.4003E-01	1.7210E-09	1.2051E+16	2.4619E+16
Sr-89	1.0385E+01	3.5745E-07	2.4187E+18	1.2303E+18
Sr-90	1.9940E+00	1.4618E-05	9.7811E+19	1.9122E+17
Y-90	2.0045E+00	3.6842E-09	2.4652E+16	1.6703E+17
Y-91	1.7999E-01	7.3395E-09	4.8571E+16	2.0606E-16
Zr-95	2.1142E-01	9.8411E-09	6.2384E+16	2.3923E+16
Nb-95	2.7068E-01	6.9222E-09	4.3880E+16	2.7244E+16
Mo-99	2.0020E-03	4.1742E-12	2.5392E+13	4.7822E+16
Tc-99m	2.0526E-03	3.9035E-13	2.3745E+12	4.6027E+16
Ru-103	1.9325E+00	5.9877E-08	3.5008E+17	2.4389E+17
Ru-106	1.2346E+00	3.6902E-07	2.0965E+18	1.2167E+17
Rh-105	1.8102E-06	2.1446E-15	1.2300E+10	1.5713E+16
Sb-127	1.6154E-02	6.0492E-11	2.8684E+14	6.2433E+16
Te-127	5.4563E-01	2.0675E-10	9.8037E+14	1.0996E+17
Te-127m	5.1974E-01	5.5100E-08	2.6128E+17	5.4445E+16
Te-129	1.1882E+00	5.6735E-11	2.6486E+14	1.2648E+17
Te-129m	1.3741E+00	4.5612E-08	2.1293E+17	1.8209E+17
Te-131m	4.8824E-07	6.1228E-16	2.8147E+09	4.4986E+16
Te-132	9.9324E-02	3.2716E-10	1.4926E+15	8.6616E+17
Te-127m	5.1974E-01	5.5100E-08	2.6128E+17	5.4445E+16
Te-129	1.1882E+00	5.6735E-11	2.6486E+14	1.2648E+17

I-131	2.6643E+02	2.1491E-06	9.8793E+18	4.4976E+19
I-132	1.1855E-01	1.1485E-11	5.2399E+13	1.0089E+18
I-133	2.7920E-07	2.4646E-16	1.1160E+09	3.5151E+18
Xe-133	8.3718E-03	4.4726E-05	2.0251E+20	2.6635E+21
Cs-134	4.3985E+01	3.3996E-05	1.5278E+20	4.2735E+18
Cs-136	2.9519E+00	4.0277E-08	1.7835E+17	6.9171E+17
Cs-137	3.3967E+01	3.9050E-04	1.7165E+21	3.2580E+18
Ba-140	5.8406E+00	7.9780E-08	3.4318E+17	1.4070E+18
La-140	6.7845E+00	1.2206E-08	5.2505E+16	1.3609E+18
Ce-141	3.6241E-01	1.2719E-08	5.4323E+16	4.8585E+16
Ce-143	1.7207E-07	2.5910E-16	1.0912E+09	3.8618E+15
Ce-144	5.3566E-01	1.6795E-07	7.0235E+17	5.3237E+16
Pr-143	6.8233E-02	1.0133E-09	4.2672E+15	1.5014E+16
Nd-147	1.6652E-02	2.0584E-10	8.4326E+14	4.7396E+15
Np-239	1.1826E-03	5.0975E-12	1.2844E+13	8.5688E+16
Pu-238	1.7417E-03	1.0174E-07	2.5742E+17	1.6662E+14
Pu-239	1.8658E-04	3.0018E-06	7.5638E+18	1.7853E+13
Pu-240	2.9661E-04	1.3017E-06	3.2662E+18	2.8416E+13
Pu-241	7.2864E-02	7.0733E-07	1.7675E+18	6.9945E+15
Am-241	4.8330E-05	1.4082E-08	3.5187E+16	4.1707E+12
Cm-242	8.9268E-03	2.6934E-09	6.7025E+15	9.1210E+14
Cm-244	5.9258E-04	7.3246E-09	1.8078E+16	5.6861E+13

Turbine Building Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	5.4874E+22	0.0000E+00	
Elemental I (atoms)	8.9345E+18	0.0000E+00	
Organic I (atoms)	2.7633E+17	0.0000E+00	
Aerosols (kg)	4.4563E-04	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.4088E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.4090E-03
Total I (Ci)			2.6655E+02

Primary Containment to Turbine Building- Bypass Le Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.7820E+22
Elemental I (atoms)	0.0000E+00	4.6514E+19
Organic I (atoms)	0.0000E+00	1.4386E+18
Aerosols (kg)	0.0000E+00	4.5263E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2466E+20
Elemental I (atoms)	0.0000E+00	5.9944E+16
Organic I (atoms)	0.0000E+00	1.8539E+15
Aerosols (kg)	0.0000E+00	1.9312E-06

838

****
I-131 Summary
****

Time (hr)	Primary Containment I-131 (Curies)	Turbine Building I-131 (Curies)	Environment I-131 (Curies)
0.000	5.9348E+03	9.1734E-06	1.0193E-14
0.167	1.6774E+06	7.9347E-01	2.6718E-07
0.467	4.2312E+06	5.7984E+00	5.5609E-06
0.500	4.4822E+06	6.6049E+00	6.7991E-06
0.900	1.0299E+07	2.3148E+01	3.9914E-05
1.200	1.4290E+07	4.3680E+01	9.9053E-05
1.500	1.7985E+07	7.0598E+01	2.0097E-04
1.800	2.1404E+07	1.0342E+02	3.5670E-04
2.000	2.3540E+07	1.2836E+02	4.9551E-04
2.300	1.7508E+07	1.6219E+02	7.5847E-04
1.200	1.4290E+07	4.3680E+01	9.9053E-05
1.500	1.7985E+07	7.0598E+01	2.0097E-04

2.600	1.3133E+07	1.8739E+02	1.0741E-03
2.900	9.9591E+06	2.0631E+02	1.4292E-03
3.200	7.6571E+06	2.2068E-02	1.8140E-03
3.500	5.9871E-06	2.3176E-02	2.2215E-03
3.800	4.7754E+06	2.4044E+02	2.6467E-03
4.100	3.8962E+06	2.4738E+02	3.0859E-03
4.400	3.2581E+06	2.5306E+02	3.5364E-03
4.700	2.7949E-06	2.5782E+02	3.9962E-03
5.000	2.4585E+06	2.6191E+02	4.4640E-03
5.300	2.3008E+06	2.6560E+02	4.9387E-03
5.600	2.1706E+06	2.6905E+02	5.4198E-03
5.900	2.0631E+06	2.7229E+02	5.9070E-03
6.200	1.9743E+06	2.7537E+02	6.3998E-03
6.500	1.9009E+06	2.7831E+02	6.8980E-03
6.800	1.8402E+06	2.8113E+02	7.4015E-03
7.100	1.7899E+06	2.8386E+02	7.9099E-03
7.400	1.7482E+06	2.8651E+02	8.4232E-03
7.700	1.7135E+06	2.8910E+02	8.9411E-03
8.000	1.6847E+06	2.9162E+02	9.4637E-03
8.300	1.6607E+06	2.9411E+02	9.9908E-03
8.600	1.6427E+06	2.9655E+02	1.0522E-02
8.900	1.6273E+06	2.9896E+02	1.1058E-02
9.200	1.6140E+06	3.0135E+02	1.1598E-02
9.500	1.6026E+06	3.0371E+02	1.2143E-02
9.800	1.5926E+06	3.0605E+02	1.2691E-02
10.100	1.5840E+06	3.0838E+02	1.3244E-02
10.400	1.5765E+06	3.1069E+02	1.3801E-02
24.000	1.4710E-06	4.0768E+02	4.3146E-02
720.000	1.2049E-05	2.6643E+02	2.0188E+00

##
Cumulative Dose Summary
##

EAB LOCA

Time (hr)	Thyroid (rem)	TEDE (rem)
0.000	0.0000E+00	0.0000E+00
0.167	1.1958E-07	5.6289E-09
0.467	2.4818E-06	1.1586E-07
0.500	3.0331E-06	1.4144E-07
0.900	1.7859E-05	8.7417E-07
1.200	4.4525E-05	2.3000E-06
1.500	9.0598E-05	4.8630E-06
1.800	1.6104E-04	8.8735E-06
2.000	2.2379E-04	1.2491E-05
2.300	3.4250E-04	1.9391E-05
2.600	4.8466E-04	2.7685E-05
2.900	6.4407E-04	3.6996E-05
3.200	8.1628E-04	4.7050E-05
3.500	9.9807E-04	5.7650E-05
3.800	1.1871E-03	6.8653E-05
4.100	1.3817E-03	7.9958E-05
4.400	1.5806E-03	9.1488E-05
4.700	1.7830E-03	1.0319E-04
5.000	1.9882E-03	1.1502E-04
5.300	2.1958E-03	1.2696E-04
5.600	2.4055E-03	1.3899E-04
5.900	2.6172E-03	1.5109E-04
6.200	2.8307E-03	1.6326E-04
6.500	3.0458E-03	1.7550E-04
6.800	3.2626E-03	1.8778E-04
7.100	3.4808E-03	2.0012E-04
7.400	3.7005E-03	2.1249E-04
7.700	3.9215E-03	2.2491E-04
8.000	4.1439E-03	2.3737E-04
8.300	4.2589E-03	2.4417E-04
8.600	4.3745E-03	2.5099E-04
8.900	4.4908E-03	2.5782E-04
7.700	3.9215E-03	2.2491E-04
8.000	4.1439E-03	2.3737E-04

9.200	4.6077E-03	2.6466E-04
9.500	4.7252E-03	2.7152E-04
9.800	4.8433E-03	2.7838E-04
10.100	4.9620E-03	2.8526E-04
10.400	5.0813E-03	2.9215E-04
24.000	1.1074E-02	6.1777E-04
720.000	4.2728E-01	2.1019E-02

##
Worst Two-Hour Doses
##

EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
6.0	5.3608E-06	1.4555E-03	8.2220E-05

Attachment A4: RADTRAD Output: MSIV_Turbine Building Source 1.o1

```
#####################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 11:12:23
#####################################################################

#####################################################################
                    File information
#####################################################################

 Plant file           = C:\Program Files\radtrad3.03\SSES Final Source Term Runs\MSIV_Turbine
Building Source 1.psf
 Inventory file       = c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Release file         = c:\program files\radtrad3.03\input ppl ast\msiv-imrel.rft
 Dose Conversion file = c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp



    #####    ####   #####    #  #     #  #####   #    #  #####
    #    #  #       #        #  ##    #  #    #  #    #    #
    #    #  #       #        #  # #   #  #    #  #    #    #
    #####    ####   ####     #  #  #  #  #####   #    #    #
    #            #  #        #  #   # #  #       #    #    #
    #            #  #        #  #    ##  #       #    #    #
    #        ####   #        #  #     #  #        ####     #

 Radtrad 3.03 4/15/2001
 LOCA AST- MSIV Leakage
 Nuclide Inventory File:
 c:\program files\radtrad3.03\input ppl ast\sses_ast-loca.nif
 Plant Power Level:
  4.0320E+03
 Compartments:
   8
 Compartment 1:
 Primary Containment
   3
  3.8820E+05
   0
   0
   0
   1
   0
 Compartment 2:
 Intact MSL No. A
   3
  6.7800E+01
   0
   0
   0
   0
   0
 Compartment 3:
 Intact MSL No. B
   3
  7.3900E+01
   0
   0
   0
   0
   0
 Compartment 4:
 Intact MSL No. D
   3
  6.7800E+01
   0
 Compartment 4:
```

```
  0
  0
  0
  0
Compartment 5:
Drain Pathway Mixing Volume
  3
 1.0000E-00
  0
  0
  0
  0
  0
Compartment 6:
Effective Condenser
  3
 9.8600E+04
  0
  0
  0
  0
  0
Compartment 7:
Turbine Building
  3
 1.0000E+00
  0
  0
  0
  0
  0
Compartment 8:
Environment
  2
 0.0000E+00
  0
  0
  0
  0
  0
Pathways:
 10
Pathway 1:
Primary Containment to Drain Pathway Mixing Volume - Faulted MSL No. C
  1
  5
  2
Pathway 2:
Primary Containment to Intact MSL No. A
  1
  2
  2
Pathway 3:
Primary Containment to Intact MSL No. B
  1
  3
  2
Pathway 4:
Primary Containment to Intact MSL No. D
  1
  4
  2
Pathway 5:
Intact MSL No. A to Drain Pathway Mixing Volume
  2
  5
  2
Pathway 6:
Intact MSL No. B to Drain Pathway Mixing Volume
  2
  5
```

```
  3
  5
  2
Pathway 7:
Intact MSL No. D to Drain Pathway Mixing Volume
  4
  5
  2
Pathway 8:
Drain Pathway Mixing Volume to Effective Condenser
  5
  6
  2
Pathway 9:
Effective Condenser to Turbine Building
  6
  7
  2
Pathway 10:
Turbine Building to Environment
  7
  8
  2
End of Plant Model File
Scenario Description Name:

Plant Model Filename:

Source Term:
  1
  1   1.0000E+00
c:\program files\radtrad3.03\input ppl ast\fgr11&12.inp
c:\program files\radtrad3.03\input ppl ast\msiv-imrel.rft
  0.0000E+00
  1
  9.5000E-01   4.8500E-02   1.5000E-03   1.0000E+00
Overlying Pool:
  0
  0.0000E+00
  0
  0
  0
  0
Compartments:
  8
Compartment 1:
  1
  1
  0
  0
  0
  0
  0
  3
  3
  1.0000E+01
  1
  1
  0.0000E+00   0.0000E+00
Compartment 2:
  0
  1
  0
  0
  0
  0
  0
  0
  0
  0
```

```
Compartment 3:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 4:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 5:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 6:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 7:
  1
  1
  0
  0
  0
  0
  0
  0
  0
Compartment 8:
  0
  1
  0
  0
  0
  0
  0
  0
  0
Pathways:
 10
Pathway 1:
  0
  0
  0
  0
  0
  1
  0
  0
```

```
  4
  0.0000E+00   1.9700E+00   0.0000E+00   0.0000E-00   0.0000E+00
  1.6670E-01   1.9700E-00   0.0000E+00   0.0000E-00   0.0000E+00
  2.4000E-01   9.8500E-01   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 2:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.3100E+00   0.0000E+00   0.0000E-00   0.0000E-00
  2.4000E+01   6.5500E-01   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E-00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 3:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E+00   0.0000E+00   0.0000E+00   0.0000E-00
  2.4000E+01   6.5500E-01   0.0000E+00   0.0000E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 4:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E+00   0.0000E+00   0.0000E-00   0.0000E+00
  2.4000E+01   6.5500E-01   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 5:
  0
  0
  0
  0
  0
  1
  0
  0
```

```
  3
  0.0000E+00   1.3100E+00   1.4800E+01   6.5200E+00   0.0000E+00
  2.4000E+01   6.5500E-01   2.5800E+01   1.2250E+01   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 6:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E+00   1.5900E-01   7.0600E-00   0.0000E+00
  2.4000E+01   6.5500E-01   2.7500E+01   1.3190E+01   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E-00   0.0000E-00   0.0000E-00
  0
  0
  0
  0
  0
  0
Pathway 7:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   1.3100E+00   1.4800E+01   6.5200E+00   0.0000E+00
  2.4000E+01   6.5500E-01   2.5800E+01   1.2250E+01   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E+00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 8:
  0
  0
  0
  0
  0
  1
  3
  0.0000E+00   5.9000E+00   6.7000E+00   4.2700E+00   0.0000E+00
  2.4000E+01   2.9500E+00   1.2500E+01   8.1900E+00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 9:
  0
  0
  0
  0
  0
  1
  2
  0
  0
```

```
  0.0000E+00   5.9000E-00   9.9600E+01   9.9600E+01   0.0000E+00
  2.4000E+01   2.9500E+00   9.9600E+01   9.9600E+01   0.0000E+00
  0
  0
  0
  0
  0
  0
Pathway 10:
  0
  0
  0
  0
  0
  1
  3
  0.0000E-00   1.0000E-07   0.0000E+00   0.0000E-00   0.0000E+00
  5.0000E-01   1.0000E-07   0.0000E+00   0.0000E-00   0.0000E+00
  7.2000E+02   0.0000E+00   0.0000E+00   0.0000E-00   0.0000E+00
  0
  0
  0
  0
  0
  0
Dose Locations:
  3
Location 1:
EAB LOCA
  7
  1
  2
  0.0000E+00   8.3000E-04
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 2:
LOCA @ LPZ
  7
  1
  5
  0.0000E+00   4.9000E-05
  8.0000E+00   3.5000E-05
  2.4000E+01   1.7000E-05
  9.6000E+01   6.1000E-06
  7.2000E+02   0.0000E+00
  1
  4
  0.0000E+00   3.5000E-04
  8.0000E+00   1.8000E-04
  2.4000E+01   2.3000E-04
  7.2000E+02   0.0000E+00
  0
Location 3:
LOCA @ Unprotected CR
  7
  1
  6
  0.0000E+00   6.0000E-03
  2.0000E+00   4.9300E-03
  8.0000E+00   1.4400E-03
  2.4000E+01   1.3800E-03
  9.6000E+01   1.2100E-03
  7.2000E+02   0.0000E+00
  2.0000E+00   4.9300E-03
  8.0000E+00   1.4400E-03
```

```
  1
  2
  0.0000E+00   3.5000E-04
  7.2000E+02   0.0000E+00
  0
Effective Volume Location:
  0
Simulation Parameters:
 10
  0.0000E+00   0.0000E-00
  5.0000E-01   1.0000E+00
  1.0000E+00   1.0000E-00
  2.0000E+00   2.0000E-00
  4.0000E+00   4.0000E-00
  8.0000E+00   8.0000E-00
  1.6000E+01   8.0000E+00
  2.4000E+01   2.4000E+01
  9.6000E+01   4.8000E-01
  7.2000E+02   0.0000E+00
Output Filename:
C:\Program Files\radtrad3.o0
  1
  1
  1
  1
  1
End of Scenario File
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 11:12:23
##########################################################################

##########################################################################
                     Plant Description
##########################################################################

Number of Nuclides =  60

Inventory Power =   1.0000E+00 MWth
Plant Power Level =   4.0320E+03 MWth

Number of compartments    =   8

Compartment information

Compartment number  1  (Source term fraction =   1.0000E+00
)
Name: Primary Containment
Compartment volume =   3.8820E+05 (Cubic feet)
Compartment type is Normal
Removal devices within compartment:
     Deposition
Pathways into and out of compartment  1
   Exit Pathway Number    1: Primary Containment to Drain Pathway Mixing Volume
   Exit Pathway Number    2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    4: Primary Containment to Intact MSL No. D

Compartment number  2
Name: Intact MSL No. A
Compartment volume =   6.7800E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  2
   Inlet Pathway Number   2: Primary Containment to Intact MSL No. A
   Exit Pathway Number    5: Intact MSL No. A to Drain Pathway Mixing Volume

Compartment number  3
Name: Intact MSL No. B
Compartment volume =   7.3900E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  3
   Inlet Pathway Number   3: Primary Containment to Intact MSL No. B
   Exit Pathway Number    6: Intact MSL No. B to Drain Pathway Mixing Volume

Compartment number  4
Name: Intact MSL No. D
Compartment volume =   6.7800E+01 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  4
   Inlet Pathway Number   4: Primary Containment to Intact MSL No. D
   Exit Pathway Number    7: Intact MSL No. D to Drain Pathway Mixing Volume

Compartment number  5
Name: Drain Pathway Mixing Volume
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  5
   Inlet Pathway Number   1: Primary Containment to Drain Pathway Mixing Volume
   Inlet Pathway Number   5: Intact MSL No. A to Drain Pathway Mixing Volume
   Inlet Pathway Number   6: Intact MSL No. B to Drain Pathway Mixing Volume
   Inlet Pathway Number   7: Intact MSL No. D to Drain Pathway Mixing Volume
   Exit Pathway Number    8: Drain Pathway Mixing Volume to Effective Condenser

Compartment number  6
Name: Effective Condenser
Compartment volume =   9.8600E+04 (Cubic feet)
   Exit Pathway Number    8: Drain Pathway Mixing Volume to Effective Condenser
```

```
Compartment type is Normal
Pathways into and out of compartment  6
   Inlet Pathway Number   8: Drain Pathway Mixing Volume to Effective Condenser
   Exit Pathway Number    9: Effective Condenser to Turbine Building

Compartment number  7
Name: Turbine Building
Compartment volume =   1.0000E+00 (Cubic feet)
Compartment type is Normal
Pathways into and out of compartment  7
   Inlet Pathway Number   9: Effective Condenser to Turbine Building
   Exit Pathway Number   10: Turbine Building to Environment

Compartment number  8
Name: Environment
Compartment type is Environment
Pathways into and out of compartment  8
   Inlet Pathway Number  10: Turbine Building to Environment

Total number of pathways =  10
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 11:12:23
##########################################################################

##########################################################################
                     Scenario Description
##########################################################################

Radioactive Decay is enabled
Calculation of Daughters is enabled

Release Fractions and Timings
                GAP          EARLY IN-VESSEL   LATE RELEASE     RELEASE MASS
             0.000001 hr       0.0000 hrs       0.0000 hrs          (gm)
NOBLES       1.0000E+00        0.0000E+00       0.0000E+00       4.943E+03
IODINE       3.0000E-01        0.0000E+00       0.0000E+00       3.427E+02
CESIUM       2.5000E-01        0.0000E+00       0.0000E+00       5.418E+04
TELLURIUM    0.0000E+00        0.0000E+00       0.0000E+00       0.000E+00
STRONTIUM    0.0000E+00        0.0000E+00       0.0000E+00       0.000E+00
BARIUM       0.0000E+00        0.0000E-00       0.0000E+00       0.000E+00
RUTHENIUM    0.0000E+00        0.0000E-00       0.0000E+00       0.000E+00
CERIUM       0.0000E+00        0.0000E+00       0.0000E+00       0.000E+00
LANTHANUM    0.0000E+00        0.0000E-00       0.0000E+00       0.000E+00

Inventory Power =       4032. MWt

Nuclide  Group  Specific      half      Whole Body    Inhaled      Inhaled
 Name           Inventory     life        DCF        Thyroid     Effective
                (Ci/MWt)      (s)     (Sv-m3/Bq-s)   (Sv/Bq)      (Sv/Bq)
 Kr-85     1   3.670E+02  3.383E-08   1.190E-16   0.000E+00   0.000E+00
 Kr-85m    1   6.650E+03  1.613E+04   7.480E-15   0.000E+00   0.000E+00
 Kr-87     1   1.330E+04  4.578E+03   4.120E-14   0.000E+00   0.000E+00
 Kr-88     1   1.850E+04  1.022E+04   1.020E-13   0.000E+00   0.000E+00
 Rb-86     3   5.380E+01  1.612E+06   4.810E-15   1.330E-09   1.790E-09
 I-131     2   2.650E+04  6.947E+05   1.820E-14   2.920E-07   8.890E-09
 I-132     2   3.890E+04  8.280E+03   1.120E-13   1.740E-09   1.030E-10
 I-133     2   5.510E+04  7.488E+04   2.940E-14   4.860E-08   1.580E-09
 I-134     2   6.080E+04  3.156E+03   1.300E-13   2.880E-10   3.550E-11
 I-135     2   5.230E+04  2.380E+04   8.294E-14   8.460E-09   3.320E-10
 Xe-133    1   5.260E-04  4.532E+05   1.560E-15   0.000E+00   0.000E+00
 Xe-135    1   1.740E+04  3.272E+04   1.190E-14   0.000E+00   0.000E+00
 Cs-134    3   5.700E+03  6.507E+07   7.570E-14   1.110E-08   1.250E-08
 Cs-136    3   1.820E+03  1.132E+06   1.060E-13   1.730E-09   1.980E-09
 Cs-137    3   4.290E+03  9.467E+08   2.725E-14   7.930E-09   8.630E-09

Nuclide    Daughter  Fraction  Daughter  Fraction  Daughter  Fraction
 Kr-85m    Kr-85      0.21     none       0.00     none       0.00
 Kr-87     Rb-87      1.00     none       0.00     none       0.00
 Kr-88     Rb-88      1.00     none       0.00     none       0.00
 Sr-90     Y-90       1.00     none       0.00     none       0.00
 Sr-91     Y-91m      0.58     Y-91       0.42     none       0.00
 Sr-92     Y-92       1.00     none       0.00     none       0.00
 Y-93      Zr-93      1.00     none       0.00     none       0.00
 Zr-95     Nb-95m     0.01     Nb-95      0.99     none       0.00
 Zr-97     Nb-97m     0.95     Nb-97      0.05     none       0.00
 Mo-99     Tc-99m     0.88     Tc-99      0.12     none       0.00
 Tc-99m    Tc-99      1.00     none       0.00     none       0.00
 Ru-103    Rh-103m    1.00     none       0.00     none       0.00
 Ru-105    Rh-105     1.00     none       0.00     none       0.00
 Ru-106    Rh-106     1.00     none       0.00     none       0.00
 Sb-127    Te-127m    0.18     Te-127     0.82     none       0.00
 Sb-129    Te-129m    0.22     Te-129     0.77     none       0.00
 Te-127m   Te-127     0.98     none       0.00     none       0.00
 Te-129    I-129      1.00     none       0.00     none       0.00
 Te-129m   Te-129     0.65     I-129      0.35     none       0.00
 Te-131m   Te-131     0.22     I-131      0.78     none       0.00
 Te-132    I-132      1.00     none       0.00     none       0.00
 I-131     Xe-131m    0.01     none       0.00     none       0.00
 Te-129    I-129      1.00     none       0.00     none       0.00
 Te-129m   Te-129     0.65     I-129      0.35     none       0.00
```

I-133	Xe-133m	0.03	Xe-133	0.97	none	0.00
I-135	Xe-135m	0.15	Xe-135	0.85	none	0.00
Xe-135	Cs-135	1.00	none	0.00	none	0.00
Cs-137	Ba-137m	0.95	none	0.00	none	0.00
Ba-140	La-140	1.00	none	0.00	none	0.00
La-141	Ce-141	1.00	none	0.00	none	0.00
Ce-143	Pr-143	1.00	none	0.00	none	0.00
Ce-144	Pr-144m	0.02	Pr-144	0.98	none	0.00
Nd-147	Pm-147	1.00	none	0.00	none	0.00
Np-239	Pu-239	1.00	none	0.00	none	0.00
Pu-238	U-234	1.00	none	0.00	none	0.00
Pu-239	U-235	1.00	none	0.00	none	0.00
Pu-240	U-236	1.00	none	0.00	none	0.00
Pu-241	U-237	0.00	Am-241	1.00	none	0.00
Am-241	Np-237	1.00	none	0.00	none	0.00
Cm-242	Pu-238	1.00	none	0.00	none	0.00
Cm-244	Pu-240	1.00	none	0.00	none	0.00

Iodine fractions
Aerosol = 9.5000E-01
Elemental = 4.8500E-02
Organic = 1.5000E-03

COMPARTMENT DATA

Compartment number 1: Primary Containment
Natural Deposition (Powers' model): Aerosol data
Reactor type: 3
Percentile = 10 (%)

Natural Deposition: Elemental Removal Data

Time (hr)	Removal Coef. (hr^-1)
0.0000E+00	0.0000E+00

Compartment number 2: Intact MSL No. A

Compartment number 3: Intact MSL No. B

Compartment number 4: Intact MSL No. D

Compartment number 5: Drain Pathway Mixing Volume

Compartment number 6: Effective Condenser

Compartment number 7: Turbine Building

Compartment number 8: Environment

PATHWAY DATA

Pathway number 1: Primary Containment to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.9700E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.6670E-01	1.9700E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E+01	9.8500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 2: Primary Containment to Intact MSL No. A

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E-00	0.0000E+00	0.0000E+00

Time (hr)	Flow Rate	Filter Efficiencies (%)

7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 3: Primary Containment to Intact MSL No. B

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E+00	0.0000E-00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 4: Primary Containment to Intact MSL No. D

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	0.0000E-00	0.0000E+00	0.0000E+00
2.4000E+01	6.5500E-01	0.0000E+00	0.0000E+00	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 5: Intact MSL No. A to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.4800E+01	6.5200E+00	0.0000E+00
2.4000E+01	6.5500E-01	2.5800E+01	1.2250E+01	0.0000E+00
7.2000E-02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 6: Intact MSL No. B to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.5900E+01	7.0600E+00	0.0000E-00
2.4000E+01	6.5500E-01	2.7500E+01	1.3190E+01	0.0000E+00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

Pathway number 7: Intact MSL No. D to Drain Pathway Mixing Volume

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	1.3100E+00	1.4800E+01	6.5200E+00	0.0000E+00
2.4000E+01	6.5500E-01	2.5800E+01	1.2250E+01	0.0000E-00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 8: Drain Pathway Mixing Volume to Effective Condenser

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.9000E+00	6.7000E+00	4.2700E-00	0.0000E+00
2.4000E+01	2.9500E+00	1.2500E+01	8.1900E+00	0.0000E-00
7.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00

Pathway number 9: Effective Condenser to Turbine Building

Pathway Filter: Removal Data

Time (hr)	Flow Rate (cfm)	Filter Efficiencies (%) Aerosol	Elemental	Organic
0.0000E+00	5.9000E+00	9.9600E+01	9.9600E+01	0.0000E+00

Pathway Filter: Removal Data

```
       2.4000E+01    2.9500E+00    9.9600E-01    9.9600E-01    0.0000E+00

Pathway number 10: Turbine Building to Environment

     Pathway Filter: Removal Data

       Time (hr)       Flow Rate          Filter Efficiencies (%)
                         (cfm)         Aerosol     Elemental     Organic
       0.0000E+00    1.0000E-07    0.0000E+00    0.0000E+00    0.0000E-00
       5.0000E-01    1.0000E-07    0.0000E+00    0.0000E+00    0.0000E+00
       7.2000E+02    0.0000E+00    0.0000E+00    0.0000E-00    0.0000E+00

LOCATION DATA
     Location EAB LOCA      is in compartment   7
       Location X/Q Data
      Time (hr)          X/Q (s * m^-3)
       0.0000E-00           8.3000E-04
       7.2000E+02           0.0000E+00

     Location Breathing Rate Data
      Time (hr)          Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E-02                0.0000E+00
     Location LOCA @ LPZ      is in compartment   7

     Location X/Q Data
      Time (hr)          X/Q (s * m^-3)
       0.0000E+00           4.9000E-05
       8.0000E+00           3.5000E-05
       2.4000E+01           1.7000E-05
       9.6000E+01           6.1000E-06
       7.2000E+02           0.0000E+00

     Location Breathing Rate Data
      Time (hr)          Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       8.0000E+00                1.8000E-04
       2.4000E+01                2.3000E-04
       7.2000E+02                0.0000E+00
     Location LOCA @ Unprotected CR      is in compartment   7

     Location X/Q Data
      Time (hr)          X/Q (s * m^-3)
       0.0000E+00           6.0000E-03
       2.0000E+00           4.9300E-03
       8.0000E+00           1.4400E-03
       2.4000E+01           1.3800E-03
       9.6000E+01           1.2100E-03
       7.2000E+02           0.0000E+00

     Location Breathing Rate Data
      Time (hr)          Breathing Rate (m^3 * sec^-1)
       0.0000E+00                3.5000E-04
       7.2000E+02                0.0000E-00

USER SPECIFIED TIME STEP DATA - SUPPLEMENTAL TIME STEPS
     Time            Time step
      0.0000E+00       0.0000E+00
      5.0000E-01       1.0000E+00
      1.0000E+00       1.0000E+00
      2.0000E+00       2.0000E+00
      4.0000E+00       4.0000E+00
      8.0000E+00       8.0000E+00
      1.6000E+01       8.0000E+00
      2.4000E+01       2.4000E+01
      9.6000E+01       4.8000E+01
      7.2000E+02       0.0000E+00
      8.0000E+00       8.0000E+00
      1.6000E+01       8.0000E+00
```

```
##########################################################################
   RADTRAD Version 3.03 (Spring 2001) run on  7/30/2005  at 11:12:23
##########################################################################


     ****    #     #  #####  #####    #     #  #####
    #    #   #     #    #    #    #   #     #    #
    #    #   #     #    #    #    #   #     #    #
    #    #   #     #    #    #####    #     #    #
    #    #   #     #    #    #        #     #    #
    #    #   #     #    #    #        #     #    #
     ####     ####      #    #         ####      #


##########################################################################
           Dose, Detailed model and Detailed Inventory Output
##########################################################################

Detailed model information at time (H) =     0.0000

     Natural deposition - Powers' Model, Compartment  1
Deposition Lambda (1 / Hours)
     Noble       Elemental  Organic    Aerosol
     0.0000E+00 0.0000E+00 0.0000E+00 7.5973E-01
Deposition Net DF
     Noble       Elemental  Organic    Aerosol
     1.0000E+00 1.0000E+00 1.0000E+00 1.0000E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) =    0.0000        Ci            kg          Atoms       Decay

Primary Containment Transport Group Inventory:
Time (h) =    0.0000     Atmosphere      Sump
Noble gases (atoms)     3.2051E+25  0.0000E+00
Elemental I (atoms)     7.6074E+22  0.0000E+00
Organic I (atoms)       2.3528E+21  0.0000E+00
Aerosols (kg)           5.4507E+01  0.0000E+00
Dose Effective (Ci/cc) I-131 (Thyroid)          4.1240E-03
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)    5.2839E-03
Total I (Ci)                                    2.8256E+08

                        Deposition Recirculating
Time (h) =    0.0000      Surfaces      Filter
Noble gases (atoms)     0.0000E+00  0.0000E+00
Elemental I (atoms)     0.0000E+00  0.0000E+00
Organic I (atoms)       0.0000E+00  0.0000E+00
Aerosols (kg)           2.0706E-05  0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

                          Pathway
Time (h) =    0.0000     Filtered   Transported
Noble gases (atoms)     0.0000E+00  4.8795E+15
Elemental I (atoms)     0.0000E+00  1.1582E+13
Organic I (atoms)       0.0000E+00  3.5819E+11
Aerosols (kg)           0.0000E+00  8.2982E-09

Primary Containment to Intact MSL No. A Transport Group Inventory:

                          Pathway
Time (h) =    0.0000     Filtered   Transported
Noble gases (atoms)     0.0000E+00  3.2448E+15
Elemental I (atoms)     0.0000E+00  7.7015E+12
Organic I (atoms)       0.0000E+00  2.3819E+11
                          Pathway
Time (h) =    0.0000     Filtered   Transported
```

Aerosols (kg)	0.0000E+00	5.5181E-09

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2448E+15
Elemental I (atoms)	0.0000E+00	7.7015E+12
Organic I (atoms)	0.0000E+00	2.3819E+11
Aerosols (kg)	0.0000E+00	5.5181E-09

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2448E+15
Elemental I (atoms)	0.0000E+00	7.7015E+12
Organic I (atoms)	0.0000E+00	2.3819E+11
Aerosols (kg)	0.0000E+00	5.5181E-09

Turbine Building Compartment Nuclide Inventory:

Time (h) = 0.0000	Ci	kg	Atoms	Decay

Turbine Building Transport Group Inventory:

Time (h) = 0.0000	Atmosphere	Sump	
Noble gases (atoms)	5.1677E+02	0.0000E+00	
Elemental I (atoms)	4.6967E-03	0.0000E+00	
Organic I (atoms)	3.7935E-02	0.0000E+00	
Aerosols (kg)	3.2798E-24	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3503E-22
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7300E-22
Total I (Ci)			2.3832E-17

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.8901E+02
Elemental I (atoms)	1.5593E+00	6.2622E-03
Organic I (atoms)	0.0000E+00	5.0579E-02
Aerosols (kg)	1.0889E-21	4.3730E-24

Turbine Building to Environment Transport Group Inventory:

Time (h) = 0.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0335E-09
Elemental I (atoms)	0.0000E+00	9.3934E-15
Organic I (atoms)	0.0000E+00	7.5869E-14
Aerosols (kg)	0.0000E+00	6.5596E-36

Detailed model information at time (H) = 0.1667

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E+00	0.0000E+00	7.5973E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.1350E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Kr-85	1.4795E+06	3.7711E+00	2.6718E+25	3.2853E+19
Kr-85m	2.6126E+07	3.1747E-03	2.2492E+22	5.8768E+20
Kr-87	4.8960E+07	1.7285E-03	1.1965E+22	1.1381E+21
Kr-88	7.1607E+07	5.7107E-03	3.9080E+22	1.6228E+21

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Kr-85	1.4795E+06	3.7711E+00	2.6718E+25	3.2853E+19

Rb-86	4.7760E+04	5.8696E-04	4.1102E+21	1.0939E+18
I-131	2.8411E+07	2.2916E-01	1.0535E+24	6.4973E+20
I-132	3.9685E+07	3.8447E-03	1.7540E+22	9.3075E+20
I-133	5.8781E+07	5.1889E-02	2.3495E+23	1.3477E+21
I-134	5.7169E+07	2.1430E-03	9.6310E+21	1.3981E+21
I-135	5.5132E+07	1.5699E-02	7.0030E+22	1.2717E+21
Xe-133	2.1191E+08	1.1321E-00	5.1261E+24	4.7068E+21
Xe-135	6.9877E+07	2.7363E-02	1.2206E+23	1.5511E+21
Cs-134	5.0613E+06	3.9119E-00	1.7581E+25	1.1591E+20
Cs-136	1.6155E+06	2.2042E-02	9.7603E+22	3.7004E+19
Cs-137	3.8093E+06	4.3795E-01	1.9251E+26	8.7240E+19

Primary Containment Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	3.2039E-25	0.0000E+00	
Elemental I (atoms)	7.5765E-22	0.0000E-00	
Organic I (atoms)	2.3433E-21	0.0000E-00	
Aerosols (kg)	4.8015E-01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.6465E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.6500E-03
Total I (Ci)			2.3918E+08

Time (h) = 0.1667	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	6.4834E-00	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6266E+21
Elemental I (atoms)	0.0000E+00	3.8573E+18
Organic I (atoms)	0.0000E+00	1.1930E+17
Aerosols (kg)	0.0000E+00	2.5984E-03

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0817E+21
Elemental I (atoms)	0.0000E+00	2.5650E+18
Organic I (atoms)	0.0000E+00	7.9331E+16
Aerosols (kg)	0.0000E+00	1.7279E-03

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0817E+21
Elemental I (atoms)	0.0000E+00	2.5650E+18
Organic I (atoms)	0.0000E+00	7.9331E+16
Aerosols (kg)	0.0000E-00	1.7279E-03

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 0.1667	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0817E+21
Elemental I (atoms)	0.0000E+00	2.5650E+18
Organic I (atoms)	0.0000E+00	7.9331E+16
Aerosols (kg)	0.0000E+00	1.7279E-03

Turbine Building Compartment Nuclide Inventory:

Time (h) = 0.1667	Ci	kg	Atoms	Decay
Kr-85	2.4273E-02	6.1867E-08	4.3832E+17	3.2417E+11

Turbine Building Compartment Nuclide Inventory:

Kr-85m	4.2862E-01	5.2083E-11	3.6900E+14	5.7791E+12
Kr-87	8.0323E-01	2.8357E-11	1.9629E+14	1.1096E+13
Kr-88	1.1748E+00	9.3688E-11	6.4114E+14	1.5927E+13
Rb-86	3.1375E-06	3.8559E-14	2.7001E+11	4.2221E+07
I-131	2.6463E-03	2.1345E-11	9.8126E+13	3.5528E+10
I-132	3.6964E-03	3.5811E-13	1.6338E+12	5.0550E+10
I-133	5.4751E-03	4.8332E-12	2.1884E+13	7.3641E+10
I-134	5.3249E-03	1.9961E-13	8.9707E+11	7.5092E+10
I-135	5.1353E-03	1.4623E-12	6.5229E+12	6.9376E+10
Xe-133	3.4760E-00	1.8570E-08	8.4085E+16	4.6438E+13
Xe-135	1.1403E-00	4.4652E-10	1.9919E+15	1.5282E+13
Cs-134	3.3249E-04	2.5698E-10	1.1549E+15	4.4739E+09
Cs-136	1.0613E-04	1.4480E-12	6.4118E+12	1.4282E+09
Cs-137	2.5025E-04	2.8770E-09	1.2646E+16	3.3672E+09

Turbine Building Transport Group Inventory:

Time (h) = 0.1667	Atmosphere	Sump	
Noble gases (atoms)	5.2561E+17	0.0000E+00	
Elemental I (atoms)	4.7262E+12	0.0000E+00	
Organic I (atoms)	3.8443E+13	0.0000E+00	
Aerosols (kg)	3.1542E-09	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3185E-07
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6814E-07
Total I (Ci)			2.2278E-02

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 0.1667	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8306E+17
Elemental I (atoms)	1.0831E+15	4.3497E+12
Organic I (atoms)	0.0000E+00	3.5403E+13
Aerosols (kg)	7.1778E-07	2.8827E-09

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 0.1667	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6946E+11
Elemental I (atoms)	0.0000E+00	1.5287E+06
Organic I (atoms)	0.0000E+00	1.2418E+07
Aerosols (kg)	0.0000E+00	1.0284E-15

Detailed model information at time (H) = 0.5000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E-00	7.5973E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.4622E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	1.4791E+06	3.7700E+00	2.6710E+25	9.8525E+19
Kr-85m	2.4805E+07	3.0142E-03	2.1355E+22	1.7179E+21
Kr-87	4.0814E+07	1.4409E-03	9.9739E+21	3.1253E+21
Kr-88	6.5993E+07	5.2629E-03	3.6016E+22	4.6754E+21
Rb-86	3.7045E+04	4.5529E-04	3.1881E+21	2.9002E+18
I-131	2.2380E+07	1.8052E-01	8.2985E+23	1.7344E+21
I-132	2.8307E+07	2.7424E-03	1.2511E+22	2.3755E+21
I-133	4.5846E+07	4.0471E-02	1.8325E+23	3.5810E+21
I-134	3.4642E+07	1.2986E-03	5.8360E+21	3.3265E+21
I-135	4.1988E+07	1.1956E-02	5.3334E+22	3.3425E+21
Xe-133	2.1155E+08	1.1302E+00	5.1173E+24	1.4106E+22
Xe-135	6.9101E+07	2.7059E-02	1.2070E+23	4.6305E+21
Cs-134	3.9279E+06	3.0358E+00	1.3643E+25	3.0738E+20
I-134	3.4642E+07	1.2986E-03	5.8360E+21	3.3265E+21
I-135	4.1988E+07	1.1956E-02	5.3334E+22	3.3425E+21

Cs-136	1.2528E+06	1.7093E-02	7.5691E+22	9.8095E+19
Cs-137	2.9563E+06	3.3987E-01	1.4940E+26	2.3134E+20

Primary Containment Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	3.2015E+25	0.0000E+00	
Elemental I (atoms)	7.5187E+22	0.0000E+00	
Organic I (atoms)	2.3254E+21	0.0000E+00	
Aerosols (kg)	3.7261E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.8592E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6151E-03
Total I (Ci)			1.7316E+08

Time (h) = 0.5000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	1.7223E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8771E+21
Elemental I (atoms)	0.0000E+00	1.1524E-19
Organic I (atoms)	0.0000E+00	3.5643E+17
Aerosols (kg)	0.0000E-00	6.9024E-03

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2431E+21
Elemental I (atoms)	0.0000E+00	7.6635E-18
Organic I (atoms)	0.0000E+00	2.3701E+17
Aerosols (kg)	0.0000E+00	4.5899E-03

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2431E+21
Elemental I (atoms)	0.0000E+00	7.6635E+18
Organic I (atoms)	0.0000E+00	2.3701E-17
Aerosols (kg)	0.0000E+00	4.5899E-03

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 0.5000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.2431E+21
Elemental I (atoms)	0.0000E+00	7.6635E+18
Organic I (atoms)	0.0000E+00	2.3701E+17
Aerosols (kg)	0.0000E+00	4.5899E-03

Turbine Building Compartment Nuclide Inventory:

Time (h) = 0.5000	Ci	kg	Atoms	Decay
Kr-85	2.6488E-01	6.7515E-07	4.7833E+18	7.1920E+12
Kr-85m	4.4423E+00	5.3980E-10	3.8244E+15	1.2319E+14
Kr-87	7.3093E+00	2.5804E-10	1.7862E+15	2.1405E+14
Kr-88	1.1818E+01	9.4251E-10	6.4499E+15	3.3181E+14
Rb-86	3.1037E-05	3.8144E-13	2.6710E+12	8.6534E+08
I-131	2.7048E-02	2.1817E-10	1.0029E+15	7.4742E+11
I-132	3.4212E-02	3.3144E-12	1.5121E+13	9.8542E+11
I-133	5.5409E-02	4.8913E-11	2.2147E+14	1.5374E+12
I-134	4.1868E-02	1.5694E-12	7.0533E+12	1.2937E+12
I-135	5.0745E-02	1.4450E-11	6.4458E+13	1.4220E+12
I-131	2.7048E-02	2.1817E-10	1.0029E+15	7.4742E+11
I-132	3.4212E-02	3.3144E-12	1.5121E+13	9.8542E+11

Xe-133	3.7876E+01	2.0235E-07	9.1621E-17	1.0291E+15
Xe-135	1.2270E+01	4.8047E-09	2.1433E+16	3.3553E+14
Cs-134	3.2908E-03	2.5434E-09	1.1431E+16	9.1731E+10
Cs-136	1.0496E-03	1.4321E-11	6.3414E+13	2.9266E+10
Cs-137	2.4768E-03	2.8475E-08	1.2517E+17	6.9040E-10

Turbine Building Transport Group Inventory:

Time (h) = 0.5000	Atmosphere	Sump	
Noble gases (atoms)	5.7330E+18	0.0000E+00	
Elemental I (atoms)	5.0712E+13	0.0000E+00	
Organic I (atoms)	4.1644E+14	0.0000E-00	
Aerosols (kg)	3.1217E-08	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.3414E-06
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6961E-06
Total I (Ci)			2.0928E-01

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 0.5000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.6921E+18
Elemental I (atoms)	1.2587E+16	5.0550E+13
Organic I (atoms)	0.0000E+00	4.1516E+14
Aerosols (kg)	7.7053E-06	3.0945E-08

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 0.5000	Filtered	Transported
Noble gases (atoms)	0.0000E-00	5.3840E+12
Elemental I (atoms)	0.0000E+00	4.7933E+07
Organic I (atoms)	0.0000E+00	3.9242E+08
Aerosols (kg)	0.0000E+00	3.0322E-14

Detailed model information at time (H) = 1.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	6.6053E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.0349E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Kr-85	1.4784E+06	3.7683E+00	2.6698E+25	1.9701E+20
Kr-85m	2.2948E+07	2.7885E-03	1.9756E-22	3.3073E+21
Kr-87	3.1064E+07	1.0967E-03	7.5911E-21	5.5040E+21
Kr-88	5.8385E+07	4.6562E-03	3.1864E+22	8.8118E+21
Rb-86	2.6593E+04	3.2683E-04	2.2886E+21	4.9315E-18
I-131	1.6498E+07	1.3307E-01	6.1174E+23	2.9796E-21
I-132	1.7981E-07	1.7419E-03	7.9471E+21	3.8442E+21
I-133	3.3298E+07	2.9394E-02	1.3309E+23	6.1141E+21
I-134	1.7229E+07	6.4584E-04	2.9025E+21	4.9352E+21
I-135	2.9424E+07	8.3784E-03	3.7375E+22	5.6235E+21
Xe-133	2.1097E+08	1.1271E+00	5.1034E+24	2.8174E+22
Xe-135	6.7577E+07	2.6462E-02	1.1804E+23	9.1760E+21
Cs-134	2.8217E+06	2.1809E+00	9.8013E+24	5.2283E+20
Cs-136	8.9902E+05	1.2267E-02	5.4317E+22	1.6678E+20
Cs-137	2.1238E+06	2.4417E+01	1.0733E+26	3.9350E+20

Primary Containment Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump
Noble gases (atoms)	3.1978E+25	0.0000E+00
Elemental I (atoms)	7.4397E+22	0.0000E+00
Organic I (atoms)	2.3009E+21	0.0000E+00
Aerosols (kg)	2.6767E+01	0.0000E+00

Time (h) = 1.0000	Atmosphere	Sump
Noble gases (atoms)	3.1978E+25	0.0000E+00

Dose Effective (Ci/cc) I-131 (Thyroid)	2.0938E-03
Dose Effective (Ci/cc) I-131 (ICRP2 Thyroid)	2.6188E-03
Total I (Ci)	1.1443E+08

Time (h) = 1.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	2.7700E-01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.7486E+21
Elemental I (atoms)	0.0000E+00	2.2921E+19
Organic I (atoms)	0.0000E+00	7.0891E+17
Aerosols (kg)	0.0000E+00	1.1732E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.4826E+21
Elemental I (atoms)	0.0000E+00	1.5242E+19
Organic I (atoms)	0.0000E+00	4.7141E+17
Aerosols (kg)	0.0000E+00	7.8016E-03

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.4826E+21
Elemental I (atoms)	0.0000E+00	1.5242E+19
Organic I (atoms)	0.0000E+00	4.7141E+17
Aerosols (kg)	0.0000E+00	7.8016E-03

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.4826E+21
Elemental I (atoms)	0.0000E+00	1.5242E+19
Organic I (atoms)	0.0000E+00	4.7141E+17
Aerosols (kg)	0.0000E+00	7.8016E-03

Turbine Building Compartment Nuclide Inventory:

Time (h) = 1.0000	Ci	kg	Atoms	Decay
Kr-85	1.2665E+00	3.2281E-06	2.2871E+19	6.0284E-13
Kr-85m	1.9659E+01	2.3888E-09	1.6925E+16	9.7281E+14
Kr-87	2.6611E+01	9.3948E-10	6.5031E+15	1.4585E+15
Kr-88	5.0016E+01	3.9888E-09	2.7297E+16	2.5322E+15
Rb-86	1.3131E-04	1.6138E-12	1.1301E+13	6.5634E+09
I-131	1.1954E-01	9.6424E-10	4.4327E+15	5.8701E+12
I-132	1.3029E-01	1.2622E-11	5.7585E+13	6.9130E+12
I-133	2.4127E-01	2.1299E-10	9.6439E+14	1.1938E+13
I-134	1.2484E-01	4.6798E-12	2.1031E+13	7.5838E+12
I-135	2.1320E-01	6.0709E-11	2.7082E+14	1.0745E+13
Xe-133	1.8068E+02	9.6525E-07	4.3706E+18	8.6103E+15
Xe-135	5.7306E+01	2.2440E-08	1.0010E+17	2.7639E+15
Cs-134	1.3933E-02	1.0769E-08	4.8397E+16	6.9616E+11
Cs-136	4.4392E-03	6.0570E-11	2.6821E+14	2.2193E+11
Cs-137	1.0487E-02	1.2057E-07	5.2997E+17	5.2397E+11

Turbine Building Transport Group Inventory:

Time (h) = 1.0000	Atmosphere	Sump		
Noble gases (atoms)	2.7392E+19	0.0000E+00		
Cs-137	1.0487E-02	1.2057E-07	5.2997E+17	5.2397E+11

Elemental I (atoms)	2.3807E-14	0.0000E+00	
Organic I (atoms)	1.9711E+15	0.0000E+00	
Aerosols (kg)	1.3217E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.8896E-06
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.3665E-06
Total I (Ci)			8.2915E-01

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7365E+19
Elemental I (atoms)	5.9614E+16	2.3941E+14
Organic I (atoms)	0.0000E+00	1.9823E+15
Aerosols (kg)	3.2843E-05	1.3190E-07

Turbine Building to Environment Transport Group Inventory:

Time (h) = 1.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.0442E+13
Elemental I (atoms)	0.0000E+00	4.4236E+08
Organic I (atoms)	0.0000E+00	3.6492E+09
Aerosols (kg)	0.0000E+00	2.5760E-13

Detailed model information at time (H) = 2.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	6.6053E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.9418E+00

Primary Containment Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Kr-85	1.4771E+06	3.7649E+00	2.6674E+25	3.9383E+20
Kr-85m	1.9641E+07	2.3866E-03	1.6909E+22	6.1379E+21
Kr-87	1.7994E+07	6.3527E-04	4.3973E+21	8.6923E+21
Kr-88	4.5699E+07	3.6445E-03	2.4940E+22	1.5709E+22
Rb-86	1.3704E+04	1.6842E-04	1.1793E+21	7.4364E+18
I-131	9.2518E+06	7.4627E-02	3.4306E+23	4.5941E+21
I-132	7.4866E+06	7.2530E-04	3.3090E+21	5.3875E+21
I-133	1.8126E+07	1.6001E-02	7.2452E+22	9.3291E+21
I-134	4.3979E+06	1.6486E-04	7.4090E+20	6.1457E+21
I-135	1.4911E+07	4.2460E-03	1.8941E+22	8.3750E+21
Xe-133	2.0975E+08	1.1206E+00	5.0738E+24	5.6193E+22
Xe-135	6.3847E+07	2.5001E-02	1.1153E+23	1.7926E+22
Cs-134	1.4563E+06	1.1255E+00	5.0583E+24	7.8879E+20
Cs-136	4.6297E+05	6.3169E-03	2.7971E+22	2.5144E+20
Cs-137	1.0961E+06	1.2601E+01	5.5393E+25	5.9369E+20

Primary Containment Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1905E+25	0.0000E+00	
Elemental I (atoms)	7.3024E+22	0.0000E+00	
Organic I (atoms)	2.2585E+21	0.0000E+00	
Aerosols (kg)	1.3813E+01	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1598E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4266E-03
Total I (Ci)			5.4174E+07

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00

Time (h) = 2.0000	Deposition Surfaces	Recirculating Filter

Aerosols (kg)	4.0634E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9475E+22
Elemental I (atoms)	0.0000E+00	4.5379E+19
Organic I (atoms)	0.0000E-00	1.4035E+18
Aerosols (kg)	0.0000E+00	1.7694E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.2950E+22
Elemental I (atoms)	0.0000E-00	3.0176E+19
Organic I (atoms)	0.0000E+00	9.3328E+17
Aerosols (kg)	0.0000E+00	1.1766E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.2950E+22
Elemental I (atoms)	0.0000E+00	3.0176E+19
Organic I (atoms)	0.0000E+00	9.3328E+17
Aerosols (kg)	0.0000E+00	1.1766E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2950E+22
Elemental I (atoms)	0.0000E+00	3.0176E+19
Organic I (atoms)	0.0000E+00	9.3328E+17
Aerosols (kg)	0.0000E+00	1.1766E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 2.0000	Ci	kg	Atoms	Decay
Kr-85	6.1990E+00	1.5800E-05	1.1194E+20	5.4412E+14
Kr-85m	8.2427E+01	1.0016E-08	7.0962E+16	7.8056E+15
Kr-87	7.5518E+01	2.6661E-09	1.8454E+16	8.8037E+15
Kr-88	1.9179E-02	1.5295E-08	1.0467E+17	1.9006E+16
Rb-86	5.2672E-04	6.4734E-12	4.5330E+13	5.0431E+10
I-131	5.1850E-01	4.1823E-09	1.9226E+16	4.7929E+13
I-132	4.1957E-01	4.0648E-11	1.8544E+14	4.5288E+13
I-133	1.0158E+00	8.9675E-10	4.0604E+15	9.5309E+13
I-134	2.4647E-01	9.2392E-12	4.1522E+13	3.5451E+13
I-135	8.3568E-01	2.3796E-10	1.0615E+15	8.1304E+13
Xe-133	8.8006E+02	4.7016E-06	2.1289E+19	7.7431E+16
Xe-135	2.6592E+02	1.0413E-07	4.6452E+17	2.3986E+16
Cs-134	5.5974E-02	4.3262E-08	1.9443E+17	5.3551E+12
Cs-136	1.7795E-02	2.4280E-10	1.0751E+15	1.7044E+12
Cs-137	4.2131E-02	4.8436E-07	2.1291E+18	4.0307E+12

Turbine Building Transport Group Inventory:

Time (h) = 2.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3389E+20	0.0000E+00	
Elemental I (atoms)	1.1357E+15	0.0000E+00	
Organic I (atoms)	9.4782E+15	0.0000E+00	
Aerosols (kg)	5.3092E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.5233E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.1037E-05
Total I (Ci)			3.0361E+00

Effective Condenser to Turbine Building Transport Group Inventory:

Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)	3.1037E-05
Total I (Ci)		3.0361E+00

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3398E+20
Elemental I (atoms)	2.8604E+17	1.1487E+15
Organic I (atoms)	0.0000E+00	9.5866E+15
Aerosols (kg)	1.3214E-04	5.3069E-07

Turbine Building to Environment Transport Group Inventory:

Time (h) = 2.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.8902E+14
Elemental I (atoms)	0.0000E+00	4.1973E+09
Organic I (atoms)	0.0000E-00	3.4909E-10
Aerosols (kg)	0.0000E-00	2.1274E-12

Detailed model information at time (H) = 4.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0673E+00

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E-00	1.0000E-00	3.3383E-01

Primary Containment Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Kr-85	1.4744E+06	3.7581E+00	2.6626E+25	7.8696E+20
Kr-85m	1.4387E+07	1.7483E-03	1.2386E+22	1.0634E+22
Kr-87	6.0382E+06	2.1317E-04	1.4756E+21	1.1609E+22
Kr-88	2.7998E+07	2.2328E-03	1.5280E+22	2.5333E+22
Rb-86	1.6130E+03	1.9824E-05	1.3882E+20	8.8628E+18
I-131	2.4725E+06	1.9943E-02	9.1681E+22	5.8119E+21
I-132	1.1029E+06	1.0685E-04	4.8748E-20	6.1788E+21
I-133	4.5645E+06	4.0293E-03	1.8244E+22	1.1661E+22
I-134	2.4351E+05	9.1281E-06	4.1023E+19	6.4879E+21
I-135	3.2543E+06	9.2667E-04	4.1337E+21	1.0191E+22
Xe-133	2.0717E+08	1.1068E+00	5.0114E+24	1.1173E+23
Xe-135	5.5522E+07	2.1742E-02	9.6986E+22	3.3820E+22
Cs-134	1.7193E+05	1.3289E-01	5.9721E+23	9.4053E+20
Cs-136	5.4424E+04	7.4258E-04	3.2882E+21	2.9961E+20
Cs-137	1.2942E+05	1.4879E+00	6.5404E+24	7.0790E+20

Primary Containment Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1763E+25	0.0000E+00	
Elemental I (atoms)	7.0764E+22	0.0000E+00	
Organic I (atoms)	2.1886E+21	0.0000E+00	
Aerosols (kg)	1.6306E+00	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.0323E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.6453E-04
Total I (Ci)			1.1638E+07

Time (h) = 4.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.2805E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.8862E+22
Elemental I (atoms)	0.0000E+00	8.9168E+19
Organic I (atoms)	0.0000E+00	2.7578E+18

Time (h) = 4.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	2.1166E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5842E+22
Elemental I (atoms)	0.0000E+00	5.9294E+19
Organic I (atoms)	0.0000E+00	1.8338E+18
Aerosols (kg)	0.0000E+00	1.4075E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5842E+22
Elemental I (atoms)	0.0000E+00	5.9294E+19
Organic I (atoms)	0.0000E+00	1.8338E+18
Aerosols (kg)	0.0000E+00	1.4075E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5842E+22
Elemental I (atoms)	0.0000E+00	5.9294E+19
Organic I (atoms)	0.0000E+00	1.8338E+18
Aerosols (kg)	0.0000E+00	1.4075E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 4.0000	Ci	kg	Atoms	Decay
Kr-85	2.9602E+01	7.5450E-05	5.3455E-20	5.0553E+15
Kr-85m	2.8885E+02	3.5099E-08	2.4867E+17	5.7537E+16
Kr-87	1.2123E+02	4.2797E-09	2.9624E-16	3.8138E+16
Kr-88	5.6210E+02	4.4827E-08	3.0677E+17	1.2319E+17
Rb-86	1.7953E-03	2.2064E-11	1.5450E-14	3.5934E-11
I-131	2.0609E+00	1.6623E-08	7.6419E+16	3.8243E+14
I-132	9.1932E-01	8.9063E-11	4.0633E+14	2.3676E+14
I-133	3.8046E+00	3.3586E-09	1.5207E+16	7.2763E+14
I-134	2.0297E-01	7.6085E-12	3.4194E+13	1.0312E+14
I-135	2.7126E+00	7.7241E-10	3.4456E+15	5.5909E+14
Xe-133	4.1600E+03	2.2225E-05	1.0063E+20	7.1391E+17
Xe-135	1.1219E+03	4.3933E-07	1.9598E+18	2.0375E+17
Cs-134	1.9136E-01	1.4790E-07	6.6468E+17	3.8241E+13
Cs-136	6.0572E-02	8.2646E-10	3.6596E+15	1.2133E+13
Cs-137	1.4404E-01	1.6560E-06	7.2793E+18	2.8784E+13

Turbine Building Transport Group Inventory:

Time (h) = 4.0000	Atmosphere	Sump	
Noble gases (atoms)	6.3773E+20	0.0000E+00	
Elemental I (atoms)	5.2339E+15	0.0000E+00	
Organic I (atoms)	4.3939E+16	0.0000E-00	
Aerosols (kg)	1.8149E-06	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.8118E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1795E-04
Total I (Ci)			9.7004E+00

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.3882E+20
Elemental I (atoms)	1.3284E+18	5.3348E+15
Organic I (atoms)	0.0000E+00	4.4784E+16
Aerosols (kg)	4.5190E-04	1.8148E-06

Turbine Building to Environment Transport Group Inventory:

Organic I (atoms)	0.0000E+00	4.4784E+16
Aerosols (kg)	4.5190E-04	1.8148E-06

Time (h) = 4.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	4.7189E+15
Elemental I (atoms)	0.0000E-00	3.9342E+10
Organic I (atoms)	0.0000E+00	3.2944E+11
Aerosols (kg)	0.0000E+00	1.5791E-11

Detailed model information at time (H) = 8.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	6.4417E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	6.7301E+02

Primary Containment Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Kr-85	1.4691E+06	3.7445E+00	2.6529E+25	1.5711E+21
Kr-85m	7.7201E+06	9.3809E-04	6.6463E+21	1.6340E+22
Kr-87	6.7989E+05	2.4003E-05	1.6615E+20	1.2916E+22
Kr-88	1.0509E+07	8.3807E-04	5.7352E+21	3.4842E+22
Rb-86	7.9536E+01	9.7750E-07	6.8449E+18	9.0823E+18
I-131	1.5899E+06	1.2825E-02	5.8956E+22	6.7650E+21
I-132	2.1553E+05	2.0880E-05	9.5260E+19	6.4365E+21
I-133	2.6061E+06	2.3005E-03	1.0417E+22	1.3325E+22
I-134	6.7216E+03	2.5197E-07	1.1324E+18	6.5191E+21
I-135	1.3957E+06	3.9742E-04	1.7728E+21	1.1235E+22
Xe-133	2.0198E-08	1.0791E+00	4.8859E+24	2.2071E+23
Xe-135	4.1207E+07	1.6136E-02	7.1981E+22	5.9406E+22
Cs-134	8.5291E+03	6.5921E-03	2.9626E+22	9.6397E+20
Cs-136	2.6765E+03	3.6519E-05	1.6171E+20	3.0701E+20
Cs-137	6.4211E+03	7.3821E-02	3.2450E+23	7.2555E+20

Primary Containment Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1500E+25	0.0000E+00	
Elemental I (atoms)	6.7195E+22	0.0000E+00	
Organic I (atoms)	2.0782E+21	0.0000E+00	
Aerosols (kg)	8.0880E-02	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.8789E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.1929E-04
Total I (Ci)			5.8139E+06

Time (h) = 8.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4353E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.7386E+22
Elemental I (atoms)	0.0000E+00	1.7314E+20
Organic I (atoms)	0.0000E+00	5.3548E+18
Aerosols (kg)	0.0000E+00	2.1698E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1460E+22
Elemental I (atoms)	0.0000E+00	1.1513E+20
Organic I (atoms)	0.0000E+00	3.5608E+18

Time (h) = 8.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	1.4428E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1460E+22
Elemental I (atoms)	0.0000E+00	1.1513E-20
Organic I (atoms)	0.0000E+00	3.5608E+18
Aerosols (kg)	0.0000E+00	1.4428E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1460E+22
Elemental I (atoms)	0.0000E+00	1.1513E+20
Organic I (atoms)	0.0000E+00	3.5608E+18
Aerosols (kg)	0.0000E+00	1.4428E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 8.0000	Ci	kg	Atoms	Decay
Kr-85	1.3303E+02	3.3908E-04	2.4023E+21	4.5717E+16
Kr-85m	6.9908E+02	8.4948E-08	6.0184E+17	3.3281E+17
Kr-87	6.1566E+01	2.1735E-09	1.5045E+16	9.0652E+16
Kr-88	9.5161E+02	7.5890E-08	5.1934E-17	5.6279E+17
Rb-86	4.7540E-03	5.8426E-11	4.0913E+14	2.1197E+12
I-131	7.3246E+00	5.9081E-08	2.7160E+17	2.8025E+15
I-132	9.9290E-01	9.6191E-11	4.3885E+14	7.9695E+14
I-133	1.2006E+01	1.0598E-08	4.7988E+16	4.8912E-15
I-134	3.0966E-02	1.1608E-12	5.2167E+12	1.5683E+14
I-135	6.4296E+00	1.8308E-09	8.1671E+15	3.0757E+15
Xe-133	1.8302E+04	9.7778E-05	4.4273E+20	6.3547E+18
Xe-135	3.8104E-03	1.4921E-06	6.6560E+18	1.5081E+18
Cs-134	5.0979E-01	3.9402E-07	1.7708E+18	2.2652E+14
Cs-136	1.5998E-01	2.1828E-09	9.6655E+15	7.1436E+13
Cs-137	3.8380E-01	4.4124E-06	1.9396E+19	1.7052E-14

Turbine Building Transport Group Inventory:

Time (h) = 8.0000	Atmosphere	Sump	
Noble gases (atoms)	2.8528E+21	0.0000E+00	
Elemental I (atoms)	2.2339E+16	0.0000E+00	
Organic I (atoms)	1.8819E+17	0.0000E+00	
Aerosols (kg)	4.8343E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.3602E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.9217E-04
Total I (Ci)			2.6784E+01

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.8617E+21
Elemental I (atoms)	5.7402E+18	2.3053E+16
Organic I (atoms)	0.0000E+00	1.9420E+17
Aerosols (kg)	1.2040E-03	4.8353E-06

Turbine Building to Environment Transport Group Inventory:

Time (h) = 8.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.3399E+16
Elemental I (atoms)	0.0000E+00	3.4759E+11
Organic I (atoms)	0.0000E+00	2.9236E+12
Aerosols (kg)	0.0000E-00	9.5316E-11

Detailed model information at time (H) = 16.0000

Organic I (atoms)	0.0000E+00	2.9236E+12
Aerosols (kg)	0.0000E-00	9.5316E-11

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	5.2996E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	5.4990E+04

Primary Containment Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Kr-85	1.4584E+06	3.7172E+00	2.6336E+25	3.1305E-21
Kr-85m	2.2228E+06	2.7010E-04	1.9136E+21	2.1044E+22
Kr-87	8.6199E+03	3.0431E-07	2.1065E+18	1.3080E+22
Kr-88	1.4805E+06	1.1807E-04	8.0800E+20	3.9750E+22
Rb-86	9.6188E-01	1.1821E-08	8.2779E+16	9.0998E+18
I-131	1.4918E+06	1.2033E-02	5.5317E+22	8.3924E+21
I-132	1.8675E+04	1.8092E-06	8.2540E+18	6.5215E+21
I-133	1.9276E+06	1.7016E-03	7.7048E+21	1.5702E+22
I-134	1.1621E+01	4.3563E-10	1.9578E+15	6.5202E+21
I-135	5.8246E+05	1.6585E-04	7.3985E+20	1.2218E+22
Xe-133	1.9197E+08	1.0256E+00	4.6436E+24	4.3052E+23
Xe-135	2.2574E+07	8.8395E-03	3.9432E+22	9.2390E+22
Cs-134	1.0440E+02	8.0691E-05	3.6264E+20	9.6585E+20
Cs-136	3.2199E+01	4.3933E-07	1.9454E+18	3.0759E+20
Cs-137	7.8620E+01	9.0386E-04	3.9731E+21	7.2696E+20

Primary Containment Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	3.1022E-25	0.0000E+00	
Elemental I (atoms)	6.1835E-22	0.0000E+00	
Organic I (atoms)	1.9124E-21	0.0000E+00	
Aerosols (kg)	9.8988E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.6644E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.8705E-04
Total I (Ci)			4.0206E+06

Time (h) = 16.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4432E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5354E+23
Elemental I (atoms)	0.0000E+00	3.3025E+20
Organic I (atoms)	0.0000E+00	1.0214E+19
Aerosols (kg)	0.0000E+00	2.1740E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0210E-23
Elemental I (atoms)	0.0000E+00	2.1961E+20
Organic I (atoms)	0.0000E+00	6.7921E+18
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0210E+23
Elemental I (atoms)	0.0000E+00	2.1961E+20
Organic I (atoms)	0.0000E+00	6.7921E+18

Time (h) = 16.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	1.0210E+23
Elemental I (atoms)	0.0000E+00	2.1961E+20
Organic I (atoms)	0.0000E+00	6.7921E+18
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 16.0000	Ci	kg	Atoms	Decay
Kr-85	5.6338E+02	1.4360E-03	1.0174E+22	4.0584E-17
Kr-85m	8.5868E+02	1.0434E-07	7.3924E+17	1.2680E+18
Kr-87	3.3299E+00	1.1756E-10	8.1374E+14	1.1421E+17
Kr-88	5.7193E+02	4.5611E-08	3.1213E+17	1.4584E+18
Rb-86	1.0561E-02	1.2980E-10	9.0892E+14	1.0482E+13
I-131	2.5070E+01	2.0222E-07	9.2962E+17	1.9874E+16
I-132	3.1384E-01	3.0404E-11	1.3871E-14	1.4886E+15
I-133	3.2394E-01	2.8596E-08	1.2948E+17	2.9197E+16
I-134	1.9530E-04	7.3208E-15	3.2901E+10	1.6378E+14
I-135	9.7884E+00	2.7872E-09	1.2433E+16	1.2520E+16
Xe-133	7.4213E+04	3.9647E-04	1.7952E+21	5.4596E+19
Xe-135	8.9258E+03	3.4952E-06	1.5592E+19	8.7766E+18
Cs-134	1.1463E+00	8.8599E-07	3.9818E+18	1.1295E+15
Cs-136	3.5355E-01	4.8239E-09	2.1360E-16	3.5202E+14
Cs-137	8.6325E-01	9.9245E-06	4.3625E+19	8.5041E-14

Turbine Building Transport Group Inventory:

Time (h) = 16.0000	Atmosphere	Sump	
Noble gases (atoms)	1.1985E+22	0.0000E+00	
Elemental I (atoms)	8.7539E+16	0.0000E+00	
Organic I (atoms)	7.3878E+17	0.0000E+00	
Aerosols (kg)	1.0869E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.0858E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2203E-03
Total I (Ci)			6.7567E+01

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2052E+22
Elemental I (atoms)	2.2967E+19	9.2237E+16
Organic I (atoms)	0.0000E+00	7.7838E+17
Aerosols (kg)	2.7076E-03	1.0874E-05

Turbine Building to Environment Transport Group Inventory:

Time (h) = 16.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.7501E+17
Elemental I (atoms)	0.0000E+00	2.8384E+12
Organic I (atoms)	0.0000E+00	2.3934E+13
Aerosols (kg)	0.0000E+00	4.7284E-10

Detailed model information at time (H) = 24.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	5.1344E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.5400E+06

Primary Containment Compartment Nuclide Inventory:

Deposition Net DF

Noble	Elemental	Organic	Aerosol

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Kr-85	1.4477E+06	3.6900E+00	2.6143E-25	4.6782E+21
Kr-85m	6.4000E+05	7.7768E-05	5.5098E-20	2.2398E+22
Kr-87	1.0929E+02	3.8582E-09	2.6707E-15	1.3082E+22
Kr-88	2.0858E+05	1.6634E-05	1.1383E+20	4.0441E+22
Rb-86	1.4763E-02	1.8144E-10	1.2705E+15	9.1000E+18
I-131	1.4385E+06	1.1603E-02	5.3341E+22	9.9526E+21
I-132	1.6629E+03	1.6110E-07	7.3499E+17	6.5290E+21
I-133	1.4653E+06	1.2935E-03	5.8568E+21	1.7497E+22
I-134	2.0648E-02	7.7403E-13	3.4786E+12	6.5202E+21
I-135	2.4981E+05	7.1134E-05	3.1732E+20	1.2637E+22
Xe-133	1.8243E+08	9.7460E-01	4.4129E+24	6.2986E+23
Xe-135	1.2327E+07	4.8271E-03	2.1533E+22	1.1042E-23
Cs-134	1.6218E-00	1.2535E-06	5.6334E+18	9.6587E-20
Cs-136	4.9160E-01	6.7076E-09	2.9701E+16	3.0760E-20
Cs-137	1.2217E-00	1.4045E-05	6.1738E+19	7.2697E+20

Primary Containment Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	3.0578E+25	0.0000E+00	
Elemental I (atoms)	5.7730E+22	0.0000E+00	
Organic I (atoms)	1.7855E+21	0.0000E+00	
Aerosols (kg)	1.5377E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5371E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.6839E-04
Total I (Ci)			3.1553E-06

Time (h) = 24.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2859E+23
Elemental I (atoms)	0.0000E+00	4.7625E+20
Organic I (atoms)	0.0000E+00	1.4729E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5201E+23
Elemental I (atoms)	0.0000E+00	3.1670E+20
Organic I (atoms)	0.0000E+00	9.7947E+18
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5201E+23
Elemental I (atoms)	0.0000E+00	3.1670E+20
Organic I (atoms)	0.0000E+00	9.7947E+18
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5201E+23
Elemental I (atoms)	0.0000E+00	3.1670E+20
Organic I (atoms)	0.0000E+00	9.7947E+18

Time (h) = 24.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 24.0000	Ci	kg	Atoms	Decay
Kr-85	1.2828E+03	3.2698E-03	2.3166E+22	1.4126E+18
Kr-85m	5.6711E+02	6.8912E-08	4.8823E+17	2.0807E+18
Kr-87	9.6841E-02	3.4189E-12	2.3665E+13	1.1527E+17
Kr-88	1.8483E+02	1.4740E-08	1.0087E+17	1.8553E-18
Rb-86	1.6066E-02	1.9744E-10	1.3826E-15	2.5073E-13
I-131	5.1359E-01	4.1427E-07	1.9044E-18	6.1724E+16
I-132	5.9371E-02	5.7518E-12	2.6241E+13	1.6641E+15
I-133	5.2314E+01	4.6181E-08	2.0910E+17	7.6682E+16
I-134	7.3720E-07	2.7635E-17	1.2419E+08	1.6382E-14
I-135	8.9189E+00	2.5397E-09	1.1329E+16	2.3217E+16
Xe-133	1.6176E+05	8.6419E-04	3.9130E-21	1.8400E+20
Xe-135	1.1148E+04	4.3654E-06	1.9473E+19	2.0321E+19
Cs-134	1.7649E+00	1.3641E-06	6.1304E+18	2.7234E+15
Cs-136	5.3498E-01	7.2994E-09	3.2322E+16	8.3910E+14
Cs-137	1.3295E+00	1.5284E-05	6.7186E+19	2.0509E-15

Turbine Building Transport Group Inventory:

Time (h) = 24.0000	Atmosphere	Sump	
Noble gases (atoms)	2.7099E+22	0.0000E+00	
Elemental I (atoms)	1.8736E+17	0.0000E+00	
Organic I (atoms)	1.5821E+18	0.0000E+00	
Aerosols (kg)	1.6733E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1303E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.3338E-03
Total I (Ci)			1.1265E-02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7310E-22
Elemental I (atoms)	4.9967E+19	2.0067E+17
Organic I (atoms)	0.0000E+00	1.6945E+18
Aerosols (kg)	4.1692E-03	1.6744E-05

Turbine Building to Environment Transport Group Inventory:

Time (h) = 24.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2902E+18
Elemental I (atoms)	0.0000E+00	9.3357E+12
Organic I (atoms)	0.0000E+00	7.8787E+13
Aerosols (kg)	0.0000E+00	1.1360E-09

Detailed model information at time (H) = 48.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.9482E+07

Primary Containment Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Kr-85	1.4317E+06	3.6492E+00	2.5854E+25	9.2795E+21
Kr-85m	1.5444E+04	1.8767E-06	1.3296E+19	2.2934E+22
Kr-87	2.2517E-04	7.9494E-15	5.5026E+10	1.3082E+22
Kr-88	5.8966E+02	4.7025E-08	3.2181E+17	4.0555E+22
Rb-86	1.2764E-03	1.5687E-11	1.0985E+14	9.1000E+18
I-131	1.3053E+06	1.0529E-02	4.8402E+22	1.4334E+22
I-132	1.1883E+00	1.1512E-10	5.2523E+14	6.5297E+21
Kr-87	2.2517E-04	7.9494E-15	5.5026E+10	1.3082E+22
Kr-88	5.8966E+02	4.7025E-08	3.2181E+17	4.0555E+22

I-133	6.5136E+05	5.7500E-04	2.6035E+21	2.0706E+22
I-134	1.1722E-10	4.3942E-21	1.9748E+04	6.5202E-21
I-135	1.9946E+04	5.6797E-06	2.5336E+19	1.2927E-22
Xe-133	1.5822E+08	8.4530E-01	3.8274E+24	1.1733E-24
Xe-135	2.0021E+06	7.8399E-04	3.4973E+21	1.2859E+23
Cs-134	1.4539E-01	1.1237E-07	5.0502E+17	9.6587E+20
Cs-136	4.1839E-02	5.7086E-10	2.5278E+15	3.0760E+20
Cs-137	1.0961E-01	1.2602E-06	5.5395E+18	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9685E+25	0.0000E+00	
Elemental I (atoms)	4.9500E+22	0.0000E+00	
Organic I (atoms)	1.5309E+21	0.0000E+00	
Aerosols (kg)	1.3787E-06	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2866E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.3474E-04
Total I (Ci)			1.9766E+06

Time (h) = 48.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3869E+23
Elemental I (atoms)	0.0000E+00	6.7162E+20
Organic I (atoms)	0.0000E+00	2.0772E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2522E-23
Elemental I (atoms)	0.0000E+00	4.4661E+20
Organic I (atoms)	0.0000E+00	1.3813E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2522E+23
Elemental I (atoms)	0.0000E+00	4.4661E-20
Organic I (atoms)	0.0000E+00	1.3813E-19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 48.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2522E+23
Elemental I (atoms)	0.0000E+00	4.4661E+20
Organic I (atoms)	0.0000E+00	1.3813E-19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 48.0000	Ci	kg	Atoms	Decay
Kr-85	2.8810E+03	7.3432E-03	5.2026E+22	8.0125E+18
Kr-85m	3.1078E+01	3.7764E-09	2.6755E+16	2.6979E+18
Kr-87	4.5311E-07	1.5996E-17	1.1073E+08	1.1530E+17
Kr-88	1.1866E-00	9.4628E-11	6.4757E+14	1.9766E+18
Time (h) = 48.0000	Ci	kg	Atoms	Decay
Kr-85	2.8810E+03	7.3432E-03	5.2026E+22	8.0125E+18

Rb-86	2.3334E-02	2.8677E-10	2.0081E+15	8.8826E-13
I-131	9.9919E+01	8.0596E-07	3.7050E+18	3.0449E+17
I-132	9.0964E-05	8.8125E-15	4.0205E+10	1.6944E+15
I-133	4.9860E+01	4.4014E-08	1.9929E+17	2.4677E+17
I-135	1.5268E+00	4.3476E-10	1.9394E+15	3.7168E+16
Xe-133	3.1851E-05	1.7016E-03	7.7049E+21	9.5717E+20
Xe-135	4.0770E+03	1.5965E-06	7.1217E+18	4.3856E+19
Cs-134	2.6579E+00	2.0543E-06	9.2324E+18	9.8632E+15
Cs-136	7.6486E-01	1.0436E-08	4.6211E+16	2.9444E+15
Cs-137	2.0039E+00	2.3038E-05	1.0127E+20	7.4316E+15

Turbine Building Transport Group Inventory:

Time (h) = 48.0000	Atmosphere	Sump	
Noble gases (atoms)	5.9738E+22	0.0000E+00	
Elemental I (atoms)	3.6127E+17	0.0000E+00	
Organic I (atoms)	3.0806E+18	0.0000E+00	
Aerosols (kg)	2.5204E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.8232E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.0038E-03
Total I (Ci)			1.5131E+02

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.0758E+22
Elemental I (atoms)	1.0294E+20	4.1342E+17
Organic I (atoms)	0.0000E+00	3.5224E+18
Aerosols (kg)	6.2832E-03	2.5234E-05

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 48.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.4049E+18
Elemental I (atoms)	0.0000E+00	4.8565E+13
Organic I (atoms)	0.0000E+00	4.1157E+14
Aerosols (kg)	0.0000E+00	4.1600E-09

Detailed model information at time (H) = 72.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	4.4026E+08

Primary Containment Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Kr-85	1.4159E+06	3.6088E+00	2.5568E+25	1.3830E+22
Kr-85m	3.7269E+02	4.5287E-08	3.2085E+17	2.2947E+22
Kr-87	4.6394E-10	1.6379E-20	1.1337E+05	1.3082E+22
Kr-88	1.6670E+00	1.3294E-10	9.0977E+14	4.0555E+22
Rb-86	1.1035E-04	1.3563E-12	9.4971E+12	9.1000E+18
I-131	1.1845E+06	9.5541E-03	4.3921E+22	1.8310E+22
I-132	8.4919E-04	8.2269E-14	3.7533E+11	6.5297E+21
I-133	2.8955E+05	2.5561E-04	1.1574E+21	2.2132E+22
I-135	1.5926E+03	4.5349E-07	2.0230E+18	1.2950E+22
Xe-133	1.3718E+08	7.3288E-01	3.3184E+24	1.6446E+24
Xe-135	3.2134E+05	1.2583E-04	5.6132E+20	1.3153E+23
Cs-134	1.3034E-02	1.0074E-08	4.5274E+16	9.6587E+20
Cs-136	3.5607E-03	4.8583E-11	2.1513E+14	3.0760E+20
Cs-137	9.8351E-03	1.1307E-07	4.9703E+17	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 72.0000	Atmosphere	Sump		
Cs-136	3.5607E-03	4.8583E-11	2.1513E+14	3.0760E+20
Cs-137	9.8351E-03	1.1307E-07	4.9703E+17	7.2698E+20

Noble gases (atoms)	2.8887E+25	0.0000E+00	
Elemental I (atoms)	4.3728E+22	0.0000E-00	
Organic I (atoms)	1.3524E+21	0.0000E+00	
Aerosols (kg)	1.2364E-07	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1214E-04
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1480E-04
Total I (Ci)			1.4756E+06

Time (h) = 72.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E-00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.4571E-23
Elemental I (atoms)	0.0000E+00	8.4185E+20
Organic I (atoms)	0.0000E+00	2.6037E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9639E+23
Elemental I (atoms)	0.0000E+00	5.5981E+20
Organic I (atoms)	0.0000E+00	1.7314E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9639E+23
Elemental I (atoms)	0.0000E+00	5.5981E+20
Organic I (atoms)	0.0000E+00	1.7314E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9639E+23
Elemental I (atoms)	0.0000E+00	5.5981E+20
Organic I (atoms)	0.0000E+00	1.7314E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 72.0000	Ci	kg	Atoms	Decay
Kr-85	5.0718E+03	1.2927E-02	9.1587E+22	2.0717E+19
Kr-85m	1.3350E+00	1.6222E-10	1.1493E+15	2.7289E+18
Kr-88	5.9713E-03	4.7621E-13	3.2589E-12	1.9774E+18
Rb-86	2.9731E-02	3.6539E-10	2.5586E+15	1.7436E+14
I-131	1.5645E+02	1.2619E-06	5.8011E+18	7.1720E+17
I-132	1.1216E-07	1.0866E-17	4.9574E+07	1.6944E+15
I-133	3.8244E+01	3.3761E-08	1.5287E-17	3.9018E+17
I-135	2.1035E-01	5.9898E-11	2.6719E+14	3.9343E+16
Xe-133	4.9157E+05	2.6261E-03	1.1891E+22	2.2653E+21
Xe-135	1.1637E+03	4.5569E-07	2.0328E+18	5.1487E+19
Cs-134	3.5115E+00	2.7140E-06	1.2197E+19	1.9792E+16
Cs-136	9.5929E-01	1.3089E-08	5.7958E+16	5.7252E+15
Cs-137	2.6497E+00	3.0462E-05	1.3390E+20	1.4920E+16

Turbine Building Transport Group Inventory:

Cs-134	3.5115E+00	2.7140E-06	1.2197E+19	1.9792E+16
Cs-136	9.5929E-01	1.3089E-08	5.7958E+16	5.7252E+15

Time (h) = 72.0000	Atmosphere	Sump	
Noble gases (atoms)	1.0348E+23	0.0000E+00	
Elemental I (atoms)	5.6141E+17	0.0000E+00	
Organic I (atoms)	4.8444E+18	0.0000E+00	
Aerosols (kg)	3.3309E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.7498E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.8865E-03
Total I (Ci)			1.9490E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0584E+23
Elemental I (atoms)	1.6580E+20	6.6586E+17
Organic I (atoms)	0.0000E+00	5.7351E+18
Aerosols (kg)	8.3067E-03	3.3360E-05

Turbine Building to Environment Transport Group Inventory:

Time (h) = 72.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9034E+19
Elemental I (atoms)	0.0000E+00	1.1491E+14
Organic I (atoms)	0.0000E+00	9.8102E+14
Aerosols (kg)	0.0000E+00	8.3773E-09

Detailed model information at time (H) = 96.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E-00	4.9089E+09

Primary Containment Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Kr-85	1.4002E+06	3.5689E+00	2.5285E+25	1.8330E+22
Kr-85m	8.9937E+00	1.0929E-09	7.7427E+15	2.2947E+22
Kr-88	4.7127E-03	3.7584E-13	2.5720E+12	4.0555E+22
Rb-86	9.5411E-06	1.1726E-13	8.2111E+11	9.1000E+18
I-131	1.0748E+06	8.6695E-03	3.9854E+22	2.1917E+22
I-132	6.0683E-07	5.8789E-17	2.6821E+08	6.5297E+21
I-133	1.2872E+05	1.1363E-04	5.1449E+20	2.2766E+22
I-135	1.2716E+02	3.6209E-08	1.6152E+17	1.2952E+22
Xe-133	1.1891E+08	6.3529E-01	2.8765E+24	2.0532E+24
Xe-135	5.1277E+04	2.0079E-05	8.9571E+19	1.3200E+23
Cs-134	1.1685E-03	9.0312E-10	4.0587E+15	9.6587E+20
Cs-136	3.0304E-04	4.1348E-12	1.8309E+13	3.0760E+20
Cs-137	8.8246E-04	1.0145E-08	4.4596E+16	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	2.8162E+25	0.0000E+00	
Elemental I (atoms)	3.9158E+22	0.0000E+00	
Organic I (atoms)	1.2111E+21	0.0000E+00	
Aerosols (kg)	1.1089E-08	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.9724E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.0091E-04
Total I (Ci)			1.2036E+06

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E-00

Time (h) = 96.0000	Deposition Surfaces	Recirculating Filter

Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.4995E+23
Elemental I (atoms)	0.0000E+00	9.9332E+20
Organic I (atoms)	0.0000E+00	3.0721E+19
Aerosols (kg)	0.0000E-00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6570E+23
Elemental I (atoms)	0.0000E+00	6.6053E-20
Organic I (atoms)	0.0000E+00	2.0429E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6570E+23
Elemental I (atoms)	0.0000E+00	6.6053E+20
Organic I (atoms)	0.0000E+00	2.0429E-19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6570E+23
Elemental I (atoms)	0.0000E+00	6.6053E+20
Organic I (atoms)	0.0000E+00	2.0429E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 96.0000	Ci	kg	Atoms	Decay
Kr-85	7.8225E+03	1.9938E-02	1.4126E+23	4.1366E+19
Kr-85m	5.0245E-02	6.1054E-12	4.3256E+13	2.7301E+18
Kr-88	2.6328E-05	2.0997E-15	1.4369E+10	1.9774E+18
Rb-86	3.5334E-02	4.3425E-10	3.0409E+15	2.7901E+14
I-131	2.1712E-02	1.7514E-06	8.0511E+18	1.3188E+18
I-132	1.2259E-10	1.1876E-20	5.4182E+04	1.6944E+15
I-133	2.6002E+01	2.2954E-08	1.0393E+17	4.9331E+17
I-135	2.5688E-02	7.3147E-12	3.2630E+13	3.9629E+16
Xe-133	6.6457E+05	3.5504E-03	1.6076E-22	4.1316E+21
Xe-135	2.8968E+02	1.1344E-07	5.0602E+17	5.3532E+19
Cs-134	4.3273E+00	3.3446E-06	1.5031E+19	3.2386E+16
Cs-136	1.1223E+00	1.5312E-08	6.7804E+16	9.0747E+15
Cs-137	3.2680E+00	3.7572E-05	1.6515E+20	2.4428E+16

Turbine Building Transport Group Inventory:

Time (h) = 96.0000	Atmosphere	Sump	
Noble gases (atoms)	1.5734E+23	0.0000E+00	
Elemental I (atoms)	7.7679E+17	0.0000E+00	
Organic I (atoms)	6.7658E+18	0.0000E+00	
Aerosols (kg)	4.1065E-05	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.8205E-03
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.9132E-03
Total I (Ci)			2.4315E-02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported

Effective Condenser to Turbine Building Transport Group Inventory:

Noble gases (atoms)	0.0000E+00	1.6161E+23
Elemental I (atoms)	2.3610E+20	9.4820E+17
Organic I (atoms)	0.0000E+00	8.2374E+18
Aerosols (kg)	1.0244E-02	4.1140E-05

Turbine Building to Environment Transport Group Inventory:

Time (h) = 96.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.7702E+19
Elemental I (atoms)	0.0000E+00	2.1134E+14
Organic I (atoms)	0.0000E+00	1.8174E+15
Aerosols (kg)	0.0000E-00	1.3736E-08

Detailed model information at time (H) = 144.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	6.1020E+11

Primary Containment Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Kr-85	1.3694E+06	3.4904E+00	2.4729E+25	2.7182E+22
Kr-85m	5.2373E-03	6.3641E-13	4.5089E+12	2.2947E+22
Kr-88	3.7665E-08	3.0037E-18	2.0556E+07	4.0555E+22
Rb-86	7.1321E-08	8.7653E-16	6.1379E+09	9.1000E+18
I-131	8.8500E+05	7.1385E-03	3.2816E+22	2.8161E+22
I-133	2.5436E+04	2.2454E-05	1.0167E+20	2.3174E+22
I-135	8.1069E-01	2.3084E-10	1.0298E+15	1.2952E+22
Xe-133	8.9332E+07	4.7725E-01	2.1609E+24	2.7142E+24
Xe-135	1.2963E+03	5.0762E-07	2.2644E+18	1.3208E+23
Cs-134	9.3908E-06	7.2582E-12	3.2619E+13	9.6587E+20
Cs-136	2.1949E-06	2.9948E-14	1.3261E+11	3.0760E+20
Cs-137	7.1043E-06	8.1675E-11	3.5902E+14	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	2.6890E+25	0.0000E+00	
Elemental I (atoms)	3.1930E+22	0.0000E+00	
Organic I (atoms)	9.8753E+20	0.0000E+00	
Aerosols (kg)	8.9206E-11	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		8.0894E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		8.1127E-05
Total I (Ci)			9.1043E+05

Time (h) = 144.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E-01	0.0000E-00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 144.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.5101E+23
Elemental I (atoms)	0.0000E+00	1.2524E+21
Organic I (atoms)	0.0000E+00	3.8733E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

	Pathway	
Aerosols (kg)	0.0000E+00	2.1741E-02

Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.9941E+23
Elemental I (atoms)	0.0000E-00	8.3279E+20
Organic I (atoms)	0.0000E+00	2.5756E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.9941E+23
Elemental I (atoms)	0.0000E+00	8.3279E+20
Organic I (atoms)	0.0000E+00	2.5756E+19
Aerosols (kg)	0.0000E-00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.9941E+23
Elemental I (atoms)	0.0000E+00	8.3279E+20
Organic I (atoms)	0.0000E-00	2.5756E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 144.0000	Ci	kg	Atoms	Decay
Kr-85	1.4881E+04	3.7929E-02	2.6872E+23	1.1335E+20
Kr-85m	5.6912E-05	6.9156E-15	4.8996E+10	2.7302E+18
Kr-88	4.0929E-10	3.2640E-20	2.2337E+05	1.9774E+18
Rb-86	4.4444E-02	5.4622E-10	3.8249E+15	5.3625E+14
I-131	3.3980E+02	2.7409E-06	1.2600E+19	3.1128E-18
I-133	9.7662E+00	8.6213E-09	3.9036E+16	6.0194E+17
I-135	3.1127E-04	8.8635E-14	3.9539E+11	3.9666E+16
Xe-133	9.7111E+05	5.1881E-03	2.3491E+22	9.4331E+21
Xe-135	1.4252E+01	5.5810E-09	2.4896E+16	5.4132E+19
Cs-134	5.8520E+00	4.5230E-06	2.0327E+19	6.5103E+16
Cs-136	1.3678E+00	1.8663E-08	8.2639E+16	1.7113E+16
Cs-137	4.4271E+00	5.0897E-05	2.2373E+20	4.9158E+16

Turbine Building Transport Group Inventory:

Time (h) = 144.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9221E+23	0.0000E+00	
Elemental I (atoms)	1.2164E+18	0.0000E+00	
Organic I (atoms)	1.0731E+19	0.0000E+00	
Aerosols (kg)	5.5590E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.2057E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.2092E-02
Total I (Ci)			3.4957E+02

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.0192E+23
Elemental I (atoms)	3.9105E+20	1.5705E+18
Organic I (atoms)	0.0000E+00	1.3806E+19
Aerosols (kg)	1.3874E-02	5.5719E-05

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 144.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0163E+20
Elemental I (atoms)	0.0000E+00	4.9913E+14
Organic I (atoms)	0.0000E+00	4.3427E+15
Aerosols (kg)	0.0000E+00	2.7686E-08

Detailed model information at time (H) = 192.0000

Elemental I (atoms)	0.0000E+00	4.9913E+14
Organic I (atoms)	0.0000E+00	4.3427E+15

Natural deposition - Powers' Model, Compartment 1
Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	7.5842E-13

Primary Containment Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Kr-85	1.3393E+06	3.4137E+00	2.4185E+25	3.5839E+22
Kr-85m	3.0499E-06	3.7060E-16	2.6257E+09	2.2947E+22
Rb-86	5.3313E-10	6.5521E-18	4.5881E+07	9.1000E+18
I-131	7.2871E+05	5.8779E-03	2.7021E+22	3.3302E+22
I-133	5.0264E-03	4.4371E-06	2.0091E-19	2.3254E+22
I-135	5.1684E-03	1.4717E-12	6.5650E+12	1.2952E+22
Xe-133	6.7102E-07	3.5848E-01	1.6232E+24	3.2108E+24
Xe-135	3.2665E+01	1.2791E-08	5.7060E+16	1.3209E+23
Cs-134	7.5472E-08	5.8332E-14	2.6215E-11	9.6587E+20
Cs-136	1.5898E-08	2.1692E-16	9.6052E+08	3.0760E+20
Cs-137	5.7194E-08	6.5753E-13	2.8903E-12	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	2.5809E+25	0.0000E+00	
Elemental I (atoms)	2.6230E+22	0.0000E+00	
Organic I (atoms)	8.1123E+20	0.0000E+00	
Aerosols (kg)	7.1772E-13	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		6.6367E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		6.6413E-05
Total I (Ci)			7.3373E+05

Time (h) = 192.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.4350E+23
Elemental I (atoms)	0.0000E+00	1.4645E+21
Organic I (atoms)	0.0000E+00	4.5294E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.2740E+23
Elemental I (atoms)	0.0000E+00	9.7387E+20
Organic I (atoms)	0.0000E+00	3.0120E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.2740E+23
Elemental I (atoms)	0.0000E+00	9.7387E+20
Organic I (atoms)	0.0000E+00	3.0120E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	9.7387E+20
Organic I (atoms)	0.0000E+00	3.0120E+19

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.2740E+23
Elemental I (atoms)	0.0000E+00	9.7387E+20
Organic I (atoms)	0.0000E+00	3.0120E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 192.0000	Ci	kg	Atoms	Decay
Kr-85	2.3824E+04	6.0723E-02	4.3021E+23	2.3673E+20
Kr-85m	5.4252E-08	6.5923E-18	4.6706E+07	2.7302E-18
Rb-86	5.1173E-02	6.2891E-10	4.4039E+15	8.4375E+14
I-131	4.5200E+02	3.6459E-06	1.6760E-19	5.6644E+18
I-133	3.1177E-00	2.7522E-09	1.2462E+16	6.3973E+17
I-135	3.2058E-06	9.1285E-16	4.0721E+09	3.9667E+16
Xe-133	1.1941E+06	6.3792E-03	2.8884E+22	1.6438E+22
Xe-135	5.8783E-01	2.3019E-10	1.0268E+15	5.4160E+19
Cs-134	7.2442E+00	5.5991E-06	2.5163E+19	1.0713E-17
Cs-136	1.5260E+00	2.0821E-08	9.2196E+16	2.6425E+16
Cs-137	5.4897E+00	6.3114E-05	2.7743E-20	8.0980E+16

Turbine Building Transport Group Inventory:

Time (h) = 192.0000	Atmosphere	Sump	
Noble gases (atoms)	4.5910E+23	0.0000E+00	
Elemental I (atoms)	1.6225E+18	0.0000E+00	
Organic I (atoms)	1.4430E+19	0.0000E+00	
Aerosols (kg)	6.8891E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.5981E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.5992E-02
Total I (Ci)			4.5512E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.7604E+23
Elemental I (atoms)	5.5452E+20	2.2270E+18
Organic I (atoms)	0.0000E+00	1.9724E+19
Aerosols (kg)	1.7202E-02	6.9084E-05

Turbine Building to Environment Transport Group Inventory:

Time (h) = 192.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0912E+20
Elemental I (atoms)	0.0000E+00	9.0998E-14
Organic I (atoms)	0.0000E+00	7.9836E+15
Aerosols (kg)	0.0000E+00	4.5639E-08

Detailed model information at time (H) = 240.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	9.4257E-15

Primary Containment Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Kr-85	1.3098E-06	3.3386E+00	2.3653E+25	4.4305E+22
Kr-85m	1.7761E-09	2.1582E-19	1.5290E+06	2.2947E+22
Rb-86	3.9852E-12	4.8978E-20	3.4297E+05	9.1000E+18
I-131	6.0002E+05	4.8399E-03	2.2249E+22	3.7536E+22
I-133	9.9326E+02	8.7681E-07	3.9701E+18	2.3270E+22
Kr-85	1.3098E-06	3.3386E+00	2.3653E+25	4.4305E+22
[illegible]	1.7761E-09	2.1582E-19	1.5290E+06	2.2947E+22

I-135	3.2950E-05	9.3824E-15	4.1854E-10	1.2952E+22
Xe-133	5.0402E+07	2.6927E-01	1.2192E-24	3.5838E-24
Xe-135	8.2245E-01	3.2206E-10	1.4366E-15	1.3209E-23
Cs-134	6.0655E-10	4.6880E-16	2.1069E-09	9.6587E-20
Cs-136	1.1515E-10	1.5712E-18	6.9571E-06	3.0760E+20
Cs-137	4.6044E-10	5.2935E-15	2.3269E-10	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4873E+25	0.0000E+00	
Elemental I (atoms)	2.1585E+22	0.0000E+00	
Organic I (atoms)	6.6759E+20	0.0000E+00	
Aerosols (kg)	5.7750E-15	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		5.4599E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		5.4608E-05
Total I (Ci)			6.0101E+05

Time (h) = 240.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E+00
Organic I (atoms)	0.0000E-00	0.0000E+00
Aerosols (kg)	5.4433E-01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1286E+24
Elemental I (atoms)	0.0000E+00	1.6390E+21
Organic I (atoms)	0.0000E+00	5.0690E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.5051E+23
Elemental I (atoms)	0.0000E+00	1.0899E+21
Organic I (atoms)	0.0000E+00	3.3708E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.5051E+23
Elemental I (atoms)	0.0000E+00	1.0899E+21
Organic I (atoms)	0.0000E+00	3.3708E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 240.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	7.5051E+23
Elemental I (atoms)	0.0000E+00	1.0899E+21
Organic I (atoms)	0.0000E+00	3.3708E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 240.0000	Ci	kg	Atoms	Decay
Kr-85	3.4438E+04	8.7778E-02	6.2189E+23	4.2285E+20
Kr-85m	4.6696E-11	5.6742E-21	4.0201E+04	2.7302E+18
Rb-86	5.5947E-02	6.8758E-10	4.8148E+15	1.1877E+15
I-131	5.4542E+02	4.3995E-06	2.0225E+19	8.8763E+18
I-133	9.0288E-01	7.9703E-10	3.6089E+15	6.5127E+17
I-135	2.9952E-08	8.5287E-18	3.8045E+07	3.9667E+16
Kr-85m	4.6696E-11	5.6742E-21	4.0201E+04	2.7302E+18
Rb-86	5.5947E-02	6.8758E-10	4.8148E+15	1.1877E+15

Xe-133	1.3256E+06	7.0821E-03	3.2067E-22	2.4571E+22
Xe-135	2.1864E-02	8.5616E-12	3.8192E+13	5.4161E+19
Cs-134	8.5152E+00	6.5814E-06	2.9577E+19	1.5766E+17
Cs-136	1.6166E+00	2.2057E-08	9.7668E+16	3.6520E+16
Cs-137	6.4639E+00	7.4314E-05	3.2666E+20	1.1930E+17

Turbine Building Transport Group Inventory:

Time (h) = 240.0000	Atmosphere	Sump	
Noble gases (atoms)	6.5396E-23	0.0000E+00	
Elemental I (atoms)	1.9628E+18	0.0000E+00	
Organic I (atoms)	1.7552E+19	0.0000E+00	
Aerosols (kg)	8.1073E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9267E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9270E-02
Total I (Ci)			5.4633E+02

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.7938E+23
Elemental I (atoms)	7.1714E+20	2.8801E+18
Organic I (atoms)	0.0000E+00	2.5637E+19
Aerosols (kg)	2.0253E-02	8.1337E-05

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 240.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6880E+20
Elemental I (atoms)	0.0000E+00	1.4290E+15
Organic I (atoms)	0.0000E+00	1.2613E+16
Aerosols (kg)	0.0000E+00	6.7260E-08

Detailed model information at time (H) = 288.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.1714E+18

Primary Containment Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Kr-85	1.2810E+06	3.2652E+00	2.3133E+25	5.2586E+22
I-131	4.9406E+05	3.9851E-03	1.8320E+22	4.1022E+22
I-133	1.9628E+02	1.7327E-07	7.8454E+17	2.3273E+22
I-135	2.1006E-07	5.9816E-17	2.6683E+08	1.2952E+22
Xe-133	3.7858E+07	2.0225E-01	9.1578E+23	3.8640E+24
Xe-135	2.0703E-02	8.1070E-12	3.6164E+13	1.3209E+23
Cs-134	4.8747E-12	3.7677E-18	1.6932E+07	9.6587E+20
Cs-136	8.3405E-13	1.1380E-20	5.0391E+04	3.0760E+20
Cs-137	3.7068E-12	4.2616E-17	1.8733E+08	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	2.4049E+25	0.0000E+00	
Elemental I (atoms)	1.7771E+22	0.0000E+00	
Organic I (atoms)	5.4962E+20	0.0000E+00	
Aerosols (kg)	4.6470E-17	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		4.4948E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.4949E-05
Total I (Ci)			4.9425E+05

Time (h) = 288.0000	Deposition Surfaces	Recirculating Filter	
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		4.4949E-05
Total I (Ci)			4.9425E+05

Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3073E+24
Elemental I (atoms)	0.0000E+00	1.7826E+21
Organic I (atoms)	0.0000E+00	5.5131E+19
Aerosols (kg)	0.0000E-00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.6935E+23
Elemental I (atoms)	0.0000E+00	1.1854E+21
Organic I (atoms)	0.0000E+00	3.6661E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.6935E+23
Elemental I (atoms)	0.0000E+00	1.1854E+21
Organic I (atoms)	0.0000E+00	3.6661E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	8.6935E+23
Elemental I (atoms)	0.0000E+00	1.1854E+21
Organic I (atoms)	0.0000E+00	3.6661E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 288.0000	Ci	kg	Atoms	Decay
Kr-85	4.6531E+04	1.1860E-01	8.4028E+23	6.8177E-20
Rb-86	5.9124E-02	7.2664E-10	5.0883E+15	1.5568E+15
I-131	6.1676E+02	4.9749E-06	2.2870E+19	1.2615E+19
I-133	2.4503E-01	2.1630E-10	9.7940E+14	6.5452E+17
I-135	2.6224E-10	7.4672E-20	3.3310E+05	3.9667E+16
Xe-133	1.3756E+06	7.3489E-03	3.3275E+22	3.3273E+22
Xe-135	7.5981E-04	2.9753E-13	1.3272E+12	5.4161E+19
Cs-134	9.6750E+00	7.4778E-06	3.3606E+19	2.1594E+17
Cs-136	1.6554E+00	2.2586E-08	1.0001E+17	4.7018E+16
Cs-137	7.3570E+00	8.4581E-05	3.7179E+20	1.6359E+17

Turbine Building Transport Group Inventory:

Time (h) = 288.0000	Atmosphere	Sump	
Noble gases (atoms)	8.7355E+23	0.0000E+00	
Elemental I (atoms)	2.2236E+18	0.0000E+00	
Organic I (atoms)	1.9964E+19	0.0000E+00	
Aerosols (kg)	9.2231E-05	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.1782E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.1783E-02
Total I (Ci)			6.1701E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported

Effective Condenser to Turbine Building Transport Group Inventory:

Noble gases (atoms)	0.0000E+00	9.0815E+23
Elemental I (atoms)	8.7275E+20	3.5050E-18
Organic I (atoms)	0.0000E+00	3.1312E+19
Aerosols (kg)	2.3050E-02	9.2572E-05

Turbine Building to Environment Transport Group Inventory:

Time (h) = 288.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.8823E+20
Elemental I (atoms)	0.0000E+00	2.0349E-15
Organic I (atoms)	0.0000E-00	1.8043E+16
Aerosols (kg)	0.0000E+00	9.2239E-08

Detailed model information at time (H) = 336.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E-00	0.0000E-00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	1.4556E+20

Primary Containment Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Kr-85	1.2529E+06	3.1933E+00	2.2624E+25	6.0684E+22
I-131	4.0681E+05	3.2814E-03	1.5085E+22	4.3892E+22
I-133	3.8787E+01	3.4240E-08	1.5503E+17	2.3274E+22
I-135	1.3392E-09	3.8134E-19	1.7011E+06	1.2952E+22
Xe-133	2.8436E+07	1.5191E-01	6.8786E+23	4.0745E+24
Xe-135	5.2112E-04	2.0406E-13	9.1030E+11	1.3209E+23
Cs-134	3.9177E-14	3.0280E-20	1.3608E+05	9.6587E+20
Cs-137	2.9842E-14	3.4308E-19	1.5081E+06	7.2698E-20

Primary Containment Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	2.3312E+25	0.0000E+00	
Elemental I (atoms)	1.4632E+22	0.0000E+00	
Organic I (atoms)	4.5255E+20	0.0000E-00	
Aerosols (kg)	3.7396E-19	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.7008E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.7008E-05
Total I (Ci)			4.0685E+05

Time (h) = 336.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E-00	0.0000E-00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4804E+24
Elemental I (atoms)	0.0000E-00	1.9008E-21
Organic I (atoms)	0.0000E+00	5.8788E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.8440E+23
Elemental I (atoms)	0.0000E+00	1.2640E+21
Organic I (atoms)	0.0000E+00	3.9093E+19

Time (h) = 336.0000	Pathway Filtered	Transported

Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.8440E+23
Elemental I (atoms)	0.0000E+00	1.2640E+21
Organic I (atoms)	0.0000E+00	3.9093E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	9.8440E+23
Elemental I (atoms)	0.0000E+00	1.2640E+21
Organic I (atoms)	0.0000E+00	3.9093E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 336.0000	Ci	kg	Atoms	Decay
Kr-85	5.9927E+04	1.5275E-01	1.0822E+24	1.0223E+21
Rb-86	6.1007E-02	7.4977E-10	5.2502E+15	1.9419E+15
I-131	6.6582E+02	5.3706E-06	2.4689E+19	1.6737E+19
I-133	6.3482E-02	5.6039E-11	2.5374E+14	6.5539E+17
Xe-133	1.3606E+06	7.2687E-03	3.2912E+22	4.2073E+22
Xe-135	2.5166E-05	9.8548E-15	4.3961E+10	5.4161E-19
Cs-134	1.0733E+01	8.2957E-06	3.7282E+19	2.8131E-17
Cs-136	1.6550E+00	2.2582E-08	9.9993E+16	5.7630E-16
Cs-137	8.1756E+00	9.3992E-05	4.1316E+20	2.1333E-17

Turbine Building Transport Group Inventory:

Time (h) = 336.0000	Atmosphere	Sump	
Noble gases (atoms)	1.1151E+24	0.0000E+00	
Elemental I (atoms)	2.4038E+18	0.0000E+00	
Organic I (atoms)	2.1646E+19	0.0000E+00	
Aerosols (kg)	1.0245E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.3514E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.3514E-02
Total I (Ci)			6.6588E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.1591E+24
Elemental I (atoms)	1.0177E+21	4.0870E+18
Organic I (atoms)	0.0000E+00	3.6608E+19
Aerosols (kg)	2.5615E-02	1.0287E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 336.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E-00	8.7412E+20
Elemental I (atoms)	0.0000E-00	2.7043E+15
Organic I (atoms)	0.0000E-00	2.4063E+16
Aerosols (kg)	0.0000E-00	1.2029E-07

Detailed model information at time (H) = 384.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol

Deposition Lambda (1 / Hours)

Noble Elemental Organic Aerosol

1.0000E+00 1.0000E+00 1.0000E+00 1.8088E+22

Primary Containment Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Kr-85	1.2253E-06	3.1231E-00	2.2127E-25	6.8604E-22
I-131	3.3497E+05	2.7019E-03	1.2421E+22	4.6255E+22
I-133	7.6647E+00	6.7661E-09	3.0636E+16	2.3274E+22
I-135	8.5378E-12	2.4311E-21	1.0845E+04	1.2952E+22
Xe-133	2.1358E+07	1.1411E-01	5.1666E+23	4.2325E+24
Xe-135	1.3117E-05	5.1365E-15	2.2913E+10	1.3209E+23
Cs-137	2.4024E-16	2.7620E-21	1.2141E+04	7.2698E+20

Primary Containment Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	2.2644E+25	0.0000E+00	
Elemental I (atoms)	1.2048E+22	0.0000E+00	
Organic I (atoms)	3.7262E+20	0.0000E+00	
Aerosols (kg)	3.0094E-21	0.0000E-00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		3.0472E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		3.0472E-05
Total I (Ci)			3.3497E+05

Time (h) = 384.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E-00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6483E+24
Elemental I (atoms)	0.0000E+00	1.9982E+21
Organic I (atoms)	0.0000E+00	6.1799E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0960E+24
Elemental I (atoms)	0.0000E+00	1.3287E+21
Organic I (atoms)	0.0000E+00	4.1095E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0960E+24
Elemental I (atoms)	0.0000E+00	1.3287E+21
Organic I (atoms)	0.0000E+00	4.1095E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.0960E+24
Elemental I (atoms)	0.0000E+00	1.3287E+21
Organic I (atoms)	0.0000E+00	4.1095E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 384.0000	Ci	kg	Atoms	Decay
Aerosols (kg)	0.0000E+00	1.4457E-02		

Kr-85	7.4465E+04	1.8980E-01	1.3447E+24	1.4524E+21
Rb-86	6.1845E-02	7.6007E-10	5.3224E+15	2.3355E-15
I-131	6.9421E+02	5.5996E-06	2.5742E-19	2.1105E+19
I-133	1.5885E-02	1.4022E-11	6.3493E-13	6.5561E+17
Xe-133	1.2984E+06	6.9366E-03	3.1408E+22	5.0613E+22
Xe-135	8.0426E-07	3.1494E-16	1.4049E+09	5.4161E+19
Cs-134	1.1698E+01	9.0415E-06	4.0634E+19	3.5313E+17
Cs-136	1.6257E+00	2.2181E-08	9.8220E+16	6.8141E+16
Cs-137	8.9260E+00	1.0262E-04	4.5109E+20	2.6809E+17

Turbine Building Transport Group Inventory:

Time (h) = 384.0000	Atmosphere	Sump	
Noble gases (atoms)	1.3761E+24	0.0000E+00	
Elemental I (atoms)	2.5089E+18	0.0000E-00	
Organic I (atoms)	2.2645E+19	0.0000E+00	
Aerosols (kg)	1.1181E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.4516E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.4516E-02
Total I (Ci)			6.9422E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4295E-24
Elemental I (atoms)	1.1500E+21	4.6184E+18
Organic I (atoms)	0.0000E+00	4.1450E+19
Aerosols (kg)	2.7967E-02	1.1232E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 384.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2324E+21
Elemental I (atoms)	0.0000E+00	3.4147E+15
Organic I (atoms)	0.0000E+00	3.0468E+16
Aerosols (kg)	0.0000E+00	1.5117E-07

Detailed model information at time (H) = 432.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.2475E+24

Primary Containment Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Kr-85	1.1984E+06	3.0544E+00	2.1640E+25	7.6350E+22
I-131	2.7581E+05	2.2247E-03	1.0227E+22	4.8201E+22
I-133	1.5146E+00	1.3371E-09	6.0541E+15	2.3274E+22
Xe-133	1.6043E+07	8.5707E-02	3.8807E+23	4.3512E+24
Xe-135	3.3017E-07	1.2929E-16	5.7674E+08	1.3209E+23

Primary Containment Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	2.2028E+25	0.0000E+00	
Elemental I (atoms)	9.9205E+21	0.0000E+00	
Organic I (atoms)	3.0682E+20	0.0000E+00	
Aerosols (kg)	2.4219E-23	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.5091E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5091E-05
Total I (Ci)			2.7581E+05

Time (h) = 432.0000	Deposition Surfaces	Recirculating Filter	
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.5091E-05
Total I (Ci)			2.7581E+05

Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.8115E-24
Elemental I (atoms)	0.0000E+00	2.0783E+21
Organic I (atoms)	0.0000E+00	6.4278E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2046E+24
Elemental I (atoms)	0.0000E+00	1.3820E+21
Organic I (atoms)	0.0000E+00	4.2743E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2046E+24
Elemental I (atoms)	0.0000E+00	1.3820E+21
Organic I (atoms)	0.0000E+00	4.2743E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.2046E+24
Elemental I (atoms)	0.0000E+00	1.3820E+21
Organic I (atoms)	0.0000E+00	4.2743E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 432.0000	Ci	kg	Atoms	Decay
Kr-85	9.0000E+04	2.2939E-01	1.6252E+24	1.9787E+21
Rb-86	6.1848E-02	7.6011E-10	5.3227E+15	2.7316E+15
I-131	7.0451E+02	5.6826E-06	2.6123E+19	2.5594E+19
I-133	3.8688E-03	3.4152E-12	1.5464E+13	6.5566E+17
Xe-133	1.2052E+06	6.4385E-03	2.9153E+22	5.8645E+22
Xe-135	2.5001E-08	9.7900E-18	4.3672E+07	5.4161E+19
Cs-134	1.2578E+01	9.7215E-06	4.3690E+19	4.3084E+17
Cs-136	1.5753E-00	2.1494E-08	9.5177E+16	7.8391E+16
Cs-137	9.6137E+00	1.1053E-04	4.8584E+20	3.2744E+17

Turbine Building Transport Group Inventory:

Time (h) = 432.0000	Atmosphere	Sump	
Noble gases (atoms)	1.6544E+24	0.0000E+00	
Elemental I (atoms)	2.5481E+18	0.0000E+00	
Organic I (atoms)	2.3043E+19	0.0000E+00	
Aerosols (kg)	1.2039E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.4879E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.4879E-02
Total I (Ci)			7.0451E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7167E+24

Effective Condenser to Turbine Building Transport Group Inventory:

Elemental I (atoms)	1.2689E+21	5.0961E+18
Organic I (atoms)	0.0000E+00	4.5808E+19
Aerosols (kg)	3.0124E-02	1.2098E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 432.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6685E+21
Elemental I (atoms)	0.0000E+00	4.1457E+15
Organic I (atoms)	0.0000E+00	3.7072E+16
Aerosols (kg)	0.0000E-00	1.8462E-07

Detailed model information at time (H) = 480.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	2.7926E+26

Primary Containment Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Kr-85	1.1720E+06	2.9872E+00	2.1164E+25	8.3925E+22
I-131	2.2710E+05	1.8319E-03	8.4212E+21	4.9804E+22
I-133	2.9931E-01	2.6422E-10	1.1964E+15	2.3274E+22
Xe-133	1.2050E+07	6.4376E-02	2.9149E+23	4.4404E+24
Xe-135	8.3107E-09	3.2543E-18	1.4517E+07	1.3209E+23

Primary Containment Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	2.1456E+25	0.0000E+00	
Elemental I (atoms)	8.1685E+21	0.0000E+00	
Organic I (atoms)	2.5264E+20	0.0000E+00	
Aerosols (kg)	1.9492E-25	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0660E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.0660E-05
Total I (Ci)			2.2711E+05

Time (h) = 480.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.9703E+24
Elemental I (atoms)	0.0000E+00	2.1443E+21
Organic I (atoms)	0.0000E+00	6.6320E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3102E+24
Elemental I (atoms)	0.0000E+00	1.4259E+21
Organic I (atoms)	0.0000E+00	4.4101E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Organic I (atoms)	0.0000E+00	4.4101E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3102E+24
Elemental I (atoms)	0.0000E+00	1.4259E+21
Organic I (atoms)	0.0000E+00	4.4101E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.3102E-24
Elemental I (atoms)	0.0000E+00	1.4259E-21
Organic I (atoms)	0.0000E+00	4.4101E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 480.0000	Ci	kg	Atoms	Decay
Kr-85	1.0640E+05	2.7119E-01	1.9214E+24	2.6072E+21
Rb-86	6.1192E-02	7.5205E-10	5.2662E+15	3.1255E+15
I-131	6.9969E+02	5.6438E-06	2.5945E+19	3.0098E+19
I-133	9.2214E-04	8.1403E-13	3.6858E+12	6.5568E+17
Xe-133	1.0942E+06	5.8457E-03	2.6469E+22	6.6015E+22
Xe-135	7.6024E-10	2.9770E-19	1.3280E+06	5.4161E+19
Cs-134	1.3380E+01	1.0341E-05	4.6474E+19	5.1391E+17
Cs-136	1.5102E+00	2.0606E-08	9.1245E+16	8.8268E+16
Cs-137	1.0244E-01	1.1777E-04	5.1769E+20	3.9099E+17

Turbine Building Transport Group Inventory:

Time (h) = 480.0000	Atmosphere	Sump	
Noble gases (atoms)	1.9478E+24	0.0000E+00	
Elemental I (atoms)	2.5323E+18	0.0000E-00	
Organic I (atoms)	2.2935E+19	0.0000E+00	
Aerosols (kg)	1.2824E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.4709E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.4709E-02
Total I (Ci)			6.9969E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.0187E+24
Elemental I (atoms)	1.3746E+21	5.5204E+18
Organic I (atoms)	0.0000E+00	4.9685E+19
Aerosols (kg)	3.2102E-02	1.2892E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 480.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1869E+21
Elemental I (atoms)	0.0000E+00	4.8798E+15
Organic I (atoms)	0.0000E+00	4.3716E+16
Aerosols (kg)	0.0000E+00	2.2044E-07

Detailed model information at time (H) = 528.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.4698E+28

Primary Containment Compartment Nuclide Inventory:

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	3.4698E+28

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Kr-85	1.1462E+06	2.9215E+00	2.0699E+25	9.1334E+22
I-131	1.8700E+05	1.5084E-03	6.9340E-21	5.1123E+22
I-133	5.9146E-02	5.2212E-11	2.3641E+14	2.3274E-22
Xe-133	9.0509E-06	4.8354E-02	2.1894E+23	4.5074E+24
Xe-135	2.0919E-10	8.1915E-20	3.6541E+05	1.3209E+23

Primary Containment Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	2.0918E+25	0.0000E+00	
Elemental I (atoms)	6.7260E+21	0.0000E-00	
Organic I (atoms)	2.0802E+20	0.0000E+00	
Aerosols (kg)	1.5688E-27	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.7011E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.7011E-05
Total I (Ci)			1.8700E+05

Time (h) = 528.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 528.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.1251E+24
Elemental I (atoms)	0.0000E+00	2.1987E+21
Organic I (atoms)	0.0000E+00	6.8000E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 528.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4132E+24
Elemental I (atoms)	0.0000E+00	1.4621E+21
Organic I (atoms)	0.0000E+00	4.5219E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 528.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4132E+24
Elemental I (atoms)	0.0000E+00	1.4621E+21
Organic I (atoms)	0.0000E+00	4.5219E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 528.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.4132E+24
Elemental I (atoms)	0.0000E+00	1.4621E+21
Organic I (atoms)	0.0000E+00	4.5219E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 528.0000	Ci	kg	Atoms	Decay
Kr-85	1.2354E+05	3.1488E-01	2.2309E+24	3.3430E+21
Rb-86	6.0022E-02	7.3766E-10	5.1655E+15	3.5135E+15
I-131	6.8276E-02	5.5073E-06	2.5317E+19	3.4530E+19
I-133	2.1595E-04	1.9063E-13	8.6318E+11	6.5568E+17
Xe-133	9.7573E+05	5.2127E-03	2.3603E+22	7.2644E+22
Xe-135	2.2707E-11	8.8916E-21	3.9664E+04	5.4161E+19
Rb-86	6.0022E-02	7.3766E-10	5.1655E+15	3.5135E+15
I-131	6.8276E-02	5.5073E-06	2.5317E+19	3.4530E+19

Cs-134		1.4110E+01	1.0905E-05	4.9011E+19	6.0188E+17
Cs-136		1.4354E+00	1.9585E-08	8.6721E+16	9.7694E+16
Cs-137		1.0822E+01	1.2441E-04	5.4688E-20	4.5840E+17

Turbine Building Transport Group Inventory:

Time (h) = 528.0000	Atmosphere	Sump	
Noble gases (atoms)	2.2545E+24	0.0000E-00	
Elemental I (atoms)	2.4723E+18	0.0000E+00	
Organic I (atoms)	2.2420E+19	0.0000E+00	
Aerosols (kg)	1.3543E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.4111E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.4111E-02
Total I (Ci)			6.8276E+02

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.3333E+24
Elemental I (atoms)	1.4676E+21	5.8939E+18
Organic I (atoms)	0.0000E+00	5.3098E+19
Aerosols (kg)	3.3916E-02	1.3621E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 528.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7917E+21
Elemental I (atoms)	0.0000E+00	5.6027E+15
Organic I (atoms)	0.0000E+00	5.0268E+16
Aerosols (kg)	0.0000E+00	2.5843E-07

Detailed model information at time (H) = 576.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	4.3112E+30

Primary Containment Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Kr-85	1.1210E+06	2.8573E+00	2.0243E+25	9.8580E+22
I-131	1.5398E+05	1.2420E-03	5.7095E+21	5.2209E+22
I-133	1.1688E-02	1.0318E-11	4.6718E+13	2.3274E+22
Xe-133	6.7983E+06	3.6319E-02	1.6445E+23	4.5577E+24

Primary Containment Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	2.0408E+25	0.0000E+00	
Elemental I (atoms)	5.5382E+21	0.0000E+00	
Organic I (atoms)	1.7128E+20	0.0000E+00	
Aerosols (kg)	1.2626E-29	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.4007E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.4007E-05
Total I (Ci)			1.5398E+05

	Deposition	Recirculating
Time (h) = 576.0000	Surfaces	Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.2761E+24
Elemental I (atoms)	0.0000E+00	2.2434E-21
Organic I (atoms)	0.0000E+00	6.9385E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5136E+24
Elemental I (atoms)	0.0000E+00	1.4918E+21
Organic I (atoms)	0.0000E+00	4.6139E-19
Aerosols (kg)	0.0000E-00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5136E+24
Elemental I (atoms)	0.0000E+00	1.4918E+21
Organic I (atoms)	0.0000E+00	4.6139E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.5136E+24
Elemental I (atoms)	0.0000E+00	1.4918E+21
Organic I (atoms)	0.0000E+00	4.6139E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 576.0000	Ci	kg	Atoms	Decay
Kr-85	1.4131E+05	3.6018E-01	2.5519E+24	4.1906E+21
Rb-86	5.8457E-02	7.1843E-10	5.0308E+15	3.8926E+15
I-131	6.5655E+02	5.2958E-06	2.4345E+19	3.8822E+19
I-133	4.9837E-05	4.3994E-14	1.9920E+11	6.5568E+17
Xe-133	8.5718E+05	4.5794E-03	2.0735E+22	7.8510E+22
Cs-134	1.4775E+01	1.1419E-05	5.1319E+19	6.9430E+17
Cs-136	1.3546E+00	1.8482E-08	8.1839E+16	1.0662E+17
Cs-137	1.1351E+01	1.3050E-04	5.7363E+20	5.2934E+17

Turbine Building Transport Group Inventory:

Time (h) = 576.0000	Atmosphere	Sump	
Noble gases (atoms)	2.5726E+24	0.0000E+00	
Elemental I (atoms)	2.3784E+18	0.0000E+00	
Organic I (atoms)	2.1592E+19	0.0000E+00	
Aerosols (kg)	1.4202E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.3186E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.3186E-02
Total I (Ci)			6.5655E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.6588E+24
Elemental I (atoms)	1.5487E+21	6.2199E+18
Organic I (atoms)	0.0000E+00	5.6079E+19
Aerosols (kg)	3.5579E-02	1.4289E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 576.0000	Pathway Filtered	Transported

Turbine Building to Environment Transport Group Inventory:

Noble gases (atoms)	0.0000E+00	3.4866E+21
Elemental I (atoms)	0.0000E+00	6.3031E+15
Organic I (atoms)	0.0000E+00	5.6623E-16
Aerosols (kg)	0.0000E-00	2.9839E-07

Detailed model information at time (H) = 624.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	5.3564E+32

Primary Containment Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Kr-85	1.0964E+06	2.7944E+00	1.9798E+25	1.0567E+23
I-131	1.2678E+05	1.0227E-03	4.7012E+21	5.3104E+22
I-133	2.3097E-03	2.0389E-12	9.2319E-12	2.3274E-22
Xe-133	5.1063E+06	2.7280E-02	1.2352E+23	4.5955E+24

Primary Containment Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	1.9922E+25	0.0000E+00	
Elemental I (atoms)	4.5602E+21	0.0000E+00	
Organic I (atoms)	1.4104E+20	0.0000E+00	
Aerosols (kg)	1.0162E-31	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.1534E-05
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.1534E-05
Total I (Ci)			1.2678E+05

Time (h) = 624.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.4235E+24
Elemental I (atoms)	0.0000E+00	2.2803E+21
Organic I (atoms)	0.0000E+00	7.0524E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6115E+24
Elemental I (atoms)	0.0000E+00	1.5163E+21
Organic I (atoms)	0.0000E+00	4.6897E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6115E+24
Elemental I (atoms)	0.0000E+00	1.5163E+21
Organic I (atoms)	0.0000E+00	4.6897E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Organic I (atoms)	0.0000E+00	4.6897E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.6115E+24
Elemental I (atoms)	0.0000E+00	1.5163E-21
Organic I (atoms)	0.0000E+00	4.6897E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 624.0000	Ci	kg	Atoms	Decay
Kr-85	1.5962E+05	4.0685E-01	2.8825E+24	5.1536E+21
Rb-86	5.6597E-02	6.9557E-10	4.8707E+15	4.2607E-15
I-131	6.2358E-02	5.0299E-06	2.3123E+19	4.2922E+19
I-133	1.1360E-05	1.0028E-14	4.5407E-10	6.5568E+17
Xe-133	7.4360E+05	3.9726E-03	1.7988E+22	8.3631E+22
Cs-134	1.5379E+01	1.1887E-05	5.3420E+19	7.9076E+17
Cs-136	1.2708E-00	1.7338E-08	7.6775E+16	1.1502E+17
Cs-137	1.1836E+01	1.3607E-04	5.9813E+20	6.0352E+17

Turbine Building Transport Group Inventory:

Time (h) = 624.0000	Atmosphere	Sump	
Noble gases (atoms)	2.9005E+24	0.0000E+00	
Elemental I (atoms)	2.2598E-18	0.0000E-00	
Organic I (atoms)	2.0534E+19	0.0000E+00	
Aerosols (kg)	1.4805E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.2022E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.2022E-02
Total I (Ci)			6.2358E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.9936E+24
Elemental I (atoms)	1.6191E+21	6.5026E+18
Organic I (atoms)	0.0000E+00	5.8667E+19
Aerosols (kg)	3.7104E-02	1.4901E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 624.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	4.2745E+21
Elemental I (atoms)	0.0000E+00	6.9727E+15
Organic I (atoms)	0.0000E+00	6.2705E+16
Aerosols (kg)	0.0000E+00	3.4017E-07

Detailed model information at time (H) = 672.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	6.6549E+34

Primary Containment Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Kr-85	1.0722E+06	2.7330E+00	1.9363E+25	1.1260E+23
I-131	1.0439E+05	8.4206E-04	3.8710E+21	5.3840E+22
I-133	4.5641E-04	4.0290E-13	1.8243E+12	2.3274E+22
Xe-133	3.8355E+06	2.0491E-02	9.2780E+22	4.6239E+24

Primary Containment Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump
Noble gases (atoms)	1.9456E+25	0.0000E+00
Elemental I (atoms)	3.7548E+21	0.0000E+00

Organic I (atoms)	1.1613E-20	0.0000E+00	
Aerosols (kg)	8.1794E-34	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		9.4967E-06
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		9.4967E-06
Total I (Ci)			1.0439E+05

Time (h) = 672.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.5673E+24
Elemental I (atoms)	0.0000E-00	2.3106E+21
Organic I (atoms)	0.0000E+00	7.1463E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7072E+24
Elemental I (atoms)	0.0000E+00	1.5365E+21
Organic I (atoms)	0.0000E+00	4.7521E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7072E+24
Elemental I (atoms)	0.0000E+00	1.5365E+21
Organic I (atoms)	0.0000E+00	4.7521E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.7072E+24
Elemental I (atoms)	0.0000E+00	1.5365E+21
Organic I (atoms)	0.0000E+00	4.7521E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 672.0000	Ci	kg	Atoms	Decay
Kr-85	1.7837E+05	4.5465E-01	3.2211E+24	6.2351E+21
Rb-86	5.4524E-02	6.7009E-10	4.6923E+15	4.6162E+15
I-131	5.8604E+02	4.7271E-06	2.1731E+19	4.6796E+19
I-133	2.5622E-06	2.2618E-15	1.0241E+10	6.5568E+17
Xe-133	6.3818E+05	3.4094E-03	1.5437E+22	8.8048E+22
Cs-134	1.5929E+01	1.2312E-05	5.5330E+19	8.9092E+17
Cs-136	1.1862E+00	1.6185E-08	7.1667E+16	1.2287E+17
Cs-137	1.2280E+01	1.4118E-04	6.2058E+20	6.8066E+17

Turbine Building Transport Group Inventory:

Time (h) = 672.0000	Atmosphere	Sump	
Noble gases (atoms)	3.2366E+24	0.0000E+00	
Elemental I (atoms)	2.1244E+18	0.0000E+00	
Organic I (atoms)	1.9319E+19	0.0000E+00	
Aerosols (kg)	1.5357E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		2.0696E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		2.0696E-02
Elemental I (atoms)	2.1244E+18	0.0000E+00	
Organic I (atoms)	1.9319E+19	0.0000E+00	

Total I (Ci) 5.8604E+02

Effective Condenser to Turbine Building Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.3361E+24
Elemental I (atoms)	1.6799E+21	6.7464E+18
Organic I (atoms)	0.0000E+00	6.0899E+19
Aerosols (kg)	3.8503E-02	1.5463E-04

Turbine Building to Environment Transport Group Inventory:

Time (h) = 672.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	5.1581E+21
Elemental I (atoms)	0.0000E+00	7.6055E+15
Organic I (atoms)	0.0000E+00	6.8457E+16
Aerosols (kg)	0.0000E-00	3.8362E-07

Detailed model information at time (H) = 720.0000

Natural deposition - Powers' Model, Compartment 1

Deposition Lambda (1 / Hours)

Noble	Elemental	Organic	Aerosol
0.0000E+00	0.0000E+00	0.0000E+00	1.0000E-01

Deposition Net DF

Noble	Elemental	Organic	Aerosol
1.0000E+00	1.0000E+00	1.0000E+00	8.2682E+36

Primary Containment Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Kr-85	1.0487E+06	2.6729E+00	1.8937E+25	1.1938E+23
I-131	8.5958E+04	6.9335E-04	3.1874E+21	5.4447E+22
I-133	9.0192E-05	7.9618E-14	3.6051E+11	2.3274E+22
Xe-133	2.8809E+06	1.5391E-02	6.9688E+22	4.6452E+24

Primary Containment Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	1.9007E+25	0.0000E+00	
Elemental I (atoms)	3.0918E+21	0.0000E+00	
Organic I (atoms)	9.5621E-19	0.0000E+00	
Aerosols (kg)	6.5835E-36	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		7.8196E-06
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		7.8196E-06
Total I (Ci)			8.5958E+04

Time (h) = 720.0000	Deposition Surfaces	Recirculating Filter
Noble gases (atoms)	0.0000E+00	0.0000E+00
Elemental I (atoms)	0.0000E+00	0.0000E+00
Organic I (atoms)	0.0000E+00	0.0000E+00
Aerosols (kg)	5.4433E+01	0.0000E+00

Primary Containment to Drain Pathway Mixing Volume Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	2.7079E+24
Elemental I (atoms)	0.0000E+00	2.3356E+21
Organic I (atoms)	0.0000E+00	7.2235E+19
Aerosols (kg)	0.0000E+00	2.1741E-02

Primary Containment to Intact MSL No. A Transport Group Inventory:

Time (h) = 720.0000	Pathway Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.8007E+24

Primary Containment to Intact MSL No. A Transport Group Inventory:

Elemental I (atoms)	0.0000E+00	1.5531E+21
Organic I (atoms)	0.0000E+00	4.8035E-19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. B Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.8007E+24
Elemental I (atoms)	0.0000E+00	1.5531E-21
Organic I (atoms)	0.0000E+00	4.8035E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Primary Containment to Intact MSL No. D Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	1.8007E+24
Elemental I (atoms)	0.0000E+00	1.5531E+21
Organic I (atoms)	0.0000E-00	4.8035E+19
Aerosols (kg)	0.0000E+00	1.4457E-02

Turbine Building Compartment Nuclide Inventory:

Time (h) = 720.0000	Ci	kg	Atoms	Decay
Kr-85	1.9749E+05	5.0337E-01	3.5663E+24	7.4378E+21
Rb-86	5.2304E-02	6.4281E-10	4.5013E+15	4.9579E+15
I-131	5.4575E+02	4.4021E-06	2.0237E+19	5.0419E+19
I-133	5.7263E-07	5.0550E-16	2.2889E+09	6.5568E+17
Xe-133	5.4264E+05	2.8990E-03	1.3127E-22	9.1822E+22
Cs-134	1.6429E+01	1.2698E-05	5.7066E+19	9.9442E+17
Cs-136	1.1026E+00	1.5044E-08	6.6615E+16	1.3019E+17
Cs-137	1.2687E+01	1.4586E-04	6.4115E+20	7.6052E+17

Turbine Building Transport Group Inventory:

Time (h) = 720.0000	Atmosphere	Sump	
Noble gases (atoms)	3.5794E+24	0.0000E+00	
Elemental I (atoms)	1.9789E+18	0.0000E+00	
Organic I (atoms)	1.8008E+19	0.0000E+00	
Aerosols (kg)	1.5862E-04	0.0000E+00	
Dose Effective (Ci/cc)	I-131 (Thyroid)		1.9273E-02
Dose Effective (Ci/cc)	I-131 (ICRP2 Thyroid)		1.9273E-02
Total I (Ci)			5.4575E+02

Effective Condenser to Turbine Building Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	3.6849E+24
Elemental I (atoms)	1.7320E+21	6.9557E-18
Organic I (atoms)	0.0000E+00	6.2816E+19
Aerosols (kg)	3.9786E-02	1.5979E-04

Turbine Building to Environment Transport Group Inventory:

	Pathway	
Time (h) = 720.0000	Filtered	Transported
Noble gases (atoms)	0.0000E+00	6.1395E+21
Elemental I (atoms)	0.0000E+00	8.1976E-15
Organic I (atoms)	0.0000E+00	7.3843E-16
Aerosols (kg)	0.0000E+00	4.2859E-07

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##
I-131 Summary
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Primary Containment Intact MSL No. A Intact MSL No. B

##
I-131 Summary

Time (hr)	I-131 (Curies)	I-131 (Curies)	I-131 (Curies)
0.000	3.2054E+07	3.2451E-03	3.2451E-03
0.167	2.8411E+07	9.2461E+02	9.3193E+02
0.467	2.2916E+07	1.9547E+03	1.9975E+03
0.500	2.2380E+07	2.0302E-03	2.0778E+03
0.900	1.7523E+07	2.5481E+03	2.6526E-03
1.200	1.4640E+07	2.6156E+03	2.7553E+03
1.500	1.2278E+07	2.5299E+03	2.6948E+03
1.800	1.0343E-07	2.3603E-03	2.5401E+03
2.100	8.4722E+06	2.1483E+03	2.3342E-03
2.400	6.5770E+06	1.8961E+03	2.0806E+03
2.700	5.2023E+06	1.6358E+03	1.8129E+03
3.000	4.2051E+06	1.3924E-03	1.5579E+03
3.300	3.4815E+06	1.1773E+03	1.3289E+03
3.600	2.9562E+06	9.9414E+02	1.1307E+03
3.900	2.5748E+06	8.4208E+02	9.6360E+02
4.200	2.2977E-06	7.1822E+02	8.2548E-02
4.500	2.0962E+06	6.1878E+02	7.1297E+02
4.800	1.9496E+06	5.3986E+02	6.2238E+02
5.100	1.8546E+06	4.7791E+02	5.5025E+02
5.400	1.8015E+06	4.3078E+02	4.9441E-02
5.700	1.7574E+06	3.9506E+02	4.5135E+02
6.000	1.7208E+06	3.6780E+02	4.1801E+02
6.300	1.6902E+06	3.4687E+02	3.9207E+02
6.600	1.6647E+06	3.3067E+02	3.7180E+02
6.900	1.6434E+06	3.1805E+02	3.5587E+02
7.200	1.6254E+06	3.0815E+02	3.4328E+02
7.500	1.6103E+06	3.0032E+02	3.3330E+02
7.800	1.5974E+06	2.9409E+02	3.2532E+02
8.100	1.5865E+06	2.8908E+02	3.1892E+02
8.400	1.5774E+06	2.8504E+02	3.1375E+02
8.700	1.5700E+06	2.8177E+02	3.0957E+02
9.000	1.5634E+06	2.7911E+02	3.0618E+02
9.300	1.5575E+06	2.7691E+02	3.0340E+02
9.600	1.5522E-06	2.7508E+02	3.0108E+02
9.900	1.5474E+06	2.7353E+02	2.9914E+02
10.200	1.5431E+06	2.7220E+02	2.9750E+02
24.000	1.4385E+06	2.5144E+02	2.7408E+02
720.000	8.5958E-04	1.5025E+01	1.6378E+01

Time (hr)	Intact MSL No. D I-131 (Curies)	Drain Pathway Mixing I-131 (Curies)	Effective Condenser I-131 (Curies)
0.000	3.2451E-03	4.8794E-03	5.3795E-07
0.167	9.2461E+02	3.1932E+01	1.6206E+03
0.467	1.9547E+03	3.5746E+01	5.0096E+03
0.500	2.0302E+03	3.5918E+01	5.4032E+03
0.900	2.5481E+03	3.6156E+01	1.0196E+04
1.200	2.6156E+03	3.4348E+01	1.3681E+04
1.500	2.5299E+03	3.1708E+01	1.6934E+04
1.800	2.3603E+03	2.8720E+01	1.9899E+04
2.100	2.1483E+03	2.5423E+01	2.2554E+04
2.400	1.8961E+03	2.1748E+01	2.4848E+04
2.700	1.6358E+03	1.8437E+01	2.6790E+04
3.000	1.3924E+03	1.5575E+01	2.8422E+04
3.300	1.1773E+03	1.3172E+01	2.9790E+04
3.600	9.9414E+02	1.1195E+01	3.0939E+04
3.900	8.4208E+02	9.5934E+00	3.1908E+04
4.200	7.1822E+02	8.3126E+00	3.2734E+04
4.500	6.1878E+02	7.2982E+00	3.3444E+04
4.800	5.3986E+02	6.5010E+00	3.4064E+04
5.100	4.7791E+02	5.8896E-00	3.4613E+04
5.400	4.3078E+02	5.4386E+00	3.5108E+04
5.700	3.9506E+02	5.0915E+00	3.5564E+04
6.000	3.6780E+02	4.8229E+00	3.5988E+04
6.300	3.4687E+02	4.6135E+00	3.6387E+04
6.600	3.3067E+02	4.4493E+00	3.6768E+04
6.900	3.1805E+02	4.3197E+00	3.7133E+04
7.200	3.0815E+02	4.2167E+00	3.7485E+04
7.500	3.0032E+02	4.1343E+00	3.7828E+04
6.300	3.4687E+02	4.6135E+00	3.6387E+04

7.800	2.9409E+02	4.0679E+00	3.8163E+04
8.100	2.8908E+02	4.0140E-00	3.8491E+04
8.400	2.8504E-02	3.9701E+00	3.8814E+04
8.700	2.8177E+02	3.9346E+00	3.9132E-04
9.000	2.7911E+02	3.9051E+00	3.9446E+04
9.300	2.7691E+02	3.8804E-00	3.9756E+04
9.600	2.7508E-02	3.8595E+00	4.0064E+04
9.900	2.7353E+02	3.8415E+00	4.0369E-04
10.200	2.7220E+02	3.8258E+00	4.0672E+04
24.000	2.5144E+02	3.5471E-00	5.3169E+04
720.000	1.5025E+01	2.0356E-01	1.6270E+04

Time (hr)	Turbine Building I-131 (Curies)	Environment I-131 (Curies)
0.000	2.7035E-18	3.2443E-30
0.167	2.6463E-03	8.5337E-10
0.467	2.3346E-02	2.0931E-08
0.500	2.7048E-02	2.5960E-08
0.900	9.5361E-02	1.6387E-07
1.200	1.7658E-01	4.0467E-07
1.500	2.8375E-01	8.1502E-07
1.800	4.1637E-01	1.4413E-06
2.100	5.7357E-01	2.3284E-06
2.400	7.5420E-01	3.5198E-06
2.700	9.5689E-01	5.0563E-06
3.000	1.1803E-00	6.9764E-06
3.300	1.4233E+00	9.3164E-06
3.600	1.6848E+00	1.2110E-05
3.900	1.9640E+00	1.5391E-05
4.200	2.2602E+00	1.9190E-05
4.500	2.5728E+00	2.3536E-05
4.800	2.9012E+00	2.8460E-05
5.100	3.2452E+00	3.3988E-05
5.400	3.6043E+00	4.0149E-05
5.700	3.9784E+00	4.6970E-05
6.000	4.3672E+00	5.4478E-05
6.300	4.7706E+00	6.2698E-05
6.600	5.1884E+00	7.1658E-05
6.900	5.6204E-00	8.1382E-05
7.200	6.0665E+00	9.1896E-05
7.500	6.5267E+00	1.0323E-04
7.800	7.0008E+00	1.1540E-04
8.100	7.4888E+00	1.2843E-04
8.400	7.9905E+00	1.4236E-04
8.700	8.5058E+00	1.5720E-04
9.000	9.0348E+00	1.7298E-04
9.300	9.5773E+00	1.8973E-04
9.600	1.0133E+01	2.0746E-04
9.900	1.0703E+01	2.2621E-04
10.200	1.1285E+01	2.4599E-04
24.000	5.1359E+01	2.6634E-03
720.000	5.4575E+02	2.2614E+00

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Cumulative Dose Summary

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Time (hr)	EAB LOCA Thyroid (rem)	EAB LOCA TEDE (rem)	LOCA @ LPZ Thyroid (rem)	LOCA @ LPZ TEDE (rem)	LOCA @ Unprotected CR Thyroid (rem)	LOCA @ Unprotected CR TEDE (rem)
0.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.167	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.467	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.500	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.900	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.200	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.500	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.800	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.100	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.900	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.200	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

2.400	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2.700	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
3.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00
3.300	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00
3.600	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
3.900	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00
4.200	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00
4.500	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E-00	0.0000E+00
4.800	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00
5.100	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00
5.400	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
5.700	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
6.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
6.300	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00
6.600	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00
6.900	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00	0.0000E+00	0.0000E+00
7.200	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
7.500	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E-00
7.800	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
8.100	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
8.400	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
8.700	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
9.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
9.300	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
9.600	0.0000E+00	0.0000E+00	0.0000E-00	0.0000E+00	0.0000E+00	0.0000E+00
9.900	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
10.200	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E-00
24.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
720.000	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

##
Worst Two-Hour Doses
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EAB LOCA

Time (hr)	Whole Body (rem)	Thyroid (rem)	TEDE (rem)
0.0	0.0000E+00	0.0000E+00	0.0000E+00