DAVIS-BESSE

NUCLEAR POWER STATION

1992

EMERGENCY PREPAREDNESS

EXERCISE MANUAL

THIS MATERIAL IS CONSIDERED CONFIDENTIAL

(Until completion of the Exercise currently scheduled for May 13, 1992.)

TOLEDO EDISON COMPANY

TABLE OF CONTENTS FOR 1992 EXERCISE MANUAL

TABLE OF CONTENTS FOR 1992 EXERCISE MANUAL (Cont.)

DAVIS-BESSE NUCLEAR POWER STATION

DRILL/EXERCISE APPROVAL

COVER SHEET

DRILL TITLE: 1992 Emergency Exercise

DATE OF CONDUCT: May 13, 1992 TIME OF CONDUCT: 0700

DRILL LEAD CONTROLLER: D. J. Gordon

APPROVED: B W Cope / Dennis J. Gordon — Supervisor - Onsite Emergency Preparedness — Date: 3/5/92

*APPROVED: [signature] — Supervisor - Offsite Emergency Preparedness — Date: 3-9-92

APPROVED: [signature] — Manager - Emergency Preparedness — Date: 3-9-92

**APPROVED: [signature] — Plant Manager — Date: 3/9/92

***APPROVED: [signature] — Vice President, Nuclear — Date: 3/10/92

*Partial or Full-Participation Drills/Exercises

**Scope, Objectives, Scenario of all Drills

***Scope, Objectives, Scenario of all Exercises

DRILL/EXERCISE NOTIFICATION/AUTHORIZATION

DRILL TITLE: 1992 Emergency Exercise

To be initiated May 13, 1992 (Date) at 0700 (Time)

Lead Controller: D. J. Gordon

INITIATING CONDITIONS

Cue Card _____ Alarm: Main Steam Line 2 Radiation High

Other: _____

Description of Initiating Condition(s): #2 OTSG Tube Leak

Special Consideration(s): Control Room activities will be conducted in the Davis-Besse Simulator.

CONTROL ROOM NOTIFICATION

Approval: _____ (Shift Supervisor) Date ____/____/____ Time_____

Disapproval*: _____ (Shift Supervisor) Date ____/____/____ Time_____

Justification for Disapproval: _____

REVIEW

Lead Controller: _____ Date ____/____/____

Supervisor - Onsite Emergency Preparedness: _____

Date ____/____/____

*Disapproval must be forwarded to the Plant Manager.

cc: Assistant Plant Manager - Operations

DRILL/EXERCISE SCENARIO OBJECTIVE CHECK SHEET

1. Drill/Exercise Title: 1992 Evaluated Exercise

2. Time Frame:

   a. Season (Circle one)

      Winter (Spring) Summer Fall

   b. Period of the week (Circle one)

      (Weekday) Weekend Holiday

   c. When shall the drill begin (Circle one)

      (4 am - 6 pm) 6 pm - 4 am

   d. Projected Drill/Exercise date 05 / 13 / 92

   e. The drill will be (Circle one)

      (Announced) Unannounced

   f. Date of last similar Drill/Exercise 05 / 08 / 91

   g. Real time span of Drill 8 hours, 1 day(s)

   h. Drill/Exercise time frame 8 hours, 1 day(s)

3. Maximum Level of Classification Emergency:

   a. Classifications achieved during the Drill/Exercise (Check one)

      ____Unusual Event

      ____Alert

      ____Site Area Emergency

      ✓ General Emergency

      ____Not a Classifiable Event

4. Organization/Facility Involvement:

   a. Onsite:

      Control Room Staff (Yes)/No

      TSC (Yes)/No

DRILL/EXERCISE SCENARIO OBJECTIVE CHECK SHEET (Cont.)

Onsite: (Cont.)

ECC	(Yes)/No
Site Security	(Yes)/No
Fire Brigade	Yes/(No)
OSC	(Yes)/No
RTL	(Yes)/No
Public Information	(Yes)/No
CRER Organization	Yes/(No)

b. Offsite:

Ottawa County EOC	(Yes)/No
Lucas County EOC	(Yes)/No
Evacuation host county EOCs	Yes/(No)
Ottawa County Sheriff's Department	Yes/(No)
Lucas County Sheriff's Department	Yes/(No)
Carroll Township Fire Department	Yes/(No)
State of Ohio EOC	(Yes)/No
NRC	Yes/(No)
FEMA	Yes/(No)
State of Michigan	Yes/(No)
Emergency Medical (St. Charles, Fremont, (Magruder) hospitals)	(Yes)/No
Ambulance	(Yes)/No

5. Communication:

a. Do you desire to exercise the emergency communications systems? (Yes)/No

b. Do you desire to use the emergency paging system? (Yes)/No

DRILL/EXERCISE SCENARIO OBJECTIVE CHECK SHEET (Cont.)

Communication: (Cont.)

c. Should a news bulletin be prepared? (Yes)/No

d. Do you desire to activate the Joint Public Information Center? (Yes)/No

e. Do you desire to exercise the Computerized Automated Notification System (CANS)? (Yes)/No

6. Is a medical problem to be involved? Yes/No

If yes, a) Onsite response? (Yes)/No

b) Offsite response? (Yes)/No

c) Victim(s) injury(ies) Two victims - first and sencond degree burns, with contamination. One victim will requi.e hospital treatment.

d) Is the victim contaminated? (Yes)/No

e. If yes is answered for 6.b) above, describe involvement of offsite organization. Transportation of victim to Magruder Hospital by offsite Emergency Medical Service.

7. Will the exercise involve a fire? Yes (No)

a. Onsite response? Yes (No)

b. Offsite response? Yes (No)

c. Describe involvement of responder.

DRILL/EXERCISE SCENARIO OBJECTIVE SHEET (Cont.)

Communication: (cont.)

8. Will the Security Force response be tested? Yes (No)

   a. Sabotage/Bomb? Yes (No)

   b. Intruder? Yes (No)

   c. Evacuation? Yes (No)

   d. Other _____

9. Radiological Release:

   a. Meteorological Capabilities:

      1) Will real-time meteorology be used? Yes (No)

      2) Will simulated meteorology be used? (Yes) No

      3) Will weather forecasting capability be required? Yes (No)

   b. Dose Assessment:

      1) Will dose projection be backed up by field monitoring? (Yes) No

      2) Will long-term dose projections be calculated? Yes (No)

      3) Source of radioactive release Station Vent

   c. Post-accident Sampling:

      1) Will post-accident sampling capabilities be exercised? (Yes) No

      2) If yes, to what extent? A Reactor Coolant System sample will be drawn and analyzed.

Approved: _____ 3-9-92
Manager - Emergency Preparedness Date

Davis-Besse Nuclear Power Station

1992 Emergency Preparedness Exercise

-Foreward-

The Davis-Besse Nuclear Power Station (DBNPS) Emergency Plan describes the nuclear emergency response capabilities at DBNPS, including support provided by federal, state and local governments, and private organizations. The Plan describes a program of continuous emergency preparedness, one element of which is an annual Evaluated Exercise.

The conduct of this Exercise provides the opportunity to implement the emergency plan and its associated procedures, and to activate and enable the evaluation of major portions of the emergency response organizations, as required in 10 CFR 50.47.(b)(14) and Appendix E. This Exercise therefore provides an opportunity to further enhance emergency response capabilities.

The 1992 Exercise Program provides for activation of the DBNPS emergency response organization and the opportunity for offsite organizations to demonstrate their capabilities.

This Exercise Manual provides the basis for the conduct of the Exercise: a simulated radiological incident at the Davis-Besse Nuclear Power Station, located near Oak Harbor, Ohio. It is to be used as the control mechanism for the conduct and evaluation of the Exercise, and consists of two parts. Part 1 defines the scope and objectives of the Exercise, and provides Controller guidelines and general information. Part 2 includes the specific sequence of events (i.e., the scenario) and pertinent data. Part 2 is therefore subject to a limited, controlled distribution. Only Exercise Controllers, Evaluators and authorized observers will receive advance distribution of the information in Part 2.

The goal of this Exercise is to demonstrate the ability of the participating organizations to; 1) protect the public, 2) protect station personnel, and 3) use available procedures and equipment to appropriately respond to the highly improbable sequence of events presented in this package.

1.0 SCOPE AND OBJECTIVES

1.1 SCOPE

The 1992 Davis-Besse Emergency Preparedness "Evaluated Exercise", to be conducted on May 13, 1992, will test and provide the opportunity to evaluate the Onsite Davis-Besse Emergency Plan and Emergency Plan Procedures. It will also test the emergency response organization's ability to assess and respond to emergency conditions and take adequate actions to protect the health and safety of the public and station personnel. The Exercise will demonstrate the utilization of the Station's Emergency Response Organization. The Exercise will involve activation and operation of select local emergency response organizations.

Whenever practical, the Exercise incorporates provisions for "free play" on the part of the participants. Selected "real time" activities will be conducted to allow the repair teams the opportunity to provide service and repairs to station equipment during the course of the Exercise. These "repairs" will allow the response organization to have an increased impact upon the direction that the Exercise proceeds as well as impacting the completion of the Exercise activities. In addition, the Control Room Simulator will be used to permit a degree of "free play" on the part of the Operations staff. The extent of this "free play" may be partially restricted by Controllers as necessary to keep the sequence of events on track.

The scenario will simulate a sequence of events resulting in a radiological release to the environment. This release will be of sufficient magnitude to permit tracking of the plume by Field Monitoring Teams.

The scenario will also incorporate a Medical Drill and a Post Accident Sampling System (PASS) Drill.

In the development of an accident sequence which is severe enough to adequately test the emergency response capabilities of participating organizations, it is necessary to postulate extremely unrealistic situations and multiple failures of redundant reactor protection functions and systems. This package has been designed to challenge the emergency response personnel with a severely off-normal plant situation. No matter how remote the possibility of these events to occur, Players are reminded that they are to respond appropriately.

This is considered a "utility only" Exercise and as such, much of the federal, State and local response will be limited to initial communications only. Follow-up interface will be performed via a Control Cell.

1.2 DAVIS-BESSE NUCLEAR POWER STATION OBJECTIVES

REF. #	FACILITIES	OBJECTIVE
A.1	Administrative	CONDUCT AN EXERCISE OF THE DAVIS-BESSE NUCLEAR POWER STATION (DBNPS) EMERGENCY PLAN, ANNUALLY.
A.2	Administrative	PROVIDE AN OPPORTUNITY FOR THE STATE OF OHIO, OTTAWA COUNTY, AND LUCAS COUNTY TO PARTICIPATE IN AN EXERCISE, ANNUALLY (FULL VS PARTIAL PARTICIPATION).
A.3	Administrative	PREPARE AN EXERCISE INFORMATION PACKAGE TO MEET MINIMUM STANDARDS.
A.4	Administrative	CONDUCT A CRITIQUE OF THE EXERCISE.
A.5	Administrative	ESTABLISH MEANS TO ENSURE COMPLETION OF CORRECTIVE ACTIONS.
B.1	All	DEMONSTRATE THE DIRECTION OF THE EMERGENCY ORGANIZATION AND IMPLEMENTATION OF THE EMERGENCY PLAN AND EMERGENCY PLAN PROCEDURES.
B.2	Control Room, ECC	DEMONSTRATE THE TRANSFER OF THE EMERGENCY COORDINATOR DUTIES.
B.3	All	DEMONSTRATE THE ABILITY FOR TIMELY ACTIVATION AND STAFFING OF THE EMERGENCY FACILITIES.
B.4	All	DEMONSTRATE THE ABILITY TO CONTROL ACCESS TO EMERGENCY FACILITIES.
B.10	All	DEMONSTRATE THE CAPABILITY FOR CONTINUOUS (24 HOUR) OPERATIONS FOR A PROTRACTED PERIOD FOR EACH PRINCIPAL ORGANIZATION.
B.11	All	DEMONSTRATE THE ABILITY FOR 24 HOUR PER DAY MANNING OF COMMUNICATION LINKS.
C.1	Control Room, TSC	DEMONSTRATE THE ABILITY TO ASSESS THE INCIDENT CONDITIONS.
C.2	Control Room, ECC, TSC	DEMONSTRATE THE ABILITY TO RECOGNIZE EMERGENCY ACTION LEVELS (EAL'S) AND PROPERLY CLASSIFY THE INCIDENT.
D.1	Control Room, ECC	DEMONSTRATE THE ABILITY TO NOTIFY KEY OFFICIALS IN THE EMERGENCY ORGANIZATIONS (STATION, CORPORATE, STATE OF OHIO, OTTAWA COUNTY, AND LUCAS COUNTY) VIA THE NOTIFICATION SYSTEM/PROCEDURES WITHIN 15 MINUTES OF CLASSIFICATION.
D.2	Control Room, ECC	DEMONSTRATE THE ABILITY TO NOTIFY THE NRC OF ANY EMERGENCY CLASSIFICATION WITHIN ONE HOUR OF THE OCCURRENCE.

REF. #	FACILITIES	OBJECTIVE
D.3	All	DEMONSTRATE THE CAPABILITY TO NOTIFY AND/OR ACTIVATE EMERGENCY PERSONNEL IN EACH RESPONSE ORGANIZATION.
D.4	Control Room, ECC	DEMONSTRATE THE ABILITY TO DEVELOP AND SEND AN INITIAL EMERGENCY MESSAGE FOR OFFSITE NOTIFICATION.
D.5	Control Room, ECC	DEMONSTRATE THE ABILITY TO DEVELOP AND SEND FOLLOW-UP MESSAGES FOR INFORMATION FOR OFFSITE AUTHORITIES.
D.6	Control Room, TSC, ECC	DEMONSTRATE THE COMMUNICATIONS CAPABILITY AMONG THE CONTROL ROOM, TSC AND ECC, AND AMONG DBNPS, THE STATE OF OHIO, OTTAWA COUNTY, AND LUCAS COUNTY EMERGENCY OPERATIONS CENTERS AND THE FIELD ASSESSMENT TEAMS, TO INCLUDE EVALUATION OF THE ABILITY TO UNDERSTAND MESSAGE CONTENT (COMMUNICATIONS DRILL REQUIREMENT).
D.12	OSC, SEC	DEMONSTRATE THE COMMUNICATIONS CAPABILITY WITH FIXED AND MOBILE MEDICAL SUPPORT FACILITIES (MEDICAL DRILL REQUIREMENT).
E.1	ECC	DEMONSTRATE THE METHODS AND TECHNIQUES FOR DETERMINING THE SOURCE TERM OF RELEASES OR POTENTIAL RELEASES OF RADIOACTIVE MATERIAL WITHIN PLANT SYSTEMS.
E.2	ECC	DEMONSTRATE THE METHODS AND TECHNIQUES FOR DETERMINING THE MAGNITUDE OF THE RELEASES OF RADIOACTIVE MATERIALS BASED ON PLANT SYSTEM PARAMETERS AND EFFLUENT MONITORS.
E.3	ECC	DEMONSTRATE THE ABILITY TO ESTIMATE INTEGRATED DOSE FROM PROJECTED AND ACTUAL DOSE RATES AND TO COMPARE THESE ESTIMATES WITH THE PAG'S.
E.4	OSC, ECC	DEMONSTRATE THE ABILITY TO IMPLEMENT EXPOSURE GUIDELINES.
E.5	OSC, ECC	DEMONSTRATE THE ABILITY TO CONTINUOUSLY MONITOR AND CONTROL EMERGENCY WORKER EXPOSURE.
E.9	RTL, RMT	DEMONSTRATE THE CAPABILITY FOR RADIOLOGICAL MONITORING OF PERSONNEL EVACUATED FROM THE SITE.
E.10	RTL, RMT	DEMONSTRATE THE CAPABILITY FOR DECONTAMINATION OF EVACUATED NON-ESSENTIAL PERSONNEL.
E.14	RTL, RMT	DEMONSTRATE THE ABILITY TO DECONTAMINATE RELOCATED ONSITE PERSONNEL.
E.15	OSC, SEC	DEMONSTRATE THE CAPABILITY FOR TRANSPORTATION OF A RADIOLOGICAL ACCIDENT VICTIM (MEDICAL DRILL REQUIREMENT).
E.17	OSC	DEMONSTRATE THE RESPONSE TO, AND ANALYSIS OF, SIMULATED ELEVATED AIRBORNE AND LIQUID SAMPLES AND DIRECT RADIATION MEASUREMENTS IN THE ENVIRONMENT.

REP. #	FACILITIES	OBJECTIVE
E.18	OSC	DEMONSTRATE THE CAPABILITY TO ANALYZE AN ACTUAL SAMPLE OBTAINED FROM A PLANT SYSTEM INCLUDING USE OF THE POST-ACCIDENT SAMPLING SYSTEM WITHIN 3 HOURS.
F.1	ECC	DEMONSTRATE THE ABILITY TO RECOMMEND PROTECTIVE ACTIONS TO APPROPRIATE OFFSITE AUTHORITIES; BASES OF RECOMMENDATIONS TO INCLUDE CONSIDERATION OF PROTECTION AFFORDED BY SHELTERING AS WELL AS EVACUATION TIME ESTIMATES.
F.2	JPIC	DEMONSTRATE THE OPERATION OF THE JOINT PUBLIC INFORMATION CENTER AND THE AVAILABILITY OF SPACE FOR THE MEDIA.
F.3	JPIC	DEMONSTRATE THE ABILITY TO BRIEF THE MEDIA IN A CLEAR, ACCURATE AND TIMELY MANNER.
F.5	SEC	DEMONSTRATE THE ABILITY TO WARN OR ADVISE INDIVIDUALS ONSITE OR IN OWNER CONTROLLED AREAS.
F.6	SEC	DEMONSTRATE THE CAPABILITY TO EVACUATE NON-ESSENTIAL PERSONNEL.
F.7	ECC, SEC	DEMONSTRATE THE ABILITY OF ALTERNATIVE EVACUATION ROUTES AND/OR OFFSITE RELOCATION CENTER DUE TO WEATHER, RADIOLOGICAL CONDITIONS, ETC.
F.11	OSC	DEMONSTRATE THE CAPABILITY FOR ONSITE FIRST AID (MEDICAL DRILL REQUIREMENT).
F.12	OSC	DEMONSTRATE THAT PROVISIONS ARE AVAILABLE FOR THE EVALUATION OF RADIATION EXPOSURE OF, AND RADIATION UPTAKE IN A RADIOLOGICAL ACCIDENT VICTIM (MEDICAL DRILL REQUIREMENT).
G.1	All	DEMONSTRATE PRELIMINARY DISCUSSIONS OF REENTRY AND RECOVERY CAPABILITIES AND AVAILABILITY OF PROCEDURES.
G.3	ECC	DEMONSTRATE THE AVAILABILITY OF CORPORATE TECHNICAL SUPPORT FOR PLANNING AND REENTRY/RECOVERY OPERATIONS.

2.0 EXERCISE INFORMATION

2.1 EXERCISE PARTICIPANTS

The participants in the Exercise will include the following groups:

2.1.1 The Davis-Besse Nuclear Power Station (DBNPS)

1. Control Room (CTRM) Simulator
2. Technical Support Center (TSC)
3. Operations Support Center (OSC)
4. Emergency Control Center (ECC)
5. Dose Assessment Center (DAC)
6. Radiological Testing Lab (RTL)
7. Radiation Monitoring Teams (RMTs)
8. DBNPS Nuclear Security Force (SEC)
9. Alternate Joint Public Information Center (JPIC) located in Maumee, Ohio

2.1.2 Organizations from Ottawa and Lucas Counties will be participating.

2.1.3 The State of Ohio will provide partial participation at the State Emergency Operations Center (EOC).

2.1.4 The Carroll Township Emergency Medical Service and Magruder Hospital will participate in the medical portion of the Exercise.

2.2 EXERCISE ORGANIZATIONS

The organization for this Exercise will consist of the Exercise Coordinators, the Controllers, the Evaluators, the Players, and the Observers, as follows:

2.2.1 The Exercise Coordinator is responsible for a successful xercise, and will coordinate all Exercise preparations. ubsequent to the conduct of the Exercise, he will coordinate the preparation of a consolidated evaluation package, and prepare and follow up on the corrective actions recommended as a result of the evaluation and critique.

2.2.2 The Lead Exercise Controller is responsible for the safe conduct of the Exercise. He will coordinate the resolution of any scenario-related inter-facility questions, and ensure that the conduct of the Exercise does not adversely impact the operation of the Station.

2.2.3 Controllers are personnel selected to perform functions as follows:

1. A Lead Facility Controller is assigned to each emergency response facility. The Lead Facility Controller is responsible for all Controller, Evaluator, and Observer activities in that facility and, as appropriate, its associated teams. Controllers for teams or subgroups of a facility report to the Lead Facility Controller.

2. The Controllers will deliver "Cue Cards" (i.e., information and data messages) to designated players at specified times and places during the Exercise. This may include contingency messages as required to keep the drill moving according to the scenario. Controllers will also observe the participants at their assigned locations, and prepare an evaluation. Controllers will submit written evaluations to the Lead Facility Controllers, who will summarize all comments for submittal to the Lead Exercise Controller. Controllers are provided with instructions and evaluation forms in Section 4.0 of this manual.

3. All Controllers will act as Evaluators, as described below, and will be identified as Controllers by wearing red arm bands.

2.2.4 Evaluators are personnel who are assigned to judge the effectiveness of participating organizations, personnel, and activities. Evaluators will record their observations using the evaluation forms provided and make recommendations to the Lead Facility Controller. They will evaluate performance on the basis of standards or requirements contained in the Emergency Plan, Implementing Procedures, Exercise messages, and appropriate evaluation criteria. Toledo Edison Evaluators will be identified by wearing red arm bands.

2.2.5 Players include all personnel assigned to perform emergency functions as described in the Emergency Plan and procedures. Players will be identified by wearing blue arm bands.

2.2.6 Observers may be authorized, on a limited basis, to participate in the drill for the purpose of observing Exercise activity for personal education. Onsite Observers will report initially to the DBNPS Emergency Preparedness Manager for credential review and authorized admittance. They will be provided with orientation information and appropriate Exercise publications. Onsite Observers will be identified by wearing green arm bands. Offsite observers will report to the Lead Facility Controller for the respective facility and will be identified by wearing green arm bands.

Requests to participate as an Observer should be made in writing and contain the Observer's full name, home address and phone number, and organizational affiliation. Requests to participate as Onsite Observers must be submitted to the DBNPS Emergency Preparedness Manager no later than one week before the Exercise.

2.3 EMERGENCY RESPONSE FACILITIES

During the Exercise, the following facilities will be activated to manage, assess, and support emergency response activities.

2.3.1 Onsite Facilities

The Toledo Edison Company emergency response facilities are:

1. Control Room (CTRM)

   The DBNPS Control Room, located on the 623' elevation of the Auxiliary Building, is the facility from which the routine operation of the plant is conducted. During abnormal or emergency conditions, when the Emergency Plan is implemented, the Shift Supervisor is given additional responsibilities as the Emergency Director. In this capacity, he is responsible for the coordination of the Toledo Edison/DBNPS response to the emergency until relieved. The initial response to this scenario, and any emergency condition, is managed by the Operating Shift Crew in the Control Room. Once the Shift Supervisor is relieved of the responsibilities of Emergency Director, the Operating Shift Crew retains responsibility for operation of plant systems and equipment.

   NOTE: For this Exercise the Davis-Besse Control Room Simulator located in the Training Center will be used.

2. Technical Support Center (TSC)

   When emergency conditions escalate to an Alert status or higher, coordination of the operations aspects of the emergency response will shift from the Control Room to the TSC, located in the Davis-Besse Administration Building. The primary function of the TSC is to support an organization that provides technical assistance to Station personnel during emergency conditions. The TSC provides direct voice and data communications contact with the Corporate Emergency Response Organization (CERO). Control Room instrumentation can normally be observed using closed-circuit television (CCTV) from the TSC, however, with Control Room response occurring at the simulator, the CCTV will not be available. The TSC also contains the DADS (Data Acquisition and Display System) and the SPDS (Safety

Parameter Display System) to enable the TSC staff to acquire plant data in support of technical evaluations needed to mitigate emergency conditions and recovery operations.

The TSC contains work space for up to 25 people.

A "Satellite TSC" immediately adjacent to the Control Room, provides work space for the Emergency Assistant Plant Manager. (This location allows better coordination of the emergency response functions by being closer to problems needing attention.)

NOTE: Personnel who would normally be in the "Satellite TSC" will be in the vicinity of the Control Room Simulator for this Exercise.

3. Operations Support Center (OSC)

The OSC, is located in the second floor lunchroom of the Personnel Shop Facility (PSF). It provides a location for assembly and coordination of emergency response teams during an emergency. The OSC is activated at Alert or higher emergency conditions, and may be activated for an Unusual Event at the discretion of the Shift Supervisor/Emergency Director.

The purpose of the Operations Support Center is to provide a pool of skilled manpower from which emergency response teams are assembled (e.g. First Aid, Operations, Fire Brigade, Emergency Maintenance and Reentry teams). Also, it provides an assembly area for designated plant personnel who are not on shift.

4. Emergency Control Center (ECC)

The ECC, located in the Davis-Besse Administration Building, is activated at Alert or higher emergency conditions. The ECC's primary function is to provide a centralized location for management of protective action planning, and continuous coordination and control of onsite and offsite emergency activities.

The ECC staff evaluates the impact of actual or potential radioactive releases, and provides management assistance in the decision-making process to protect the public health and safety. Recommendations to State and County authorities are based on Station conditions as well as radiological and meteorological data. The ECC contains advanced systems to establish and maintain communications with state, federal, and local officials, and to enable coordination and control of Radiation Monitoring Teams (RMTs).

The ECC provides space for occupancy of at least 16 people.

5. Dose Assessment Center (DAC)

A section of the ECC that controls the operation of the Field Radiation Monitoring Teams to gather radiation data for evaluation of the impact of actual or potential radioactive releases. Provides technical assistance in the decision to protect the public health and safety. The Dose Assessment Center contains communication and computer equipment to contact RMT's and project radiation doses offsite.

6. Radiological Testing Laboratory (RTL)

The RTL's primary function is to provide a location near the ECC and TSC for radiological analysis of low level environmental samples. The RTL contains work areas for 4 people and additional space allotted for temporary occupancy by field personnel. Major equipment components in the RTL are designed to be removable for potential use in the field.

7. Radiation Monitoring Team (RMTs)

Radiation Monitoring Teams are emergency responders trained to monitor radiological conditions outside the Protected Area, and report these conditions to the Dose Assessment Center for evaluation.

8. Joint Public Information Center (JPIC)

The Joint Public Information Center (JPIC) is the emergency facility for coordinating news releases and providing joint briefings media during an event at Davis-Besse. A primary and an alternate location are available to support this function. Toledo Edison Company, state, local and federal agencies represented at the JPIC jointly prepare news information for release to the public via the news media. Equipment and work spaces for Public Information Officers and their staffs are provided to support timely communications on plant status and emergency response actions. JPIC facilities include news briefing areas for approximately 200 electronic and print media representatives. Facility operations and administrative support are coordinated by Toledo Edison. JPIC support is available for any plant emergency. However, facility activation is mandatory at (and above) the Alert emergency classification level.

NOTE: For the purposes of this Exercise, the primary JPIC will not be activated.

a. Primary JPIC

The primary JPIC is located in the Energy Education Center (EEC) at the Davis-Besse Administration Building.

b. Alternate JPIC

The alternate JPIC is located in the Edison Club - Auditorium, 1036 River Road, Maumee, Ohio.

2.4 EXERCISE CONDUCT

2.4.1 Overview

The Exercise will simulate an abnormal incident at Davis-Besse which will escalate over a period of a few hours to a General Emergency. The simulated emergency will then terminate and the Recovery Phase will be initiated.

The conduct of the Exercise will demonstrate the effectiveness of participating organizations, personnel, and activities in support of the Emergency Plan and associated procedures.

Unlike other drills or practice sessions, Controllers are not permitted to "coach" or otherwise assist Players in responding to the simulated conditions. The Controllers can, however, provide clarification as necessary for Players to understand the intent of or the message given on a cue card.

2.4.2 Actions

Emergency response actions during the simulated emergency will include: recognition and classification of emergency conditions; assessment of onsite/offsite radiological consequences; alert/notification and mobilization of the emergency response organization; implementation of in-plant corrective actions; activation/operation of emergency response facilities and equipment; preparation of reports, messages, and recordkeeping.

2.4.3 Communications

The Exercise will also demonstrate the effective use of communications systems.

2.4.4 Players

The success of the Exercise is largely dependent upon player reaction, knowledge of the Emergency Plan and objectives of the Exercise. Initial conditions which will affect player action or reaction will be provided to the players at the time the Exercise begins. Most elements of the Exercise will be introduced through the use of "Cue Cards" (i.e., messages). Players are responsible for initiating actions in accordance with Exercise instructions, responsibilities, and procedures for their particular duties. Each Player will advise his/her Controller prior to performing emergency response actions, to ensure that the Player is credited for those actions.

1. The Simulator Control Room will be the central point for distribution of the majority of Exercise cue cards, and is the key to ensuring that the Exercise remains on schedule. Plant parameters will be provided to the Control Room operators using the simulator displays. The Control Room operators are responsible for relaying pertinent plant drill data to other emergency facilities. The Data Acquisition and Display System (DADS) including the Safety Parameter Display System (SPDS) and the TSC Plant Status display will exhibit specific parameters. DADS and SPDS trends will display gradual trend changes in plant parameters. The TSC will have point value and group displays available to monitor the current plant status. A redundant SPDS system will continue to provide actual SPDS parameters and alarms.

   In the event of an actual emergency resulting in the termination of the Exercise, real-time SPDS will be restored to the TSC within minutes.

2. In order to develop a sequence that Exercises the entire emergency response organization, it is necessary to suppose incredible situations. The Players must accept the Exercise messages as written. Time shall not be spent discussing why a situation could not occur. Players shall react as though it did. If corrective actions are proposed that would terminate the emergency, they should be identified to the Lead Facility Controller, so that he can acknowledge the corrective actions, but continue the scenario progress as designed. Players are expected to "free play" the scenario to the extent practical. Notifications of, and contact with supervisors, plant management, and offsite agencies will be made in accordance with plant procedures and any guidelines established at the start of the Exercise.

   Players are reminded not to be excessively concerned with the mechanics or cause of the simulated malfunctions. This Exercise is designed to evaluate the Emergency Plan, Implementing Procedures, and Emergency Preparedness Training Program; not the probability, feasibility, or detailed mechanics of the simulated accident. Players should note any needed improvements to Emergency Response Facilities and equipment, Emergency Procedures, or Emergency Preparedness Training that come to their attention during the Exercise. Players shall submit recommendations to the appropriate Controller at the conclusion of the Exercise.

2.5 PRECAUTIONS AND LIMITATIONS

This section provides guidance on the conduct of this Exercise. Prior to initiation, a briefing will be held to review the drill process with all Controllers and Evaluators.

2.5.1 Should, at any time during the conduct of this Exercise, an actual emergency situation arise, all activities related to the Exercise may be suspended by the Lead Exercise Controller. It is the responsibility of any Controller who becomes aware of an actual emergency to suspend Exercise activities in his/her immediate area and to inform the Lead Exercise Controller of the situation. Upon notification of an actual emergency, the Lead Exercise Controller shall notify all Lead Facility Controllers. The Lead Exercise Controller shall make a determination at that point whether to continue, place a temporary hold on, or terminate the Exercise.

2.5.2 Should, at any time during the conduct of this Exercise, a controller witness any participant undertake any action which would, in the opinion of the controller, place either an individual or a component in an unsafe condition, the controller is responsible for intervening and terminating the unsafe activity immediately. Upon termination of the activity, the controller is responsible for contacting the Lead Exercise Controller and informing him of the situation. The Lead Exercise Controller shall make a determination at that point whether to continue, place a temporary hold on, or terminate the Exercise.

2.5.3 Manipulation of any plant operating systems, valves, breakers, or controls in response to this Exercise is to be properly controlled by existing procedures and qualified personnel. There shall be no alteration of any plant operating equipment, systems, or circuits during the response to this Exercise without operators permission. Any equipment manipulation/work will be in accordance with proper station procedures and carried out by qualified personnel with operating crew authority and permission.

2.5.4 All telephone communications, radio transmissions, and public address announcements related to the Exercise shall begin and end with the statement, "This is a drill".

Controllers are reminded not to "coach" Players, but shall ensure that Exercise communications are clearly identified as such, to avoid confusion with other activities. Repeated failure to identify that communications are part of a Exercise shall require intervention by a controller.

2.5.5 Care shall be taken to prevent any non-participating individuals who may observe Exercise activities from believing that an actual emergency exists. Any controller who is aware of an individual or group of individuals in the immediate vicinity who may have become alarmed or confused about the situation, should approach that individual or group and explain the nature of the Exercise and its intent.

2.5.6 Any motor vehicle response to this Exercise, whether it be ambulance, fire fighting equipment, police/security vehicles or field monitoring teams, shall observe all normal motor vehicle operating laws including posted speed limits, stop lights/signs, one way streets, etc.

2.5.7 Should any onsite security actions be required in response to this Exercise, participants are to cooperate as directed by the Security Force. Security representatives are to be prudent and tolerant in their actions.

2.5.8 While Exercise participants are to inject as much realism into the Exercise as possible, the safety of the plant and personnel shall not be jeopardized.

2.6 EVALUATION AND CRITIQUE

The Exercise will be evaluated by individuals who have expertise in the activity in their assigned location. These Evaluators and Controllers will evaluate Exercise performance on the basis of requirements contained in the Emergency Plan Implementing Procedures, and "Cue Cards" (i.e., messages). Evaluators and Controllers shall prepare evaluation forms and provide recommendations to the Lead Exercise Controller.

After the Exercise is completed, the Lead Exercise Controller shall conduct a post-Exercise critique. Deficiencies in the Emergency Plan, Implementing Procedures, the emergency preparedness training program, facilities, equipment, and/or other areas shall be identified through the critique process. The deficiencies shall be documented by the Lead Exercise Controller and corrected by the individuals who have responsibility in the area of the identified deficiency.

The schedule for the critiques is included in Section 5.0.

2.7 SCENARIO DEVELOPMENT COMMITTEE

Chairman	D. J. Gordon	Emergency Preparedness
Assistant	G. J. Reed	Emergency Preparedness

Plant Operations

1.	D. E. Missig	Operations (SRO)
2.	V. J. Patton	Operations - Fire Protection
3.	B. D. Young	Simulator Staff (SRO)
4.	R. A. Lakis	Systems Engineering

Radiological Control

1.	J. S. Shilling	Emergency Preparedness
2.	D. S. Jazwiecki	Radiological Controls
3.	B. J. Baumgardner	Radiological Controls

Maintenance

1.	G. Laird	Electrical
2.	T. G. Leach	Mechanical
3.	B. A. Hudson	I&C
4.	T. M. Szydlowski	Maintenance Services
5.	H. K. Rhubright	QC/I&C

Dose Assessment

1. J. M. Priest	Radiological Control

Chemistry/PASS/Core Damage

1. C. K. Rider	Chemistry

Computer Support (DADS/SPDS/MET)

1. R. A. Bast	Computer Group

Medical

1. W. E. Comings	Industrial Safety

JPIC/Corporate

1. J. D. Basa	Emergency Preparedness

Security

1. S. K. Nutter	Security
2. L. Hannan	Security
3. D. M. Ruff	Emergency Preparedness

Offsite Interfaces

1. J. M. Vetter	Emergency Preparedness

General/Other

1. P. H. Vandyne	Quality Control
2. E. H. Rohrer	Outage Management

NOTE: Special thanks must go to the Simulator Group, especially Ted Bergner and his staff, and to Nuclear Engineering's Dave Kuhtenia for his analysis support using the Modular Accident Analysis Program (MAAP).

3.0 REFERENCES/ABBREVIATIONS/DEFINITIONS

3.1 REFERENCES

3.1.1 DBNPS Emergency Plan - Toledo Edison Company, (Rev. 15, 1/92)

3.1.2 DBNPS Emergency Plan Implementing Proc ures

3.1.3 DBNPS Emergency Plan Station Support Procedures

3.1.4 10 CFR 50.47, 50.54 and Appendix E

3.1.5 NUREG-0654/FEMA-REP-1, Rev. 1

3.1.6 FEMA Guidance Memorandum EX-3

3.1.7 DBNPS Radiation Protection Manual

3.1.8 DBNPS, Unit 1, Technical Specifications

3.1.9 DBNPS Piping and Instrumentation Drawings

3.1.10 Toledo Edison Corporate Emergency Response Plan

3.1.11 Public Information Emergency Response Procedures

3.1.12 DBNPS Updated Safety Analysis Report, Chapter 11

3.2 ABBREVIATIONS

AFP	Auxiliary Feed (Water) Pump
ALARA	As Low As Reasonably Achievable
ARM	Area Radiation Monitor
ARTS	Anticipatory Reactor Trip System
ATMOS	Atmosphere
ATWS	Anticipated Transient Without Scram
AUX	Auxiliary
AVG	Average
BAAT	Boric Acid Addition Tank
BKWSH	Back Wash
BRKR	Electrical Circuit Breaker
BWST	Borated Water Storage Tank
CAM	Continuous Air Monitor
CANS	Computerized Automated Notification System
CAS	Central Alarm Station
CCTV	Closed Circuit Television
CCW	Component Cooling Water System
CERO	Corporate Emergency Response Organization
CFT	Core Flood Tank
CFR	Code of Federal Regulations
CNDS	Condensate System
COND	Condenser
CPM	Counts Per Minute
CS	Containment Spray System
CST	Condensate Storage Tank

CT	Circulating Water and Cooling Tower System
CTMT	Reactor Containment Building
CTRM	Control Room
DADS	Data Acquisition and Display System
DBAB	Davis-Besse Administrative Building
DBNPS	Davis-Besse Nuclear Power Station
DEI	Dose Equivalent Iodine
DEMIN	Demineralizer
DHR	Decay Heat Removal
DISCH	Discharge
DP	Differential Pressure
DWS	Demineralized Water System
EAL	Emergency Action Level
ECC	Emergency Control Center
EDG	Emergency Diesel Generator
EEC	Energy Education Center
EFP	Emergency Feed (Water) Pump
EMA	Emergency Management Agency
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
EVAL	Evaluated
FAT	First Aid Team
FEMA	Federal Emergency Management Agency
FT	Feet
FW	Feed Water
GPM	Gallons Per Minute
HDR	Header
HLCWT	High Level Cooling Water Tank
HPI	High Pressure Injection System
HVAC	Heating Ventilation and Air Conditioning System
HX	Heat Exchanger
I&C	Instrument and Control Department
IN	Inch
INST	Instrument
JPIC	Joint Public Information Center
KI	Potassium Iodide
LP	Low Pressure
LVL	Level
MISC	Miscellaneous
MSIV	Main Steam Isolation Valve
MTR	Motor
MU	Makeup System
NI	Nuclear Instrumentation
NRC	Nuclear Regulatory Commission
OTSG	Once Through Steam Generator
OOS	Out of Service
OSC	Operations Support Center
PA	Public Address System
PASS	Post Accident Sampling System
PC	Protective Clothing
PI	Pressure Indication
PMP	Pump
PORV	Power Operated Relief Valve
PPF	Personnel Processing Facility
PR	Public Relations
PSF	Personnel Shop Facility

PSIA	Pounds Per Square Inch Absolute
PSIG	Pounds Per Square Inch Gauge
PT	Periodic Test
PTS	Pressurized Thermal Shock
PWR	Pressurized Water Reactor
PWST	Primary Water Storage Tank
PZR	Pressurizer
RRA	Radiologically Restricted Area
RC	Radiological Controls
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RE	Fixed Radiation Instrument
RLF	Relief Valve
RM	Radiation Monitor
RMT	Radiation Monitoring Team
RTL	Radiological Testing Laboratory
Rx	Reactor
SAS	Secondary Alarm System
SFP	Spent Fuel Pool
SFAS	Safety Features Actuation System
SFRCS	Steam and Feed Water Rupture Control System
SJAE	Steam Jet Air Ejector
SPDS	Safety Parameter Display System
SPF	Spent Fuel
SRST	Spent Resin Storage Tank
ST	Surveillance Test
SW	Service Water System
SYS	System
Tc	Reactor Coolant System Cold Leg Temperature
TC	Thermocouple
TDG	Total Dissolved Gases
Th	Reactor Coolant System Hot Leg Temperature
TPCW	Turbine Plant Cooling Water
TRBL	Trouble
TSC	Technical Support Center
VOM	Volt Ohm Meter
WGST	Waste Gas Storage Tank
WK	Week
WR	Wide Range Instrument
WTR	Water
XFER	Transfer
XMIT	Transmit

3.3 DEFINITIONS

3.3.1 ALERT: The level of emergency classification which indicates that events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.

3.3.2 ANTICIPATED TRANSIENT WITHOUT SCRAM (ATWS): Failure of the reactor control rods to insert into the core upon a scram signal from the Reactor Protection System or the failure of said system to initiate a SCRAM when Reactor Protection System trip limits have been exceeded.

3.3.3 ASSESSMENT ACTIONS: Those actions taken during or after an accident to obtain and process information that is necessary to make decisions to implement specific emergency measures.

3.3.4 CONTROL ROOM (CTRM): The principle onsite location from which the reactor is controlled and from which emergency control is initially exercised. The CTRM is located on the 623' elevation of the Auxiliary Building.

3.3.5 CONTROLLER: A member of the Exercise control group, assigned to one or more activities or functions for the purpose of keeping the action going according to a scenario, resolving scenario discrepancies, and supervising the actions of the players.

3.3.6 CORRECTIVE ACTIONS: Those emergency measures taken to improve or terminate an emergency situation.

3.3.7 DECONTAMINATION: The process by which the body or an object is relieved of radioactive substances (contamination).

3.3.8 DOSE ASSESSMENT: The process of estimating the amount of radiation a person will potentially receive as a result of exposure to a radiological release.

3.3.9 DRILL: A supervised event aimed at evaluating, developing, and maintaining skills in a particular operation.

3.3.10 EMERGENCY ACTION LEVELS (EALs) - Radiological dose rates; specific contamination levels or airborne, waterborne, or surface-deposited concentrations of radioactivity; or specific plant conditions that may be used as thresholds for initiating specific emergency measures.

3.3.11 EMERGENCY CONTROL CENTER (ECC): The Toledo Edison emergency response facility from which overall direction and control are exercised for emergencies at DBNPS. The facility also provides a central point of contact for communications and external (non-Toledo Edison) organizations, and is fully activated for emergencies classified as an Alert or higher.

3.3.12 EMERGENCY OPERATIONS CENTER (EOC): An emergency response facility from which government officials exercise direction and control. The EOCs are located as follows:

Ottawa County:	Basement of the Ottawa County Courthouse Madison Ave. Port Clinton, Ohio
Lucas County:	Subbasement of the Lucas County Correction Facility 1622 Spielbush Ave. Toledo, Ohio
State of Ohio:	Basement of the Robert B. Beightler Armory 2825 West Granville Rd. Worthington, Ohio
State of Michigan:	Emergency Management Division Suite 300 3005 Washington Square Lansing, Michigan 48913

3.3.13 EMERGENCY PLANNING ZONES (EPZs): The land areas encompassed within approximately 10 and 50 mile radii of the DBNPS, in which protective actions may be necessary to protect the public in the event of a nuclear plant accident. The 10 mile zone is referred to as the Plume Exposure EPZ; the 50 mile zone is termed the Ingestion Exposure EPZ (IPZ).

3.3.14 EMERGENCY RESPONSE FACILITY: Any of several onsite and offsite centers which are activated to coordinate emergency actions. Included in this category are the Control Room, Technical Support Center, Operations Support Center, Emergency Control Center, Joint Public Information Center, and State and local Emergency Operations Centers.

3.3.15 EVALUATOR: A member of the Exercise evaluation group, assigned to one or more activities or functions for the purpose of evaluating and making recommendations for improvement. An evaluator may serve in a dual capacity as both a Controller and Evaluator.

3.3.16 EXCLUSION AREA: The area surrounding the DBNPS in which the Toledo Edison Company has the authority to determine all activities including exclusion or removal of persons and property from the area during accident conditions.

3.3.17 EXERCISE: An event which tests the overall functions and capabilities of organizations involved in responding to an emergency situation. An Exercise will usually simulate an emergency that results in offsite radiological releases which require response by offsite authorities.

3.3.18 GENERAL EMERGENCY: The most severe level of emergency classification which indicates that events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Release of radioactive material can be reasonably expected to exceed PAG exposure levels offsite.

3.3.19 INGESTION PATHWAY: The exposure mode for which the zone of concern encompasses an area of approximately 50 mile radius around DBNPS. The principle exposure in this area would be from ingestion of contaminated water or foods, such as milk or fresh vegetables. The period of potential exposure could range in length from hours to months.

3.3.20 JOINT PUBLIC INFORMATION CENTER (JPIC): An emergency response facility, located in the Davis-Besse Administration Building, which is staffed by Toledo Edison Company, local, State, NRC and FEMA officials. The JPIC provides a forum and point of contact for a coordinated release of news and information to the news media, general public, Toledo Edison Company employees and the special interest groups.

3.3.21 OBSERVER: Any individual who is authorized to observe the Exercise, but is not authorized to interact with the players.

3.3.22 OFFSITE: All land and water areas outside the Owner-Controlled Area fence surrounding the DBNPS.

3.3.23 ONSITE: All land and water areas within the Owner-Controlled Area surrounding the DBNPS.

3.3.24 OPERATIONS SUPPORT CENTER (OSC): An onsite emergency response facility which provides a location where emergency response teams can be assembled and coordinated during an emergency.

3.3.25 OWNER-CONTROLLED AREA: The area around the DBNPS that is owned/and to which the access controlled, by the Toledo Edison Company.

3.3.26 PARTICIPANT: An individual who has some part in the Exercise, whether as an Evaluator, Controller, Player or Observer.

3.3.27 PLAYERS: All individuals (DBNPS, Toledo Edison Company personnel, and individuals from offsite organizations and agencies) who are assigned to perform functions of the emergency response organization, as described in the appropriate Emergency Plan and Emergency Plan Implementing Procedures.

3.3.28 PLUME EXPOSURE PATHWAY: The exposure mode for which the zone of concern encompasses an area of approximately a 10 mile radius around DBNPS. The principle exposure sources in this area are: 1) whole body external exposure to gamma radiation from the plume and deposited material, and 2) inhalation exposure from the passing radioactive plume. The period of potential exposure could range from hours to days.

3.3.29 POPULATION AT RISK: Those persons for whom protective actions would be taken.

3.3.30 PROTECTED AREA: The area within the Site Boundary encompassed by physical barriers and to which access is controlled for security purposes.

3.3.31 PROTECTIVE ACTION: Those emergency measures taken after an accident or an uncontrolled release of radioactive materials has occurred, for the purpose of preventing or minimizing radiological exposures to personnel that would otherwise occur.

3.3.32 PROTECTIVE ACTION GUIDES (PAGs): Projected radiological doses to individuals in the general population which warrant protective action following a release of radioactive material.

3.3.33 RADIOLOGICALLY RESTRICTED AREA (RRA): Any area in which the general area radiation level is equal to or exceeds 0.25 mrem/hr or radioactive loose surface contamination is equal to or exceeds 1000 dpm/100 cm^2 beta-gamma, or 20 dpm/100 cm^2 alpha activity. A general REP is required for entry to this type area.

3.3.34 RADIOLOGICAL MONITORING TEAMS (RMTs): Two-person teams responsible for monitoring radiation levels in the environment and collecting soil, air, vegetation, snow, and water samples for laboratory analysis.

3.3.35 SITE AREA EMERGENCY: The level of emergency classification which indicates that events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases of radioactive material are not expected to exceed Protection Action Guide (PAG) exposure levels, except within the Site Boundary.

3.3.36 TECHNICAL SUPPORT CENTER (TSC): An onsite emergency response facility for use by technical and management personnel in support of the command and control functions executed in the Control Room

3.3.37 UNUSUAL EVENT: The lowest level of emergency classification, which indicates that events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant.

4.0 CONTROLLER AND EVALUATOR INSTRUCTIONS

Each Controller and Evaluator should be familiar with the following:

1. The objectives of the Exercise.
2. The assumptions and precautions being taken.
3. The Exercise scenario, including the initiating events and the expected course of action to be taken.
4. The various locations that will be involved and the specific items to be observed at those locations.
5. The evaluation checklists provided herein.

4.1 CONTROLLER INSTRUCTIONS

4.1.1 Controllers shall position themselves at their assigned locations a minimum of 30 minutes prior to the activation of the facility for which they have responsibility.

4.1.2 Controller communications shall be tested prior to Exercise commencement. All watches and clocks shall be synchronized with the Lead Exercise Controller's as part of the communications testing.

4.1.3 All controllers shall comply with instructions from the Lead Exercise Controller.

4.1.4 No cue cards (i.e., messages) shall be delivered out of sequence or other than as written unless specifically authorized by the Lead Exercise Controller.

4.1.5 Cue cards controlling the progress of the scenario are noted with a number. Contingency cue cards are noted with a number followed by the letter "X" (e.g., 10X). Contingency cue cards are only delivered if certain conditions indicated on the card are met.

4.1.6 Data sheets shall be distributed only in the Control Room.

4.1.7 Controllers will not provide information to the players regarding scenario progression or resolution of problems encountered in the course of the simulated emergency. Participants are expected to obtain information through their own organizations and exercise their own judgement in determining response actions and resolving problems.

4.1.8 Some Players may insist that parts of the scenario are unrealistic. The Lead Controllers have the sole authority to clarify any questions regarding scenario content.

4.2 EVALUATOR INSTRUCTIONS

Each evaluator shall take detailed notes regarding the progress of the Exercise and the response of the Exercise participants at their assigned locations. Each evaluator should carefully note the arrival and departure times of participants, the times when major activities or milestones occur, and problem areas encountered.

The standards below should be used by the controller/evaluator to evaluate assigned areas pertaining to the emergency response. A dual purpose will be served by this rating system. First, the capability of each facility or response area will be evaluated, and second, the system will provide a vehicle for directing improvement. The rating scale is as follows:

Satisfactory - Personnel and equipment generally performed as expected. Any errors noted were not severe and could be corrected without undue labor or expense.

Unsatisfactory - Personnel and equipment generally performed below expectations, and there was several significant deficiencies noted. The area's ability to carry out its functions was diminished.

N/A - Not Applicable to the situation.

N/O - Not Observed.

As appropriate, evaluator comments should consider the demonstration of the following facility and team evaluation elements:

4.2.1 Facility

1. Accurate and timely determination of emergency action levels.

2. Timely activation and staffing for each emergency action level.

3. Familiarity of personnel with appropriate emergency procedures, duties and responsibilities.

4. Timely notification of Toledo Edison, local, state and federal personnel/agencies (information updates performed).

5. Adequacy of internal information systems (e.g., message handling, displays, status boards and maps).

6. Properly controlled documentation and accurate, timely record keeping.

7. Use of correct communications procedures and techniques.

8. Capability of facility managers to interface with personnel and coordinate facility activities.

9. Consideration for personnel safety (e.g., exposure control).

10. Adequacy of interface between emergency response facilities.

11. Adequacy of equipment and supplies.

12. Timely initiation of onsite protective/corrective actions.

13. Development of offsite protective action recommendations.

14. Radiological surveys and assessment of plant damage and hazardous conditions performed.

15. Timely requests for emergency support services.

16. Coordinated, accurate and timely dissemination of information to the news media.

4.2.2 Emergency Teams

1. Timely notification and activation.

2. Adequacy of staffing.

3. Familiarity with appropriate emergency procedures, duties and responsibilities.

4. Availability and utilization of proper equipment.

5. Performance of contamination control/decontamination.

6. Proper interface with emergency support personnel.

7. Use of correct communications instructions and techniques.

8. Adequacy of briefing sessions per the dispatch.

9. Direction and control by team leaders.

10. Timely requests for additional assistance.

11. Coordination and interface between emergency response team members.

12. Proper interface with plant supervisory personnel.

13. Availability of reference documents.

14. Utilization of proper radiological control practices (e.g., access control, protective clothing, shielding, stay time).

15. Assessment of radiological conditions.

16. Timely and proper damage assessment.

17. Properly maintained records.

Evaluators will record their comments and prepare a written evaluation of the Exercise. Evaluation forms will be provided to each evaluator for more specific evaluation criteria.

4.2.3 Personnel Assignments

Figure 4.2-1 lists the personnel assignments for the onsite controller organization.

4.2.4 Evaluation Packages

As required, the following evaluation packages will be provided to the appropriate controller evaluators at the pre-Exercise briefing:

Control Room

Operations Support Center

Repair Teams

Technical Support Center

Emergency Control Center

Joint Public Information Center

Dose Assessment Center

Fire Brigade

First Aid Team

Radiation Monitoring Teams

Security

Radiological Testing Laboratory

4.2.5 Evaluation Process

All evaluators shall maintain an Exercise chronology. This chronology shall be of sufficient detail to enable subsequent completion of the appropriate evaluation form. It should contain a synopsis of significant Exercise events, actions taken (or not taken) by players, questions noted, and positive as well as negative assessments made by the evaluator. This chronological record may be used to corroborate critique items that are questioned by participants.

Each evaluator shall also complete an evaluation form for the facility or function to which they are assigned.

Each Lead Facility Controller shall de-brief the evaluators in their facility and compile an Exercise Evaluation Report Sheet for that facility. This report sheet shall reflect an overall assessment of the performance of that facility, and of the five (5) specific categories. Significant weaknesses or deficiencies shall be itemized to ensure adequate follow-up attention is devoted to resolution of the problem. Significant positive items shall be included here as well.

The formal post-Exercise critique shall be conducted by the Lead Exercise Controller, with each Lead Facility Controller providing an evaluation of their facility.

4.3 USE OF SIMULATOR

The Davis-Besse Nuclear Power Station Evaluated Exercise will, for the the first time, utilize the Plant Simulator to drive the scenario sequence of events. A full shift crew will be located at the Simulator and can respond to the conditions presented in the scenario as they would from the actual Control Room. The data displays in the Technical Support Center and Emergency Control Center will be driven with Simulator parameters allowing emergency classifications and engineering assessments to be performed in "real time" with changes taking place as the operators manipulate the Simulator controls. This will dramatically improve the sense of realism that these Players will get in contrast to prior Exercises where the parameters were handed out on data sheets.

The Simulator was used to confirm the viability of the initial scenario sequence of events and to identify changes, such as additional "traps" or equipment failures, necessary to propagate the plant conditions to the emergency action levels desired. It was also used to provide baseline data printouts for generating the plant data sheets and area radiation maps used in the Exercise Manuals which were sent to the Nuclear Regulatory Commission for review. During the Exercise, it will be unnecessary for Controllers to issue the plant data sheets (i.e., primary and secondary plant parameters such as

pressures, temperatures, levels and flow rates, etc., and meteorological parameters such as wind speed, direction and stability class) since the Simulator information (through an intermediate computer system) will drive the Technical Support Center and Emergency Control Center data displays - both the Safety Parameter Display System (SPDS) and the Data Acquisition and Display System (DADS) terminals. It will not interfere with the actual Control Room terminals.

The simulator will be heavily relied upon to conduct this year's Exercise; however, should it malfunction or go offline (e.g., a loss of power to the Training Center) during conduct of the Exercise, the Lead Exercise Controller has several options to choose from. They include:

- Stopping the Exercise and conducting it the following day (provided repairs can be performed).
- Continuing the Exercise using stored data (generated during prior Simulator practice runs).
- Continuing the Exercise using the data sheets in the Exercise Manual.
- Ending the Exercise if most of the objectives have been demonstrated. (Those objectives not demonstrated can be performed during an Integrated Drill later in the year or re-scheduled for the 1993 Exercise.)

In any event, the use of the Simulator and interconnecting computer systems has been a worthwhile improvement to the Davis-Besse Emergency Preparedness Program.

EXERCISE CONTROLLER ASSIGNMENTS

TABLE 4.2-1

		Ext.	M.S.
SIMULATOR CONTROL ROOM			
D. J. Gordon	Lead Exercise Controller	8361	3360
* S. E. Wise	Control Room Management	7316	2103
B. D. Young	Simulator I.F. Coordinator	8497	5172
G. L. Hillebrecht	Simulator I.F. Operator	7705	5172
E. F. Bergner	Simulator Supervisor	7195	5172
D. W. Briden	Simulator RC Coordinator	7224	3185
OSC			
J. S. Shilling	OSC Management	7510	3360
D. S. Jazwiecki	OSC RC Coordinator	8530	1029
V. J. Patton	OSC Response Team (FBT/Ops)	7653	2103
J. G. Laird	OSC Response Team (Electrical)	7299	1037
T. G. Leach	OSC Response Team (Mechanical)	7160	1002
B. A. Hudson	OSC Response Team (I&C)	8538	1036
H. K. Rhubright	OSC Response Team (I&C)	7201	1046
P. H. Vandyne	OSC Response Team	8163	1046
C. K. Rider	OSC Response Team (PASS)	7548	1041
J. A. Kalmbach	OSC Response Team (RC/Ops)	8589	1049
* V. J. Sodd	OSC Management Team	8150	1026
B. R. Zibung	OSC Response Team (RC)	8386	1029
R. W. Strauss	OSC Response Team (CAT/FBT/Ops)	7434	2103
B. Andrews	OSC Response Team (RC/Chem)	7819	3387
ASSEMBLY AREAS			
* D. M. Ruff	Assembly Areas	7679	3360
D. Gluvna	Assembly Area Coordinator	[illegible]49	1045
J. C. Troknya	Assembly Area Coordinator	8360	3245
TSC			
* N. L. Bonner	TSC Management	2384	3043
R. B. Coad	Emergency RC Manager	7169	1029
D. R. Timms	TSC Engineers	2367	1056
E. C. Caba	TSC Engineers	2308	1057
R. A. Bast	TSC Computers	7407	3180
ECC			
* J. J. Johnson	ECC Management	8345	1047
G. J. Reed	Emergency Director	8361	3360
B. P. DeMaison	Communications/Information Flow	7148	3360
T. J. O'Dou	Dose Assessment	7229	1020
RTL			
E. H. Rohrer	RMT	7423	1045
L. L. Ring	RMT	8319	1057

* Indicates Lead Facility Controller

EXERCISE CONTROLLER ASSIGNMENTS

TABLE 4.2-1 (continued)

RTL

* B. J. Baumgardner	RTL Coordinator	8315	1029
T. M. Szydlowski	RMT	8124	3290
J. C. Smith	RMT	7727	5177
T. F. Thompson	RMT	7755	1045

SECURITY

		Ext.	M.S.
J. G. Waddell	Emergency Security Manager/DBAB	2350	4000
*L. M. Hannan	CAS/SA	7758	4000
C. L. Detray	Access Control TED Gate	7618	4000
D. M. Ruff	Security Rover	7679	3360
S. K. Nutter	PPF	7557	4000

CONTROL CELL

M. A. Turkal	Simulated NRC Duty Officer	7377	3065
M. L. Wax	Emergency Preparedness Staff	7510	3360
G. A. Davis	Emergency Preparedness Staff	7492	3360
P. J. Smith	Emergency Preparedness Staff	7679	3360
* G. V. Anderson	Emergency Preparedness Staff	7235	3360

JPIC

E. D. Baker	ECC ER Communicator	7402	3160
*J. D. Basa	JPIC Lead	2904	3360
E. R. Benson	Company Spokesperson	2359	3335
P. M. Bingham	Briefing Coordinator	8284	3287
T. S. Czuba	JPIC Communicator	8207	3387
R. B. Ewing	Public Concern	7624	1045
N. J. Kaiser	Equipment Operator	7572	3065
R. A. Lakis	Technical Briefer	8564	1056

OTHERS

J. M. Vetter	Ottawa County	8410	3360
C. R. Dewitz	Lucas County Offsite Monitoring/Decontamination	8320	3360
G. J. Summers	Corporate E.P.	43871	CLE 302
T. E. Reister	First Aid/Medical Control Room Announcer	2410	3360

* Indicates Lead Facility Controller

TBD - To Be Determined

5.0 SCHEDULE OF EVENTS

5.1 TIMES AND PLACES

Preparatory meetings held prior to the week of the Exercise will be scheduled and coordinated by the Emergency Preparedness Staff as needed. The meetings scheduled for the week of the Exercise will be held in accordance with Table 5.1-1 that follows.

Schedule of Meetings

Table 5.1-1

Date/Time	Where	What
May 12. 1992 10:00 - 11:00	Energy Education Center DBNPS Administration Building	Utility Controllers Meeting
May 12, 1992 13:00 - 15:00	Room 209 - 210 DBNPS Administration Building	NRC Entrance Meeting - Plant and ERF Tour
May 12, 1991 15:00 - 16:00	Energy Education Center DBNPS Administration Building	Utility Players Briefing
May 13, 1992 All Day	**All Facilities**	**Exercise**
May 14, 1992 08:00 - 12:00	Energy Education Center DBNPS Administration Building	Utility Controllers Debriefing
May 15, 1992 09:00 - 11:00	Energy Education Center DBNPS Administration Building	Player Critique NRC Exit

5.2 TRAVEL INFORMATION

This section provides travel information to those individuals from Toledo Edison, other utilities, local/state/federal government, and/or other organizations who may participate in the Exercise.

Permission to observe the Exercise must be obtained from:

Mr. Brad DeMaison
Manager - Emergency Preparedness
Toledo Edison Company, Stop 3360
300 Madison Avenue
Toledo, OH 43652
(419) 321-7140

Once permission is obtained to attend the Exercise, accommodations can be made as follows:

1. Air:

Detroit Metro Airport Detroit, MI	(70 miles from Davis-Besse)
Toledo Express Airport Toledo, OH	(50 miles from Davis-Besse)
Cleveland Hopkins Airport Cleveland, OH	(85 miles from Davis-Besse)

2. Automobile:

The Davis-Besse Station is located approximately 25 miles east of Toledo, 10 miles northwest of Port Clinton, and 75 miles west of Cleveland along State Route 2.

3. Accommodations:

Phil's Inn (419) 734-4446 1704 Perry St. Port Clinton, OH	Best Western (800) 231-4871 Port Clinton, OH Fremont, OH
Comfort Inn (419) 732-2929 1723 East Perry Port Clinton, OH	Comfort Inn (419) 691-8911 2930 Navarre Avenue (SR 2) Oregon, OH
Island House (419) 734-2166 102 Madison Street Port Clinton, OH	Holiday Inn(s) (800) 465-4329 Toledo, OH Fremont, OH Sandusky, OH

6.0 EXERCISE SCENARIO

6.1 NARRATIVE SUMMARY

Initial conditions are established with the plant running in automatic at 100% power with Containment Spray Pump #1 out of service. The first event involves a minor tube leak in Once Through Steam Generator (OTSG) #2, which requires the plant to be shut down and can be classified as an UNUSUAL EVENT. Operators begin a controlled shutdown of the plant.

Two Maintenance personnel are replacing a piping flange gasket on an inlet valve to the High Temperature Demineralizer when the flange gives way, sprays high temperature water on one of the workers, causing a serious burn/contamination injury. This forms the basis for the annual medical drill and will involve response from the Carroll Township EMS and a demonstration by Magruder Hospital.

A Main Steam line from #2 OTSG breaks inside Containment and, in combination with the tube leak, can be classified as an ALERT. An SFAS Level 2 activation occurs on low primary system pressure. Containment pressure increases, however, Containment Spray Pump #2 will fail to start if the Operators attempt to use it. The excessive primary system cooldown causes crud bursts and several fuel rods to release gap activity into the primary coolant. A primary system sample is taken using the Post Accident Sampling System (PASS).

Shortly thereafter, the build-up of Containment radiation upgrades the classification to a SITE AREA EMERGENCY.

Because of the increasing Containment pressure, a Containment vacuum breaker fails, releasing radioactivity into the Containment annulus. Emergency ventilation subsequently passes the radioactivity into the environment through the station vent. This situation can be classified as a GENERAL EMERGENCY.

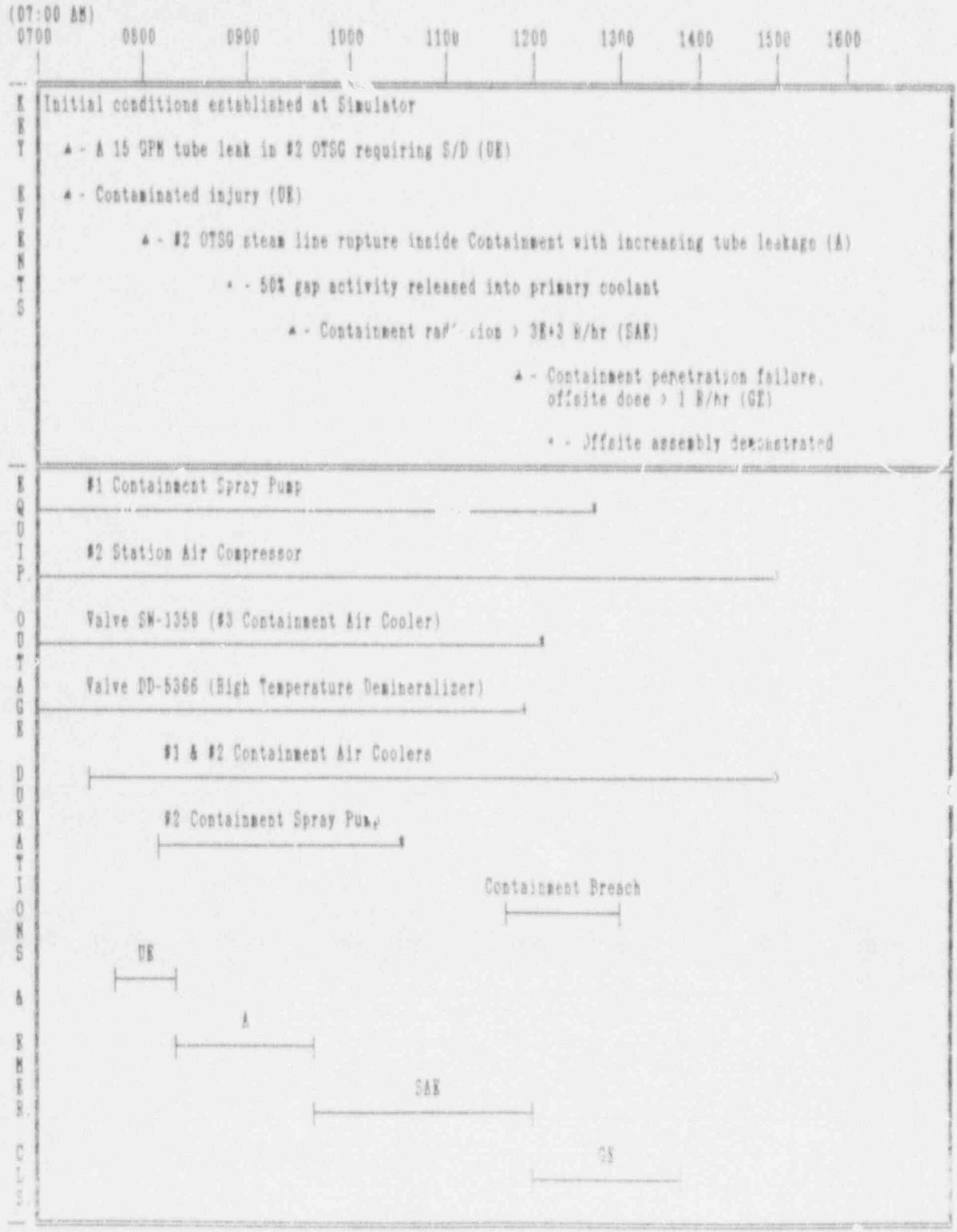
Offsite assembly of non-essential station personnel (i.e., a representative sample) will be demonstrated. This will include the capability to perform personnel/vehicle monitoring and decontamination at the assembly area.

Players will be given time to determine offsite protective actions, simulate use of the public alerting system, and demonstrate the ability to prepare news releases and to brief the news media at the alternate Joint Public Information Center.

Eventually Containment pressure starts to come down, the breach point is closed, terminating the release, and the plant is subsequently cooled down and depressurized.

Reentry and recovery discussions are performed and the Evaluated Exercise is then terminated.

1992 EVALUATED EXERCISE TIMELINE



Legend:
- • Indicates key event
- ▲ Indicates key event that could be involved in emergency classification
- * Event is terminated at this time
- + Indicates event can be terminated by Players at any time
- > Repairs can not be completed during the course of the Exercise

6.2 INITIAL CONDITIONS

6.2.1 Close of Business, May 12, 1992

The plant is operating in Mode 1 at 100% power with all systems in automatic.

For the past 162 days, the plant has been operating at or above 90% power. The core is at middle of life at 158 EFPD.

NOTE: An "Exercise Only" Davis-Besse Daily Status sheet will be provided to the Players.

6.2.2 Start of Evaluated Exercise, May 13, 1992

The plant is still operating in automatic at 100% power. Plant chemistry is in specification and stable.

All systems are operating normally with the following exceptions:

1. The #1 Containment Spray Pump is out of service due to an alignment problem. It was tagged out at 0500 and maintenance began per procedure DB-MM-09046. It is currently hour 2 of a 72 hour Action Statement per Limiting Condition for Operation (LCO) 3.6.2.1.
2. The Technical Support Center CCTV is out of service due to faulty underground cabling.
3. The #2 Station Air Compressor is tagged out for routine maintenance and inspection per procedure DB-MM-09156.
4. The #3 Containment Air Cooler is out of service for valve stem replacement on valve SW-1358.
5. The High Temperature Demineralizer is tagged out for gasket replacement on valve DD-5366.

NOTE: Refer to Section 10.0 of this manual for additional equipment servicing/repair information.

The temperature is 70°F with winds from the North blowing at 8½ MPH. It is a clear morning with no precipitation in the forecast. (Refer to Section 9.1 of this manual for additional meteorological information.)

Simulator setup instructions for the IF Operator:

1. IC-27: 100% PWR; CSP #1 OOS, CAC #3 OOS
2. Ensure SETCLK in Ship Dir is used to allow simulated time to be real time synchronized with the ECC clock.
3. PC File = #18; See failures on the MALF list in the IC.
4. Set external parameters as follows:
   - Ramp ambient temperature from 70° to 75°F over 4 hours
   - Ramp wind direction from 315° to 40° over 3½ hours
   - Ramp stability index from -1.7 to +1.8 over 3½ hours
   - Ramp wind speed from 8.5 to 1.5 MPH over 3½ hours

DAVIS-BESSE DAILY STATUS

Close of Business May 12, 1992

REACTOR		GENERATOR		LEAKAGE (GPM)	
Mode	1	Gross Output (MW)	933	RCS Identified	0.09
Power (%)	100			RCS Unidentified	0.24
		Net Generation 24 hrs (MWH)	21251	Cycle 8 EFPD	157

YEAR-TO-DATE PERFORMANCE MEASURES

1. No Licensee Event Reports.
2. The plant has been on line for 161 continuous days.
3. Year to Date Availability: 97.3%; Capacity Factor 97.9%

COMPLETED EVENTS

- Seismic monitoring system troubleshooting.
- Instrument air dryers 3 and 4 returned to service following preventative maintenance.
- Fuel handling area exhaust fan #2 preventative maintenance.

PLANNED EVENTS

- Containment air cooler #3 service water valve SW 1353 valve stem replacement and packing adjustment.
- Complete Domestic Water outage work items.
- Moisture Separator Demin skid maintenance on inlet valve DD 5366.
- Complete repairs and retest of CTMT Purge radiation monitor RE 5052.
- #2 Station air compressor preventative maintenance.
- #1 Containment Spray Pump alignment and coupling.

POTENTIAL PLANT PROBLEMS

- PCAQR 92-0097; As built not in accordance with drawings.
- PCAQR 92-0098; Material specifications not in accordance with ASME code.

PLANT PERFORMANCE

- Plant chemistry in specification and stable.
- Condensate dissolved oxygen 3.2 ppb (Goal <4 ppb)
- Plant heat rate 10201 BTU/kw-hr, both MSR drain tanks to condenser.
- Radiation Monitors: Tech Spec 17 of 18 operable (RE 5052 high flow problem) Non Tech Spec 53 or 54 functional (RE8433 rectifier)

DRILL USE ONLY

TECHNICAL SPECIFICATION ACTION STATEMENTS

	System	Tech. Spec Number	Date/Time Action is Required	Prevent Restart	PCAQ Written	Estimated Completion Date	Additional Information
1.	Fire Detection FDZ 410	3.3.3.8	Complete	No	No	8 RPO	Special Report 1-91-1 436-00

* Denotes Intentional Entry

MAINTENANCE STATUS

Backlog Work Requests: 235 Backing Maintenance Work Orders: 635

FIRE WATCH STATUS

WATCH	COMPENSATORY MEASURE
PDS-429	SECURITY
PDS-323	SECURITY
PDS-400	SECURITY

DRILL USE ONLY

DAVIS-BESSE DAILY STATUS

DRILL USE ONLY 0600 May 13, 1992 DRILL USE ONLY

REACTOR		GENERATOR		LEAKAGE (GPM)	
Mode	1	Gross Output (MW)	933	RCS Identified	0.09
Power (%)	100			RCS Unidentified	0.24
		Net Generation 24 hrs (MWH)	21251	Cycle 8 EFPD	158

YEAR-TO-DATE PERFORMANCE MEASURES

1. No Licensee Event Reports.
2. The plant has been on line for 162 continuous days.
3. Year to Date Availability: 97.3%; Capacity Factor 97.9%

COMPLETED EVENTS

- Seismic monitoring system troubleshooting.
- Containment personnel hatch local leak rate test.
- Instrument air dryers 3 and 4 returned to service following preventative maintenance.
- Fuel handling area exhaust fan #2 preventative maintenance.

PLANNED EVENTS

- Containment air cooler #3 service water valve SW 1353 valve stem replacement and packing adjustment.
- Complete Domestic Water outage work items.
- Moisture Separator Demin skid maintenance on inlet valve DD 5366.
- Complete repairs and retest of CTMT Purge radiation monitor RE 5052.
- #2 Station air compressor preventative maintenance.
- #1 Containment Spray Pump alignment and coupling.

POTENTIAL PLANT PROBLEMS

- PCAQR 92-0099; Part dimension discrepancy in non installed equipment.
- PCAQR 92-0100; Timely resolution of USAR required feature not pursued.

PLANT PERFORMANCE

- Plant chemistry in specification and stable.
- Condensate dissolved oxygen 3.6 ppb (Goal <4 ppb)
- Plant heat rate 10201 BTU/kw-hr, both MSR drain tanks to condenser.
- Radiation Monitors: Tech Spec 17 of 18 operable (RE 5052 high flow problem) Non Tech Spec 53 or 54 functional (RE8433 rectifier)

DRILL USE ONLY

TECHNICAL SPECIFICATION ACTION STATEMENTS

System	Tech. Spec Number	Date/Time Action is Required	Prevent Restart	PCAQ Written	Estimated Completion Date	Additional Information
1. Fire Detection FDZ 410	3.3.3.8	Complete	No	No	8 RFO	Special Report 1-91-1 436-00
2. Containment Spray Pump #1	3.6.2.1	5/16/92 0500	Yes	Yes	1600 5/13/92	

* Denotes Intentional Entry

MAINTENANCE STATUS

Backlog Work Requests: 235 Backing Maintenance Work Orders: 635

FIRE WATCH STATUS

WATCH	COMPENSATORY MEASURE
PDS-429	SECURITY
PDS-323	SECURITY
PDS-400	SECURITY

DRILL USE ONLY

6.3 Sequence of Events

T:Time	Time	Event	CC #
00/00	0700	The Shift Supervisor is briefed in the Control Room and the Exercise Authorization Form is approved.	1
		NOTE: The 1992 Evaluated Exercise will utilize the Control Room Simulator to conduct Operator response instead of the actual Control Room. An off-shift Operations crew will be pre-staged and briefed at the Operations Simulator with the exception of the Equipment Operators who will pre-stage in the plant. Pre-designated Maintenance, Chemistry and Rad Control personnel will assemble at the OSC once it is activated. Since Players will not be able to use their normal communications channels to contact each other, an "Exercise Phone List" will be provided.	
		The pre-designated Continuous Service Chemistry and Radiological Control personnel receive the initial conditions and stand by at their respective offices to begin Exercise response when contacted via phone. The pre-designated Maintenance personnel can be reached via Gai-tronics.	2
00/10	0710	The Lead Exercise Controller at the Control Room Simulator will direct the following actions: 1. A Gai-tronics announcement for the start of the Exercise. 2. Activation of the ERO pager drill code, which advises all ERO pager carriers that the pages which follow are related to the Exercise.	3
00/15	0715	A tube leak occurs in Once Through Steam Generator (OTSG) #2 creating a primary to secondary leak of 15 GPM. The Main Steam Line and Steam Jet Air Ejector radiation monitors alarm.	

T:Time	Time	Event	CC #
00/20	0720	The medical "victim", Controllers and Equipment Operator are pre-staged at the accident scene for the Medical Drill.	
00/25+	0725+	Operators analyze the situation and determine plant shutdown is required per Tech Spec LCO 3.4.6.2. Following notification to the Load Dispatcher, a rapid shutdown to hot standby is initiated per plant procedure DB-OP-02531 (at 25 MW/min).	
		Per procedure DB-OP-02531, the Shift Supervisor will request Chemistry to do Attachment 2 of this procedure, Rad Controls to do Attachment 3, and an Equipment Operator to do Attachment 4.	4X
00/30	0730	Two individuals are changing a piping gasket on a flange to valve DD-5366 (i.e., inlet valve to the Moisture Separator Drain Demineralizer Heat Exchanger on 585' level of Turbine Building) when the flange separates and sprays hot water into the air. One individual is burned and knocked from a ladder, while the other individual is only slightly contaminated when coming to the aid of the first one. A roving Equipment Operator at the scene notifies the Control Room (Simulator) via radio. A first Aid Team is dispatched.	5 6
		The seriously injured victim is found to have a sprained ankle caused by the fall, and first degree burns. Contamination is present due to the radioactive materials circulating in the secondary side from the Steam Generator tube rupture. The First Aid Team informs the Control Room (Simulator). Security monitors the First Aid Team communications and subsequently CAS/SAS calls for offsite assistance via the Ottawa County Sheriff's Dispatcher.	
		NOTE: Normally 911 would be used, however, a non-emergency telephone number will be used for this Exercise. Priority at the Sheriff's Office will be directed to real emergencies that may be reported on the 911 system.	7
		The Sheriff's Dispatcher will tone out (page) Carroll Township Emergency Medical Services and advise them that the individual is contaminated.	8

T:Time	Time	Event
00/30	0730	The CAS/SAS Operator will call Magruder Hospital and advise them that a contaminated injured individual will be transported from Davis-Besse. NOTE: Refer to Section 8.2 of this manual for additional Medical Exercise information.
00/35	0735	Isolated and unrelated failures occur to the two remaining Containment Air Coolers (i.e., Service Water failure, air blockage, etc.), preventing normal and emergency operation of the Containment coolers. These failures may not be observed in the Control Room due to the absence of alarms. NOTE: Refer to Section 10.0 of this manual for additional equipment servicing/ repair information.
00/40	0740	An **UNUSUAL EVENT** declaration is made per EAL 2.A.1 due to primary to secondary leakage > 10 GPM and plant shutdown in progress or EAL 6.E.1 due to a contaminated injured individual being transported offsite. 9 As per the Unusual Event procedure, HS-EP-01600: ° Station Alarm will be sounded and Unusual Event announcement made. ° The Computerized Automated Notification System (CANS) will be activated. This notifies and requests response from the on call Emergency Response Organization (ERO), notifies the Toledo Edison Company Telephone Operator, and the Davis-Besse NRC Resident Inspectors. ° Ottawa and Lucas Counties and the State of Ohio are notified of the Unusual Event. NOTE: In order to minimize the activities demanded of the actual on-shift Control Room staff, the White Phone will be simulated as out of service requiring the Simulator staff to use the alternate means of State and local notification via the Toledo Edison Company Telephone Operator.

T:Time	Time	Event	CC #
		° The NRC will be notified that the Exercise has begun via the Emergency Notification System (ENS).	
		NOTE: These activities will be performed with assistance from the on-shift operations personnel from the real Control Room.	
00/40+	0740+	The Control Room (Simulator) staff will be directing the on-shift crew to perform various plant shutdown functions (i.e., startup of the Auxiliary Boiler, lining up the Motor Driven Feed Pump, etc.).	
		NOTE: Because of the Exercise artificialities created by using the Simulator rather than the actual Control Room, the "Exercise Phone List" will be used to make these notifications.	
00/55	0755	Contingency input in the event an Unusual Event has not been declared by this time.	10X
01/00	0800	A catastrophic failure of the Main Steam line from #2 OTSG occurs inside Containment (CTMT). This causes CTMT pressure to increase, and a SFRCS actuation to occur on low steam pressure. The Reactor trips. Thirty seconds later, the shock created by this transient causes the tube failure to increase, jumping the primary to secondary leak rate to 800 GPM. Safety Features Actuation System (SFAS) Level 2 activates on low primary system pressure.	
		NOTE: It is assumed that Main Steam line isolation occurs and 100% of the Steam Generator's steam flow is released through the pipe break into CTMT. CTMT radiation monitors alarm. CTMT pressure will continue to increase since normal cooling is unavailable for CTMT due to the Containment Air Cooling System malfunctions.	
01/10	0810	The Auxiliary Boiler trips off-line due to a support system failure.	

T:Time	Time	Event	CC #
01/15+	0815+	As Containment pressure increases, Players may want to initiate Containment spray to control pressure and Containment radiation concentration. However, if they attempt to start #2 Containment Spray Pump (CSP), it will fail to start. The Control Room (Simulator) staff will notify a Maintenance individual to check out #2 CSP. NOTE: Because of the Exercise artificialities created by using the Simulator rather than the actual Control Room, the "Exercise Phone List" will be used to make these notifications.	
01/20	0820	An **ALERT** declaration is made per EAL 5.A.2 due to a steam line break with primary to secondary leakage or EAL 2.A.2 due to RCS leakage > 50 GPM, but within HPI capacity. As per the Alert procedure, HS-EP-01700: ° Station Alarm will be sounded and Alert announcement made via a request from the Control Room (Simulator) to the real Control Room. ° The CANS will be activated to notify and call out the on call ERO, notify the Toledo Edison Company Telephone Operator, and the Davis-Besse NRC Resident Inspectors. ° Ottawa and Lucas Counties and the State of Ohio are notified of the Alert. ° The NRC Incident Response Center notifications (i.e., Red Phone) will be made to the Control Cell.	11
01/25	0825	ERO staff begin to arrive in the Emergency Response Facilities (ERFs).	
01/25+	0825+	Non-essential personnel within the Protected Area assemble in the designated Assembly Areas within the Personnel Shop Facilities (PSF) Building.	12

T:Time	Time	Event	CC #
01/25+	0825+	NOTE: A pre-designated group of six to ten individuals will be used to demonstrate the Station's offsite assembly and monitoring/decontamination capability. By procedure, offsite assembly is not required until a General Emergency is declared, however, if conditions warrant in the judgement of the Emergency Director, offsite assembly could occur as early as the Alert declaration. Cue cards will be used to control when this evolution takes place for ease of evaluation and information flow. (Refer to Section 9.3 for additional information about offsite assembly and mon/decon activities.)	13X
		Access to the Owner Controlled Area, DBAB ERFs and the Protected Area are restricted as per Security procedure HS-EP-02510.	
		NOTE: Access to the Owner Controlled Area and Protected Area will be restored by the Controllers after approximately 30 minutes. Cancelling of tours and training classes will be simulated.	
01/35	0835	Contingency input in the event an Alert has not been declared by this time.	14X
01/45	0845	For the Exercise, security access restrictions are relaxed. Assembled personnel are returned to work.	15 16
01/50	0850	Ottawa County Emergency Management Agency reports that Route 590, south of Rocky Ridge, is impassable due to a truck accident, and will not be clear for another 4 to 5 hours.	17
02/00	0900	The mechanical shocks to the primary system cause a large crud burst to occur. Several fuel rods, aggravated during the transient, begin releasing gap activity into the primary coolant.	
		Activity equivalent to approximately 50% gap is eventually released into the coolant. Because of the Steam Generator tube rupture and Main Steam [illegible] break, a path is present for the gap activity to be passed into CTMT resulting in increasing CTMT radiation levels.	

T:Time	Time	Event	CC #
02/10	0910	Chemistry personnel will be requested to take a Reactor Coolant System sample. (This action will be initiated with a cue card in order to ensure that the scenario extent of play will be accomplished in the time frame allotted.)	18X
02/20	0920	If Chemistry personnel attempt to draw a standard RCS sample, they will find that radiation levels are too high and will have to use the PASS. An actual RCS sample will be drawn, however, the normal recirc time will be reduced in order to complete the sample within two hours. NOTE: Refer to Section 8.4 of this manual for additional PASS information.	
02/25	0925	Containment radiation monitors (i.e., RE4596) indicate greater than 3.0×10^3 R/hour.	
02/40	0940	A **SITE AREA EMERGENCY** declaration is made per EAL 1.1.2 due to an SFAS Level 2 with high CTMT radiation or EAL 5.A.3 due to a steam line break with > 50 GPM primary to secondary leakage and indication of fuel damage. As per the Site Area Emergency procedure, HS-EP-01800: ° Station Alarm will be sounded and Site Area Emergency announcement made via a request from the ECC to the real Control Room. ° The ERO, Toledo Edison Company Telephone Operator, and the Davis-Besse NRC Resident Inspectors are notified via phone contact or announcements in the ERFs. ° Ottawa and Lucas Counties and the State of Ohio are notified of the Site Area Emergency. ° The NRC Incident Response Center notifications (i.e., Red Phone) are made to the Control Cell. NOTE: Owner Controlled Area assembly will be simulated.	19 20 21

T:Time	Time	Event	CC #
02/55	0955	Contingency input in the event a Site Area Emergency has not been declared by this time.	22X
03/40	1040	Operations may decide to place the plant on Decay Heat Removal at this time.	
03/50	1050	If #2 Containment Spray Pump repair activity had been initiated earlier in the event, it will be returned to service at this time.	
04/50	1150	Because of the increase in CTMT pressure, vacuum breaker CV-5071 fails, releases radioactivity into the annulus and allows the emergency ventilation system to draw the activity out through the Station Vent (refer to Figure 6.3-1). NOTE: Refer to Section 8.1 of this manual for data indicating the changes in in-plant radiation levels caused by this event. The vacuum breaker failure causes a release to the environment, which produces increased dose assessment activities and efforts to track the plume with surveys taken by Radiation Monitoring Teams. NOTE: Refer to Section 9.2 of this manual for additional information on field monitoring.	
05/00+	1200+	The dose assessment and/or field survey results will be utilized to determine protective action recommendations for the public. These recommendations as a minimum should include sheltering in a two mile radius and out to five miles down wind.	
05/05	1205	A **GENERAL EMERGENCY** declaration is made per EAL 6.D.3 due to projected radiation levels at the site boundary of greater than 1 Rem/hour Whole Body or EAL 1.E.1 due to loss of 2 of 3 fission product barriers with a potential loss of the third. As per the General Emergency procedure, HS-EP-01900:	23

T:Time	Time	Event	CC #
		° Station Alarm will be sounded and General Emergency announcement made via a request from the ECC to the real Control Room. ° The ERO, Toledo Edison Company Telephone Operator, and the Davis-Besse NRC Resident Inspectors are notified via phone contact or announcements in the ERFs. ° Ottawa and Lucas Counties and the State of Ohio are notified of the General Emergency. ° The NRC Incident Response Center notifications (i.e., Red Phone) are made to the Control Cell. Additional dose assessment is performed (refer to Table 6.3-1). Offsite protective action recommendations are reviewed with State and local officials. News releases are prepared and press briefings are held at the alternate Joint Public Information Center. The public alert and notification system activation is simulated.	
05/10	1210	A group of maintenance workers are relocated to the offsite assembly area. An alternate route will have to be taken due to the impasse on Route 590 reported earlier by Ottawa County officials. (These actions will be initiated by cue card in order to implement this extent of play requirement of the Exercise.)	24 25
05/15	1215	Repair Teams succeed in fixing Service Water Valve SW-1368 and returning Containment Air Cooler #3 to operation.	
05/25	1225	Contingency input in the event a General Emergency has not been declared by this time.	26X
05/30	1230	Security discovers the portal monitor at the Personnel Processing Facility to be malfunctioning.	27 28X

T:Time	Time	Event	CC #
~05/40	~1240	Radiation monitoring and decontamination activities are conducted at the offsite assembly point (i.e., Lindsey Service Center) upon arrival of the station maintenance workers. NOTE: Refer to Section 9.3 for the simulated contamination levels of both the vehicles and personnel involved in this demonstration.	
05/45	1245	A Repair Team succeeds in closing the CTMT vacuum breaker valve CV-5071, stopping the release of radioactive materials from CTMT. The Station Vent monitor begins to lower in value as the remaining radioactive material in the Auxiliary Building is purged out.	
06/00	1300	Repair Teams succeed in returning the #1 CSP to service.	
~06/15	~1315	The Station Vent monitor reads zero - the release has ended.	
06/30	1330	CTMT pressure has been reduced and continues to trend down. The Reactor Coolant System has been cooled down, depressurized, and placed on a stable feed and bleed operation.	
		Declassification discussions are conducted. (Refer to Table 6.3-2.)	29X
07/00	1400	The Evaluated Exercise is terminated. ° Termination announcement is made over the Gai-tronics and in all ERFs. ° The ERO pager all clear code is activated. This advises all ERO pager carriers that the Exercise is over.	30
07/00 to 07/45	1400 to 1445	Following a short break, critiques are held in each of the participating facilities.	31
08/00	1500	The Recovery Team assembles and discusses recovery planning and required actions.	32

PROTECTIVE ACTION RECOMMENDATIONS

TABLE 6.3-1

Page1/2

PROTECTIVE ACTION GUIDELINE REPORT 04/03/92 15:37

STATION VENT RELEASE
WHOLE BODY

Noble Gas Activity RE 4598, Channel 1, uCi/cc : 0.250
Noble Gas release rate, Ci/sec : 10.2
Unit Vent Flow Rate F885 [or F883], kcfm : 87.0
Time Since Reactor Shutdown in Hours : 2.50

DownWind Distance 1 MILE	2 MILES	5 MILES	10 MILES	20 MILES
WHOLE BODY DOSE RATE Rem/hr : 1.42	0.490	0.152	0.0637	0.0269

WEATHER REPORT

Lower Differential Temperature : 1.80 F
Stability Class : F
Moderately Stable
Wind Speed : 1.50 mph
Wind Speed : 0.670 m/sec
The Wind is Blowing from : 40 degrees
The Wind is Blowing to : 220 degrees
Sector : L

PROTECTIVE ACTION RECOMMENDATIONS

TABLE 6.3-1 (Cont'd)

PROTECTIVE ACTION GUIDELINE REPORT 04/03/92 15:37

VARIABLE DESCRIPTION		VALUE
Release Duration	(Hrs:Mins)	02:00
Elapsed Time From Release	(Hrs:Mins)	00:15
Estimated Time To Release	(Hrs:Mins)	00:00
Release Start Time	(Hrs:Mins)	15:22
Release Stop Time	(Hrs:Mins)	17:22
Time of Year		May - Sept
Time of Day		Midday
Day of Week		Weekday
Weather		Good Weather
Housing Structural Shielding Factor		0.900
Evacuation Distance is		2 Miles
Evacuation Time (Hrs:Mins)		03:10

ALL TIME IN HRS:MINS

	0-2 Miles	2-5 Miles	5-10 Miles
Plume Travel Time	00:40	01:20	03:20
Time To Exposure	00:25	01:05	03:05
Exposure Time	02:45	02:05	00:05
Evacuation Exposure Period	02:00	02:00	00:05

ALL DOSE IN REMS

	0-2 Miles	2-5 Miles	5-10 Miles
Projected Whole Body Dose	2.84	0.980	0.304
Evacuation Dose	2.84	0.980	0.0126
Shelter Dose	2.56	0.882	0.273

	Recommended Protective Action	SUBAREA
0-2 Miles :	SHELTER & EVACUATE 12	1 12
2-5 Miles :	NO ACTION	2
5-10 Miles :	NO ACTION	3 4 5

Report reviewed by : _____

DOWNGRADING FROM THE EMERGENCY

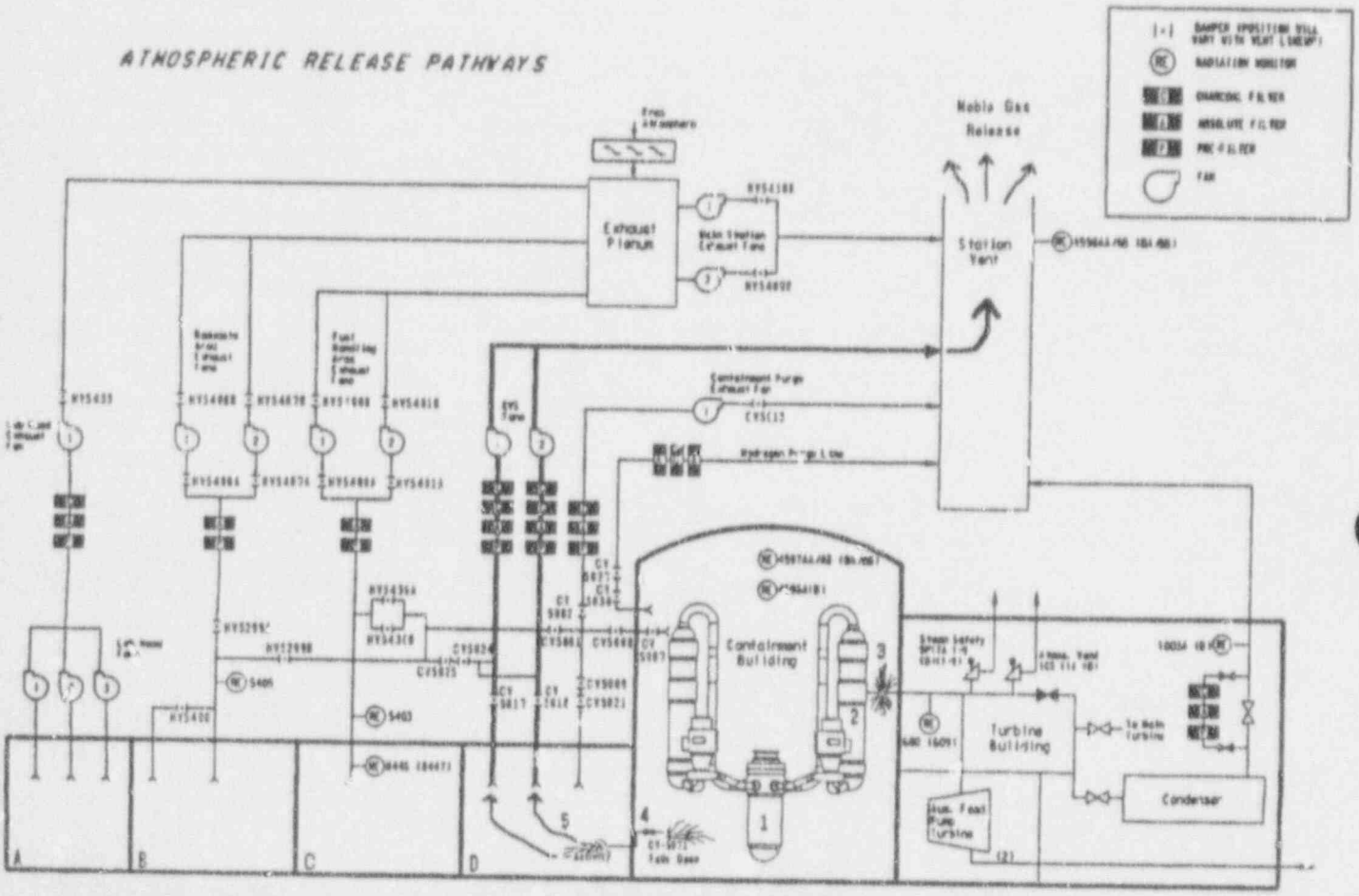
TABLE 6.3-2

Players should be cognizant of the following conditions in order to consider downgrading from the emergency and commencing reentry/recovery discussions:

1. Plant vent radiation monitors read zero.
2. Containment radiation and pressure has been reduced.
3. Primary system is cooled down and depressurized.
4. All required notifications have been made.
5. TSC and ECC agree that downgrading is appropriate.
6. State and County Officials concur.

OFFSITE RELEASE PATH

FIGURE 6.3-1



A- Lab Hoods
Chemistry Offices
B- Auxiliary Building
Radwaste Area
C- Fuel Handling Area
D- Mechanical Penetration Rooms
Decay Heat Cooler Rooms
ECCS Pump Rooms
Containment Annulus
Make-up Pump Rooms

EXERCISE RELEASE PATH

1 - Activity from fuel released into RCS.
2 - Tube rupture in #2 OTSG.
3 - Steam line rupture on #2 OTSG inside Containment.
4 - Containment vacuum breaker (CV-5071) fails.
5 - Radioactivity is drawn out of the annulus to the Station Vent by the EVS.

SECTION 7.0

CUE CARDS AND PLANT DATA SHEETS

7.1 STATION CUE CARDS

The Cue Cards that follow assist in controlling the progress of the scenario. Controllers should issue the Cue Cards at the times indicated unless directed otherwise by the Lead Exercise Controller. Cards indicated with an "X" following their number are for contingency purposes and should not be issued unless the Players appear to be headed in the wrong direction.

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. 1

TO: Control Room Simulator Staff

TIME: 07:00

T: 00/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

INITIAL CONDITIONS

For the past 162 days, the plant has been operating at or above 90% power. The core is at middle of life at 158 EFPD.

Refer to the Simulator control boards and the "Exercise Only" Davis-Besse Daily Status Sheet for the initial conditions.

Special Guidelines

1. All communications outside of the Simulator must include the phrase "This is a Drill".
2. Players at the Simulator, TSC and ECC are not required to wear arm bands.
3. All contacts to non-participating agencies, facilities or organizations you would normally make based on the events that occur in the scenario are to be made to the Control Cell using the Exercise Phone List.
4. When Gai-tronics announcements with a Station alarm are needed, contact the Control Room Controller at extension 8500 to perform these actions. All other Gai-tronics announcements, not associated with an alarm, can be made from the Simulator.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 1

TO: Lead Exercise Controller

TIME: 07:00

T: 00/00

ANTICIPATED RESPONSE:

Players should review the Daily Status Sheet and the 100% power steady state operating conditions indicated on the Simulator control boards.

INSTRUCTIONS:

1. Provide initial briefing to the Simulator personnel. Ensure they have a clear understanding of the initial conditions indicated on the Daily Status Sheet.
2. Ensure Players have a copy of the Exercise Phone List.
3. Explain the use of the real Gai-tronics versus the Simulator's Gai-tronics system.
4. Get all participants at the Simulator to sign the attendance sheet.
5. Contact the Controller at the real Control Room. Verify that the Shift Supervisor has been briefed and the Exercise Authorization Form has been approved. Direct the Controller to initiate Cue Card No. 2 for the initial Plant Gai-tronics announcement at 07:10.
6. Ensure that activation of the ERO pager drill code occurs at approximately 07:10.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 2

TO: Continous Service Maint., Chem, & RC; TIME: 07:00
OSC Manager and Staff

T: 00/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

INITIAL CONDITIONS

The plant is operating in Mode 1 at 100% power with all systems in automatic. Plant chemistry is in specification and stable. For the past 162 days, the plant has been operating at or above 90% power. The core is at middle of life at 158 EFPD.

All systems are operating normally with the following exceptions:

1. The #1 Containment Spray Pump (CSP) is out of service due to an alignment problem. It was tagged out at 0500 and maintenance began per procedure DB-MM-09046. It is currently hour 2 of a 72 hour Action Statement per Limiting Condition for Operation (LCO) 3.6.2.1.
2. The Technical Support Center CCTV is out of service due to faulty underground cabling.
3. The #2 Station Air Compressor is tagged out for routine maintenance and inspection per procedure DB-MM-09156.
4. The #3 Containment Air Cooler is out of service for valve stem replacement on valve SW-1368.
5. The High Temperature Demineralizer is tagged out for gasket replacement on valve DD-5366.

The temperature is 70° F with winds from the North blowing at 8½ MPH. It is a clear morning with no precipitation in the forecast.

Drill participants for today are:

- Shift Supervisor _____
- Shift Manager _____
- RC Supervisor _____
- Chem Supervisor _____
- Maintenance Supervisor _____

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 2

TO: OSC Controller(s)

TIME: 07:00

T: 00/00

ANTICIPATED RESPONSE:

INSTRUCTIONS:

Fill in the names of the participants before handing out this cue card.

Provide this cue card to the Continous Service Maintenance, Chemistry and Radiological Control personnel who are to participate with the Control Room Simulator at the start of the Exercise.

Later, upon OSC activation, provide this cue card to the OSC Manager and his staff.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE Card

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 3

TO: Control Room Staff TIME: 07:10

T: 00/10

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

The DBNPS 1992 Evaluated Exercise will be conducted today. With the exception of Station alarms and Gai-tronics use, all Control Room activities will be conducted at the Simulator. All efforts will be made to minimize your involvement.

Make the following Gai-tronics announcement twice:

"ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL. THE 1992 EVALUATED EMERGENCY PREPAREDNESS EXERCISE IS COMMENCING. ALL ANNOUNCEMENTS PROCEEDED BY 'THIS IS A DRILL' ARE FOR PARTICIPANTS ONLY. IF AN ACTUAL EMERGENCY OCCURS, AN ANNOUNCEMENT WILL BE MADE THAT THE DRILL HAS BEEN SUSPENDED UNTIL FURTHER NOTICE. ALL PERSONNEL ARE REQUESTED TO MINIMIZE THE USE OF THE GAI-TRONICS UNTIL THE DRILL HAS BEEN TERMINATED."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 3

TO: Control Room Controller

TIME: 07:10

T: 00/10

ANTICIPATED RESPONSE:

A Control Room staff member can make the announcement.

INSTRUCTIONS:

1. Contact the Lead Exercise Controller at the Simulator and inform him that the start of Exercise has been announced over the Station Gai-tronics.
2. Ensure that the Equipment Operators participating in the Exercise use the "backup" radios, in order that the primary radios remain available for the on-shift operators.

Note: Following the Alert declaration and facility activation, the Control Room Controller should monitor the Technical Data Loop with the headset on mute in order to remain cognizant of Player actions as the Exercise progresses.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 4X

TO: Equipment Operator checking on Condenser Off-gas flow rate

TIME: 07:25+

T: 00/25+

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION

During the Exercise, report Condenser Off-gas flow rate as being

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 4X

TO: OSC Controller

TIME: 07:25+

T: 00/25+

ANTICIPATED RESPONSE:

Operator reports Condenser Off-gas flow rate as being 9 cfm to the Control Room Simulator.

INSTRUCTIONS:

Provide this cue card after the Equipment Operator goes to the correct gauge to read Condenser Off-gas flow rate, and only if the gauge is reading something other than 9 cfm.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. 5

TO: Roving Equipment Operator

TIME: 07:30

T: 00/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Contact the Control Room (Simulator) via radio and report the following:

"THIS IS A DRILL. THERE IS AN INJURED MAN NEEDING ASSISTANCE ON THE 585' LEVEL OF THE TURBINE BUILDING NEAR THE HIGH TEMPERATURE DEMINERALIZER. THIS IS A DRILL."

Answer any questions the Control Room Operator may have. The following information can be used:

- Victim - Maintenance Worker
- Victim's name - _____, Supervisor - _____
- Victim appears to have been burned by the hot water which sprayed onto him and may have broken some bones during the fall off the ladder.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 5

TO: First Aid Team Controller

TIME: 07:30

T: 00/30

ANTICIPATED RESPONSE:

First Aid Team is notified and responds to the scene.

INSTRUCTIONS:

The Lead OSC Controller should get an Equipment Operator to pre-stage at the scene by 07:20.

Fill in the Player's (victim's) name and his Supervisor's name during setup the morning of the Exercise. This will ensure the badge information matches the cue card. Use this cue card to initiate the Medical Drill, then utilize the data provided in Section 8.2 to play through the events that will follow.

Carroll Township EMS should respond to transport the victim.

Magruder Hospital will receive and treat the victim.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 6

TO: Control Room Controller TIME: 07:30+

T: 00/30+

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Perform the following actions when directed by the Lead Exercise Controller and informed that a medical emergency has been initiated.

Announce "THIS IS A DRILL, THIS IS A DRILL."

Sound the Initiate Emergency Procedures alarm. Make the following announcement:

"THIS IS A DRILL, THIS IS A DRILL.

ATTENTION STATION PERSONNEL. A MEDICAL EMERGENCY EXISTS AT THE HIGH TEMPERATURE DEMINERALIZER, 585 FOOT LEVEL OF THE TURBINE BUILDING. FIRST AID TEAM REPORT TO THE HIGH TEMPERATURE DEMINERALIZER ON THE 585 FOOT LEVEL OF THE TURBINE BUILDING.

THIS IS A DRILL.

ATTENTION STATION PERSONNEL. A MEDICAL EMERGENCY EXISTS AT THE HIGH TEMPERATURE DEMINERALIZER, 585 FOOT LEVEL OF THE TURBINE BUILDING. FIRST AID TEAM REPORT TO THE HIGH TEMPERATURE DEMINERALIZER ON THE 585 FOOT LEVEL OF THE TURBINE BUILDING.

THIS IS A DRILL."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 6

TO: Control Room Controller

TIME: 07:30+

T: 00/30+

ANTICIPATED RESPONSE:

A Control Room staff member can sound the alarm and make the announcement.

INSTRUCTIONS:

1. Make this announcement when contacted by a Controller at the Simulator. This contact may occur as early as 07:30 or as late as 07:40.
2. Coordinate this action with the real Shift Supervisor.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 7

TO: CAS/SAS Operator TIME: Approx. 07:35

T: Approx. 00/35

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

DO NOT USE 911.

Call the Ottawa County Sheriff's Dispatcher at 734-4404 to report the simulated medical emergency.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 7

TO: CAS/SAS Controller

TIME: Approx. 07:35

T: Approx. 00/35

ANTICIPATED RESPONSE:

Player will call Sheriff's Dispatcher on non-emergency number.

INSTRUCTIONS:

1. Give this card to the player when he/she attempts to call Sheriff's Dispatcher.
2. If the CAS/SAS Operator does not call Magruder Hospital, have him or her do so. Make sure they use the phrase "This is a Drill".

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 8

TO: Ottawa County Sheriff's Dispatcher TIME: Approx. 07:30

T: Approx. 00/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

When contacted by the Davis-Besse Security force concerning a medical drill at the station, notify Carroll Township EMS with the following information:

"THIS IS A DRILL. THIS IS A DRILL.

A SIMULATED MEDICAL EMERGENCY HAS OCCURRED INSIDE THE PROTECTED AREA AT THE DAVIS-BESSE NUCLEAR POWER STATION. AN AMBULANCE HAS BEEN REQUESTED.

THIS IS A DRILL".

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD (Cont'd)

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 8

TO: Ottawa County Controller TIME: Approx. 07:30

T: Approx. 00/30

ANTICIPATED RESPONSE:

Upon notification from Davis-Besse security, the Sheriff's Dispatcher tones out Carroll Township EMS.

Carroll Township EMS then dispatches an ambulance to the Station.

INSTRUCTIONS:

1. Ottawa County Sheriff has this cue card in a sealed envelope to be opened at 7:15.

2. They should only perform its actions after being contacted by the Station.

3. Controller should ensure that only one ambulance is sent to the Station. No other offsite emergency vehicles should be utilized.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 9

TO: Control Room Controller TIME: 07:40

T: 00/40

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Perform the following actions when directed by the Lead Exercise Controller and informed that an Unusual Event has been declared.

Announce "THIS IS A DRILL, THIS IS A DRILL."

Sound the Initiate Emergency Procedures alarm. Make the following announcement:

"THIS IS A DRILL, THIS IS A DRILL.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. AN UNUSUAL EVENT HAS BEEN DECLARED. ALL MEMBERS OF THE ONSHIFT EMERGENCY ORGANIZATION STAND BY FOR FURTHER INSTRUCTIONS. ALL OTHER PERSONNEL CONTINUE WITH YOUR PRESENT DUTIES UNLESS FURTHER INSTRUCTION IS GIVEN.

THIS IS A DRILL.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL. AN UNUSUAL EVENT HAS BEEN DECLARED. ALL MEMBERS OF THE ONSHIFT EMERGENCY ORGANIZATION STAND BY FOR FURTHER INSTRUCTIONS. ALL OTHER PERSONNEL CONTINUE WITH YOUR PRESENT DUTIES UNLESS FURTHER INSTRUCTION IS GIVEN.

THIS IS A DRILL."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 9

TO: Control Room Controller

TIME: 07:40

T: 00/40

ANTICIPATED RESPONSE:

A Control Room staff member can sound the alarm and make the announcement.

INSTRUCTIONS:

1. Make this announcement when contacted by a Controller at the Simulator. This contact may occur as early as 07:20 or as late as 07:55.
2. Coordinate this action with the real Shift Supervisor.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 10X

TO: Simulator Shift Supervisor TIME: 07:55

T: 00/55

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Declare an UNUSUAL EVENT in accordance with EAL 2.A.1 or 6.E.1.

An UNUSUAL EVENT must be declared at this time in order to keep the Exercise sequence of events on schedule.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 10X

TO: Lead Exercise Controller

TIME: 07:55

T: 00/55

ANTICIPATED RESPONSE:

Shift Supervisor will declare an Unusual Event and carry out actions per procedure HS-EP-01600.

INSTRUCTIONS:

Provide this card to the Shift Supervisor only if an Unusual Event has not been declared by this time. If an Unusual Event has already been declared, then disregard this message.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 11

TO: Control Room Controller TIME: 08:20

T: 01/20

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Perform the following actions when directed by the Lead Exercise Controller and informed that an ALERT has been declared.

Announce "THIS IS A DRILL, THIS IS A DRILL."

Sound the Initiate Emergency Procedures Alarm. Make the following announcement:

"THIS IS A DRILL.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: AN ALERT HAS BEEN DECLARED. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR DESIGNATED EMERGENCY RESPONSE FACILITIES. ALL NONESSENTIAL PERSONNEL GO TO THE NEAREST DESIGNATED EMERGENCY ASSEMBLY AREA AND STAND BY.

THIS IS A DRILL.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: AN ALERT HAS BEEN DECLARED. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR DESIGNATED EMERGENCY RESPONSE FACILITIES. ALL NONESSENTIAL PERSONNEL GO TO THE NEAREST DESIGNATED EMERGENCY ASSEMBLY AREA AND STAND BY.

THIS IS A DRILL."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 11

TO: Control Room Controller

TIME: 08:20

T: 01/20

ANTICIPATED RESPONSE:

A Control Room staff member can sound the alarm and make the announcements.

INSTRUCTIONS:

1. Make this announcement when contacted by a Controller at the Simulator. This contact may occur as early as 08:05 or as late as 08:35.
2. Coordinate this action with the real Shift Supervisor.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 12

TO: Emergency Director, Emergency Plant Manager, Emergency Security Manager, OSC Manager

TIME: 08:25

T: 01/25

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

"Simulate" the following actions:

1. Dismissal of training classes.
2. Sending non-essential contractors and visitors home.

Visitor tours should not be cancelled, however, access to emergency facilities should be restricted. Only Controller/Evaluators, Players and authorized observers should be permitted access to the emergency facilities.

Do not perform a Protected Area evacuation at this time.

****

THIS IS A DRILL

****

DBNPS EMEF .NCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 12

TO: ECC, TSC, Security and OSC Controllers

TIME: 08:25

T: 01/25

ANTICIPATED RESPONSE:

Training classes and tours are not disrupted.

INSTRUCTIONS:

1. Try to maintain normal Station operations. Exercise activities should have minimal impact on most Station activities.

2. Protected Area evacuation should be prevented until after the Site Area Emergency declaration.

NOTE: A demonstration of "offsite assembly" will occur later in the day, but the individuals involved in this have been pre-designated.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 13X

TO: Emergency Director (at the ECC) TIME: 08:25 to 12:10

T: 01/25 to 05/10

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

For the purposes of the Exercise play, Owner Controlled Area evacuation and offsite assembly is to be simulated with the exception of a test group of personnel which are to be dispatched at 12:10. Additional information will be provided at that time.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 13X

TO: Emergency Director Controller

TIME: 08:25 to 12:10

T: 01/25 to 05/10

ANTICIPATED RESPONSE:

Offsite assembly is simulated for the current time.

INSTRUCTIONS:

Owner Controlled Area evacuation is inappropriate at the Alert level of an emergency. However, the Emergency Director could decide to initiate an evacuation earlier than expected. The sequence of events does not have this action occurring until 12:10. It is more appropriate following the declaration of a Site Area Emergency for the Emergency Director to begin to evaluate the need to evacuate non-essential personnel from the Owner Controlled Area to an offsite assembly point. In reality, it is more likely to occur following a General Emergency.

If the Emergency Director decides to implement an offsite assembly prior to 12:10, then issue this message.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. 14X

TO: Emergency Director
(Shift Supervisor at Simulator)

TIME: 08:35

T: 01/35

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Declare an ALERT in accordance with EAL 5.A.2 or 2.A.2.

An ALERT must be declared at this time in order to keep the Exercise sequence of events on schedule.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 14X

TO: Lead Exercise Controller

TIME: 08:35

T: 01/35

ANTICIPATED RESPONSE:

Shift Supervisor will declare an Alert and carry out actions per procedure HS-EP-01700.

INSTRUCTIONS:

Provide this card to the Shift Supervisor only if an Alert has not been declared by this time. If an Alert has already been declared, then disregard this message.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 15

TO: Emergency Security Manager TIME: 08:45

T: 01:45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

For the purposes of the Exercise, relax access restrictions to the Owner Controlled Area and Protected Area.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 15

TO: Lead Security Controller

TIME: 08:45

T: 01/45

ANTICIPATED RESPONSE:

Normal access to the Owner Controlled Area (OCA) and Protected Area (PA) is restored.

INSTRUCTIONS:

Give this message to the Emergency Security Manager after OCA and PA access control has been demonstrated.

NOTE: If traffic backs up with more than six vehicles at the OCA gate, at your discretion access can be restored sooner.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. 16

TO: Assembly Area Coordinators
in Protected Area and EEC

TIME: Approx. 08:50

T: Approx. 01/50

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Have all assembled personnel return to work. Inform the Emergency Facilities Services Manager that you have been directed by a Controller to take this action.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 16

TO: Assembly Area Controller

TIME: Approx. 08:50

T: Approx. 01/50

ANTICIPATED RESPONSE:

Non-essential personnel are returned to work.

INSTRUCTIONS:

Give this to the Assembly Area Coordinators after assembly of the Protected Area has been completed (approximately 30 minutes after the Alert Gai-tronics announcement).

****

THIS IS A DRILL

****

D8NPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 17

TO: Ottawa County Sheriff TIME: 08:50

T: 01/50

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

In order to demonstrate an onsite objective, the extent of play requires a normal relocation route to be blocked. At the above time, make the following report to plant personnel at the Emergency Control Center:

"THIS IS A DRILL. A TANKER TRUCK ACCIDENT HAS OCCURRED ON ROUTE 590 AT THE PORTAGE RIVER SOUTH INTERSECTION NEAR THE BRUSHWELLMAN MANUFACTURING PLANT. REPORTS INDICATE THAT ROUTE 590 IS ENTIRELY BLOCKED AND IT WILL TAKE APPROXIMATELY 4 TO 5 HOURS TO RE-OPEN THIS INTERSECTION. THAT IS ALL THAT WE KNOW AT THIS TIME. WE WILL UPDATE YOU ON THE SITUATION WHEN CONDITIONS CHANGE. THIS IS A DRILL."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 17

TO: Ottawa County and ECC Controllers

TIME: 08:50

T: 01/50

ANTICIPATED RESPONSE:

Players determine an alternate path to assist in relocating plant personnel to the offsite assembly point (Lindsey Service Center - refer to Section 9.3 of this manual).

INSTRUCTIONS:

1. Ottawa County EMA has this cue card in a sealed envelope to be opened at 10:00. They should release the message at 10:15.
2. Should the message not be forthcoming from Ottawa County, the ECC Controller can read the message to the ECC State/County phone talker at 10:25.
3. If the ECC Players ask for an update until 14:00, report that crews are working on clearing the intersection. After 14:00, report that the intersection has been cleared for traffic flow.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 18X

TO: Core Thermal Hydraulic Engineer, Chemistry Advisor, Emergency Radiological Manager

TIME: 09:00

T: 02/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

In order to ensure the scenario extent of play will be accomplished in the time frame allotted, initiate actions per procedure to obtain a Post Accident Sampling System (PASS) sample at this time.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 18X

TO: TSC Controller

TIME: 09:00

T: 02/00

ANTICIPATED RESPONSE:

Players should refer to Step 6.8.1 of procedure HS-EP-02320, Emergency Technical Assessment, and request that a PASS sample be drawn.

INSTRUCTIONS:

Issue this cue card to the Core Thermal Hydraulics Engineer who should take the lead in coordinating this action.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 19

TO: Control Room Controller TIME: 09:40

T: 02/40

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Perform the following actions when directed by the Lead Drill Controller and informed that a Site Area Emergency has been declared.

Announce "THIS IS A DRILL, THIS IS A DRILL."

Sound the Initiate Emergency Procedures Alarm. Make the following announcement:

"THIS IS A DRILL, THIS IS A DRILL.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: A SITE AREA EMERGENCY HAS BEEN DECLARED. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR DESIGNATED EMERGENCY RESPONSE FACILITIES. ALL NONESSENTIAL PERSONNEL WITHIN THE PROTECTED AREA EVACUATE TO THE TRAINING CENTER ASSEMBLY AREA IMMEDIATELY.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: A SITE AREA EMERGENCY HAS BEEN DECLARED. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR DESIGNATED EMERGENCY RESPONSE FACILITIES. ALL NONESSENTIAL PERSONNEL WITHIN THE PROTECTED AREA EVACUATE TO THE TRAINING CENTER ASSEMBLY AREA IMMEDIATELY.

THIS IS A DRILL."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 19

TO: Control Room Controller and
PPF Assembly Area Controller

TIME: 09:40

T: 02/40

ANTICIPATED RESPONSE:

A Control Room staff member can sound the alarm and make the announcements.

INSTRUCTIONS:

For Control Room Controller:

1. Make this announcement when contacted by a Controller at the Simulator. This contact may occur as early as 09:25 or as late as 09:55.
2. Coordinate this action with the real Shift Supervisor.

For PPF Assembly Area Controller:

1. As non-essential personnel exit the Security Gate House, direct them to assemble in the PPF Parking Lot instead of the Training Center.
2. Once accountability is completed, release the assembled personnel to return to their normal work locations.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 20

TO: Emergency Facilities Service Manager TIME: 09:40+

T: 02/40+

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

When you call the Assembly Area Coordinators, inform them Owner Controlled Area Assembly is being simulated. Have them check their area and call you back with an estimate of the number of people who would have assembled in their area.

When they call back with an estimate of the number of people who would have assembled tell them no further action is required at this time.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 20

TO: ECC Controller

TIME: 09:40+

T: 02/40+

ANTICIPATED RESPONSE:

Player calls Assembly Area Coordinators.

INSTRUCTIONS:

1. Give this cue card to Emergency Facilities Service Manager when he/she starts to call Assembly Area Coordinators.
2. If he/she does not start to call within 2 minutes of Site Area Emergency declaration, direct him/her to due so.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 21

TO: Emergency Facilities Service Manager TIME: 09:40+

T: 02/40+

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

This is the Training Center Assembly Area Coordinator, an additional 236 individuals have arrived (simulated) at the Training Center from the Protected Area.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 21

TO: ECC Controller

TIME: 09:40+

: 02/40+

ANTICIPATED RESPONSE:

The Emergency Offsite Manager is informed of the assembly status.

INSTRUCTIONS:

Issue this cue card after the Training Center Assembly Area Coordinators have reported their initial assembly numbers.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 22X

TO: Emergency Director (at ECC) TIME: 09:55

T: 02/55

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Declare a SITE AREA EMERGENCY in accordance with EAL 1.F.2 or 5.A.3.

A SITE AREA EMERGENCY must be declared at this time in order to keep the Exercise sequence of events on schedule.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 22X

TO: Emergency Director Controller

TIME: 09:55

T: 02/55

ANTICIPATED RESPONSE:

Emergency Director will declare a Site Area Emergency and carry out actions per procedure HS EP-01800.

INSTRUCTIONS:

Provide this card to the Emergency Director only if a Site Area Emergency has not been declared by this time. If a Site Area Emergency has already been declared, then disregard this message.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 23

TO: Control Room Controller TIME: 12:05

T: 05/05

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Perform the following actions when directed by the Lead Exercise Controller and informed that a General Emergency has been declared.

Announce "THIS IS A DRILL, THIS IS A DRILL."

Sound the Initiate Emergency Procedures Alarm. Make the following announcement:

"THIS IS A DRILL, THIS IS A DRILL.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: A GENERAL EMERGENCY HAS BEEN DECLARED. NO EATING, DRINKING OR SMOKING UNTIL FURTHER NOTICE. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR DESIGNATED EMERGENCY RESPONSE FACILITIES. OWNER CONTROLLED AREA EVACUATION IS BEING SIMULATED.

ATTENTION ALL PERSONNEL; ATTENTION ALL PERSONNEL: A GENERAL EMERGENCY HAS BEEN DECLARED. NO EATING, DRINKING OR SMOKING UNTIL FURTHER NOTICE. ALL MEMBERS OF THE ONSITE EMERGENCY ORGANIZATION REPORT TO YOUR DESIGNATED EMERGENCY RESPONSE FACILITIES. OWNER CONTROLLED AREA EVACUATION IS BEING SIMULATED.

THIS IS A DRILL."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 23

TO: Control Room Controller

TIME: 12:05

T: 05/05

ANTICIPATED RESPONSE:

A Control Room staff person can sound the alarm and make the announcements.

INSTRUCTIONS:

1. Make this announcement when contacted by a Controller at the Simulator. This contact may occur as early as 11:50 or as late as 12:25.
2. Coordinate this action with the real Shift Supervisor.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 24

TO: Emergency Director TIME: 12:10

T: 05/10

***** **********

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

For the purposes of the Exercise, a demonstration of the offsite assembly capability is required at this time per the extent of play. A test group of six to ten personnel are standing by at extension 7336 and waiting for your instructions. The Lindsey Service Center should be used for the offsite assembly point.

Arrange for Radiation Protection support. This function should not be simulated.

Assume that the personnel being relocated are maintenance personnel that were not evacuated earlier, and do not appear to be needed at the present time.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 24

TO: Emergency Director Controller,
Offsite Assembly Controller

TIME: 12:10

T: 05/10

ANTICIPATED RESPONSE:

The Emergency Director initiates actions per procedures HS-EP-02520 and HS-EP-02530.

Vehicle and personnel mon/decon activities are performed at the offsite assembly point per HS-EP-02550. (Refer to Section 9.3 of this manual for more detailed information.)

INSTRUCTIONS:

1. The test group of personnel will be standing by in Room 211 at the Training Center.
2. Two company vehicles have been arranged to be used to transport these individuals to Lindsey.
3. Transportation for RP and Security personnel has not been pre-arranged and should be obtained as per procedure.

Note: The Assembly Area Coordinator is Diane Mentel for implementing actions at the Training Center (ext. 7336).

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 25

TO: Offsite Assembly Personnel TIME: 12:10

T: 05/10

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

You are representing a group of Maintenance workers that had been performing equipment repair activities in the Turbine Building. Your work was suspended due to the emergency conditions and directed to evacuate to the offsite assembly point (i.e., the Lindsey Service Center). As a precaution (per procedure) you are to be checked for radioactive contamination upon arrival at Lindsey. Some of you will be found to be contaminated.

If asked how you could have gotten contaminated, respond that you had been working inside radiologically controlled areas on equipment thought to be needed to help shut down the plant. Because of a Steam Generator tube rupture, some contamination was carried over into the secondary system. You may have picked it up while working on the High Temperature Demineralizer or Condensate Polishers.

Begin the offsite assembly demonstration when directed by the Training Center Assembly Area Coordinator.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 25

TO: Offsite Assembly Controller

TIME: 12:10

T: 05/10

ANTICIPATED RESPONSE:

Personnel remain in Room 211 until directed to go to the Lindsey Service Center. Then answer questions as necessary when questioned by the RC Technicians at Lindsey.

INSTRUCTIONS:

Issue this cue card to the Players in Room 211.

Select at least six Players to represent Maintenance workers prior to leaving for Lindsey. Any others may return to work.

Instruct the players going to Lindsey to use the Company cars prestaged for this evolution.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 26X

TO: Emergency Director TIME: 12:25

T: 05/25

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Declare a GENERAL EMERGENCY in accordance with EAL 6.D.3 or 1.E.1.

A GENERAL EMERGENCY must be declared at this time in order to keep the Exercise sequence of events on schedule.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 26X

TO: Emergency Director Controller

TIME: 12:25

T: 05/25

ANTICIPATED RESPONSE:

Emergency Director will declare a General Emergency and carry out actions per procedure HS-EP-01900.

INSTRUCTIONS:

Provide this card to the Emergency Director if a General Emergency has not been declared by this time. If a General Emergency has already been declared, then disregard this message.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 27

TO: Security Guard at PPF Exit TIME: 12:30

T: 05/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

For purposes of the Exercise, you have just discovered that the power cord to the portal monitor is loose, causing the monitor to have been out of service for the past half hour. It is likely that a group of maintenance individuals that recently left the Protected Area were not monitored on their way out. You have since plugged in the power cord and the portal monitor is now working again.

Report this to your Supervisor.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 27

TO: Security Lead Controller

TIME: 12:30

T: 05/30

ANTICIPATED RESPONSE:

This information is passed to the TSC and ECC.

INSTRUCTIONS:

1. This message must be issued at his time to justify how individuals have arrived at the offsite assembly point with contamination still present.

2. If Players decide that the site should be surveyed outside the Protected Area for the spread of contaminants, inform them that these actions should be simulated. No contamination was found (e.g., in Training Center or Parking Lots, etc.)

3. If Security runs a card history issue cue card 28X.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 28X

TO: CAS/SAS/Supervisor - Security Shift TIME: 12:30+

T: 05/30+

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

The card history performed over the period in which the portal monitor was malfunctioning indicates the following individuals left the Protected Area during this time frame:

Joseph G. Palmer
Wayne N. Fondessy
Shari I. Turner
Craig A. Gale
Jeff C. Smith
Matt A. Arndt
Jeffrey J. Geise
Stephen M. Chimo

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 28X

TO: Security Controller

TIME: 12:30+

T: 05/30+

ANTICIPATED RESPONSE:

TSC Management is informed.

INSTRUCTIONS:

Issue this card only if Security runs a card history for the time that the PFP Portal Monitor was inoperable.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 29X

TO: Emergency Director TIME: 13:30

T: 06/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

The purposes of the Exercise, begin declassification discussions at this time.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 29X

TO: ECC Controller

TIME: 13:30

T: 06/30

ANTICIPATED RESPONSE:

Players review current plant conditions and consider down-grading the classification through discussion with the TSC staff and State of Ohio officials.

INSTRUCTIONS:

If declassification discussions have already been initiated, do not issue this message.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. 30

TO: Control Room Staff

TIME: 14:00

T. 07/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

The DBNPS 1992 Evaluated exercise has been completed. Make the following Gai-tronics announcement:

"ATTENTION ALL PERSONNEL, ATTENTION ALL PERSONNEL: THE 1992 EVALUATED EMERGENCY PREPAREDNESS EXERCISE HAS ENDED.

ATTENTION ALL PERSONNEL: THE 1992 EVALUATED EMERGENCY PREPAREDNESS EXERCISE HAS ENDED. REGARD ALL FUTURE ALARMS AND ANNOUNCEMENTS."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 30

TO: Control Room Controller

TIME: 14:00

T: 07/00

ANTICIPATED RESPONSE:

A Control Room staff member should make the announcement.

INSTRUCTIONS:

1. Make this announcement when contacted by the Lead Exercise Controller.
2. Gather all materials used during the Exercise and return it to the Lead Exercise Controller.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. 31

TO: All Facility Managers TIME: 14:00

T: 07/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

The DBNPS 1992 Evaluated Exercise has ended. Do not erase the status boards. Players associated with and located outside the facility should be contacted and directed to return to the facility. Take a short break.

Once everyone has returned to the facility, conduct a critique. Refer to the status boards as necessary to review specific conditions or situations.

When the critique is over, erase the status boards and gather all facility logs and report forms for the Lead Controller.

The critique can run until 14:45, at which time, key personnel should assemble per cue card #32 for reentry and recovery discussions.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 31

TO: All Controllers

TIME: 14:00

T: 07/00

ANTICIPATED RESPONSE:

The Exercise ends and facility critiques are performed.

INSTRUCTIONS:

1. Stop the Exercise play when directed by the Lead Exercise Controller.
2. Ensure all facility logs and report forms are returned to the Emergency Planning Group.
3. All Exercise-related forms (i.e., Drill Phone List, Data Sheets, etc.) should be removed from the facilities so that they don't get mixed in with the real forms and procedures.
4. All radiological equipment (i.e., dosimeters. TLDs, survey meters, etc.) should be returned to their storage location, batteries removed as applicable, and properly placed in storage.
5. Wall status boards should be erased and any chairs, tables or other miscellaneous equipment broken out in response to conditions in the Exercise should be returned to their original condition or location.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO No. 1992 Evaluated Exercise CUE CARD NO. 32

TO: All Facility Managers TIME: 14:45

T: 07/45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

For purposes of the Exercise, the formal Recovery Organization need not be established. However, at this time a group of individuals should be assembled in Room 209/210 at 15:00 to hold preliminary reentry/recovery discussions. The following individuals should attend this meeting:

- Emergency Director
- Emergency Plant Manager
- OSC Manager
- Emergency RC Manager
- Emergency Security Manager
- Company Spokesperson Representative
- Recovery Advisor
- Emergency Offsite Manager
- TSC Engineering Manager
- TSC Engineering Supervisor
- TSC Operations Supervisor
- TSC Chemistry Advisor
- Emergency Assistant Plant Manager
- Dose Assessment Coordinator

Reentry and recovery procedural guidelines should be referred to as necessary to provide direction for the discussions. The availability of corporate technical support for planning and reentry/recovery operations should be determined, as well as how this support could best be used.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. 32

TO: Facility Controllers

TIME: 14:45

T: 07/45

ANTICIPATED RESPONSE:

The preliminary reentry/recovery meeting is held.

INSTRUCTIONS:

Issue this cue card to perform the extent of May reentry/recovery activities.

****

THIS IS A DRILL

****

7.2 CONTROL ROOM ALARMS AND INDICATIONS

During the day of the Exercise, all Control Room alarms and indications will be automatically generated by the Control Room Simulator. However, should the Simulator "crash" or be unavailable for whatever reason, the information provided on the alarm panel and plant data sheets which follow, can be used in conjunction with the cue cards to drive the scenario sequence of events. Thus, if the Simulator remains fully operational, the following data sheets should not be used.

PLANT PARAMETERS

T:Time	Time	RCS Pressure	T Avg.	T Hot	T Cold	Boron Conc.	RCS Subcool'g
00/00	0700	2168.6psig	581.9°F	605.4°F	558.2°F	651.7ppm	43.1°F
00/15	0715	2165.7	582.0	605.3	558.6	651.8	43.0
00/30	0730	2166.8	581.5	599.3	563.7	651.9	49.1
00/45	0745	2162.7	580.6	589.4	571.8	651.9	58.7
01/00	0800	2176.8	570.4	574.8	566.0	662.5	74.3
01/15	0815	1132.2	520.0	514.0	513.7	662.5	47.9
01/30	0830	634.6	520.0	428.0	428.0	662.5	68.0
01/45	0845	663.2	520.0	437.8	437.9	662.5	62.7
02/00	0900	591.9	520.0	406.7	406.8	662.5	82.0
02/15	0915	439.7	520.0	383.3	383.4	662.5	75.7
02/30	0930	400.0	520.0	361.8	361.9	662.5	88.6
02/45	0945	393.6	520.0	341.2	341.3	662.5	108.0
03/00	1000	292.2	520.0	322.9	323.0	662.5	100.4
03/15	1015	232.8	520.0	308.1	308.2	662.5	96.9
03/30	1030	198.2	520.0	295.3	295.3	662.5	97.3
03/45	1045	194.7	520.0	286.6	288.4	662.5	43.0
04/00	1100	194.8	520.0	277.6	271.3	662.5	114.2
04/15	1115	185.9	520.0	274.9	267.1	662.5	112.6
04/30	1130	141.9	520.0	275.6	248.8	662.5	95.9
04/45	1145	141.9	520.0	275.6	248.8	662.5	95.9
05/00	1200	128.8	520.0	275.6	230.9	662.5	95.9
05/30	1230	99.3	520.0	274.9	196.2	662.5	95.9
06/00	1300	93.2	520.0	271.5	166.7	662.5	95.9
06/30	1330	77.5	520.0	270.3	162.6	662.5	95.9
07/00	1400	74.0	520.0	266.9	155.7	662.5	95.9

T:Time	PZR Temp.	PZR Level	RCS Flow Loop 1	RCS Flow Loop 2	PORV	Block Valve	Spray Valve
00/00	648.0°F	220.4in	76.6Mpph	76.0Mpph	AUTO	OPEN	AUTO
00/15	647.9	219.8	76.5	76.0	AUTO	OPEN	AUTO
00/30	647.9	220.0	76.0	75.5	AUTO	OPEN	AUTO
00/45	647.6	219.7	75.2	74.8	AUTO	OPEN	AUTO
01/00	646.5	199.9	75.9	75.6	AUTO	OPEN	AUTO
01/15	561.4	7.3	79.5	79.4	AUTO	OPEN	AUTO
01/30	482.5	92.0	85.6	0.0	AUTO	OPEN	AUTO
01/45	482.7	93.5	85.6	0.0	AUTO	OPEN	AUTO
02/00	478.9	99.0	85.6	0.0	AUTO	OPEN	AUTO
02/15	466.2	104.4	85.6	0.0	AUTO	OPEN	AUTO
02/30	458.3	104.5	85.6	0.0	AUTO	OPEN	AUTO
02/45	457.5	104.4	85.6	0.0	AUTO	OPEN	AUTO
03/00	432.0	105.9	85.6	0.0	AUTO	OPEN	AUTO
03/15	408.1	109.0	85.6	0.0	AUTO	OPEN	AUTO
03/30	398.5	104.6	85.6	0.0	AUTO	OPEN	AUTO
03/45	394.0	104.3	76.5	0.0	AUTO	OPEN	AUTO
04/00	389.5	104.1	0.0	0.0	AUTO	OPEN	AUTO
04/15	385.5	104.7	0.0	0.0	AUTO	OPEN	AUTO
04/30	364.3	113.6	0.0	0.0	AUTO	OPEN	AUTO
04/45	364.3	113.6	0.0	0.0	AUTO	OPEN	AUTO
05/00	356.5	109.9	0.0	0.0	AUTO	OPEN	AUTO
05/30	337.7	126.0	0.0	0.0	AUTO	OPEN	AUTO
06/00	315.1	164.1	0.0	0.0	AUTO	OPEN	AUTO
06/30	318.3	148.9	0.0	0.0	AUTO	OPEN	AUTO
07/00	314.2	156.3	0.0	0.0	AUTO	OPEN	AUTO

PLANT PARAMETERS

T:Time	Block Valve	Letdown Flow	Reactor Coolant Pump Seal Flows Total	RCP 1-1	RCP 1-2	RCP 2-1	RCP 2-2
00/00	OPEN	84.7gpm	35.2gpm	8.2gpm	9.4gpm	8.6gpm	9.1gpm
00/15	OPEN	83.4	36.9	8.5	9.8	9.0	9.5
00/30	OPEN	83.5	37.0	8.6	9.9	9.0	9.6
00/45	OPEN	83.3	37.1	8.6	9.8	9.0	9.5
01/00	OPEN	84.2	38.7	8.7	9.9	9.1	9.6
01/15	OPEN	85.7	36.4	8.4	9.7	8.9	9.4
01/30	OPEN	85.7	36.4	8.4	9.7	8.9	9.4
01/45	OPEN	1.0	15.0	7.2	0.0	7.7	0.0
02/00	OPEN	0.9	37.8	10.5	9.8	11.3	7.3
02/15	OPEN	0.9	17.9	8.6	7.3	9.3	0.0
02/30	OPEN	0.7	18.3	8.7	0.0	9.4	0.0
02/45	OPEN	0.7	18.3	8.5	0.0	9.4	0.0
03/00	OPEN	0.9	19.2	8.6	0.0	9.4	0.6
03/15	OPEN	0.7	18.5	8.6	0.6	9.4	0.0
03/30	OPEN	0.7	19.4	8.7	0.0	9.5	0.5
03/45	OPEN	0.7	18.5	8.9	0.5	9.5	0.0
04/00	OPEN	0.7	17.2	3.9	0.0	4.2	4.5
04/15	OPEN	0.5	18.9	4.0	4.5	4.5	5.0
04/30	OPEN	0.5	19.7	4.4	5.0	4.8	5.2
04/45	OPEN	0.6	19.6	4.4	5.2	4.8	5.2
05/00	OPEN	0.5	19.6	4.4	5.2	4.8	5.2
05/30	OPEN	0.4	19.6	4.4	5.2	4.8	5.2
06/00	OPEN	0.5	19.8	4.4	5.2	4.8	5.2
06/30	OPEN	0.5	19.7	4.4	5.2	4.8	5.2
07/00	OPEN	0.5	19.7	4.4	5.2	4.8	5.2

T:Time	Quench Tank Level	Quench Tank Pressure	Source Range NI-1	Source Range NI-2	Intermediate Range NI-3	Intermediate Range NI-4	Power Range NI-5
00/00	8.7ft	24.8psig	0.100cps	0.100	0.63E-04	0.61E-04amps	99.7%
00/15	8.7	24.8	0.100	0.100	0.63E-04	0.61E-04	98.3
00/30	8.7	24.8	0.100	0.100	0.49E-04	0.48E-04	75.9
00/45	8.7	24.8	0.100	0.100	0.23E-04	0.23E-04	36.6
01/00	8.7	24.7	0.100	0.100	0.11E-10	0.10E-10	16.40
01/15	8.7	22.4	4.83	4.52	0.10E-10	0.10E-10	0.2
01/30	8.7	18.6	4.87	4.64	0.10E-10	0.10E-10	0.2
01/45	8.7	19.2	4.28	4.25	0.10E-10	0.10E-10	0.2
02/00	8.7	17.5	4.50	3.99	0.10E-10	0.10E-10	0.2
02/15	8.7	15.8	4.22	3.88	0.10E-10	0.10E-10	0.2
02/30	8.7	14.3	3.85	3.82	0.10E-10	0.10E-10	0.2
02/45	8.7	12.9	3.94	3.56	0.10E-10	0.10E-10	0.2
03/00	8.7	11.7	3.76	3.47	0.10E-10	0.10E-10	0.2
03/15	8.7	10.6	3.62	3.60	0.10E-10	0.10E-10	0.2
03/30	8.7	9.4	3.59	3.48	0.10E-10	0.10E-10	0.2
03/45	8.7	24.7	3.55	3.37	0.10E-10	0.10E-10	0.2
04/00	8.7	8.0	3.40	3.33	0.10E-10	0.10E-10	0.2
04/15	8.7	9.2	3.30	3.06	0.10E-10	0.10E-10	0.2
04/30	8.7	13.1	3.30	3.06	0.10E-10	0.10E-10	0.2
04/45	8.7	13.1	3.33	3.09	0.10E-10	0.10E-10	0.2
05/00	8.7	14.7	3.27	3.16	0.10E-10	0.10E-10	0.2
05/30	8.7	17.1	3.24	3.06	0.10E-10	0.10E-10	0.2
06/00	8.7	20.0	3.28	3.12	0.10E-10	0.10E-10	0.2
06/30	8.7	20.5	3.18	3.00	0.10E-10	0.10E-10	0.2
07/00	8.7	21.6	3.18	3.00	0.10E-10	0.10E-10	0.

PLANT PARAMETERS

T:Time	Power Range (Cont'd) NI-6	NI-7	NI-8	Highest Core TH	Makeup Flow	Makeup Tank Level	Pressure
00/00	100.3%	101.9%	100.3%	614.3°F	27.6gpm	68.0in	30.0psig
00/15	99.3	99.0	99.4	615.1	14.7	71.5	30.0
00/30	76.7	76.3	76.8	611.9	50.9	68.2	30.0
00/45	36.9	36.5	36.9	598.1	32.0	65.7	30.0
01/00	16.4	16.1	16.5	584.0	11.3	70.9	30.0
01/15	0.0	0.0	0.0	529.2	39.2	70.6	30.0
01/30	0.0	0.0	0.0	438.3	39.2	94.7	30.0
01/45	0.0	0.0	0.0	450.1	97.1	83.2	30.0
02/00	0.0	0.0	0.0	413.7	128.4	60.8	30.0
02/15	0.0	0.0	0.0	391.7	39.1	58.0	30.0
02/30	0.0	0.0	0.0	369.2	108.4	31.5	30.0
02/45	0.0	0.0	0.0	348.2	106.3	67.4	30.0
03/00	0.0	0.0	0.0	329.5	24.9	100.0	30.0
03/15	0.0	0.0	0.0	313.8	24.1	36.3	30.0
03/30	0.0	0.0	0.0	299.8	82.4	69.4	30.0
03/45	0.0	0.0	0.0	266.9	116.4	69.7	30.0
04/00	0.0	0.0	0.0	268.7	298.6	59.1	30.0
04/15	0.0	0.0	0.0	234.8	11.3	92.2	30.0
04/30	0.0	0.0	0.0	233.6	25.8	96.2	30.0
04/45	0.0	0.0	0.0	233.6	25.8	96.2	30.0
05/00	0.0	0.0	0.0	223.9	25.7	72.9	30.0
05/30	0.0	0.0	0.0	206.0	25.8	79.9	30.0
06/00	0.0	0.0	0.0	193.2	25.9	87.6	30.0
06/30	0.0	0.0	0.0	187.8	25.9	32.0	30.0
07/00	0.0	0.0	0.0	183.2	25.9	29.0	30.0

T:Time	Core Flood Tank #1 Level	Pressure	Core Flood Tank #2 Level	Fressure	HP Injection Line Flow 1-1	1-2	2-1
00/00	12.9ft	603.5psig	12.9ft	603.5psig	0.0gpm	0.0gpm	0.0gpm
00/15	12.9	601.4	12.9	601.4	0.0	0.0	0.0
00/30	12.9	601.8	12.9	601.8	0.0	0.0	0.0
00/45	12.9	602.2	12.9	602.2	0.0	0.0	0.0
01/00	12.9	603.1	12.9	603.1	0.0	0.0	0.0
01/15	12.9	600.6	12.9	600.6	336.9	327.7	375.8
01/30	12.9	600.6	12.9	600.6	114.6	79.7	0.0
01/45	12.9	634.3	12.9	634.3	202.4	308.8	44.9
02/00	12.9	645.4	12.9	645.5	48.2	64.8	47.7
02/15	12.4	626.4	12.4	626.9	71.0	73.5	54.2
02/30	12.4	635.1	12.4	635.6	173.2	143.3	0.0
02/45	12.4	643.3	12.4	643.8	173.5	143.7	0.0
03/00	12.4	651.5	12.4	652.0	184.7	153.4	0.0
03/15	12.4	658.0	12.4	658.5	78.6	110.0	0.0
03/30	12.4	665.4	12.4	665.9	85.7	44.0	0.0
03/45	12.4	671.6	12.4	672.1	0.0	0.0	0.0
04/00	12.4	677.0	12.4	677.5	0.0	0.0	0.0
04/15	12.9	605.0	12.9	605.0	0.0	0.0	0.0
04/30	12.4	679.5	12.4	680.0	0.0	0.0	0.0
04/45	12.4	679.6	12.4	680.1	0.0	0.0	0.0
05/00	12.4	677.6	12.4	678.1	0.0	0.0	0.0
05/30	12.4	672.2	12.4	672.7	0.0	0.0	0.0
06/00	12.4	660.6	12.4	661.1	0.0	0.0	0.0
06/30	12.4	657.0	12.4	657.4	0.0	0.0	0.0
07/00	12.4	648.9	12.4	649.3	0.0	0.0	0.0

PLANT PARAMETERS

T:Time	HPI (Ct'd) 2-2	LPI Line Flow 1-1	1-2	DHR Hx Inlet Temp. #1	#2	CTMT Spray Flow #1	#2
00/00	0.0gpm	0.0gpm	0.0gpm	100.0°F	100.0°F	0.0gpm	0.0gpm
00/15	0.0	0.0	0.0	100.0	100.0	0.0	0.0
00/30	0.0	0.0	0.0	100.0	100.0	0.0	0.0
00/45	0.0	0.0	0.0	100.0	100.0	0.0	0.0
01/00	0.0	0.0	0.0	100.0	100.0	0.0	0.0
01/15	44.0	0.0	0.0	100.0	100.0	0.0	0.0
01/30	0.0	0.0	0.0	100.0	100.0	0.0	0.0
01/45	65.1	0.0	0.0	100.0	100.0	0.0	0.0
02/00	69.1	0.0	0.0	100.0	100.0	0.0	0.0
02/15	77.7	0.0	0.0	100.0	100.0	0.0	0.0
02/30	0.0	0.0	0.0	100.0	100.0	0.0	0.0
02/45	0.0	0.0	0.0	100.0	100.0	0.0	0.0
03/00	0.0	0.0	0.0	100.0	100.0	0.0	0.0
03/15	0.0	0.0	0.0	100.0	100.0	0.0	0.0
03/30	0.0	0.0	0.0	100.0	100.0	0.0	0.0
03/45	0.0	0.0	0.0	100.0	100.0	0.0	0.0
04/00	0.0	0.0	2770.8	277.6	277.4	0.0	0.0
04/15	0.0	0.0	2764.7	274.9	274.5	0.0	0.0
04/30	0.0	0.0	2952.4	275.6	275.4	0.0	1383.5
04/45	0.0	0.0	2952.4	275.6	275.3	0.0	1383.1
05/00	0.0	0.0	2976.7	275.6	275.3	0.0	1389.2
05/30	0.0	0.0	3050.2	274.9	274.5	0.0	1394.5
06/00	0.0	0.0	3049.7	271.5	271.3	0.0	1399.0
06/30	0.0	0.0	3094.7	270.3	270.1	0.0	1398.9
07/00	0.0	0.0	3094.2	268.9	268.5	0.0	1397.9

T:Time	BWST Level	Containment Press.	Temp.	Sump Level	S/G #1 Level	Press.	S/G #2 Level
00/00	40.4ft	14.9psia	86.8°F	538.0ft	176.1in	912.4psig	174.8in
00/15	40.4	14.9	86.1	538.0	174.6	912.4	173.4
00/30	40.4	14.9	86.3	538.0	128.4	897.8	127.0
00/45	40.4	14.9	86.5	538.0	51.8	888.4	50.8
01/00	40.3	15.0	88.3	538.5	40.7	926.6	40.7
01/15	40.4	17.3	85.6	541.4	132.5	735.9	8.0
01/30	40.4	21.1	85.6	541.0	138.5	335.3	5.3
01/45	37.7	20.5	151.2	542.1	138.5	274.1	11.1
02/00	36.9	22.1	163.7	543.0	141.5	259.6	14.1
02/15	36.2	23.9	175.9	543.9	143.4	188.8	12.1
02/30	35.6	25.3	183.1	544.8	144.7	137.6	14.3
02/45	34.9	26.7	189.4	545.7	145.5	98.0	13.1
03/00	34.2	28.1	195.1	546.7	145.6	68.4	14.4
03/15	33.9	29.3	199.8	547.8	145.8	48.5	17.0
03/30	33.4	30.3	204.0	548.0	137.5	33.4	22.0
03/45	32.8	30.9	207.2	549.4	133.6	21.7	125.4
04/00	32.5	31.7	209.7	553.3	132.2	15.0	133.1
04/15	30.4	30.7	200.8	558.8	132.8	15.6	232.8
04/30	27.3	26.8	191.0	558.8	128.0	13.6	250.0
04/45	27.3	26.8	191.0	561.1	128.0	13.6	250.0
05/00	25.4	25.1	183.7	562.9	128.3	13.8	250.0
05/30	21.7	22.8	171.2	565.5	128.8	13.7	250.0
06/00	16.1	19.8	150.4	566.1	124.4	11.4	250.0
06/30	14.5	19.2	146.8	566.0	124.6	11.2	250.0
07/00	10.9	18.3	138.8	567.0	125.1	10.2	250.0

PLANT PARAMETERS

T:Time	S/G #2 Press.	S/G Shell Temp. #1	#2	Turbine Hdr. Press.	MSIV Position	Main Feedwater Flow Loop #1	Loop #2
00/00	911.2psig	536.3°F	536.2°F	857.9psig	OPEN	3.5Mppm	3.5Mppm
00/15	911.4	536.4	536.2	859.6	OPEN	3.0	3.0
00/30	897.2	535.3	535.0	869.0	OPEN	2.5	2.5
00/45	888.3	532.7	532.6	882.1	OPEN	2.0	2.0
01/00	926.6	531.4	531.4	930.7	OPEN	1.5	1.5
01/15	10.6	536.4	536.6	864.3	OPEN	1.0	1.0
01/30	3.9	536.4	536.6	864.3	OPEN	0.5	0.0
01/45	9.9	515.8	505.9	0.0	SHUT	0.0	0.0
02/00	6.9	505.3	496.1	0.0	SHUT	0.0	0.0
02/15	6.8	491.5	486.7	0.0	SHUT	0.0	0.0
02/30	6.1	477.1	477.5	0.0	SHUT	0.0	0.0
02/45	4.3	461.7	468.0	0.0	SHUT	0.0	0.0
03/00	3.3	446.9	459.2	0.0	SHUT	0.0	0.0
03/15	2.6	432.0	450.7	0.0	SHUT	0.0	0.0
03/30	2.2	414.7	441.9	0.0	SHUT	0.0	0.0
03/45	0.7	402.7	431.8	0.0	SHUT	0.0	0.0
04/00	0.0	390.9	420.6	0.0	SHUT	0.0	0.0
04/15	0.1	380.3	300.2	0.0	SHUT	0.0	0.0
04/30	0.1	361.5	286.2	0.0	SHUT	0.0	0.0
04/45	0.1	361.5	286.2	0.0	SHUT	0.0	0.0
05/00	0.1	353.9	269.6	0.0	SHUT	0.0	0.0
05/30	0.0	339.5	253.2	0.0	SHUT	0.0	0.0
06/00	0.0	320.9	236.0	0.0	SHUT	0.0	0.0
06/30	0.0	316.4	230.5	0.0	SHUT	0.0	0.0
07/00	0.0	307.3	218.0	0.0	SHUT	0.0	0.0

T:Time	Condenser Level	Hotwell Press.	CST Level #1	#2	AFP Flow #1	#2	MDFP Flow
00/00	4.1ft	3.2in Hg	46.0ft	46.0ft	0.0gpm	0.0gpm	0.0gpm
00/15	4.2	3.9	46.0	46.0	0.0	0.0	0.0
00/30	4.1	3.1	46.0	46.0	0.0	0.0	0.0
00/45	4.3	2.2	46.0	46.0	0.0	0.0	0.0
01/00	4.(	1.7	46.0	46.0	0.0	0.0	0.0
01/15	4.8	4.5	46.0	46.0	0.0	0.0	0.0
01/30	4.0	4.5	46.0	46.0	0.0	0.0	0.0
01/45	4.0	10.0	45.0	45.0	0.0	0.0	0.0
02/00	4.7	10.0	44.9	44.9	0.0	0.0	0.0
02/15	4.5	10.0	44.9	44.9	0.0	0.0	0.0
02/30	4.5	10.0	44.9	44.9	0.0	0.0	0.0
02/45	4.4	10.0	44.9	44.9	0.0	0.0	0.0
03/00	4.3	10.0	44.9	44.9	0.0	0.0	0.0
03/15	4.3	10.0	44.9	44.9	0.1	0.0	0.0
03/30	4.2	10.0	44.9	44.9	0.1	0.0	0.0
03/45	4.1	10.0	44.9	44.9	0.0	0.0	0.0
04/00	4.1	10.0	44.9	44.9	0.1	0.0	0.0
04/15	4.0	10.0	44.9	44.9	0.1	0.0	0.0
04/30	4.0	10.0	44.9	44.9	0.1	0.0	0.0
04/45	3.8	10.0	44.9	44.9	0.1	0.0	0.0
05/00	3.8	10.0	44.9	44.9	0.1	0.0	0.0
05/30	3.7	10.0	44.9	44.9	0.1	0.0	0.0
06/00	3.6	10.0	44.8	44.8	0.1	0.0	0.0
06/30	3.4	10.0	44.8	44.8	0.1	0.0	0.0
07/00	3.3	10.0	44.8	44.8	0.1	0.0	0.0

PLANT PARAMETERS

	Electrical Buses						EDG
T:Time	A	B	C1	C2	D1	D2	#1
00/00	NORM	NORM	NORM	NORM	NORM	NORM	OFF
00/15	NORM	NORM	NORM	NORM	NORM	NORM	OFF
00/30	NORM	NORM	NORM	NORM	NORM	NORM	OFF
00/45	NORM	NORM	NORM	NORM	NORM	NORM	OFF
01/00	NORM	NORM	NORM	NORM	NORM	NORM	ON
01/15	NORM	NORM	NORM	NORM	NORM	NORM	ON
01/30	NORM	NORM	NORM	NORM	NORM	NORM	ON
01/45	NORM	NORM	NORM	NORM	NORM	NORM	ON
02/00	NORM	NORM	NORM	NORM	NORM	NORM	ON
02/15	NORM	NORM	NORM	NORM	NORM	NORM	ON
02/30	NORM	NORM	NORM	NORM	NORM	NORM	ON
02/45	NORM	NORM	NORM	NORM	NORM	NORM	ON
03/00	NORM	NORM	NORM	NORM	NORM	NORM	ON
03/15	NORM	NORM	NORM	NORM	NORM	NORM	ON
03/30	NORM	NORM	NORM	NORM	NORM	NORM	ON
03/45	NORM	NORM	NORM	NORM	NORM	NORM	ON
04/00	NORM	NORM	NORM	NORM	NORM	NORM	ON
04/15	NORM	NORM	NORM	NORM	NORM	NORM	ON
04/30	NORM	NORM	NORM	NORM	NORM	NORM	ON
04/45	NORM	NORM	NORM	NORM	NORM	NORM	ON
05/00	NORM	NORM	NORM	NORM	NORM	NORM	ON
05/30	NORM	NORM	NORM	NORM	NORM	NORM	ON
06/00	NORM	NORM	NORM	NORM	NORM	NORM	ON
06/30	NORM	NORM	NORM	NORM	NORM	NORM	ON
07/00	NORM	NORM	NORM	NORM	NORM	NORM	ON

T:Time	EDG #2	480 VAC	250/125 VAC	Inst. AC	Generator Wattmeter	Instr. Air	Serv. Air
00/00	OFF	NORM	NORM	NORM	915.1Mw	NORM	NORM
00/15	OFF	NORM	NORM	NORM	891.5	NORM	NORM
00/30	OFF	NORM	NORM	NORM	675.4	NORM	NORM
00/45	OFF	NORM	NORM	NORM	304.5	NORM	NORM
01/00	ON	NORM	NORM	NORM	112.1	NORM	NORM
01/15	ON	NORM	NORM	NORM	0.0	NORM	NORM
01/30	ON	NORM	NORM	NORM	0.0	NORM	NORM
01/45	ON	NORM	NORM	NORM	0.0	NORM	NORM
02/00	ON	NORM	NORM	NORM	0.0	NORM	NORM
02/15	ON	NORM	NORM	NORM	0.0	NORM	NORM
02/30	ON	NORM	NORM	NORM	0.0	NORM	NORM
02/45	ON	NORM	NORM	NORM	0.0	NORM	NORM
03/00	ON	NORM	NORM	NORM	0.0	NORM	NORM
03/15	ON	NORM	NORM	NORM	0.0	NORM	NORM
03/30	ON	NORM	NORM	NORM	0.0	NORM	NORM
03/45	ON	NORM	NORM	NORM	0.0	NORM	NORM
04/00	ON	NORM	NORM	NORM	0.0	NORM	NORM
04/15	ON	NORM	NORM	NORM	0.0	NORM	NORM
04/30	ON	NORM	NORM	NORM	0.0	NORM	NORM
04/45	ON	NORM	NORM	NORM	0.0	NORM	NORM
05/00	ON	NORM	NORM	NORM	0.0	NORM	NORM
05/30	ON	NORM	NORM	NORM	0.0	NORM	NORM
06/00	ON	NORM	NORM	NORM	0.0	NORM	NORM
06/30	ON	NORM	NORM	NORM	0.0	NORM	NORM
07/00	ON	NORM	NORM	NORM	0.0	NORM	NORM

PLANT PARAMETERS

T:Time	Spent Fuel Pool Level	Spent Fuel Pool Temp.	CCW Surge Tank Level #1	CCW Surge Tank Level #2	CCW Hx Outlet Temp. #1	CCW Hx Outlet Temp. #2
00/00	23.5ft	100.1°F	51.0in	52.0in	93.4°F	95.0°F
00/15	23.5	100.1	51.0	52.0	93.4	95.0
00/30	23.5	100.1	51.0	52.0	93.4	95.0
00/45	23.5	100.1	51.0	52.0	93.4	95.1
01/00	23.5	100.1	51.0	52.0	93.4	92.4
01/15	23.5	100.1	51.0	52.0	93.4	95.0
01/30	23.5	100.1	51.0	52.0	93.4	95.0
01/45	23.5	100.1	51.0	52.0	79.3	81.5
02/00	23.5	100.2	51.0	52.0	79.4	81.0
02/15	23.5	100.2	51.0	52.0	79.3	80.6
02/30	23.5	100.2	51.0	52.0	79.2	80.9
02/45	23.5	100.2	51.0	52.0	79.3	81.0
03/00	23.5	100.2	51.0	52.0	79.3	80.7
03/15	23.5	100.2	51.0	52.0	79.1	81.0
03/30	23.5	100.2	51.0	52.0	79.3	81.0
03/45	23.5	100.2	51.0	52.0	79.2	82.7
04/00	23.5	100.2	51.0	52.0	79.1	93.3
04/15	23.5	100.1	51.0	52.0	79.1	95.0
04/30	23.5	100.2	51.0	52.0	79.1	92.3
04/45	23.5	100.2	51.0	52.0	79.1	92.3
05/00	23.5	100.2	51.0	52.0	79.3	92.4
05/30	23.5	100.2	51.0	52.0	79.2	92.5
06/00	23.5	100.2	51.0	52.0	79.1	92.6
06/30	23.5	100.2	51.0	52.0	79.3	91.1
07/00	23.5	100.2	51.0	52.0	79.2	90.9

ALARM PANEL - 07:15

12

In Alarm

	STM GEN		SFRCS	
	R783	R764	P681	P680
1	MN STM LINE 1 RAD HI	MN STM LINE 2 RAD HI	SG 1 LO PRESS TRIP	SG 2 LO PRESS TRIP
	P018	P018	M P671	M P672
2	SG 1 TO AFPT 2 MN STM PRESS LO	SG 2 TO AFPT 1 MN STM PRESS LO	CH 1 HI LVL OR HI DELTA P TRIP	CH 2 HI LVL OR HI DELTA P TRIP
	L880	L890	M L886	M L896
3	SG 1 OPERATE LVL HI	SG 2 OPERATE LVL HI	CH 1 LO LVL OR NO RCPS TRIP	CH 2 LO LVL OR NO RCPS TRIP
	L885	L895	P685	P684
4	SG 1 LVL LO	SG 2 LVL LO	SG 1 LO PRESS AND HI LVL BLK PERM	SG 2 LO PRESS AND HI LVL BLK PERM
	M P675		Q893	Q892
5	SG 1 OR 2 FW VLV DELTA P LO		SG 1 LO PRESS AND HI LVL TRIP BLK	SG 2 LO PRESS AND HI LVL TRIP BLK
	T886	T902		M [illegible]
6	SG 1 STM OUT TEMP HI	SG 2 STM OUT TEMP HI		SFRCS TRBL
	A	B	C	D
	(1)	(2)	(3)	(4)

ALARM PANEL 12

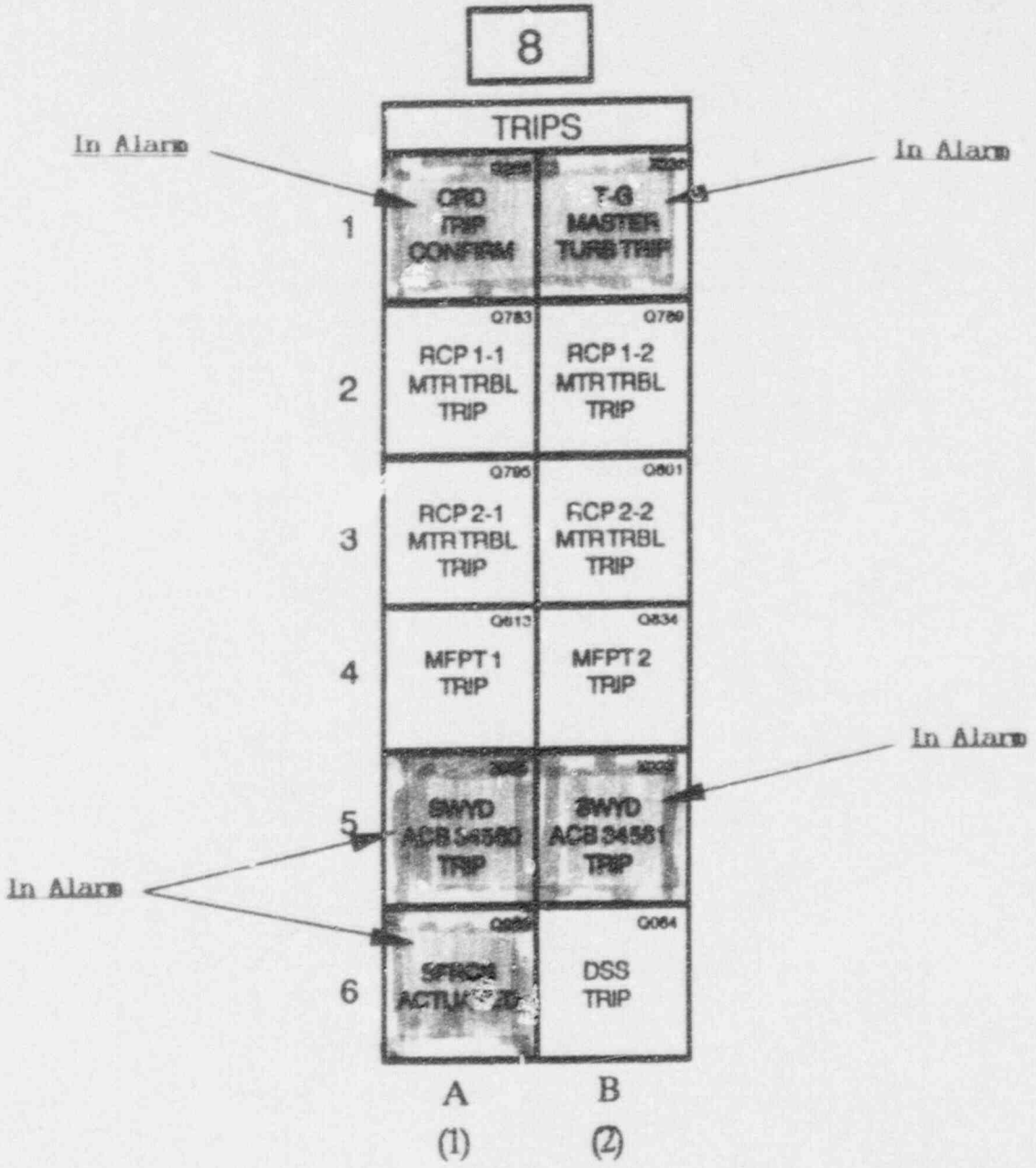
ALARM PANEL - 07:48

14

	MSR		ICS / INSTRUMENTATION			
1	L680 MSR 1 HI LVL TURB TRIP	L690 MSR 2 HI LVL TURB TRIP	M Q527 ICS 24 VDC BUS TRIP	M Q715 NNI-X 24 VDC BUS TRIP	M Q716 NNI-Y 24 VDC BUS TRIP	
2	L681 MSR 1 MOIST SEP DRN TK LVL HI	L691 MSR 2 MOIST SEP DRN TK LVL HI	Q538 ICS RX DEMAND HI LIMIT	Q525 ICS / NNI 118 VAC PWR TRBL	Q533 ICS / NNI FUSE BLOWN	
3	L682 MSR 1 MOIST SEP DRN TK LVL LO	L692 MSR 2 MOIST SEP DRN TK LVL LO	Q539 ICS RCP LOSS RUNBACK	M Q537 ICS MFP LOSS OR LO DEAR RUNBACK		P480 HPT MN STM PRESS
4	L684 MSR 1 1ST STG DRN TK LVL	L694 MSR 2 1ST STG DRN TK LVL	Q541 ICS RX PWR LIMITED BY FW	Q534 ICS FW LIMITED BY RX PWR	M Q547 ICS INPUT MISMATCH	Q528 ICS INPUT TRANSFER
5	L687 MSR 1 2ND STG DRN TK LVL	L697 MSR 2 2ND STG DRN TK LVL	Q535 ICS HI LOAD LIMIT	Q536 ICS LO LOAD LIMIT	Q543 ICS SG 1 ON LO LVL LIMIT	Q545 ICS SG 2 ON LO LVL LIMIT
6				M Q546 ICS IN TRACK	Q542 ICS SG 1 BTU LIMIT	Q544 ICS SG 2 BTU LIMIT
	A (1)	B (2)	C (3)	D (4)	E (5)	F (6)

In Alarm

ALARM PANEL 14



ALARM PANEL 8

ALARM PANEL - 08:00

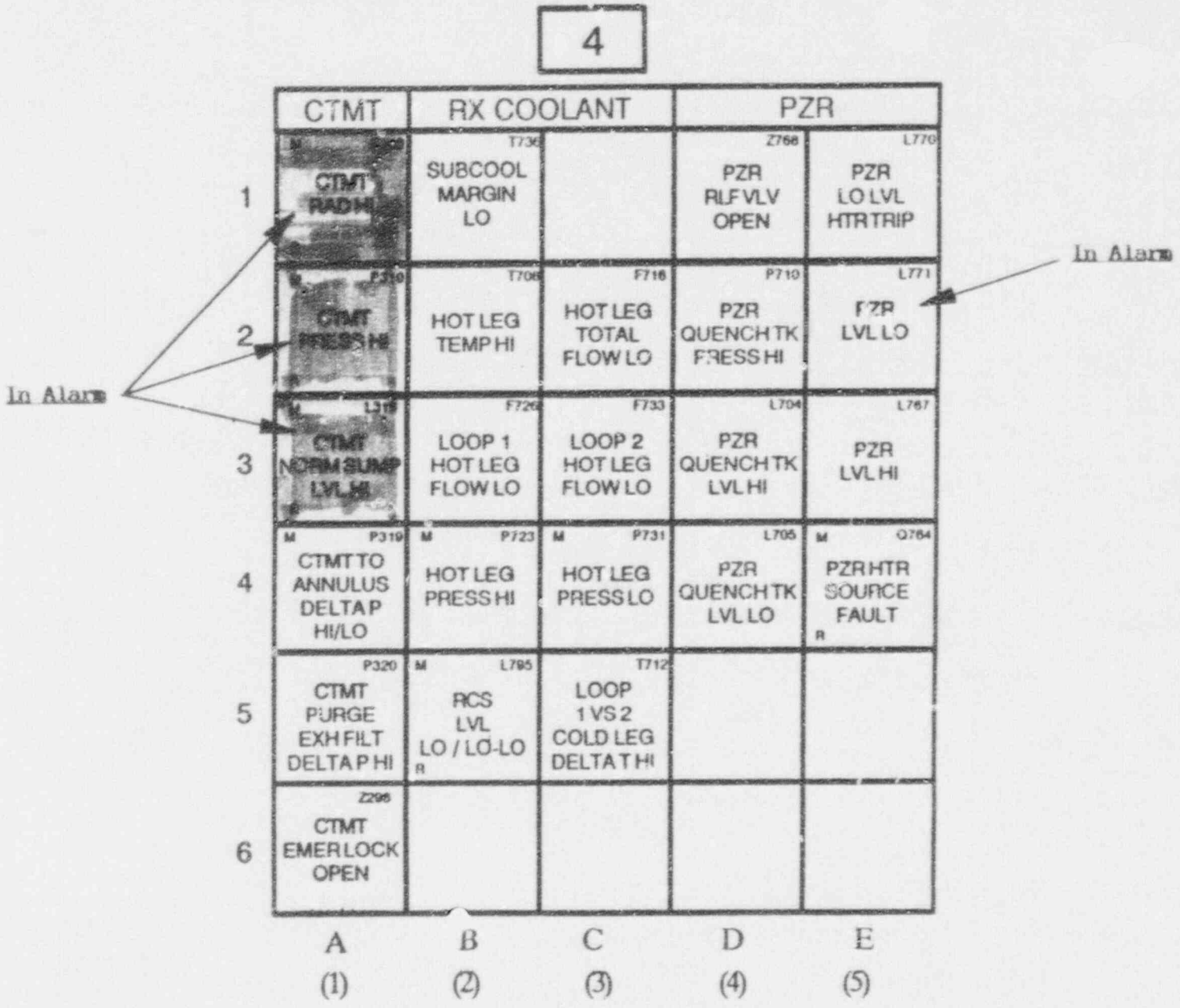
12

	STM GEN		SFRCS	
1	R783 MN STM LINE 1 RAD HI	R784 MN STM LINE 2 RAD HI	P681 SG 1 LO PRESS TRIP	P680 SG 2 LO PRESS TRIP
2	P018 SG 1 TO AFPT 2 MN STM PRESS LO	P018 SG 2 TO AFPT 1 MN STM PRESS LO	M P671 CH 1 HI LVL OR HI DELTA P TRIP	M P672 CH 2 HI LVL OR HI DELTA P TRIP
3	L880 SG 1 OPERATE LVL HI	L890 SG 2 OPERATE LVL HI	M L886 CH 1 LO LVL OR NO RCPS TRIP	M L896 CH 2 LO LVL OR NO RCPS TRIP
4	L885 SG 1 LVL LO	L895 SG 2 LVL LO	P685 SG 1 LO PRESS AND HI LVL BLK PERM	P684 SG 2 LO PRESS AND HI LVL BLK PERM
5	M P675 SG 1 OR 2 FW VLV DELTA P LO		Q693 SG 1 LO PRESS AND HI LVL TRIP BLK	Q692 SG 2 LO PRESS AND HI LVL TRIP BLK
6	T886 SG 1 STM OUT TEMP HI	T902 SG 2 STM OUT TEMP HI		M Q964 SFRCS TRBL
	A (1)	B (2)	C (3)	D (4)

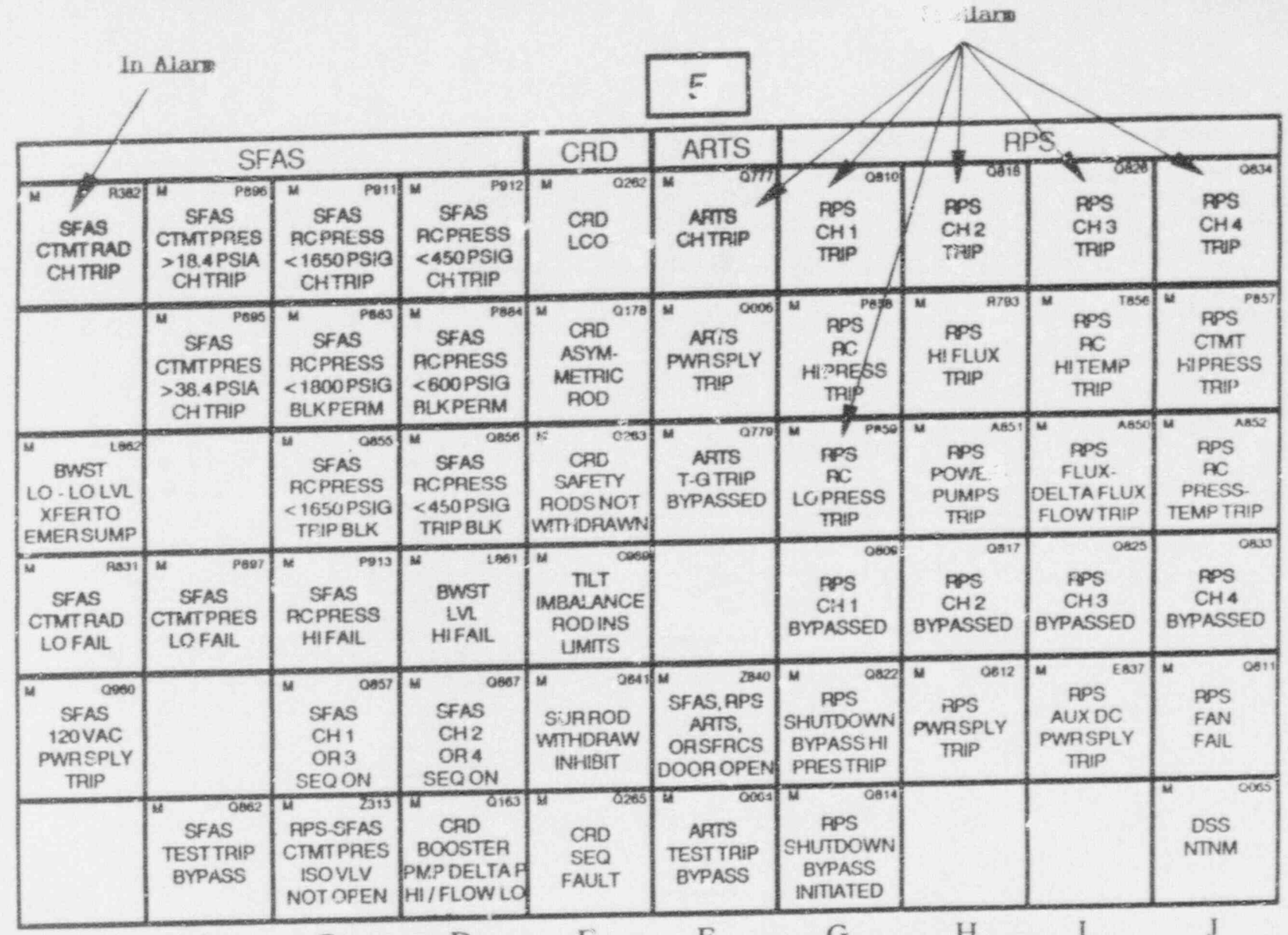
In Alarm

ALARM PANEL B

ALARM PANEL - 08:00



ALARM PANEL 4



ALARM PANEL 5

in Alarm

5

	SFAS				CRD	ARTS	RPS			
1	M R382 SFAS CTMT RAD CH TRIP	M P896 SFAS CTMT PRES >18.4 PSIA CH TRIP	M P911 SFAS RC PRESS <1650 PSIG CH TRIP	M P912 SFAS RC PRESS <450 PSIG CH TRIP	M Q262 CRD LCO	M Q777 ARTS CH TRIP	Q810 RPS CH 1 TRIP	Q818 RPS CH 2 TRIP	Q826 RPS CH 3 TRIP	Q83? RPS CH 4 TRIP
2		M P895 SFAS CTMT PRES >38.4 PSIA CH TRIP	M P883 SFAS RC PRESS <1800 PSIG BLK PERM	M P884 SFAS RC PRESS <600 PSIG BLK PERM	M Q178 CRD ASYM-METRIC ROD	M Q005 ARTS PWR SPLY TRIP	M P858 RPS RC HI PRESS TRIP	M R793 RPS HI FLUX TRIP	M T856 RPS RC HI TEMP TRIP	M P857 RPS CTMT HI PRESS TRIP
3	M L862 BWST LO - LO LVL XFER TO EMER SUMP		M Q855 SFAS RC PRESS <1650 PSIG TRIP BLK	M Q856 SFAS RC PRESS <450 PSIG TRIP BLK	M Q263 CRD SAFETY RODS NOT WITHDRAWN	M Q779 ARTS T-G TRIP BYPASSED	M P859 RPS RC LO PRESS TRIP	M A851 RPS POWER-PUMPS TRIP	M A850 RPS FLUX-DELTA FLUX FLOW TRIP	M A852 RPS RC PRESS-TEMP TRIP
4	M R831 SFAS CTMT RAD LO FAIL	M P897 SFAS CTMT PRES LO FAIL	M P913 SFAS RC PRESS HI FAIL	M L861 BWST LVL HI FAIL	M C589 TILT IMBALANCE ROD INS LIMITS		Q809 RPS CH 1 BYPASSED	Q817 RPS CH 2 BYPASSED	Q825 RPS CH 3 BYPASSED	Q833 RPS CH 4 BYPASSED
5	M Q960 SFAS 120 VAC PWR SPLY TRIP		M Q857 SFAS CH 1 OR 3 SEQ ON	M Q867 SFAS CH 2 OR 4 SEQ ON	M Q541 SUR ROD WITHDRAW INHIBIT	M Z840 SFAS, RPS ARTS, OR SFRCS DOOR OPEN	M Q822 RPS SHUTDOWN BYPASS HI PRES TRIP	M Q812 RPS PWR SPLY TRIP	M E837 RPS AUX DC PWR SPLY TRIP	M Q811 RPS FAN FAIL
6		M Q862 SFAS TEST TRIP BYPASS	M Z313 RPS-SFAS CTMT PRES ISO VLV NOT OPEN	M Q163 CRD BOOSTER PMP DELTA P HI / FLOW LO	M Q265 CRD SEQ FAULT	M Q004 ARTS TEST TRIP BYPASS	M Q814 RPS SHUTDOWN BYPASS INITIATED			M Q065 DPS NTNM
	A (1)	B (2)	C (3)	D (4)	E (5)	F (6)	G (7)	H (8)	I (9)	J (10)

ALARM PANEL 5

5

In Alarm

	SFAS				CRD	ARTS	RPS			
1	M R382 SFAS CTMT RAD CH TRIP	M P896 SFAS CTMT PRES >18.4 PSIA CH TRIP	M P911 SFAS RC PRESS <1650 PSIG CH TRIP	M P912 SFAS RC PRESS <450 PSIG CH TRIP	M Q262 CRD LCO	M Q777 ARTS CH TRIP	Q810 RPS CH 1 TRIP	Q818 RPS CH 2 TRIP	Q826 RPS CH 3 TRIP	Q834 RPS CH 4 TRIP
2		M P895 SFAS CTMT PRES >38.4 PSIA CH TRIP	M P883 SFAS RC PRESS <1800 PSIG BLK PERM	M P884 SFAS RC PRESS <600 PSIG BLK PERM	M Q178 CRD ASYM-METRIC ROD	M Q006 ARTS PWR SPLY TRIP	M P858 RPS RC HI PRESS TRIP	M R793 RPS HI FLUX TRIP	M T856 RPS RC HI TEMP TRIP	M P857 RPS CTMT HI PRESS TRIP
3	M L862 BWST LO - LO LVL XFER TO EMER SUMP		M Q855 SFAS RC PRESS <1650 PSIG TRIP BLK	M Q856 SFAS RC PRESS <450 PSIG TRIP BLK	M Q263 CRD SAFETY RODS NOT WITHDRAWN	M Q779 ARTS T-G TRIP BYPASSED	M P859 RPS RC LO PRESS TRIP	M A851 RPS POWER-PUMPS TRIP	M A850 RPS FLUX-DELTA FLUX FLOW TRIP	M A852 RPS RC PRESS-TEMP TRIP
4	M R831 SFAS CTMT RAD LO FAIL	M P897 SFAS CTMT PRES LO FAIL	M P913 SFAS RC PRESS HI FAIL	M L861 BWST LVL HI FAIL	M Q669 TILT IMBALANCE ROD INS LIMITS		Q809 RPS CH 1 BYPASSED	Q817 RPS CH 2 BYPASSED	Q825 RPS CH 3 BYPASSED	Q833 RPS CH 4 BYPASSED
5	M Q860 SFAS 120 VAC PWR SPLY TRIP		M Q857 SFAS CH 1 OR 3 SEQ ON	M Q867 SFAS CH 2 OR 4 SEQ ON	M Q841 SUR ROD WITHDRAW INHIBIT	M Z840 SFAS, RPS ARTS, OR SFRCS DOOR OPEN	M Q822 RPS SHUTDOWN BYPASS HI PRES TRIP	M Q812 RPS PWR SPLY TRIP	M E837 RPS AUX DC PWR SPLY TRIP	M Q811 RPS FAN FAIL
6		M Q862 SFAS TEST TRIP BYPASS	M Z313 RPS-SFAS CTMT PRES ISO VLV NOT OPEN	M Q163 CRD BOOSTER PMP DELTA P HI / FLOW LO	M Q265 CRD SEQ FAULT	M Q004 ARTS TEST TRIP BYPASS	M Q814 RPS SHUTDOWN BYPASS INITIATED			M Q065 DSS NTNM
	A (1)	B (2)	C (3)	D (4)	E (5)	F (6)	G (7)	H (8)	I (9)	J (10)

ALARM PANEL 5

ALARM PANEL - 08:22

12

In Alarm

	STM GEN		SFRCS	
1	R783 MN STM LINE 1 RAD HI	R784 MN STM LINE 2 RAD HI	P681 SG 1 LO PRESS TRIP	P680 SG 2 LO PRESS TRIP
2	P018 SG 1 TO AFPT 2 MN STM PRESS LO	P016 SG 2 TO AFPT 1 MN STM PRESS LO	M P671 CH 1 HI LVL OR HI DELTA P TRIP	M P672 CH 2 HI LVL OR HI DELTA P TRIP
3	L880 SG 1 OPERATE LVL HI	L890 SG 2 OPERATE LVL HI	M L886 CH 1 LO LVL OR NO RCPS TRIP	M L896 CH 2 LO LVL OR NO RCPS TRIP
4	L885 SG 1 LVL LO	L895 SG 2 LVL LO	P685 SG 1 LO PRESS AND HI LVL BLK PERM	P684 SG 2 LO PRESS AND HI LVL BLK PERM
5	M P675 SG 1 OR 2 FW VLV DELTA P LO		Q693 SG 1 LO PRESS AND HI LVL TRIP BLK	Q692 SG 2 LO PRESS AND HI LVL TRIP BLK
6	T886 SG 1 STM OUT TEMP HI	T902 SG 2 STM OUT TEMP HI		M Q964 SFRCS TRBL
	A (1)	B (2)	C (3)	D (4)

ALARM PANEL 12

9 - PLANT SERVICES

	VENT	WTR	HEATING		AIR		FIRE
1	M R346 CREVS TRAIN 1 RAD HI	M Q990 DEMIN WTR STRG TK 2 TRBL		M Q010 AUX BLR TRIP	M Q978 STA AIR CMPSR 1 TRIP	P500 INSTR AIR HDR PRESS LO	M Q978 FIRE OR RADIATION TRBL
2	M R347 CREVS TRAIN 2 RAD HI	M Q992 STA DEMIN WTR TREATMENT SYS TRBL		M Q009 AUX BLR SYS TRBL	Q977 STA AIR CMPSR 2 TRBL / TRIP	M Q405 EMER INSTR AIR CMPSR TRBL / TRIP	Q442 FIRE WTR ELEC PMP ON
3	R948 UNIT VENT RAD HI	M Q991 STA WTR PRE-TREATMENT SYS TRBL		L020 AUX BLR DRUM LVL	P939 STA AIR HDR PRESS LO	T390 EMER INSTR AIR CMPSR AFTCLR TEMP HI	Q440 FIRE WTR DSL PMP ON
4	M R900 VAC SYS DISCH RAD HI		T912 HW HTG SUPPLY LINE TEMP LO	M L024 AUX STM CNDS TKS / FLASH TK LVL HI	T910 STA AIR CMPSR 1 AFTCLR TEMP HI	M Q975 INSTR AIR DRYER TRBL	M Q441 FIRE WTR DSL PMP SYS TRBL
5	T945 LAB HOOD EXH FILT TEMP HI		M F880 HW HTG SUPPLY LINE FLOW	M L379 DSL OIL STRG TK LVL	T911 STA AIR CMPSR 2 AFTCLR TEMP HI	P706 N2 HDR PRESS	P431 FIRE WTR TURB BLDG PRESS LO
6			T936 SEC HW HTG RECIRC HX OUTLET TEMP HI	L701 NEW LUBE OIL STRG TK LVL		T411 FIRE WTR STRG TK TEMP LO	L431 FIRE WTR STRG TK LVL
	A (1)	B (2)	C (3)	D (4)	E (5)	F (6)	G (7)

In Alarm

ALARM PANEL 9

7.3 PLANT RADIATION MONITORS

This section provides values of the in-plant fixed radiation monitors for Controller use when simulating accident radiation conditions. This information was developed in conjunction with the Simulator response data for consistency.

IN-PLANT RADIATION MONITORS

TABLE 7-1

ELEMENT NO.	LOCATION	INSTRUMENT RANGE	0715	0800	0900	0930	1000	1030	1100	1150	1200	1230	1300	1400
Area Monitors														
8400	Maintenance Work Area, Room 109	0.1 - 10^4 mR/hr	0.6	0.6	0.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0
8401	Primary Sample Hood Area, Room 106	0.1 - 10^4 mR/hr	0.4	0.4	0.4	200	250	250	250	250	250	3.0	5.0	5.0
8402	EX Pump Room #1 (West), Room 105	0.1 - 10^4 mR/hr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	500	1E4	1E4	1E4	1E4
8403	ECCS Pump Room #2 (East), Room 115	0.1 - 10^4 mR/hr	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	64.1	2E3	1E3	538
8404/8405	Decay Heat Exchanger Pit, Room 113	0.1 - 10^4 mR/hr	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	67.1	2E3	1E4	541
8406	Miscellaneous Waste Evaporator Room, Rm 116	0.1 - 10^4 mR/hr	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
8407	Waste Gas Valve Access Room, Room 122	0.1 - 10^4 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8408	Detergent Waste Drain and Pump, Room 125	0.1 - 10^4 mR/hr	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
8409	Mechanical Penetration Room #1 (West), Rm 208	0.1 - 10^4 mR/hr	3.0	3.0	10.0	9E3	1E4	1E4	1E4	1E4	1E4	2E3	1E3	536
8410/8411	Corridor to Mechanical Penetration Room #1 (West), Room 208	0.1 - 10^4 mR/hr	0.3	0.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
8412	Clean Waste Polish and Purification Demineralizers Valve Rm, Rm 212	0.1 - 10^4 mR/hr	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
8413	Makeup Pump Room Vestibule, Room 226	0.1 - 10^4 mR/hr	1.5	1.5	1.5	5.0	5.0	5.0	5.0	5.0	300	2E3	1E3	500
8414/8415	Boric Acid Evaporator Passageway, Room 227	0.1 - 10^4 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8416	Mechanical Penetration Room #2 (East), Rm 236	0.1 - 10^4 mR/hr	20.0	20.0	20.0	9E3	1E4	1E4	1E4	1E4	1E4	2E3	1E3	536
8417	Fuel Handling Truck Bay (middle of bay)	0.1 - 10^4 mR/hr	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
8418	Fuel Handling Truck Bay (West wall)	0.1 - 10^4 mR/hr	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

IN-PLANT RADIATION MONITORS

TABLE 7-1 (Cont'd)

ELEMENT NO.	LOCATION	INSTRUMENT RANGE	0715	0800	0900	0930	1000	1030	1100	1150	1200	1230	1300	1400
Area Monitors														
8419	Drumming Area, Room 302	0.1 - 10^7 mR/hr	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
8420	Mechanical Penetration Room #3 (East), Rm 303	0.1 - 10^4 mR/hr	0.2	0.2	10.0	9E3	1E4	1E4	1E4	1E4	1E4	2E3	1E3	536
8421	Mechanical Penetration Room #4 (East), Rm 314	0.1 - 10^4 mR/hr	0.4	0.2	10.0	9E3	1E4	1E4	1E4	1E4	1E4	2E3	1E3	536
8422	Hot Instrument Shop, Room 406	0.1 - 10^4 mR/hr	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
8423	Hot Lab Room, Room 424B	0.1 - 10^4 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8424	Personnel Local Area, Room 426	0.1 - 10^4 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8425	Mix Tanks and Hatch Area, Room 313	0.1 - 10^4 mR/hr	1.0	1.0	1.0	1.0	1.0	_	1.0	1.0	1.0	1.0	1.0	1.0
8428/8429	Passage to Access Corridor, Room 411	0.1 - 10^4 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8430	Control Room	0.1 - 10^4 mR/hr	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8431	Control Cabinet Room	0.1 - 10^4 mR/hr	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8435	Condensate Polishing Demineralizers 1 & 2 Area 432	0.1 - 10^4 mR/hr	0.1	8.0	22	25	27	29	35	38	39	39	38	35
8436	Condensate Polishing Demineralizers 3 & 4 Area 432	0.1 - 10^4 mR/hr	0.3	8.0	22	25	27	29	35	38	39	39	38	35
8437	Condensate Polishing Demineralizers Holdup Tank Room 248	0.1 - 10^4 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8438	Backwash Receiving Tank Area, Room 334	0.1 - 10^4 mR/hr	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2387/2389	Containment	0.1 - 10^7 mR/hr	3.0	135	4E3	2E7	2E7	2E7	2E7	2E7	2E7	2E7	8E6	7E6
8426/8427	Spent Fuel Area 224	0.1 - 10^7 mR/hr	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
8446/8447	Spent Fuel Pool Vent Area 224	0.1 - 10^7 mR/hr	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

IN-PLANT RADIATION MONITORS

TABLE 7-1 (Cont'd)

ELEMENT NO.	LOCATION	INSTRUMENT RANGE	0715	0800	0900	0930	1000	1030	1100	1150	1200	1230	1300	1400
Process Monitors														
8432	Service Water Discharge Header	$10 - 10^6$ cpm	70	70	70	70	70	70	70	70	70	70	70	70
8433	Station Effluent Collection Box	$10 - 10^6$ cpm	100	100	100	100	100	100	100	100	100	100	100	100
8434	Station Inlet, Forebay	$10 - 10^6$ cpm	70	70	70	70	70	70	70	70	70	70	70	70
4686	Unit Sotrm Sewer Outlet	$10 - 10^6$ cpm	80	80	80	80	90	80	80	80	80	80	80	80
600	Main Steam Line No. 2	$10 - 10^6$ cpm	1E6	1E6	17	16	15	15	15	15	15	15	15	15
609	Main Steam Line No. 1	$10 - 10^6$ cpm	20	20	20	20	20	20	20	20	20	20	20	20
744	Condensate Demin Backwash Pmp. Disch.	$10 - 10^6$ cpm	(No longer in service.)											
1003A/1003B	Vacuum System Non-Condensable Vent	$10 - 10^6$ cpm	1E5	9E5	1E6	1E6	1E6	1E6	1E6	1E6	1E6	1E6	1E6	1E6
1412	Component Cooling Return Line No. 1	$10 - 10^6$ cpm	9E4	9E4	9E4	9E4	9E4	9E4	9E4	9E4	9E4	9E4	9E4	9E4
1413	Component Cooling Return Line No. 2	$10 - 10^6$ cpm	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5	1.5E5
1770A/1770B	Clean Waste System Outlet	$10 - 10^6$ cpm	300	300	300	300	300	300	300	300	300	300	300	300
1822A/1822B	Waste Gas System Outlet	$10 - 10^6$ cpm	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3	2.5E3
1878A/1878B	Misc. Waste System	$10 - 10^6$ cpm	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4	1.5E4
1998	Failed Fuel Detector	$10 - 10^6$ cpm	8E3	8E3	8E3	8E3	8E3	8E3	8E3	8E3	8E3	8E3	8E3	8E3
5052A/5052B 5052C	Containment Purge Exhaust	$10 - 10^6$ cpm	1E3	1E3	40	40	40	40	40	40	40	40	40	40
5327A/5327B 5327C	Control Room Filter No. 1 Discharge	$10 - 10^6$ cpm	30	30	30	30	30	30	30	30	30	30	30	30
5328A/5328B 5328C	Control Room Filter Discharge	$10 - 10^6$ cpm	25	25	25	25	25	25	25	25	25	25	25	25
5403A/5403B 5403C	Fuel Handling Area Exhaust	$10 - 10^6$ cpm	40	40	40	40	40	40	40	40	40	40	40	40
5404A/5405B 5405C	Radwaste Area Exhaust	$10 - 10^6$ cpm	70	70	70	70	70	70	70	70	70	70	70	70

IN-PLANT RADIATION MONITORS

TABLE 7-1

ELEMENT NO.	LOCATION	INSTRUMENT RANGE	0715	0800	0900	0930	1000	1030	1100	1150	1200	1230	1300	1400
Containment High Range Monitors														
RE 4596A RE 4696B	Containment	$10^{0} - 10^{8}$ R/hr	1	1	1	1E3	5E3	7E3	1E4	2E4	E4	2E4	1E4	1E4
Continment Air Normal Range Radiation Monitors														
RE 4597AA Ch. 1 RE 4597BA Ch. 1	Noble Gas	$10^{-7} - 3X10^{-1}$ µCi/cc	2E-7	2E-6	2E-4	5E-2	4E-2	5E-2	6E-2	7E-2	6E-2	4E-2	3E-2	2E-2
RE 4597AA Ch. 2 RE 4597BA Ch. 2	Particulate	$2 \times 10^{-10} - 10^{-4}$ µCi/cc	3E-9	3E-9	3E-9	3E-9	9E-8	4E-8	8E-7	6E-6	7E-7	6E-9	6E-9	6E-9
RE 4597AA Ch.3 RE 4597BA Ch. 3	Iodine	$10^{-11} - 10^{-6}$ µCi/cc	2E-9	2E-9	2E-9	2E-9	2E-9	3E-9	7E-9	7E-9	7E-9	7E-9	6E-9	4E-9
Flow: Normal 2 SCFM; Low 1.5 SCFM														
Containment Air Accident Range Monitors														
RE 4597AB Ch. 1 RE 4597BB Ch. 1	Noble Gas	$5 \times 10^{-2} - 10^{2}$ µCi/cc	5E-2	5E-2	6E-2	7E-2	8E-2	9E-2	1E-1	3E-1	6	14	49	48
RE 4597AB Ch. 2 RE 4597BB Ch. 2	Noble Gas	$10^{1} - 10^{5}$ µCi/cc	10	10	10	10	10	10	10	10	10	14	108	665
Containment Air Accident Range Monitors														
RE 4597AB Ch. 3, Collector 1 RE 4597BB Ch. 3, Collector 1	Particulate/Iodine	$10^{-3} - 10^{4}$ mR/hr	1E-3	1E-3	2E-3	3E-3	4E-3	4E-3	3E-3	3E-3	2E-3	1E-3	2E-3	2E-3
RE 4597AB Ch. 4, Collector 2 RE 4597BB Ch. 4, Collector 2	Particulate/Iodine	$10^{-3} - 10^{4}$ mR/hr	1E-3	1E-3	2E-3	3E-3	4E-3	3E-3	2E-3	1E-3	1E-3	1E-3	1E-3	1E-3
RE 4597AB Ch. 5, Collector 3 RE 4597BB Ch. 5, Collector 3	Particulate/Iodine	$10^{-3} - 10^{4}$ mR/hr	1E-3	1E-3	2E-3	3E-3	4E-3	4E-3	4E-3	3E-3	2E-3	2E-3	2E-3	2E-3
Flow: Normal 1000 SCFM; Low 750 SCFM														

IN-PLANT RADIATION MONITORS

TABLE 7-1 (Cont'd)

ELEMENT NO.	LOCATION	INSTRUMENT RANGE	0710	0800	0900	0930	1000	1030	1100	1150	1200	1230	1300	1400
Station Vent Normal Range Monitors														
RE 4598AA Ch. 1 RE 4598BA Ch. 1	Noble Gas	10^{-7} - 3 x 10^{-1} µCi/cc	1E-7	1E-7	1E-7	1E-4	3E-4	8E-4	4E-3	4E-2	2E-1	5E-2	3E-2	1E-2
RE 4598AA Ch. 2 RE 4598BA Ch. 2	Particulate	10^{-10} - 10^{-7} µCi/cc	0	0	0	0	0	0	0	0	0	0	0	0
RE 4598AA Ch. 3 RE 4598BA Ch. 3	Iodine	10^{-10} - 10^{-2} µCi/cc	0	0	0	0	0	0	0	0	0	0	0	0
Station Vent Accident Range Monitors														
RE 4598AB Ch. 1 RE 4598BB Ch. 1	Noble Gas	5 x 10^{-2} - 10^{2} µCi/cc	5E-2	5E-2	5E-2	5E-2	5E-2	5E-2	5E-2	7E-2	2E-1	2E-1	5E-2	5E-2
RE 4598AB Ch. 2 RE 4598BB Ch. 2	Noble Gas	10^{1} - 10^{5} µCi/cc	0	0	0	0	0	0	0	0	0	0	0	0
RE 4598AB Ch. 3, Collector 1 RE 4598BB Ch. 3, Collector 1	Particulate/Iodine	10^{-3} - 10^{4} mR/hr	0	0	0	0	0	0	0	0	0	0	0	0
RE 4598 Ch. 4, Collector 2 RE 4598BB Ch. 4, Collector 2	Particulate/Iodine	10^{-3} - 10^{4} mR/hr	0	0	0	0	0	0	0	0	0	0	0	0
RE 4598AB Ch. 5, Collector 3 RE 4598BB Ch. 5, Collector 3	Particulate/Iodine	10^{-3} - 10^{4} mR/hr	0	0	0	0	0	0	0	0	0	0	0	0
Safety Features Actuation System (SFAS) Monitors														
RIS 2004 (SFAS CH #1 Cabinet)		0.1 - 10^{7} mR/hr	9	30	13	420	1000	1000	1000	1000	1000	1000	1000	1000
RIS 2005 (SFAS CH #2 Cabinet)		0.1 - 10^{7} mR/hr	3	30	132	415	1000	1000	1000	1000	1000	1000	1000	1000
RIS 2006 (SFAS CH #3 Cabinet)		0.1 - 10^{7} mR/hr	20	30	135	420	1000	1000	1000	1000	1000	1000	1000	1000
RIS 2007 (SFAS CH #4 Cabinet)		0.1 - 10^{7} mR/hr	2	30	132	415	1000	1000	1000	1000	1000	1000	1000	1000

7.4 PUBLIC INFORMATION CUE CARDS

This section provides messages for use in controlling as well as initiating response actions by members of the Public Affairs staff at the Edison Plaza in Toledo, Ohio and at the alternate Joint Public Information Center located in Maumee, Ohio.

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-1

TO: Emergency Response Organization TIME: Player Briefing

T: _____

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

INITIAL CONDITIONS

- Nuclear Industry topics have become major campaign issues for the election candidates.
- Local issues focus on environmental concerns. National issues focus on safety concerns and radiological waste.
- The latest public opinion poll by USCEA shows:

  30% - Favor the nuclear option.
  20% - Do not favor the nuclear option.
  50% - Undecided.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-1

TO: Lead JPIC Controller

TIME: Player Briefing

T: _____

ANTICIPATED RESPONSE:

INSTRUCTIONS:

Provide this card to appropriate ERO staff at the Player Briefing.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-2X

TO: Public Affairs Duty Officer TIME: 07:40

T: 00/40

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Develop and provide a media advisory to the mock AP/UPI fax. (Use extension 8361 for fax information.)

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-2X

TO: JPIC Controller

TIME: 07:40

T: 00/40

ANTICIPATED RESPONSE:

PADO provides media advisory to mock AP/UPI services.

INSTRUCTIONS:

Do not allow drill information to be sent to AP/UPI offices.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-3X

TO: Public Affairs Duty Officer TIME: 07:45

T: 00/45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Provide media advisory to:

- Alternate JPIC
- U.S. Council for Energy Awareness (Fax ext. 6040)
- U.S. NRC
- NRC Region III

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-3X

TO: JPIC Controller

TIME: 07:45

T: 00/45

ANTICIPATED RESPONSE:

PADO provides media advisory to identified locations.

INSTRUCTIONS:

Do not allow drill information to be sent to USCEA, USNRC, NRC Region III.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-4

TO: Public Caller TIME: 07:50

T: 00/50

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

State "This is a drill" at the beginning and end of phone call.

Contact the PADO via the Edison operator and request information on simulated emergency conditions.

Inform the PRDO you are a reporter from the Washington Post. Following receipt of information, inform the PRDO this represents the tenth media call.

Provide your extension if operator requests call back number for the PRDO.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-4

TO: JPIC Controller

TIME: 07:50

T: 00/50

ANTICIPATED RESPONSE:

PRDO provides information on simulated emergency conditions at DBNPS.

INSTRUCTIONS:

Note accuracy of information provided. Follow up by review of messages between the PRDO and JPIC Manager/Company Spokesperson.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-5X

TO: Public Affairs Duty Officer TIME: 08:00

T: 01/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

State "This is a Drill" at the beginning and end of phone call.

Contact the Company Spokesperson and recommend activation of the Alternate JPIC based on high media interest.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-5X

TO: JPIC Controller

TIME: 08:00

T: 01/00

ANTICIPATED RESPONSE:

- PRDO informs the Company Spokesperson on need to activate the JPIC.
- Company Spokesperson should commence JPIC Activation Process.

INSTRUCTIONS:

Do not provide this card if JPIC activation has already commenced.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-6X

TO: Company Spokesperson TIME: 08:25

T: 01/25

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Commence JPIC staff notification for facility activation.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont)

CUE CARD NO. PR-6X

TO: JPIC Controller

TIME: 08:25

T: 01/25

ANTICIPATED RESPONSE:

Company Spokesperson commences staif notification for JPIC activation.

INSTRUCTIONS:

Do not provide this card if JPIC activatior has already commenced.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-7

TO: Public Caller TIME: 08:40

T: 01/40

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

State "This is a drill" at the beginning and end of phone calls.

Call the Edison Operator at extension 5000.

- Inform the Operator you are a representative of Cable News Network (CNN). Request information on where your trucks and crew should set up for coverage of the Davis-Besse emergency. Ask for the name of an official who can be contacted for up-to-date information on emergency conditions.
- You are enroute from Dayton and do not have a call back number.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-7

TO: Public Caller

TIME: 08:40

T: 01/40

ANTICIPATED RESPONSE:

Edison Operator should provide information on Edison Club location, Company Spokesperson or PRDO name.

INSTRUCTIONS:

If the Edison Operator is unsure of requested information, identify you will call back later when you are clear to Toledo.

* NOTE OPERATOR RESPONSE.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-8

TO: Public Caller TIME: 09:00

T: 02/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

State "This is a drill" at the beginning and end of phone calls.

Place calls to the Edison Operator at extension 5000. Ask to speak to an official on the emergency at Davis-Besse.

1. You are a reporter from Rio de Janeiro - Brazil.

   Questions:
   - How many years was the Davis-Besse reactor in service?
   - How many other emergencies have there been since 1985?
   - What was power history of the reactor prior to the accident?

2. You are a reporter from Tokyo, Japan.

   Questions:
   - What was the last refueling period?
   - Were there any injured people?
   - What is the extent of damage to the reactor?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-8

TO: Public Caller

TIME: 09:00

T: 02/00

ANTICIPATED RESPONSE:

Edison Operator should forward calls to Public Concern Operators or Company Spokesperson.

INSTRUCTIONS:

Document response to calls.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-9

TO: Public Callers TIME: Approx. 08:45 - 09:45

T: 01/45 - 02/45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Use the following questions only during the ALERT classification. Place calls at the indicated time. Call the Public Concern Operators, and state "This is a drill" for all calls. Log responses to questions.

1. Name: Jan Ardell
   Town: Port Clinton

   (Reporter from the Port Clinton News Herald.) Provide name only if requested.

   What happened? --- How many people were injured?
   Is the public in danger? --- When will it be fixed?
   OK, thanks. This is a drill.

2. Name: Glen/Glenda Meyere
   Town: Toledo

   I'm at WTOL, TV11. Our news desk was asked to report on your emergency.

   What caused the emergency at Davis-Besse?
   How long has this problem been going on?
   Is there any radiation problem?
   Are you sure there isn't any radiation getting out into the air?
   Our crew will be coming out, where should they go for a tour?

   This is a drill.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-9

TO: Public Callers TIME: Approx. 08:45 - 09:45

T: 01/45 - 02/45

********** **********

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

3. Name: Andy/Ann Davis
Town: Northwood

This is radio station WXDR, 94.5 FM. Ottawa County officials are closing Crane Creek State Park. Supposedly this is due to a disaster at the plant. Our next news goes on in five minutes and I need answers to some questions, so here's the first one.

What is the reason for the evacuation?
How long will it last?
What should the people do?
Is anyone at the plant injured?

Thanks, if anything changes let me know right away. Call me at _____ (provide your extension).

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-9

TO: Public Callers TIME: Approx. 08:45 - 09:45

T: 01/45 - 02/45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

4. Name: Tom Ploy
Town: Toledo

I heard on my car radio that Davis-Besse is in trouble again. (You are a reporter from the Toledo Blade.)

What's the problem? --- How many people are contaminated?
What actions have taken place?
How much contamination is leaking and where is it going?
Are the plant workers evacuating?

This is a drill.

5. Name: Craig/Clare Booth
Town: Graytown

Who determined the meanings of Emergency Classifications? Isn't an emergency an emergency? Why are we told to do things differently for each classification?

This is a drill.

6. Name: Bart/Ben Tork
Town: Fremont

I'm a retired engineer and want to help you. Where should I go to lend a hand? What exactly is the problem? How much is the pay?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-9

TO: Public Callers TIME: Approx. 08:45 - 09:45

T: 01/45 - 02/45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

7. Name: Dee Parker
Town: Columbus

This is Dee Parker from the Columbus Dispatch. We got a call from the Governor's Press Secretary cancelling an interview because of an emergency at Davis-Besse Station. According to her the Governor must respond to the accident.

What does Alert mean? What other types of accidents are there?
Will you FAX any information you have to me? (Provide Control Cell FAX number if agreed.)
What other governmental officials are involved?
If radiation gets out can it get to Columbus?
I'm going to send a crew out. Where should they go when they get to the plant? We'll need someone to help show them around, will you be available?

This is a drill.

8. Name: Richard Carter
Town: London Daily - London, England

What is the cause of your emergency?
What type of plant is Davis-Besse (PWR/BWR)?
Made by who? (B&W, etc.)?
Was the plant operating when the accident happened?

This is a drill.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-9

TO: Public Callers

TIME: Approx. 08:45 - 09:45

T: 01/45 - 02/45

ANTICIPATED RESPONSE:

Public Concern Operators should respond to questions.

INSTRUCTIONS:

Provide extension you are using if call back is requested.

If Public Concern Operators question how you received their number, inform them your call was transferred from the Edison Operator.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-10

TO: Mock Media Leader TIME: Approx. 10:05

T: 03/05

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Enter the JPIC.

Provide your name and assumed media affiliation.

Upon completion of badging requirements start asking questions on plant status and employee activities.

Have remaining mock media enter the JPIC about 5 minutes following your entrance.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-10

TO: JPIC Controller

TIME: Approx. 10:05

T: 03/05

ANTICIPATED RESPONSE:

Observe media badging activities.

INSTRUCTIONS:

Inform lead controller on media arrival.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Place calls during the indicated time. Start questions upon notification of Site Area Emergency and siren activation. Call as frequently as possible. Each Public Concern Operator should respond to one call every five minutes. Use follow-up questions as appropriate. Rephrase questions as necessary. State "This is a drill" for all calls.

1. Name: B. Jones
   Town: Bono - Jerusalem Township

   I heard on the radio that I'm supposed to read my emergency brochure. I can't find mine. What should I do?

2. Name: S. Talbert
   Town: Maumee

   What is my electric rates going to be now?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

STATION:

3. Name: E. Brown

Reporter from the Philadelphia Inquirer.

What is the extent of damage? What is the effect on the environment? What are the major problems to be repaired first. Who will fix them? How many people live near the plant?

4. Name: D. Orioff
Town: Lacarne

Does this emergency affect my electricity? Where is my power coming from? If power goes away I won't be able to listen to the news, I don't have a battery powered radio. What should I do?

5. Name: J. Williams
Town: Salem

I just moved into this house last week. We don't understand what is going on or what to do. My family is frightened and want to leave. Will you explain what this is about?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

6. Name: R. Coro
Town: Martin

Do you have the reactor turned off yet? Is it going to blowup? What do emergencies really mean?

7. Name: C. Furney
Reporter - Boston Globe

When was the plant placed in the emergency condition? What happened? Was anyone injured? Who is in charge? I'll need to speak with the CEO, when will he be available?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

8. Name: A Craig
Town: Marblehead

What caused this problem? How many people are going to get sick?

9. Name: S. Crawford
Reporter: Oakland Tribune

Is this accident similar to Three Mile Island? Why not? How much radiation is in the reactor? How do you know its safe to be in Toledo?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

10. Name: K. Pall
Town: Toledo

I'm a student at UT working on my doctorate in industrial psychology. How are people reacting at the plant? How about public response - has anyone called and what questions are they asking?
How many people live near the plant?
Where is your company president, and will he be going to the plant?

11. Name: S. Adams
Town: Monroe

I'm a staff reporter from the Detroit Free Press. Has Fermi been asked to help?
How many people are affected?
What broke and why?
Is the leaking fluid getting into Lake Erie?

12. Name: Jamie Singleton
Town: Washington D.C

This is Jamie Singleton from USCEA. Please provide me your FAX number, a list of your current public information assistance needs, and biographical sketches of your official spokesperson. (Provide Control Cell FAX No.)

13. Name: P. Zeller
Town: Sandusky

What does this accident mean in terms of employment in Toledo? Will the emergency affect property near Port Clinton?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DC NOT initiate actions affecting normal plant operations.

****

INFORMATION:

14. Name: F. Gardner
Staff Writer: Business Week

How well is your company positioned for this set back? What is the name and number of your CEO?

15. Name: A. Energy
Town: Oak Harbor

I own a condo at Green Cove; what should I do to protect my property?

16. Name: Joan/Rich Hillman
Town: Genoa

I've heard about the disaster on my radio. If I need to evacuate how will you tell me? By the way, how are your sure everybody knows what to do?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

17. Name: Davey Lear
Town: Dayton

I heard about your emergency, could if affect my health?
What level of contamination causes cancer?
What are the exposures near Toledo?

18. Name: J. Wise
Office of Senator J. Glenn

Senator Glenn will be arriving at the disaster site this evening by helicopter. Who will be there to escort him and his staff? There will be 12 people taking a tour of the nuclear plant with another 40-45 from the press. Could you make arrangements for them to have dinner?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

19. Name: T. Mitchell
Town: Port Clinton

My husband/wife works at Davis-Besse. How can I find out if he/she is okay? (Employee name is S. Mitchell.)

20. Name: C. Carver
Town: Chicago (Reporter from the Chicago newspaper.)

When do you think this emergency will end?
How long has it been going on?
Is anyone in danger near the power plant?

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-11

TO: Public Callers TIME: Approx. 10:00 - 14:30

T: 03/00 - 07/30

ANTICIPATED RESPONSE:

Public Concern Operators should respond to questions.

INSTRUCTIONS:

Note responses questions.

Provide call back number if requested.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-12

TO: Mock Media TIME: Approx. 10:15

T: 03/15

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Yield questioning to real media if participating.

° First Media Briefing

Focus questions to panel on "people" issues and pre-planned actions.

Challenge State and County PIO's on public health and safety concerns.

Develop trends in questioning.

****

THIS IS A DRILL

****

DENPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-12

TO: JPIC Controller

TIME: Approx. 10:15

T: 03/15

ANTICIPATED RESPONSE:

Mock Media questions focused on people and planning issues.

INSTRUCTIONS:

- Note concerns in response provided by the Company Spokesperson and PIO's.
- Observe Technical Briefing if performed.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-13

TO: Mock Media TIME: Approx. 11:30

T: 04/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Yield questioning to real media if participating.

- Second Briefing

  Focus questions on the "hazards" of radiation and effects on the EPZ.

  Challenge PIO's on activities at their parent offices.

- Request response to unanswered questions from prior briefing.

- Develop trends in questioning.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-13

TO: JPIC Controller

TIME: Approx. 11:30

T: 04/30

ANTICIPATED RESPONSE:

Mock media focus questions as necessary.

INSTRUCTIONS:

Note concerns in response provided by the Company Spokesperson and PIO's.

Observe Technical Briefing if performed.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-14

TO: TIME: Approx. 12:45 - 14:30

T: 05/45 - 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Yield questioning to real media if participating.

- Third and following briefings.

  Focus questions on management of radiological waste generated by the accident.

  Challenge PIO's on management of radiological waste if found offsite.

  Ask questions on locations of plants similar to DBNPS.

  - Where are they in the U.S. and in other countries?
  - How many have had similar accidents?

- Develop trends in questioning.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-14

TO: JPIC Controller

TIME: Approx. 12:45 - 14:30

T: 05/45 - 07/30

ANTICIPATED RESPONSE:

Mock Media questions focused as necessary.

INSTRUCTIONS:

- Note concerns in response provided by the Company Spokesperson and PIO's.
- Observe Technical Briefing if performed.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-15

TO: Mock Media TIME: Approx. 14:30

T: 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Exit the JPIC. Allow briefing in progress to be completed. Follow badging instructions.

Provide comments and concerns to the JPIC Controller.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-15

TO: JPIC Controller

TIME: Approx. 14:30

T: 07/30

ANTICIPATED RESPONSE:

Mock media exits the JPIC.

INSTRUCTIONS:

Collect comments and concerns from the mock media. Assemble comments for controller review and facility critique.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. PR-16X

TO: Company Spokesperson

TIME: Approx. 14:30

T: 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Terminate JPIC support.

Follow JPIC Termination Procedure.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-16X

TO: Lead JPIC Controller

TIME: Approx. 14:30

T: 07/30

ANTICIPATED RESPONSE:

Termination of JPIC support.

INSTRUCTIONS:

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. PR-17X

TO: JPIC Manager TIME: Approx. 14:30

DATE: 07/30

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations

****

INFORMATION:

Inform Edison Operator and Public Affairs of termination of the Emergency Exercise.

Collect all logs and notes from the JPIC staff. Provide documents to the Lead Controller during the facility critique.

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. PR-17X

TO: Lead JPIC Controller

TIME: Approx. 14:30

T: 07/30

ANTICIPATED RESPONSE:

JPIC Manager provides notification of termination of Emergency Exercise to Edison Operator and Public Affairs.

Logs and notes collected.

INSTRUCTIONS:

****

THIS IS A DRILL

****

SECTION 8.0

ONSITE RADIOLOGICAL, MEDICAL AND CHEMISTRY DATA

This section provides in-plant and site dose rate information, medical information, chemistry and post accident sampling information for Controller use during site emergency response team missions.

8.1 PLANT RADIATION DATA

The plant data sheets in Section 7.0 contain "fixed" monitor information consistent with the radiation levels generated by the plant Simulator. In this section, the fixed monitor readings are correlated to the "general area" readings that would be seen by emergency response team members with survey meters.

The readings are presented on plant maps for ease of use by Controllers. A map is provided for each elevation where response teams may be dispatched. This includes:

- Auxiliary Building Elevations 545', 565', 585', 603', 623', 638' & 643'
- Turbine Building Elevations 567', 585', 603', 623'
- Protected Area Ground Elevation

Data is presented in blocks of time corresponding to those times where plant changes do not affect the radiation levels (i.e., steady state conditions). Thus, a new block of data is provided whenever a plant event takes place that alters the general area radiation levels.

The radiation release path is from the Reactor Coolant System into #2 Steam Generator due to tube ruptures, then into Containment due to a Main Steam line break, and from Containment into the annulus through a vacuum breaker failure. Once the radioactivity is in the annulus, the Emergency Ventilation System draws it into the Mechanical Penetration Rooms, then filters out the particulates before exhausting the noble gases out the Station Vent. (Refer to Figure 6.3-1 in Section 6.) Except for the Mechanical Penetration Rooms, it will be assumed that the radioactivity passes through "closed" ventilation ducts to the Station Vent.

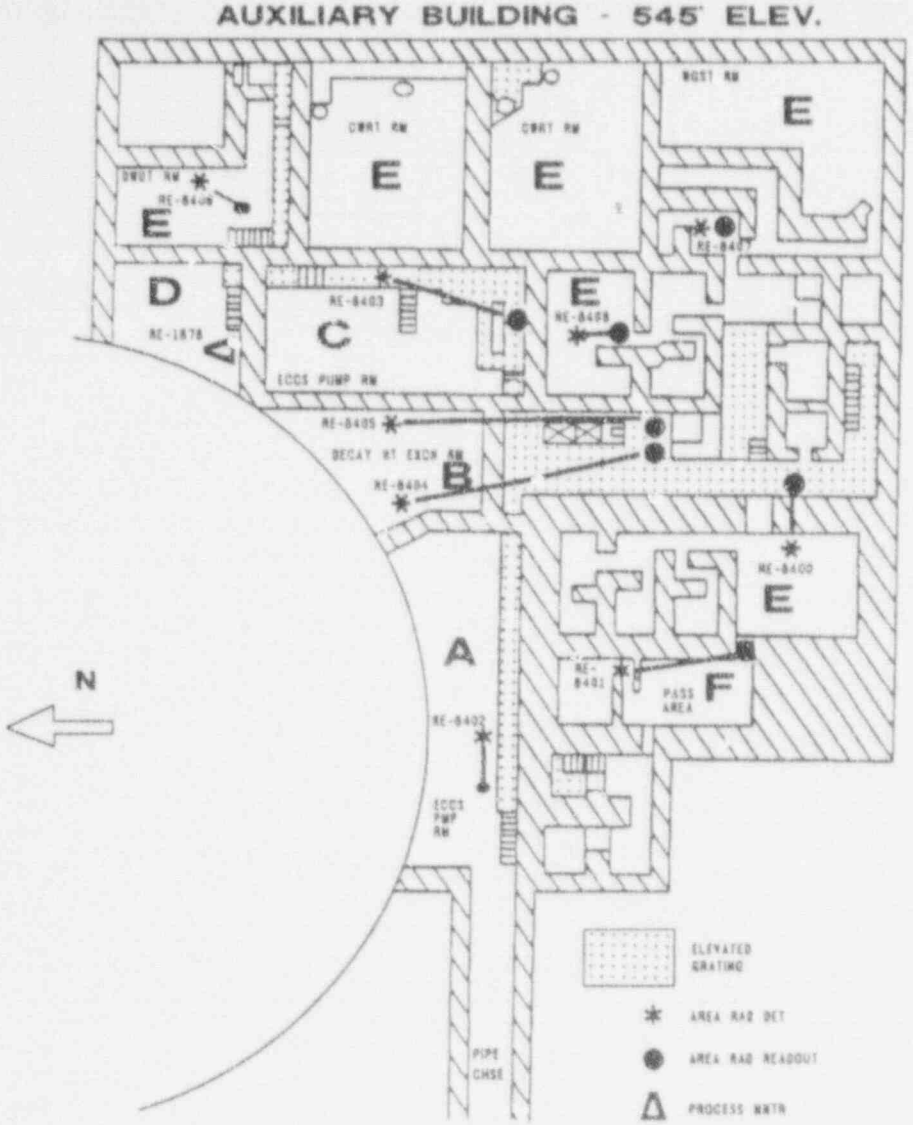
Thus, with the exception of the Mechanical Penetration Rooms, Controllers should use the following guidelines when transmitting radiological information to the Players:

- Open and closed window readings will be the same.
- Collected and analyzed air samples will have results of "as read" (with the exception of Containment air samples which are covered in the PASS results, Section 8.4).
- Results from contamination surveys (i.e., smears) performed within the plant will be "as read".

If players go inside the Mechanical Penetration Rooms, Controllers should use the following guidelines:

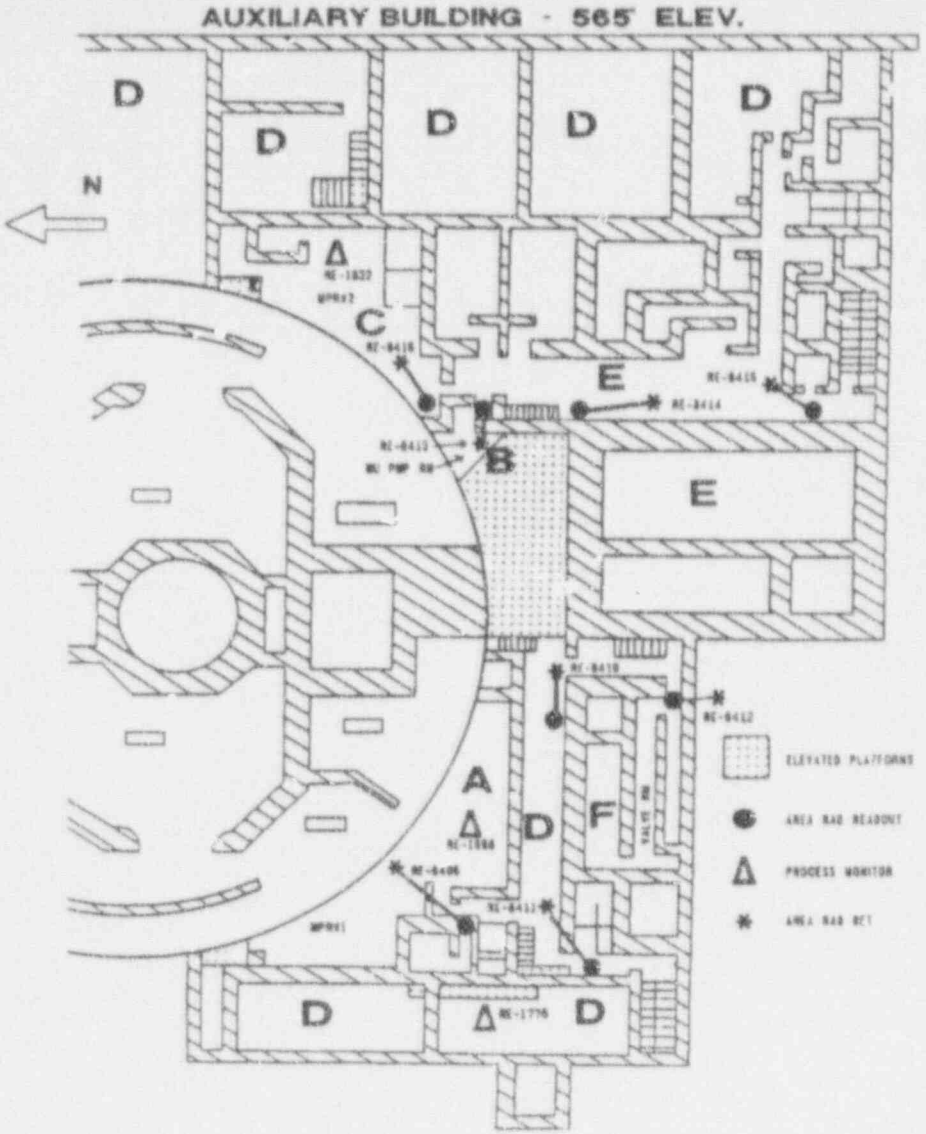
- Open window readings should be given as a factor of 2 higher than the readings shown on the plant radiation maps that follow.
- Smears can read 600 cpm or higher.
- Air sample charcoal cartridges can read 75,000 cpm or higher and the filter paper can read 650 cpm or higher.

Dosimeter readings can be extrapolated by taking the time an individual remains in an area, times the dose rate from the corresponding time block for the area, plus any additional exposure data if the individual was in any other area for 15 minutes or greater. Controllers should not overload themselves with this calculation. If time does not permit a quick extrapolation to be performed, Controllers can simply raise the Player's dosimeter reading by a small amount over their previous reading (e.g., 25 mR) just for drill simulation purposes.



DOSE RATE INFORMATION

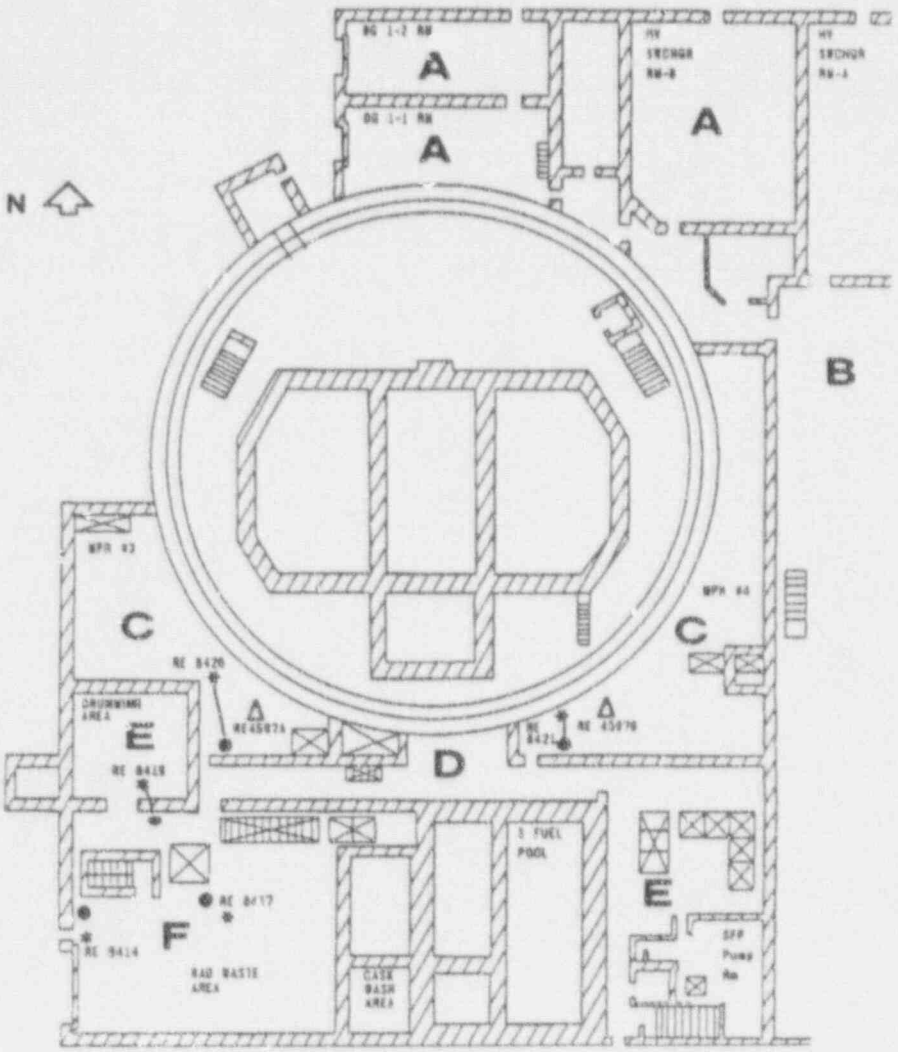
TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	As Read	As Read	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	200	
1000	As Read	As Read	As Read	As Read	As Read	250	
1030	As Read	As Read	As Read	As Read	As Read	250	
1100	As Read	As Read	As Read	As Read	As Read	250	
1150	500	60	As Read	As Read	As Read	250	
1200	1E4	65	65	As Read	As Read	250	
1230	1E4	2E3	2E3	As Read	As Read	30	
1300	1E4	1E4	1E3	As Read	As Read	5	
1400	1E4	541	538	As Read	As Read	5	



DOSE RATE INFORMATION

TIME HOURS	mP/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	As Read	As Read	As Read	As Read	As Read	
0900	10	5	800	3.5	As Read	As Read	
0930	9E3	5	9E3	3.5	As Read	As Read	
1000	1E4	5	1E4	3.5	As Read	As Read	
1030	1E4	5	1E4	3.5	As Read	As Read	
1100	1E4	5	1E4	3.5	As Read	As Read	
1150	1E4	5	1E4	3.5	As Read	As Read	
1200	1E4	300	1E4	3.5	As Read	As Read	
1230	2E3	2E3	2E3	3.5	As Read	As Read	
1300	1E3	1E3	1E3	3.5	As Read	As Read	
1400	536	500	540	3.5	As Read	As Read	

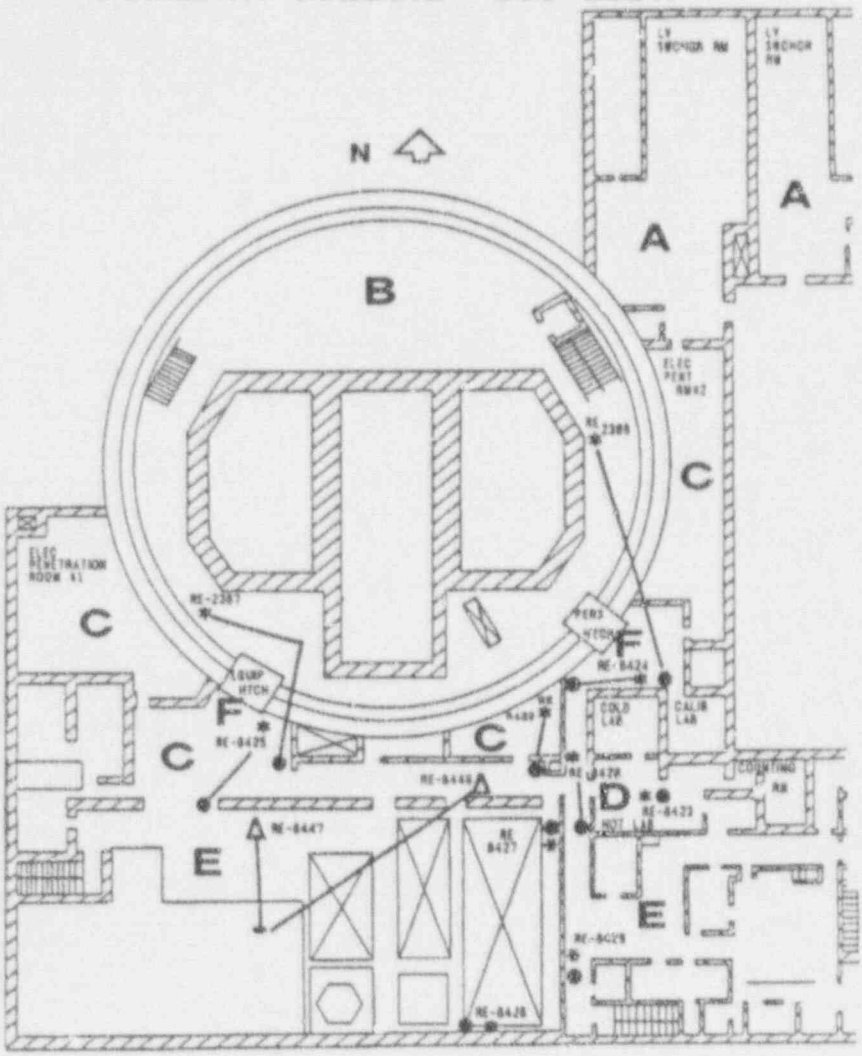
AUXILIARY BUILDING - 585' ELEV.



DOSE RATE INFORMATION

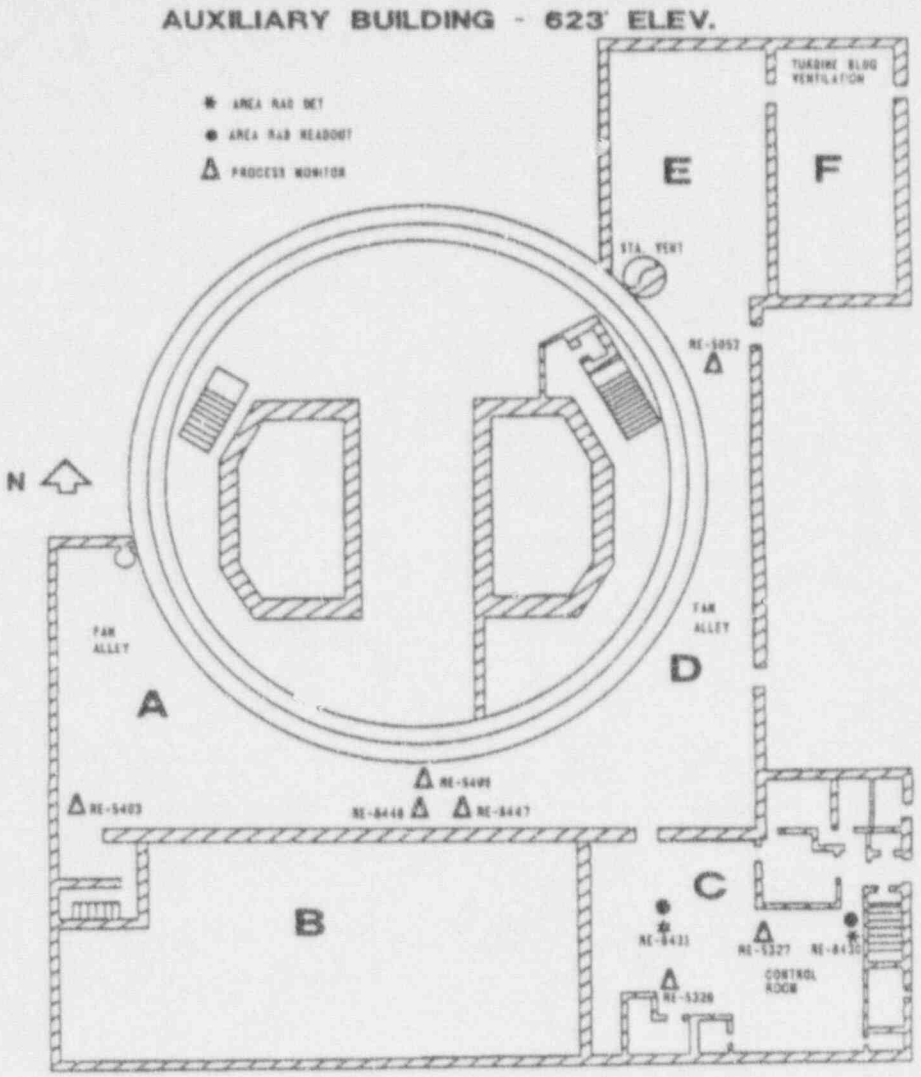
TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0300	As Read	As Read	As Read	As Read	As Read	As Read	
0900	As Read	As Read	1C	As Read	As Read	As Read	
0930	As Read	As Read	9E3	As Read	As Read	As Read	
1000	As Read	As Read	1E4	As Read	As Read	As Read	
1030	As Read	As Read	1E4	As Read	As Read	As Read	
1100	As Read	As Read	1E4	As Read	As Read	As Read	
1150	As Read	As Read	1E4	As Read	As Read	As Read	
1200	As Read	As Read	1E4	As Read	As Read	As Read	
1230	As Read	As Read	2E3	As Read	As Read	As Read	
1300	As Read	As Read	1E3	As Read	As Read	As Read	
1400	As Read	As Read	540	As Read	As Read	As Read	

AUXILIARY BUILDING - 603' ELEV.



DOSE RATE INFORMATION

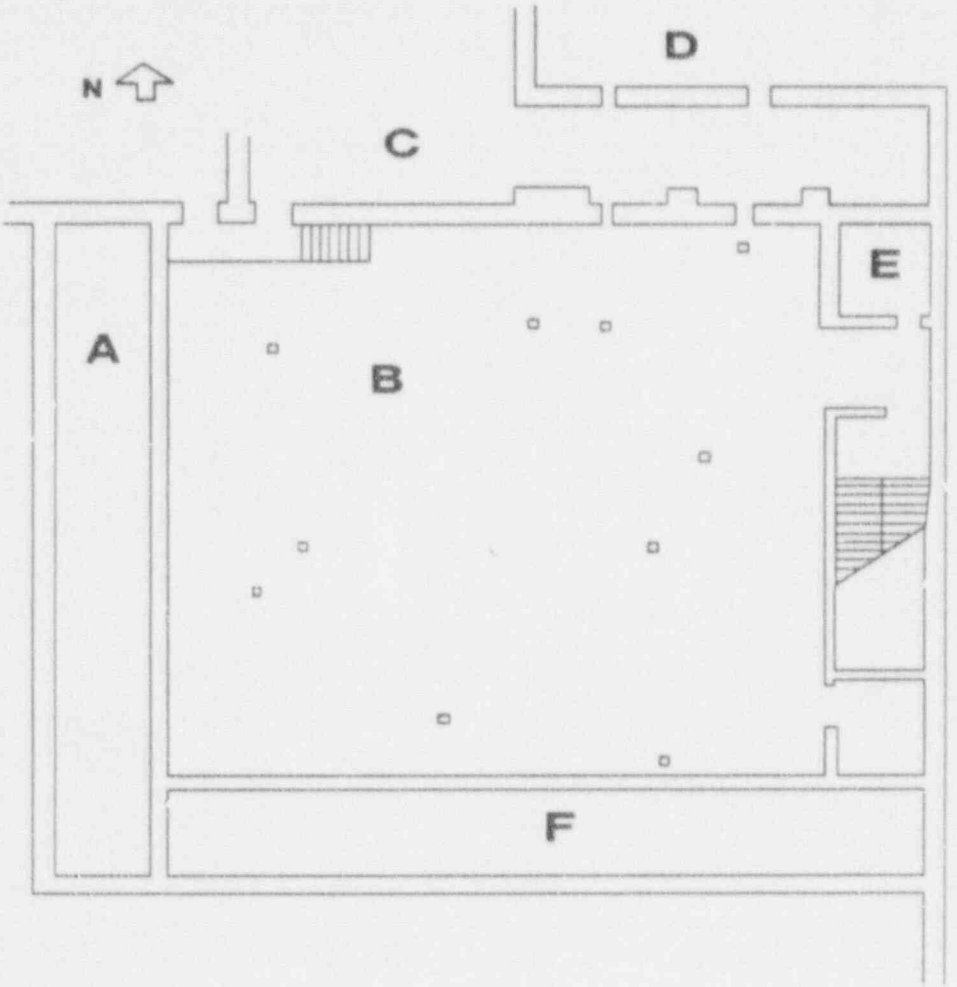
TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	135	As Read	As Read	As Read	As Read	
0900	As Read	4E3	As Read	As Read	As Read	As Read	
0930	As Read	2E7	As Read	As Read	As Read	As Read	
1000	As Read	2E7	As Read	As Read	As Read	As Read	
1030	As Read	2E7	As Read	As Read	As Read	As Read	
1100	As Read	2E7	As Read	As Read	As Read	As Read	
1150	As Read	2E7	As Read	As Read	As Read	As Read	
1200	As Read	1E7	As Read	As Read	As Read	As Read	
1230	As Read	9E6	As Read	As Read	As Read	As Read	
1300	As Read	8E6	As Read	As Read	As Read	As Read	
1400	As Read	7E6	As Read	As Read	As Read	As Read	



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	As Read	As Read	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	As Read	As Read	As Read	As Read	850	As Read	
1200	As Read	As Read	As Read	As Read	575	As Read	
1230	As Read	As Read	As Read	As Read	420	As Read	
1300	As Read	As Read	As Read	As Read	180	As Read	
1400	As Read	As Read	As Read	As Read	As Read	As Read	

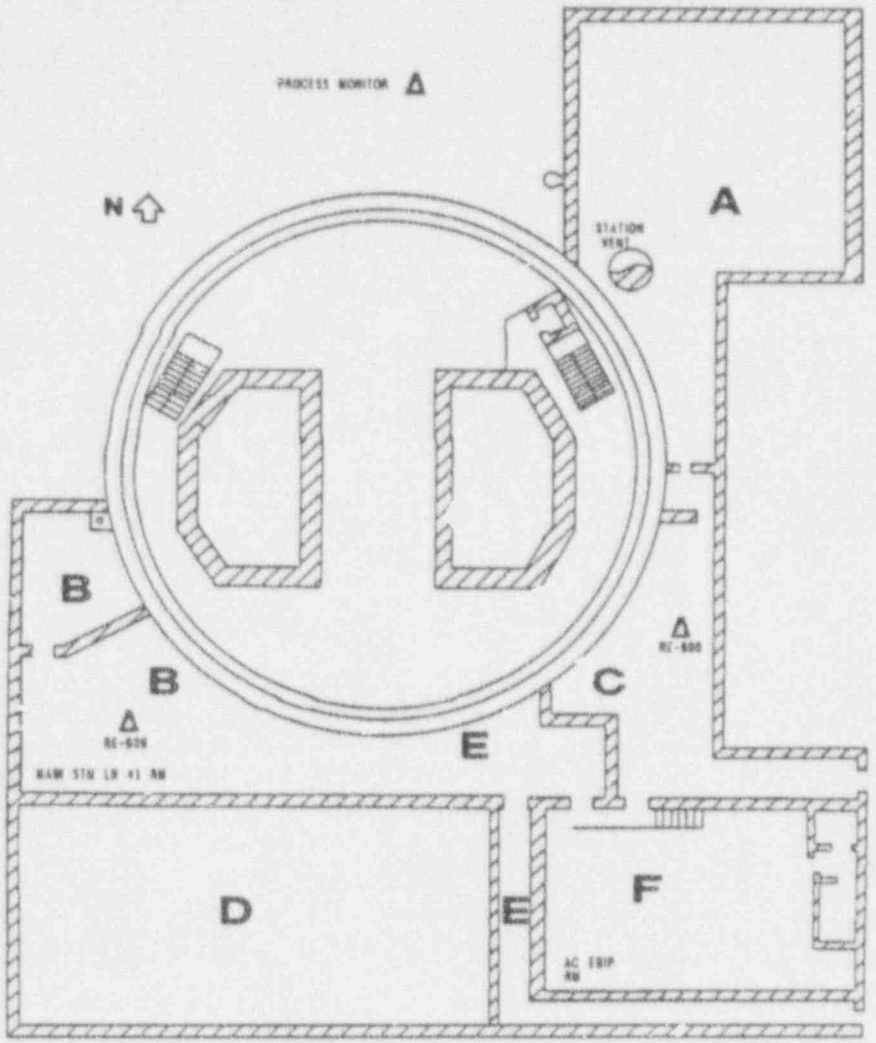
AUXILIARY BUILDING - 638' ELEV.



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as re/
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	As Read	As Read	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	As Read	As Read	As Read	As Read	As Read	As Read	
1200	As Read	As Read	As Read	As Read	As Read	As Read	
1230	As Read	As Read	As Read	As Read	As Read	As Read	
1300	As Read	As Read	As Read	As Read	As Read	As Read	
1400	As Read	As Read	As Read	As Read	As Read	As Read	

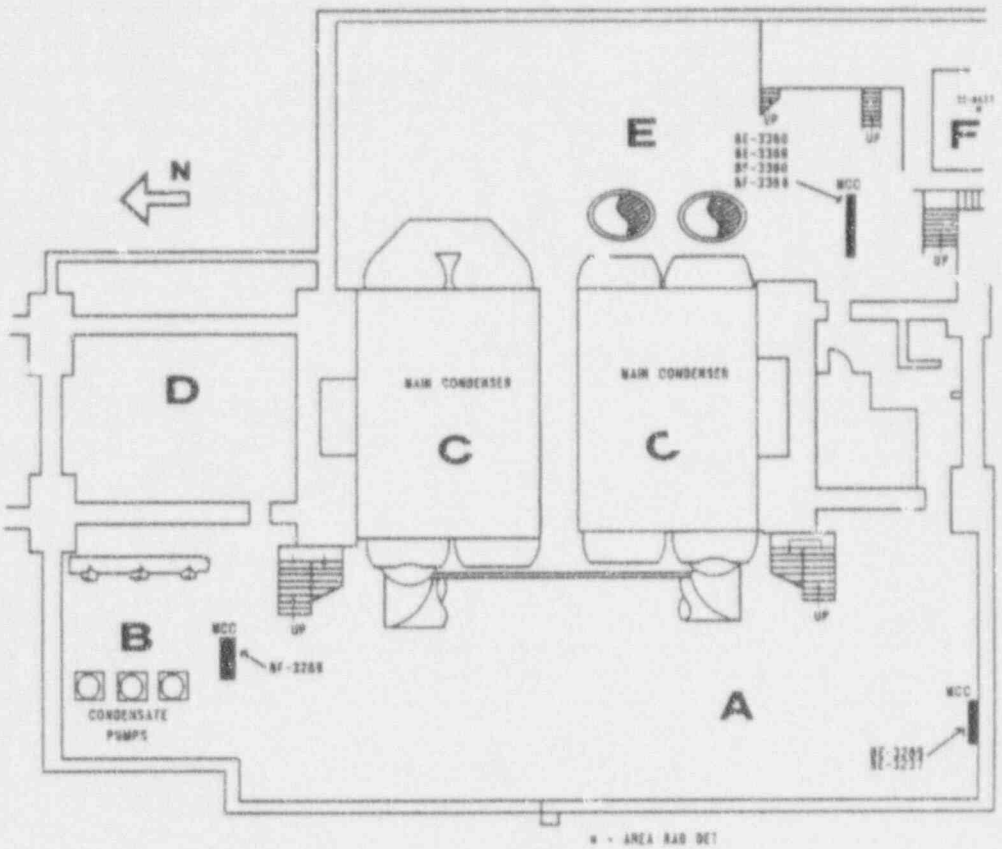
AUXILIARY BUILDING - 643' ELEV.



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	330	As Read	As Read	As Read	
0800	As Read	As Read	320	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	800	As Read	As Read	As Read	As Read	As Read	
1200	550	As Read	As Read	As Read	As Read	As Read	
1230	400	As Read	As Read	As Read	As Read	As Read	
1300	165	As Read	As Read	As Read	As Read	As Read	
1400	As Read	As Read	As Read	As Read	As Read	As Read	

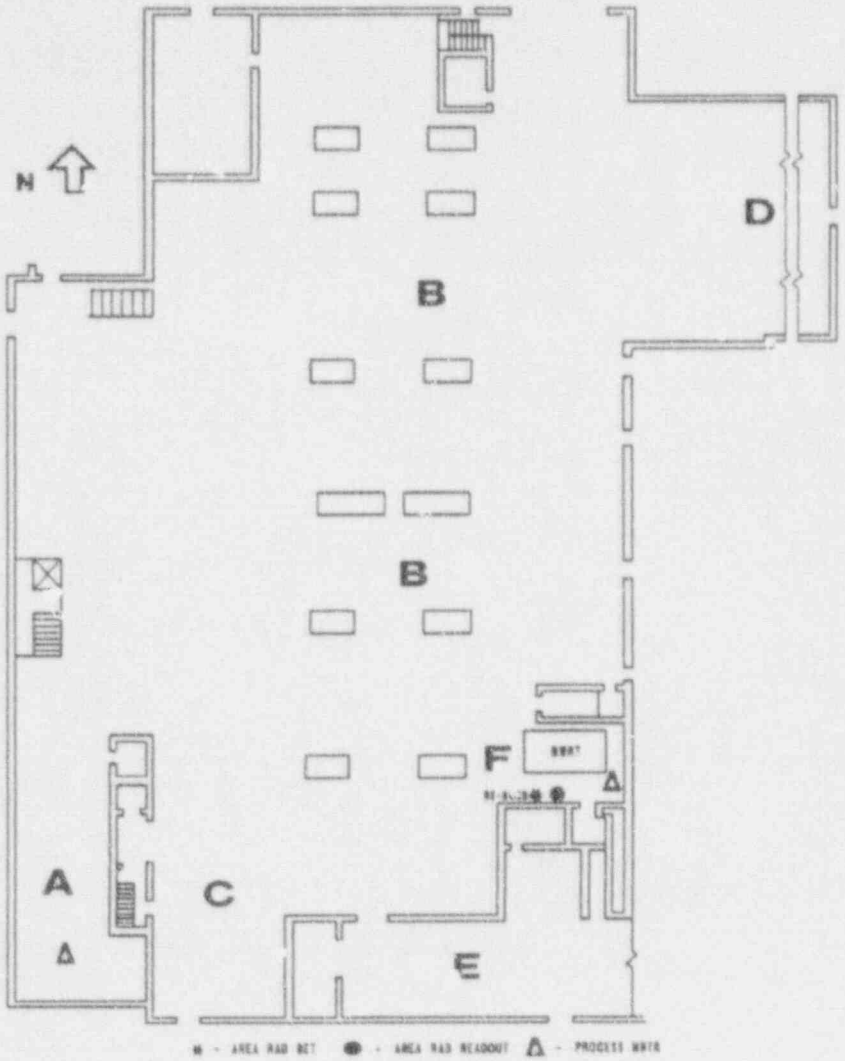
TURBINE BUILDING - 567' ELEV.



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	As Read	As Read	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	As Read	As Read	As Read	As Read	As Read	As Read	
1200	As Read	As Read	As Read	As Read	As Read	As Read	
1230	As Read	As Read	As Read	As Read	As Read	As Read	
1300	As Read	As Read	As Read	As Read	As Read	As Read	
1400	As Read	As Read	As Read	As Read	As Read	As Read	

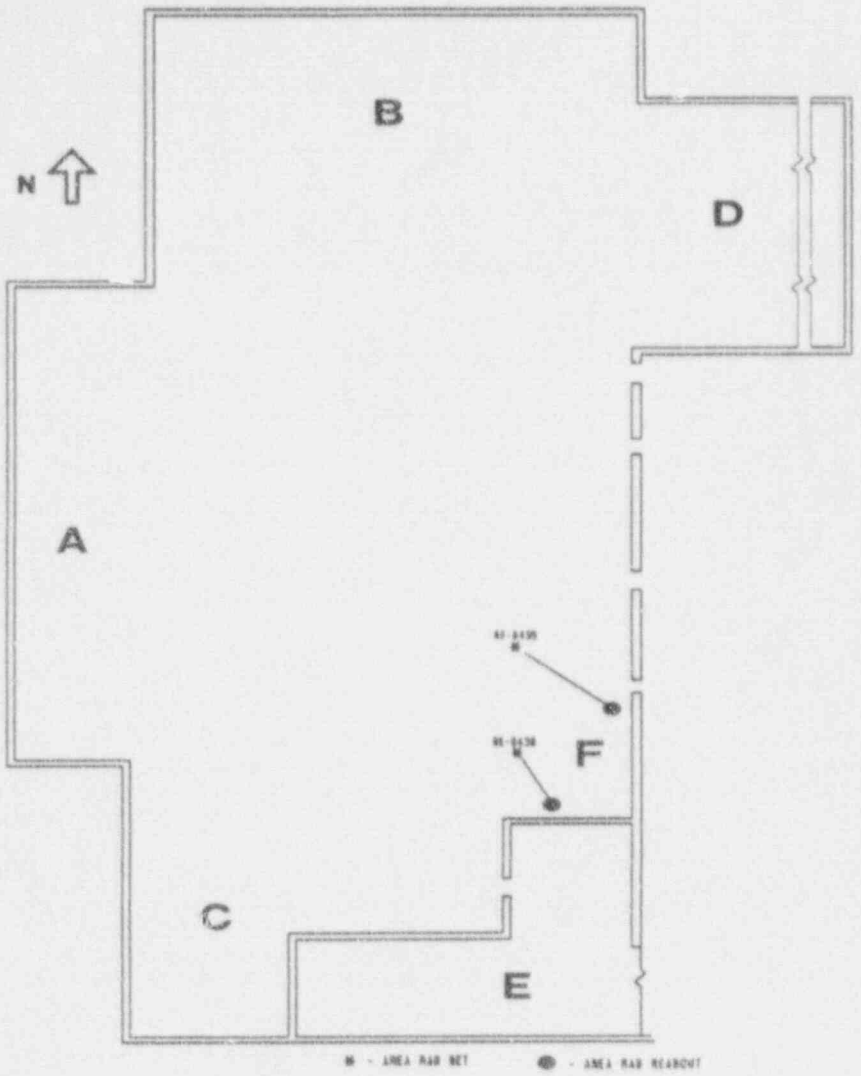
TURBINE BUILDING - 585' ELEV.



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window readings are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	250	As Read	As Read	As Read	
0800	As Read	As Read	240	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	As Read	As Read	As Read	As Read	As Read	As Read	
1200	As Read	As Read	As Read	As Read	As Read	As Read	
1230	As Read	As Read	As Read	As Read	As Read	As Read	
1300	As Read	As Read	As Read	As Read	As Read	As Read	
1400	As Read	As Read	As Read	As Read	As Read	As Read	

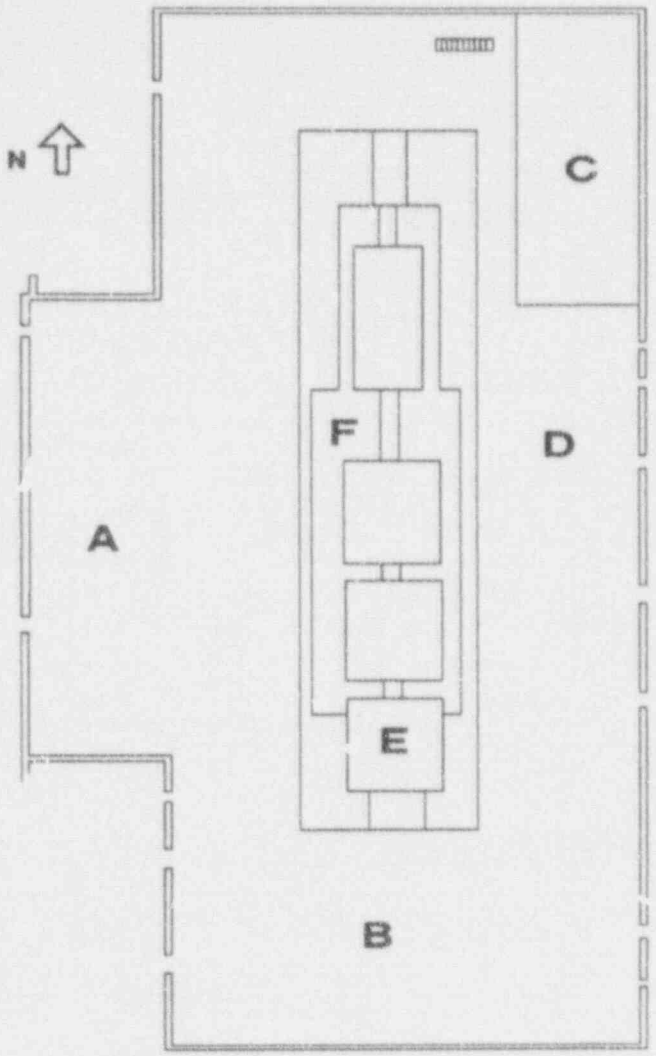
TURBINE BUILDING - 603' ELEV.



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	300	As Read	As Read	0.3	
0800	As Read	As Read	200	As Read	As Read	8.0	
0900	As Read	As Read	As Read	As Read	As Read	22	
0930	As Read	As Read	As Read	As Read	As Read	25	
1000	As Read	As Read	As Read	As Read	As Read	27	
1030	As Read	As Read	As Read	As Read	As Read	29	
1100	As Read	As Read	As Read	As Read	As Read	35	
1150	As Read	As Read	As Read	As Read	As Read	36	
1200	As Read	As Read	As Read	As Read	As Read	39	
1230	As Read	As Read	As Read	As Read	As Read	39	
1300	As Read	As Read	As Read	As Read	As Read	38	
1400	As Read	As Read	As Read	As Read	As Read	35	

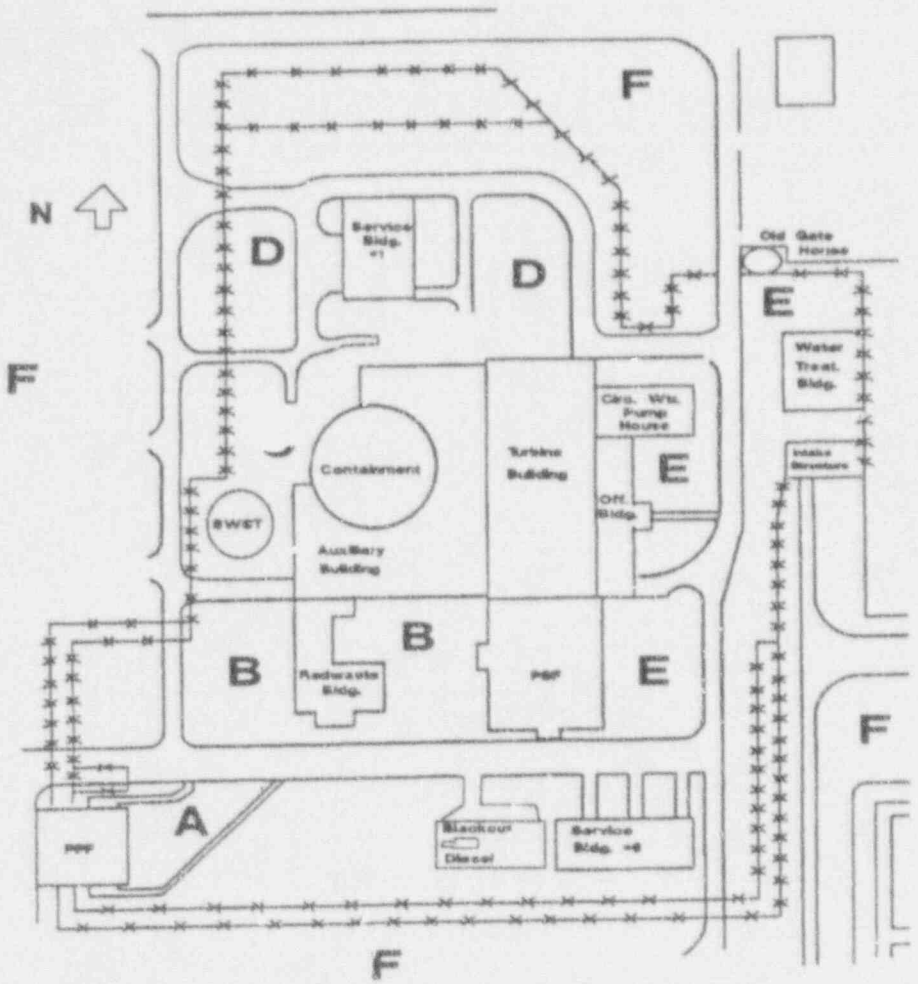
TURBINE BUILDING - 623' ELEV.



DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	270	As Read	As Read	As Read	As Read	
0800	As Read	260	As Read	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	As Read	As Read	As Read	As Read	As Read	As Read	
1200	As Read	As Read	As Read	As Read	As Read	As Read	
1230	As Read	As Read	As Read	As Read	As Read	As Read	
1300	As Read	As Read	As Read	As Read	As Read	As Read	
1400	As Read	As Read	As Read	As Read	As Read	As Read	

PROTECTED AREA
585' ELEV. (Grade Level)

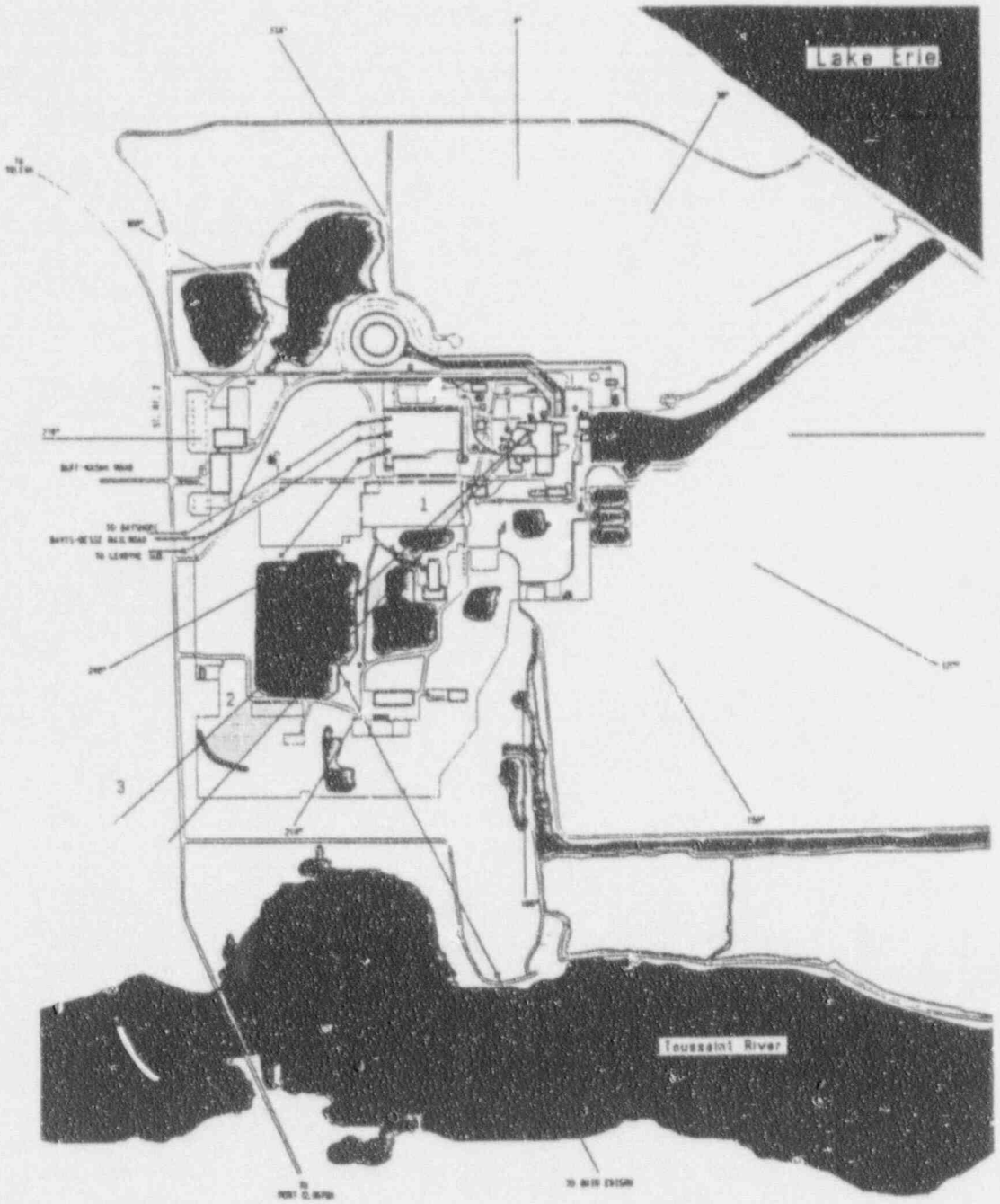


DOSE RATE INFORMATION

TIME HOURS	mR/hr Unless Noted						General Notes
	A	B	C	D	E	F	-Open & closed window read'gs are the same. -All results of air samples are "as read". -All smear results are "as read".
0715	As Read	As Read	As Read	As Read	As Read	As Read	
0800	As Read	As Read	As Read	As Read	As Read	As Read	
0900	As Read	As Read	As Read	As Read	As Read	As Read	
0930	As Read	As Read	As Read	As Read	As Read	As Read	
1000	As Read	As Read	As Read	As Read	As Read	As Read	
1030	As Read	As Read	As Read	As Read	As Read	As Read	
1100	As Read	As Read	As Read	As Read	As Read	As Read	
1150	As Read	As Read	As Read	As Read	As Read	As Read	
1200	As Read	As Read	As Read	As Read	As Read	As Read	
1230	As Read	*	As Read	As Read	As Read	As Read	
1300	As Read	*	As Read	As Read	As Read	As Read	
1400	As Read	*	As Read	As Read	As Read	As Read	

* Refer to the Onsite Radioactive Plume Map.

ONSITE RADIOACTIVE PLUME MAP



Location		CenterLine Readings (mR/hr)					
Map Sectors	Distance (miles)	12:00 to 12:05	12:05 to 12:15	12:15 to 12:30	12:30 to 13:00	13:00 to 13:30	13:30 to 14:15
1	0.25	0.6	3.0	3.0	2.0	1.0	< 1.0
2	0.6	As Read	15.0	15.0	10.0	4.0	1.0
3	1.0	(Refer to off-site maps.)					
NOTES: Open and closed window readings are the same. All PRM/HP-260 readings (in cpm) are as read.							

8.2 MEDICAL DRILL DATA

A medical emergency has been included as a part of this year's Exercise to meet the annual MS-1 Medical Drill requirements. For this reason, this section of the Exercise Manual has been developed to test the coordinated response capabilities of the onsite medical organization and a local support hospital in the handling and treatment of a contaminated injured individual.

The event begins at time 0730 in the Turbine Building where two Maintenance personnel will be pre-staged and simulating work on a valve (refer to Figure 8.2-1). The temperature of the water at this point in the piping system is normally around 380°F and because of the Steam Generator tube rupture that had occurred earlier (at time 0715), the water will also contain radioactive contaminants.

It will be assumed that the two Maintenance personnel are replacing a flange gasket on valve DD-5366, an inlet valve to the High Temperature Demineralizer in the Moisture Separator Reheater System. The flange suddenly separates and sprays high temperature/contaminated water on one of the workers. This causes serious burn/contamination injuries to this individual's face, chest, arms and hands (refer to Figures 8.2-2 thru 8.2-7). The second individual incurs minor contamination when attempting to assist the first individual.

Because of the change in area radiation/contamination levels, area survey maps are provided for before and after conditions (refer to Figures 8.2-8 and 8.2-9).

A roving Equipment Operator comes upon the scene and notifies the Control Room (Simulator). The Station First Aid Team responds. The Controller at the scene should issue vital signs and radiation survey information per the medical data table (refer to Table 8.2-2).

Security (CAS/SAS) will notify the Ottawa County Sheriff's Office who will in turn notify the Carroll Township EMS (refer to Figure 8.2-10).

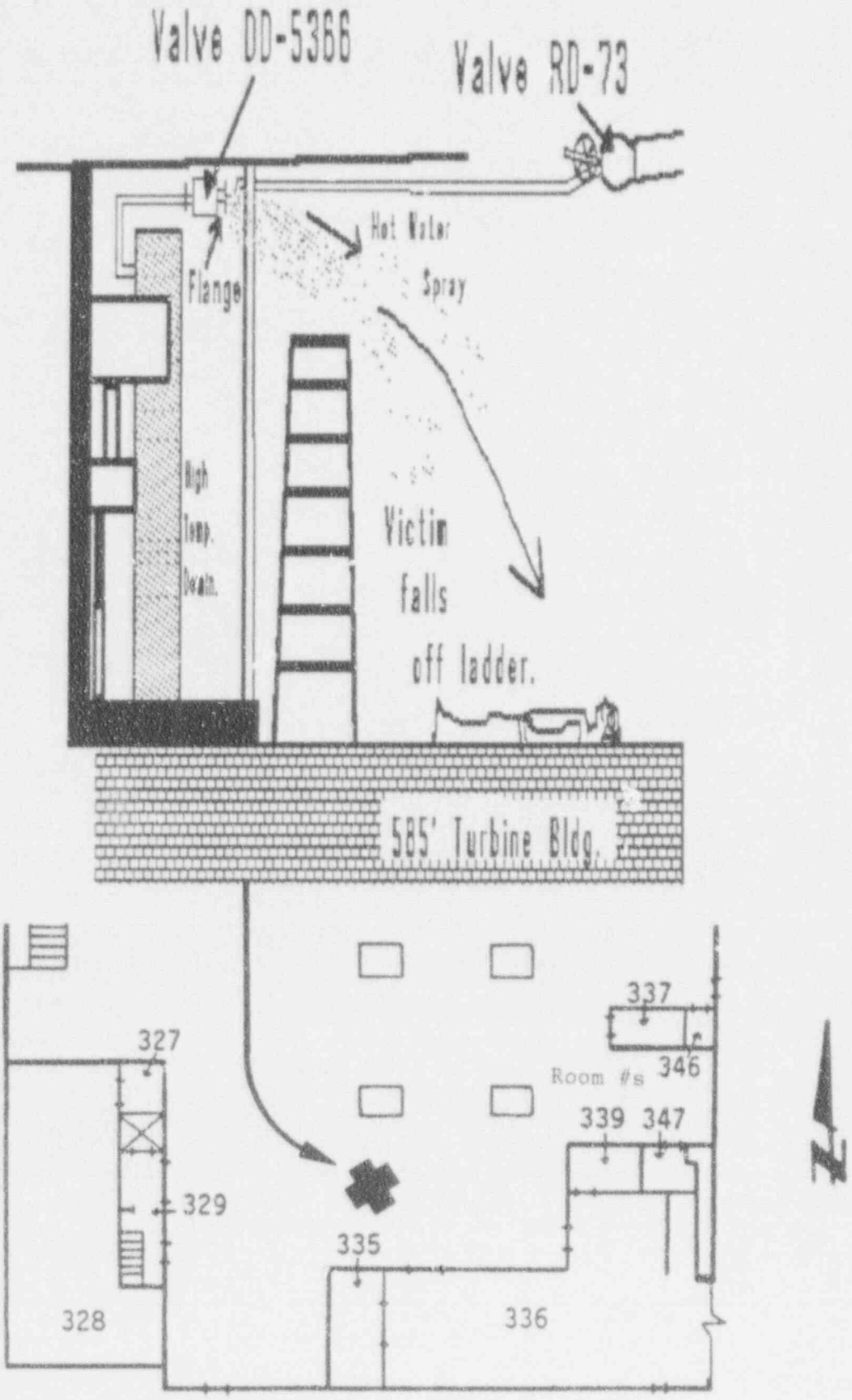
NOTE: Normally 911 would be used, however, a non-emergency telephone number will be used for this Exercise. 911 service at the Sheriff's Office must remain open in the event of any real emergencies that may occur the day of the Exercise.

Following pickup of the injured worker by the Carroll Township EMS, the ambulance will be directed to Port Clinton for a demonstration by Magruder Hospital (refer to Figures 8.2-11 and 8.2-12). Prior to release of the ambulance, the EMT's, their vehicle and equipment should be surveyed for contamination. The stretcher/backboard (used to carry the victim) will be simulated to be contaminated (refer to Figure 8.2-13). A brief decon demonstration should be performed before releasing the ambulance.

Refer to Table 8.2-1 for a timeline of the above events.

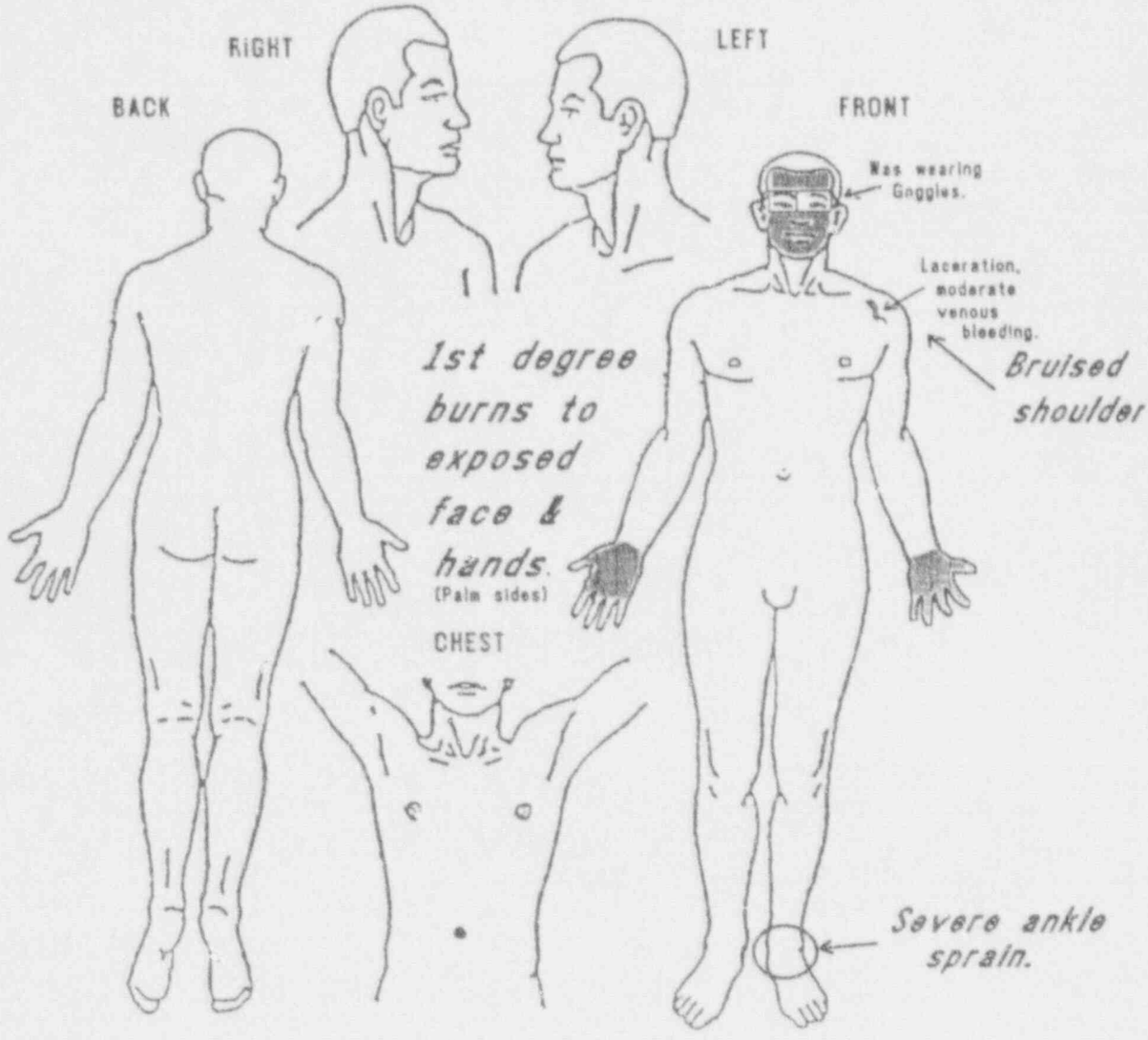
SCENE OF MEDICAL EMERGENCY

FIGURE 8.2-1



VICTIM'S INJURIES

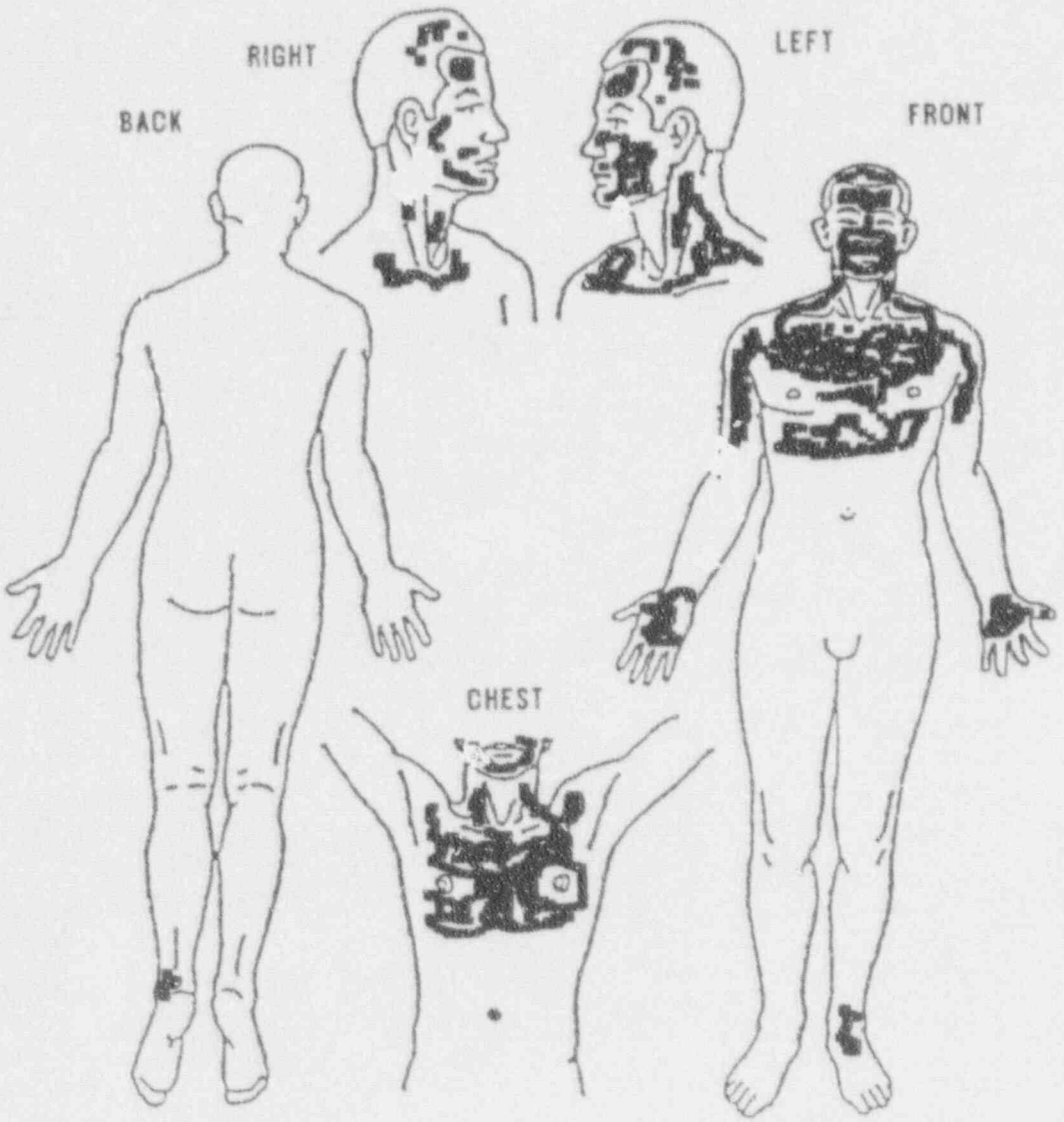
FIGURE 8.2-2



= 1st degree burn area

VICTIM'S CONTAMINATION - CLOTHES ON

FIGURE 8.2-3

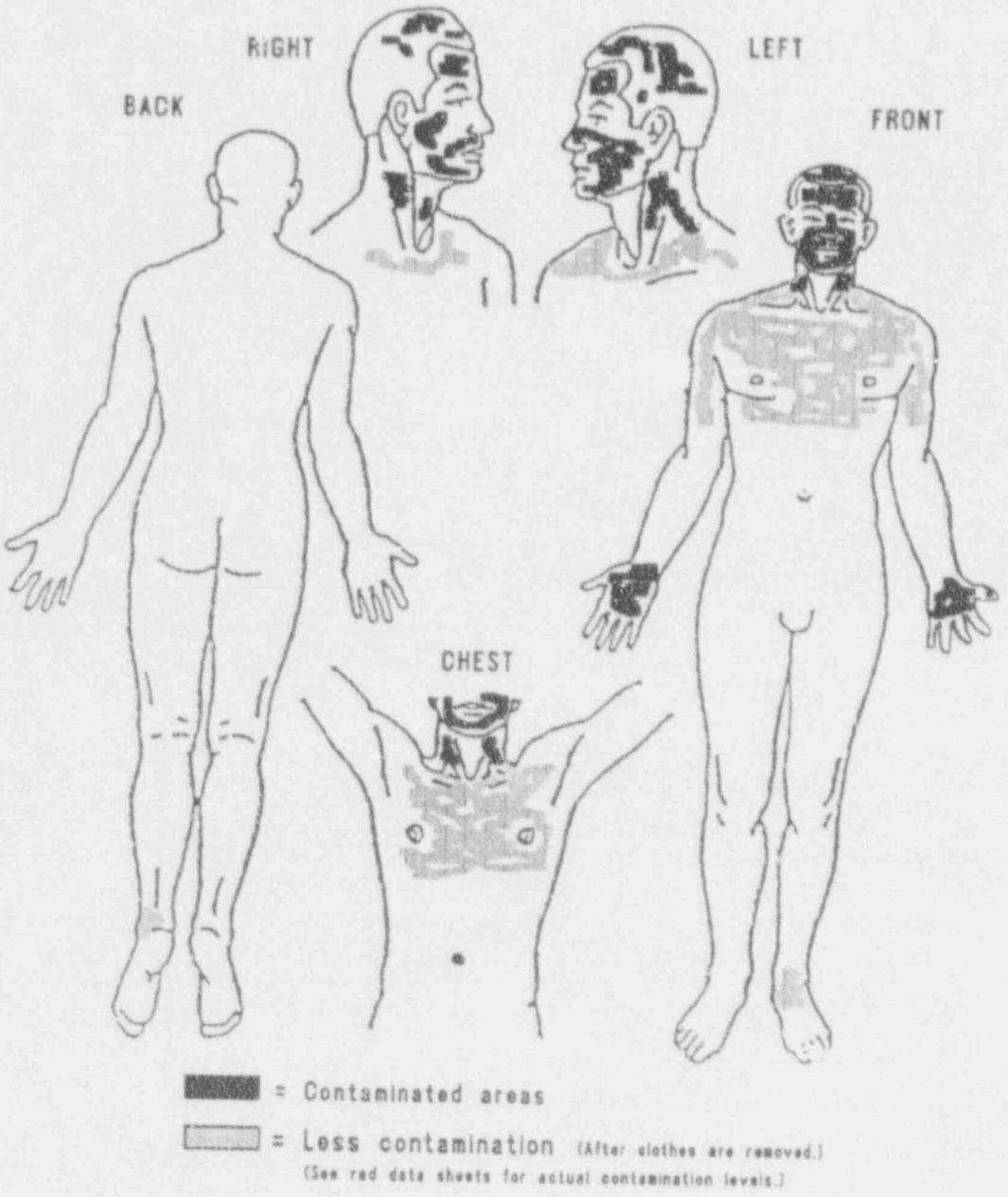


= Contaminated areas

(See rad data sheets for actual contamination levels.)

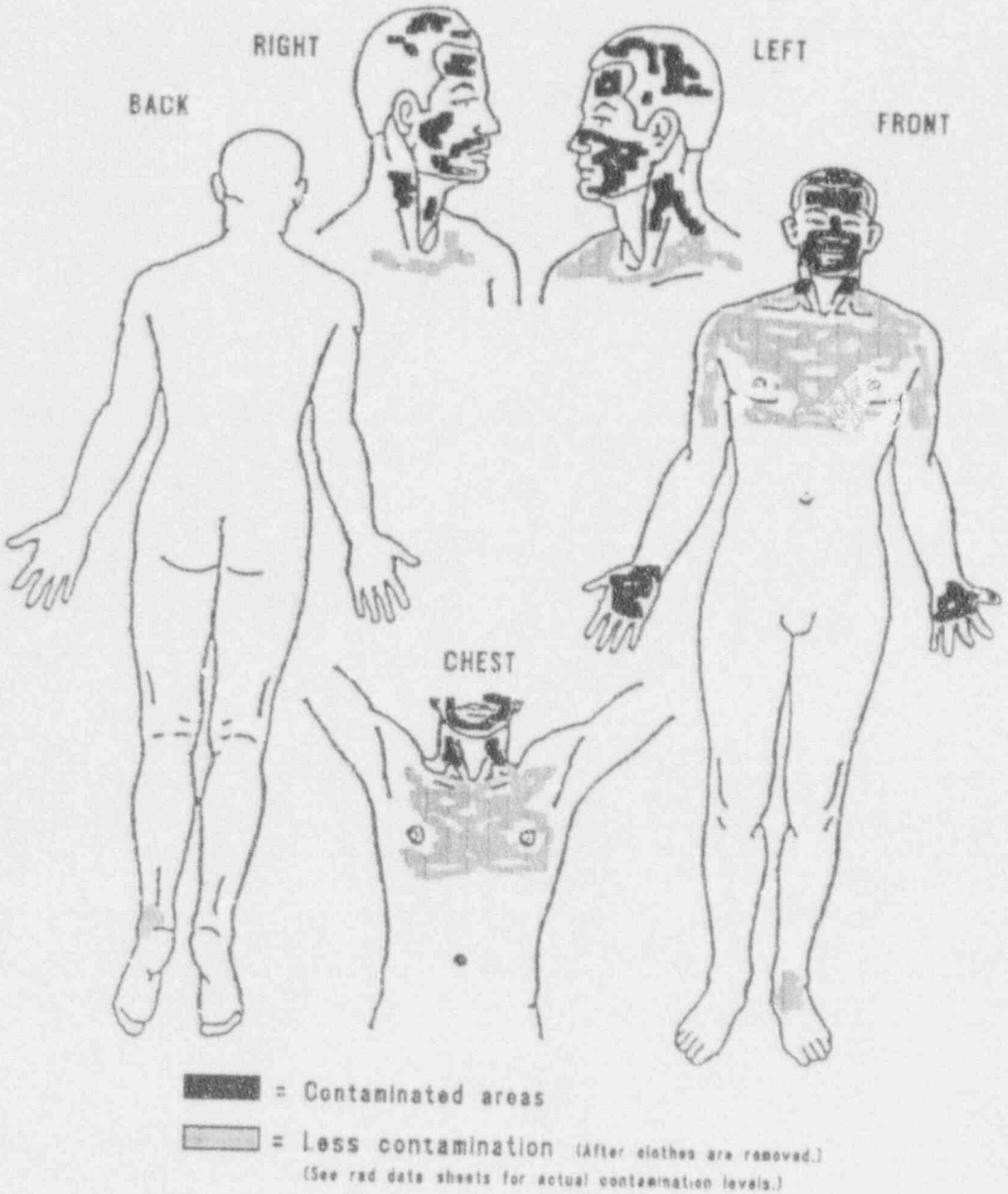
VICTIM'S CONTAMINATION - CLOTHES REMOVED

FIGURE 8.2-4



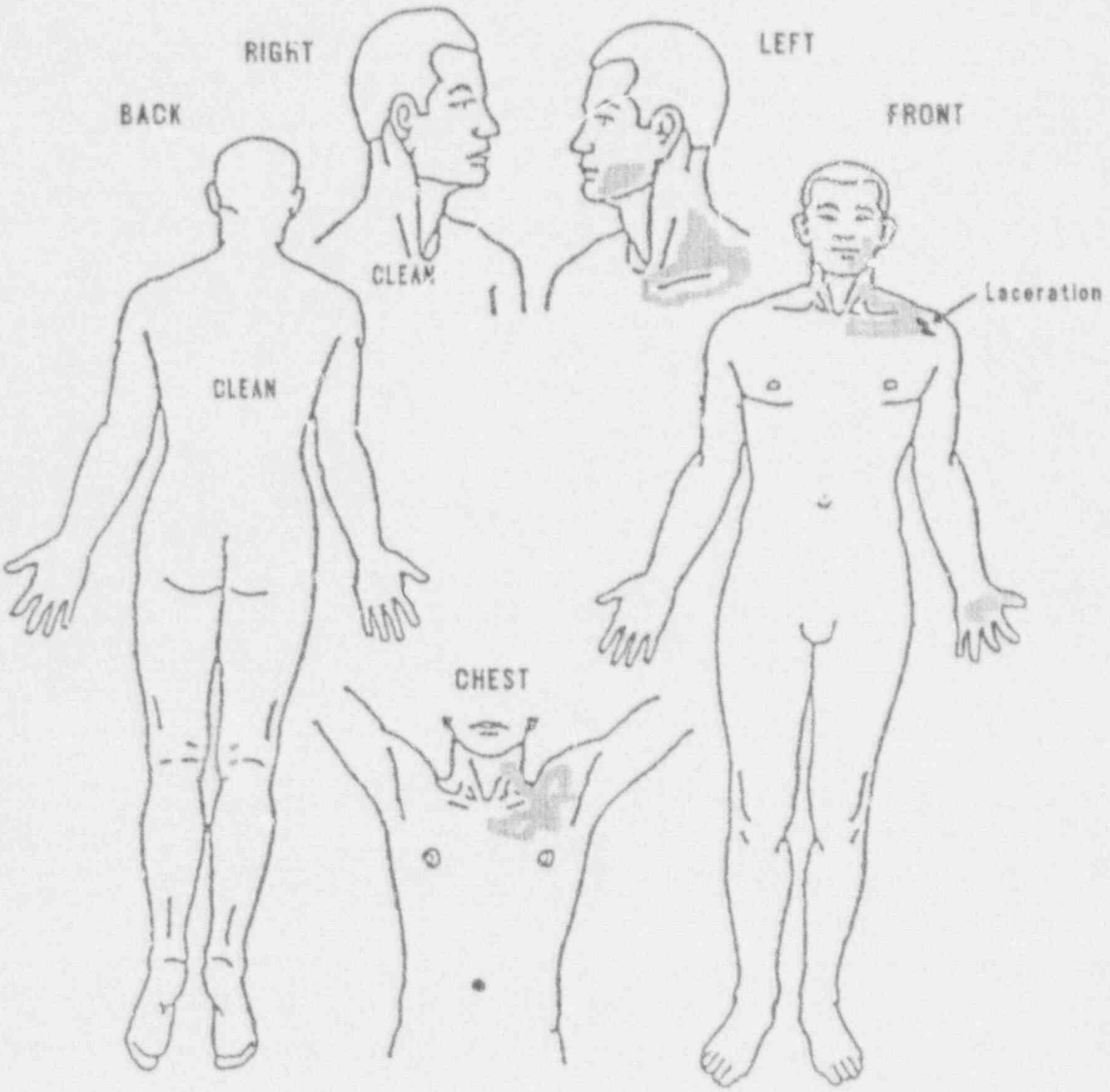
VICTIM'S CONTAMINATION - INITIAL AT HOSPITAL

FIGURE 8.2-5



VICTIM'S CONTAMINATION - FIRST DECON

FIGURE 8.2-6

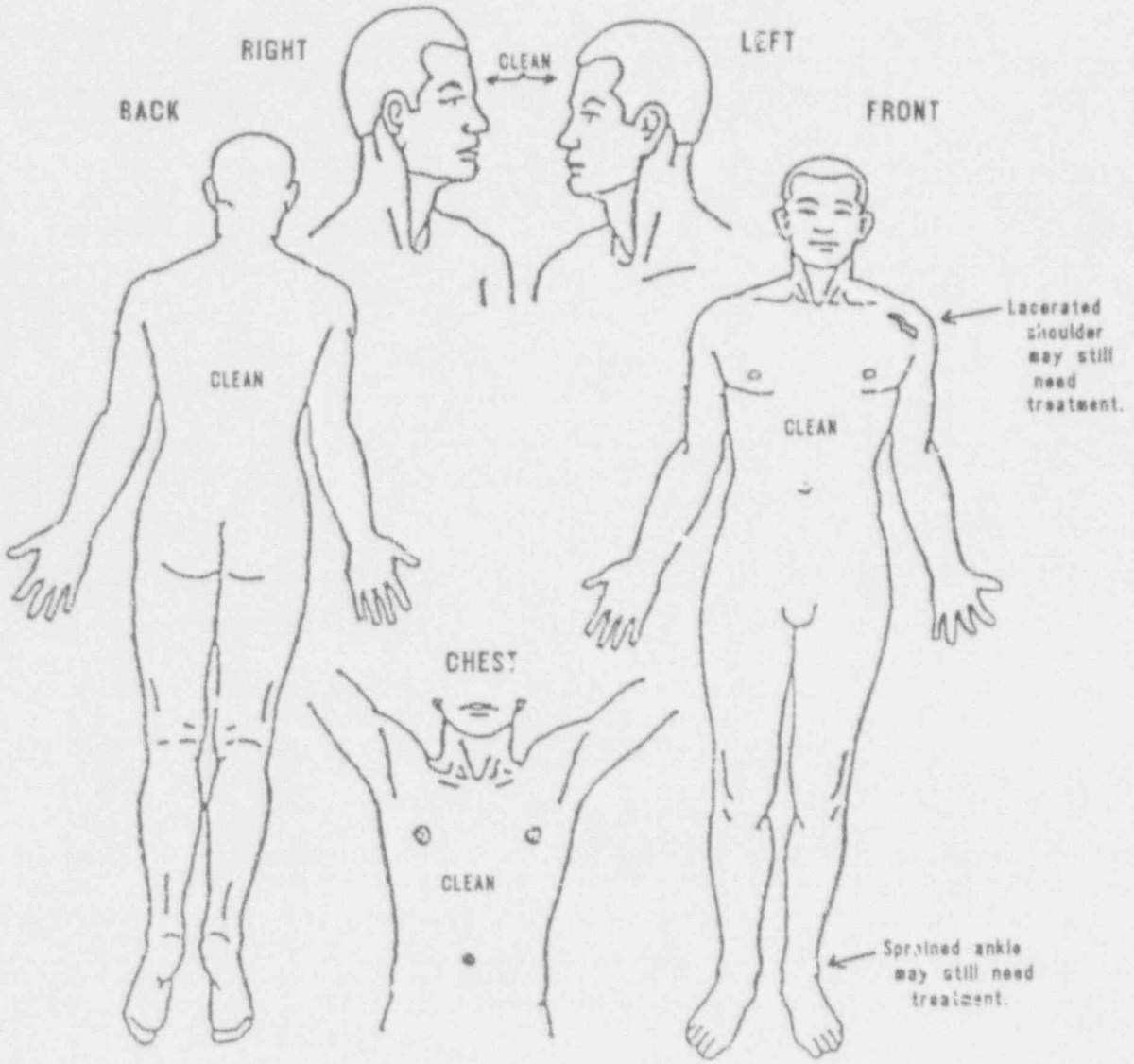


▭ = Residual contamination areas

(See rad data sheets for actual contamination levels.)

VICTIM'S CONTAMINATION - FINAL DECON

FIGURE 8.2-7



All external decontamination removed.

(Deconned to satisfactory levels.)

AREA RADIATION SURVEY MAP - BEFORE FLANGE LEAK

FIGURE 8.2-8

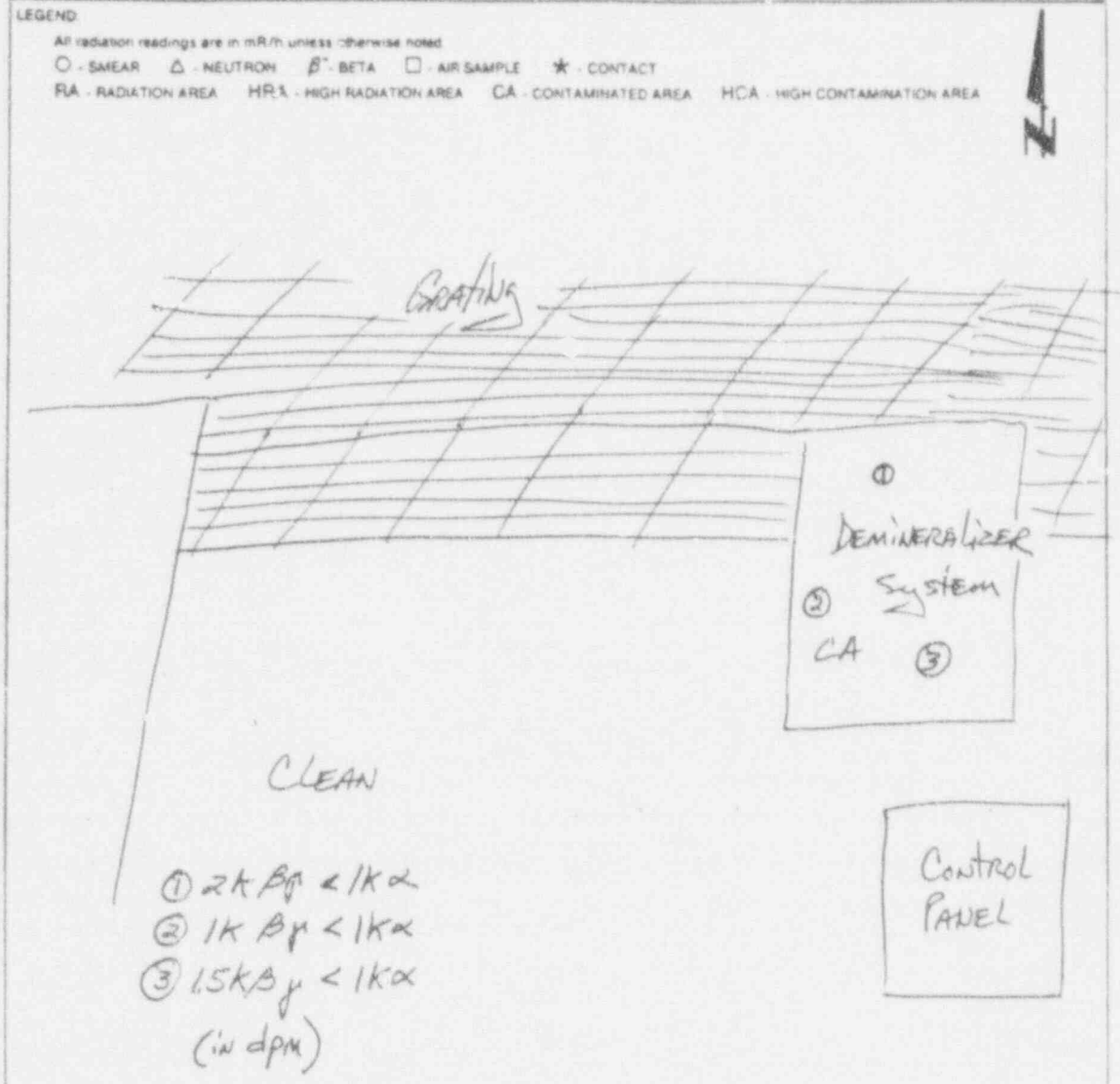
RADIOLOGICAL SURVEY FORM
ED 7995

SURVEY NUMBER	RWP NUMBER
92-XXXX	92-XXXX

BUILDING	ELEVATION	AREA/ROOM/SYSTEM	DATE	TIME
Turbine	585'	Near High Temp. Demin.	5/13/92	0700

PURPOSE: Prior to start of work on Valve DD-5366 — % POWER: 100

LEGEND:
All radiation readings are in mR/h unless otherwise noted.
○ - SMEAR △ - NEUTRON β - BETA □ - AIR SAMPLE ★ - CONTACT
RA - RADIATION AREA HRA - HIGH RADIATION AREA CA - CONTAMINATED AREA HCA - HIGH CONTAMINATION AREA



INSTRUMENTS USED

MODEL NUMBER	ID NUMBER	CAL DUE DATE
RO-2	2.7.83	7-18-92
RM-14	2.7.138	10-15-92

PREPARED BY — NAME (Print): George Reed — SIGNATURE: [signature] — DATE: 5/13/92
APPROVED BY — NAME (Print): E.J. Gardner — SIGNATURE: [signature] — DATE: 5/13/92
REVIEWED BY — NAME (Print): J. SHILLING — SIGNATURE: [signature] — DATE: 5/13/92

PAGE 1 OF 1 PAGES

AREA RADIATION SURVEY MAP - AFTER FLANGE LEAK

FIGURE 8.2-9

RADIOLOGICAL SURVEY FORM ED 7995

SURVEY NUMBER	R.W.P. NUMBER
92-XXXX	92-XXXX

BUILDING	ELEVATION	AREA/ROOM/SYSTEM	DATE	TIME
Turbine	585'	Near High Temp. Demin.	5/13/92	0730

PURPOSE: After flange on Valve DD-5366 sprays water — % POWER: 90

LEGEND

All radiation readings are in mR/h unless otherwise noted.

○ - SMEAR △ - NEUTRON β - BETA □ - AIR SAMPLE ★ - CONTACT

RA - RADIATION AREA HRA - HIGH RADIATION AREA CA - CONTAMINATED AREA HCA - HIGH CONTAMINATION AREA

① < 1k Bq α
② 40k Bq < 1k α
③ 25k Bq < 1k α
④ 15k Bq < 1k α
⑤ < 1k Bq α (in dpm)

INSTRUMENTS USED

MODEL NUMBER	ID NUMBER	CAL DUE DATE
2000W	2.7.163	8-17-92
PIM-6	2.2.129	10-15-92

PREPARED BY — NAME (Print): George Reed — SIGNATURE: George T. Reed — DATE: 5/13/92

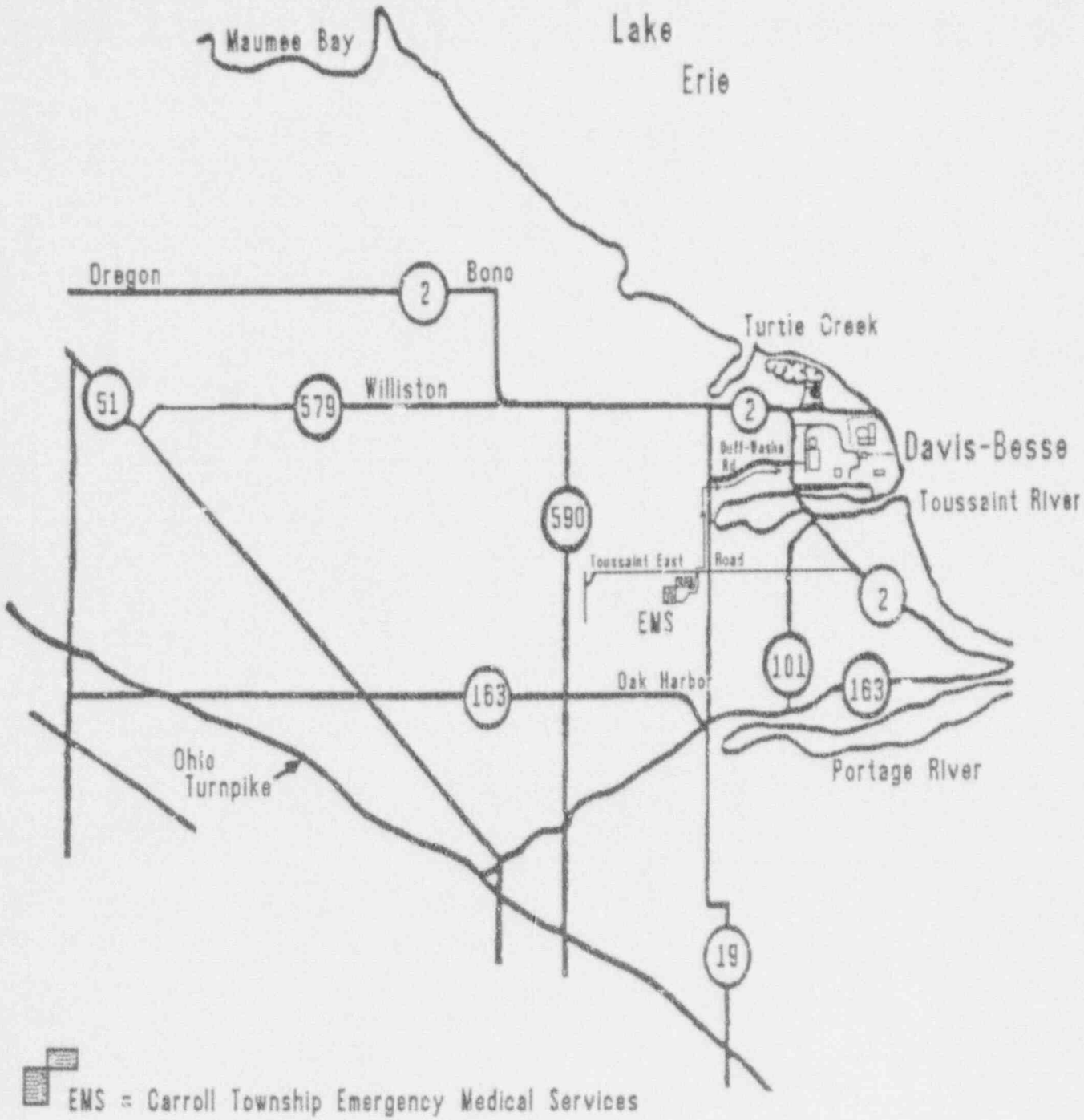
APPROVED BY — NAME (Print): D.T. Gardner — SIGNATURE: [signature] — DATE: 5/13/92

REVIEWED BY — NAME (Print): J. Shilling — SIGNATURE: [signature] — DATE: 5/13/92

PAGE ____ OF ____ PAGES

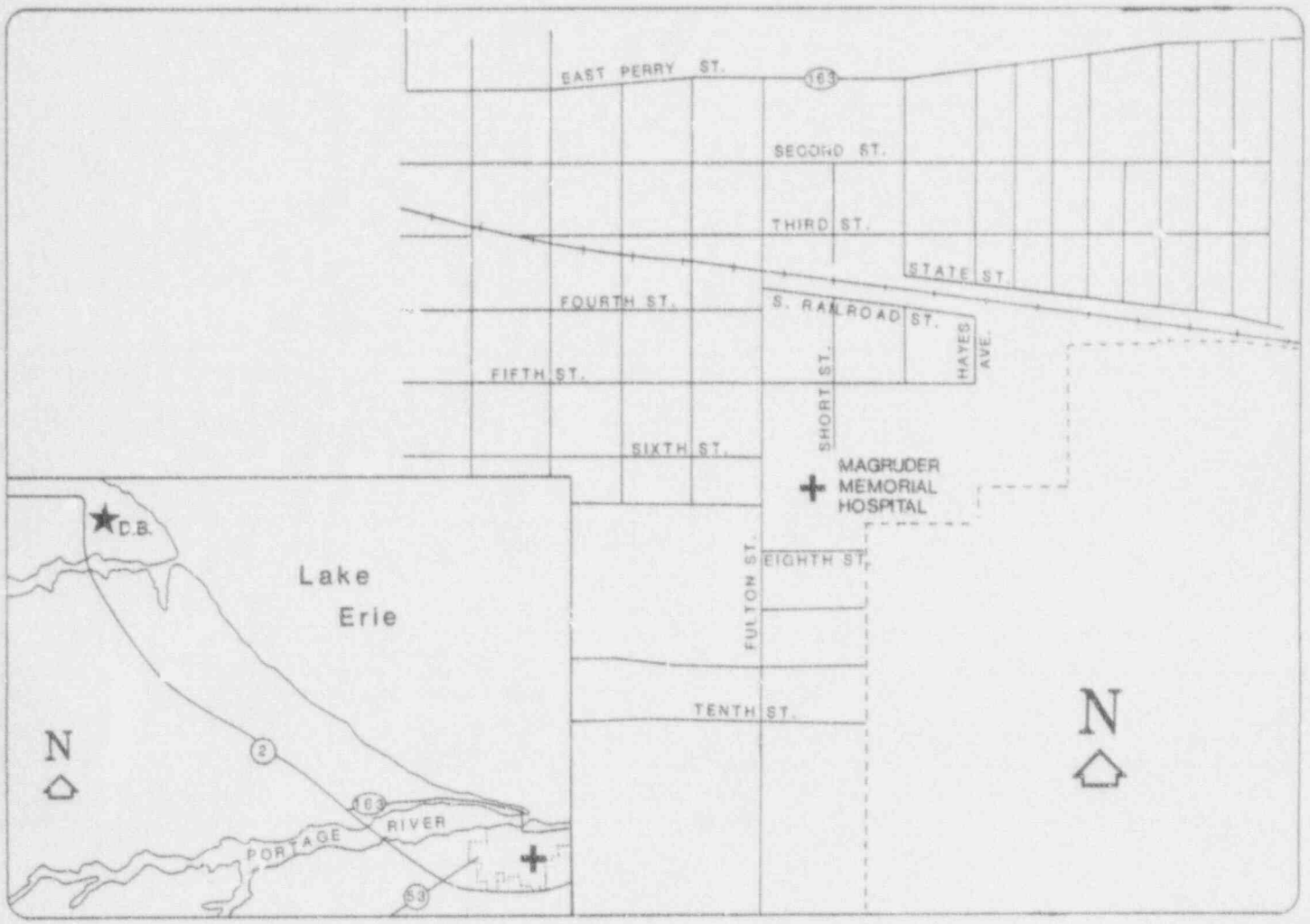
CARROLL TOWNSHIP EMS

FIGURE 8.2-10



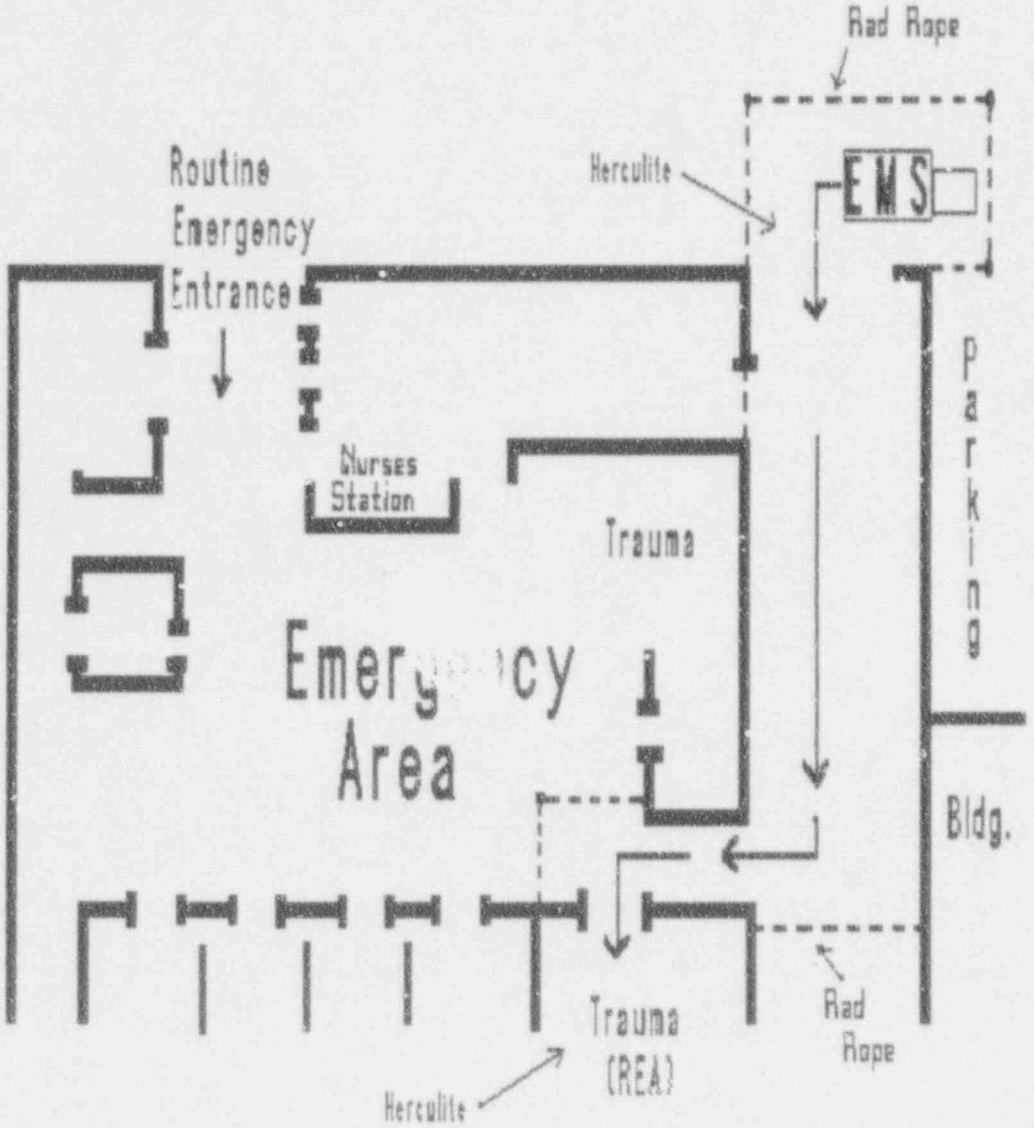
MAGRUDER HOSPITAL LOCATION

FIGURE 8.2-11



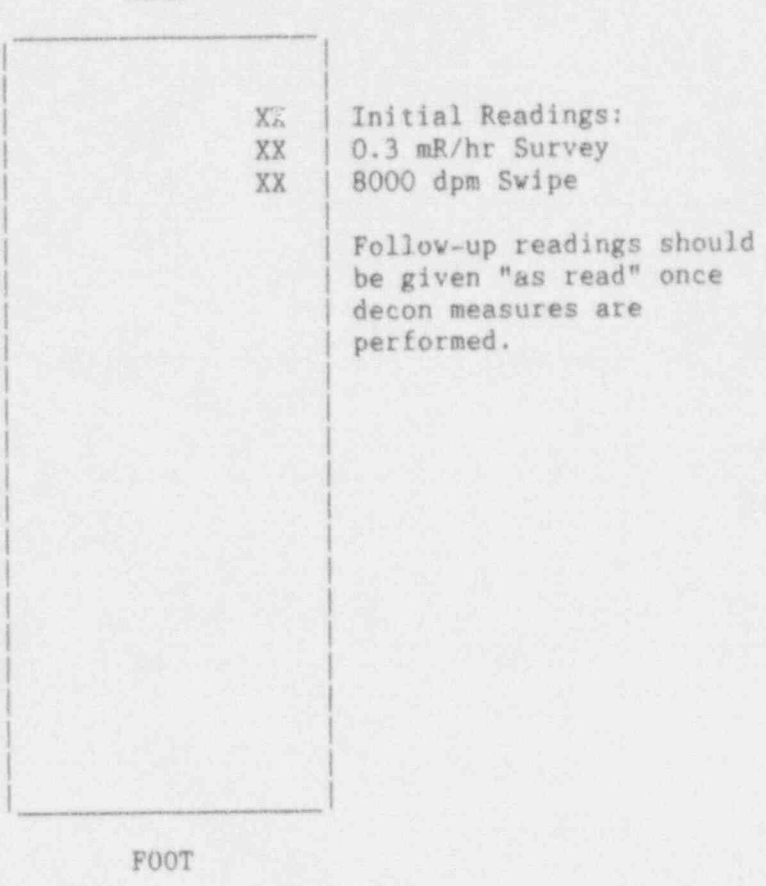
MAGRUDER HOSPITAL RADIATION EMERGENCY AREA

FIGURE 8.2-12



STRETCHER/BACKBOARD CONTAMINATION

FIGURE 8.2-13



XXXX
XXXX = Area of contamination on backboard.

Should be noted by Rad Tech "clearing" equipment for return to EMS.

MEDICAL EVENTS TIMELINE

TABLE 8.2-1

T-Time	Real Time	
0000	07_J	Maintenance worker is injured.
0001	0731	Roving Equipment Operator notifies Control Room (Simulator).
0010	0740	Control Room sounds the Initiate Emergency Procedures alarm.
0015	0745	First Aid Team and Radiological Controls personnel arrive on scene and commence patient assessment and treatment.
0020	0750	First Aid Team Leader requests offsite medical assistance, also advises the Control Room the injured victim is contaminated and provides a brief assessment of injuries, injured's name and employer.
0025	0755	SAS notifies Ottawa County Sheriff's Office of need to dispatch ambulance to respond to contaminated injury at Davis-Besse. SAS also notifies H. B. Magruder of impending arrival of contaminated injured victim. Control Room (Simulator) Shift Supervisor declares an Unusual Event. (Unusual Event may be declared any time prior to the EMS leaving the site).
0026	0756	The Sheriff's Office tones out Carroll Township EMS.
0030	0800	Magruder Hospital personnel begin setting up the Radiation Emergency Area for receipt of the contaminated victim.
0045	0815	Carroll Township EMS arrives onsite, picks up security escort and contamination control kit at the Personnel Processing Facility.
0050	0820	Carroll Township EMS arrives at injury scene. First Aid Team turns over victim (i.e., patient) for EMS assessment and treatment.
0110	0840	Carroll Township EMS leaves scene with patient.
0115	0845	Carroll Township EMS leaves site boundary for H. B. Magruder Hospital.
0130	0900	Carroll Township EMS arrives at H. B. Magruder Hospital.
0135	0905	Patient is taken to Hospital Radiation Emergency Area for treatment and decontamination.
0140	0910	Patient in Radiation Emergency Area. Stabilization and decontamination begins.

MEDICAL EVENTS TIMELINE

TABLE 8.2-1 (Continued)

T-Time	Real Time	
0200	0930	Carroll Township EMS personnel and equipment (including the ambulance) are monitored, deconned ar ' released.
0210	0940	Patient decontamination is completed.
0215	0945	Patient is transported to Emergency Room Area for final treatment and hospital admittance.
0230	1000	Hospital personnel exit Radiation Emergency Area.
0235	1005	Medical Exercise is terminated.

VITAL SIGNS AND RADIATION DATA

TABLE 8.2-2

NOTES: 1. All radiological data is in counts per minute (cpm).
2. First aid and rad con Controllers may vary the following data depending on the actions taken by Players.

1. Information For: FAT & RC Tech — Location: Injury Scene
Purpose: Initial indications — Time: 07:30
Medical Data:

RESP - 26	PULSE - 100	SKIN - Sweating, pale, red in areas
B/P - 150/100	ECG - N/A	PUPILS - Reactive/Equal

Left shoulder injury/laceration with moderate bleeding; left ankle severely sprained (FAT members unable to tell if ankle is broken or sprained); first degree burns on face and hands from 130°F water.
Radiological Data:

Face - 10K	Hair - 10K	Chest - 10K	Back - Bkgd.
R Arm - 7k	L Arm - 7K	R Leg - Bkgd.	L Leg - 15K

Victim wetted on front of chest and neck, face and hair, arms and hands with contaminated water.

2. Information For: FAT & RC Tech — Location: Injury Scene
Purpose: After treatment — Time: 07:45
Medical Data

RESP - 18	PULSE - 80	SKIN - Dry, red in areas
B/P - 120/80	ECG - N/A	PUPILS - Normal

Victim is conscious and alert; suffering severe pain from burns and ankle injury.
Radiological Data (if clothes removed):

Face - 10K	Hair - 10K	Chest - 3K	Back - Bkgd.
R Hand - 7K	L Hand - 7K	R Leg - Bkgd.	L Leg - 2K

If victim's clothes are not removed, use the same radiation levels as shown in 1., above.

3. Information For: EMT & RC Tech — Location: Injury Scene
Purpose: Arrival of Carroll Township EMS — Time: 08:20
Medical Data:

RESP - 20	PULSE - 90	SKIN - Dry, red in areas
B/P - 130/90	ECG - N/A	PUPILS - Normal

Victim is conscious and alert; suffering severe pain from burns and ankle injury; is stabilized and immobilized; readied for transport.
Radiological Data (if clothes removed):

Face - 10K	Hair - 10K	Chest - 3K	Back - Bkgd.
R Hand - 7K	L Hand - 7K	R Leg - Bkgd.	L Leg - 2K

If victim's clothes are not removed, use the same radiation levels as shown in 1., above; victim (i.e., patient) should be readied for "clean" transfer to ambulance.

VITAL SIGNS AND RADIATION DATA

TABLE 8.2-2 (Continued)

NOTE: Emergency medical team and rad con Controllers may vary the following data depending on the actions taken by Players.

4. Information For: EMT & RC Tech Location: Ambulance
Purpose: Departure of ambulance from site Time: 08:45
Medical Data:
RESP - 18 PULSE - 80 SKIN - Dry, red in areas
B/P - 120/80 ECG - N/A PUPILS - Normal
Patient remains conscious and alert; pain remains from burns and ankle injury; is stabilized and vital signs are monitored during transport to H. B. Magruder Hospital.
Radiological Data (if clothes removed):
Face - 10K Hair - 10K Chest - 3K Back - Bkgd.
R Hand - 7K L Hand - 7K R Leg - Bkgd. L Leg - 2K
If Patient's clothes are not removed, use the same radiation levels as shown in 1., above; Patient is properly "packaged" and containment is maintained during transport.

5. Information For: Hospital Staff & RC Tech Location: Hospital
Purpose: Arrival at Hospital REA Time: 09:05
Medical Data:
RESP - 22 PULSE - 90 SKIN - Dry, red in areas
B/P - 130/90 ECG - N/A PUPILS - Normal
Patient remains conscious and alert; pain remains from burns and ankle injury; vital signs are checked and initial treatment provided.
Radiological Data (if clothes removed):
Face - 10K Hair - 10K Chest - 3K Back - Bkgd.
R Hand - 7K L Hand - 7K R Leg - Bkgd. L Leg - 2K
If patient's clothes are not removed, use the same radiation levels as shown in 1., above; a "clean transfer" should have occurred from the ambulance to the REA. Ambulance backboard is found to be contaminated (refer to Figure 8.2-13).

6. Information For: Hospital Staff & RC Tech Location: Hospital
Purpose: After first decon attempt Time: 09:15
Medical Data:
RESP - 18 PULSE - 76 SKIN - Dry, red in areas
B/P - 120/80 ECG - N/A PUPILS - Normal
Patient remains conscious and alert; pain remains from burns and ankle injury; is properly treated and stabilized for decon.
Radiological Data:
Face - 2K Hair - Bdgd. Chest - 2K Back - Bkgd.
R Hand - Bkgd. L Hand - 1K R leg - Bkgd. L Leg - Bkgd.
General contamination is removed; hot spots remain.

VITAL SIGNS AND RADIATION DATA

TABLE 8.2-2 (Continued)

NOTE: Hospital and rad con Controllers may vary the following data depending on the actions taken by Players.

7. Information For: Hospital Staff & RC Tech Location: Hospital
Purpose: After final decon Time: 09:40-10:00
Medical Data:

RESP - 18	PULSE - 76	SKIN - Dry, red in areas
B/P - 120/80	ECG - N/A	PUPILS - Normal

Patient treated, stabilized an deconned; ready to admit as a normal patient.
Radiological Data:

Face - Bkgd.	Hair - Bkgd.	Chest - Bkgd.	Back - Bkgd.
R Hand - Bkgd.	L Hand - Bkgd.	R Leg - Bkgd.	L Leg - Bkgd.

Patient successfully deconned to satisfactory levels; is successfully removed the REA.

8.3 CHEMISTRY DATA

Fifteen minutes into the start of the Exercise, a 15 GPM tube rupture occurs in #2 Once Through Steam Generator creating a contamination problem in the secondary side of the plant. Chemistry will be asked to do Attachment 2 of procedure DB-OP-02531 (refer to Figure 8.3-1). Once the leak rate is verified, the Operators should perform a rapid shutdown of the plant in order to begin cooling down to Mode 5.

An hour later (at 09:00), following a Main Steam line rupture, a large crud burst occurs and a significant amount of fuel rod gap activity will be released into the coolant (equivalent to ~50% gap). Up until this time, sample analysis on either the primary or secondary plant can be performed using the normal sampling systems. After this time, samples will have to be taken using the Post Accident Sampling System (PASS). Data for the PASS samples can be found in Section 8.4.

However, because of the condition the plant is in during the early stages of the Exercise, chemistry samples may be requested. For this reason this section includes the following sample data:

- Primary System Sample Results
- Secondary System Sample Results

Controller guidelines when asked about chemistry sample data:

1. Prior to 07:15, inform Players to use the plant sample analysis results found in Figure 8.3-2.
2. Between 07:15 to 09:00, inform Players of the sample analysis results found in Figure 8.3-3.
3. After 09:00, inform Players of the high radiation levels if they try to sample using the normal methods. Once they shift to the PASS, refer to Section 8.4 of this manual.

DB-OP-02531 ATTACHMENT 2

FIGURE 8.3-1

Attachment 2 of procedure DB-OP-02531 directs chemistry personnel to perform procedure DB-CH-01814, Steam Generator Leak Rate Determination. This procedure calls for three samples to be taken; 1) Condensate Pump discharge, 2) Condensate Polisher outlet, and 3) RCS purification demin inlet. Depending on plant activities, the Controller will allow actual samples be drawn or will direct that they be simulated. It is preferred that the first sample be actually drawn. One hour later, a second Condensate Pump discharge is to be taken. This sample should be simulated. The Controller can issue gamma spectral or tritium analysis results as indicated below:

DB-CH-01814
Revision 00

STEAM GENERATOR LEAK RATE DETERMINATION

ATTACHMENT 1: GAMMA SPECTRAL ANALYSIS SAMPLE ANALYTICAL DATA SHEET

REACTOR COOLANT SAMPLE

Time 0720 Date 5/13/92 Analyst [signature]

Nuclide	µCi/cc (Ap)	Nuclide	µCi/cc (Ap)
Xe-133	0.014	Na-24	8E-4
I-131	0.007		

INITIAL SECONDARY SAMPLES

Time 0720 Date 5/13/92 Analyst [signature]

Total Polishers Flow Rate (Fd) 18,000 GPM

Condensate Pump Discharge			Common Polisher Outlet		
Nuclide	µCi/cc (A_1)	λ	Nuclide	µCi/cc (A_2)	λ
Xe-133	1.1E-3	9.2E-5	Xe-133	1.0E-3	9.2E-5
I-131	2.0E-5	5.9E-5	I-131	1.7E-8	5.9E-5
Na-24	2.4E-7	7.7E-4	Na-24	2.3E-10	7.7E-4

SECOND CONDENSATE PUMP DISCHARGE SAMPLE

Time 0820 Date 5/13/92 Analyst [signature]

Nuclide	µCi/cc (A_2)	Nuclide	µCi/cc (A_2)
Xe-133	1.5E-2	Na-24	3.1E-6
I-131	2.6E-4		

Secondary volume (Vs) 250,000 gallons

Time Between Initial and 2nd Sample (t) 60 min.

Attachment 1

DB-OP-02531 ATTACHMENT 2

FIGURE 8.3-1 (Continued)

DB-CH-01814
Revision 00

STEAM GENERATOR LEAK RATE DETERMINATION

ATTACHMENT 1: GAMMA SPECTRAL ANALYSIS SAMPLE ANALYTICAL DATA SHEET

LEAK RATE			
Nuclide	GPM	Nuclide	GPM
Xe-133	15.2	Na-24	15.1
I-131	14.8		

Attachment 1

DB-CH-01814
Revision 00

STEAM GENERATOR LEAK RATE DETERMINATION

ATTACHMENT 2: TRITIUM ANALYSIS SAMPLE ANALYTICAL DATA SHEET

REACTOR COOLANT SAMPLE

0720 Date 5/13/92 Analyst [signature]

Tritium, μCi/cc (Ap) 0.5

CONDENSATE PUMP DISCHARGE							
First Sample (A_1)				Second Sample (A_2)			
Date	Time	Analyst	Tritium μCi/cc	Date	Time	Analyst	Tritium μCi/cc
5/13/92	0720	[signature]	1.5E-4	5/13/92	0820	[signature]	1.9E-3

Secondary Volume (Vs) 250,000 gallons

Blowdown (Makeup) Rate (Bs) 0 GPM

Time Between Initial and Second Sample (t) 60 mins.

Leak Rate, (L) 15.1 GPM

Attachment 2

STEAM GENERATOR TUBE LEAK CALCULATIONS

ATTACHMENT 1: STEAM GENERATOR TUBE LEAK RATE CALCULATION

NOTE 1.

The below calculation is most accurate at steady state RCS conditions. This calculation is also conservative in that it does not subtract other RCS losses that are occurring during the tube leak. If these other RCS losses are known, they may be subtracted from the equation. Calculation 2 is not valid with zero SJAE flow.

1. Leak Rate Determination Using Makeup Tank Level Change

$$\text{Leak rate} = \frac{[\text{Initial Level (inch)} - \text{Final Level (inch)}] \times 31 \text{ GAL/inch}}{\text{Time (MIN)}} = 15 \text{ GPM}$$

2. Leak Rate Determination Using RE 1003A or RE 1003B

(a.) Record the date and time. Date 5/13/92 Time 0725

(b.) Record Xe-133 activity from the Steam Jet Air Ejector (SJAE) monitors
RE 1003A reading 10 CPM
RE 1003B reading 165 CPM

(c.) SJAE activity - convert CPM to μCi/cc Xe-133:

(RE 1003A, from (b.) 10 CPM) (2.7 E-8) = 27E-7 μCi/cc
(RE 1003B, from (b.) 165 CPM) (3.2 E-8) = 5.2E-3 μCi/cc

(d.) Record SJAE flow from FI 1002 9 FT³/MIN

(e.) Record the latest Xe-133 concentration in the Reactor Coolant System from Chemistry. .014 μCi/cc

(f.) Using the highest value from (c.), calculate the primary to secondary tube leak as follows:

$$L.R. = \frac{7.48 \frac{GAL}{FT^3} \text{ (Step c.)(Step d.)}}{\text{(Step e.)}}$$

$$\frac{7.48 \frac{GAL}{FT^3} (3.2E\text{-}3)(9)}{(.014)} = 15.4 \text{ GPM}$$

CHEMISTRY SAMPLE RESULTS PRIOR TO 07:15

FIGURE 8.3-2

CHEMICAL ANALYSES STATUS

Duty Chemistry Supervisor/Analyst: Have the Shift Supervisor review and sign this status sheet prior to delivering to the Control Room.

BORON ANALYSIS		TIME	DATE
RCS	650 ppm	0700	5/13/92
PZR	655 ppm		
BWST	2017 ppm		
PWST	— ppm		
BAAT 1-1	11990 ppm		
BAAT 1-2	12015 ppm		
CWRT 1-1	1535 ppm		
CWRT 1-2	380 ppm		
CFT 1-1	2197 ppm		
CFT 1-2	2203 ppm		
SFP	2300 ppm		

TIME	0700	DATE	5/13/92
O_2	≤ 5	ppb	
Cl^-	≤ 0.050	ppm	
F^-	≤ 0.020	ppm	
Li^+	2.10	ppm	
pH	6.7		
H_2	42.9	cc/Kg	
N_2	ND	cc/Kg	
TDG	42.9	cc/Kg	
DEI	8.0/E-3	µCi/ml	
Specific Activity	0.248	µCi/ml	

COVER GAS ANALYSES Time ____ Date ____

	H_2	O_2
WGST	0.4	3.1
CWRT 1-1	0.35	2.4
CWRT 1-2	0.8	2.1

Primary to Secondary Leakage
Time NA Date NA
$\frac{NA}{1440}$ gpd = NA gpm

NOTE: Ensure all stated limits on Control Room Status Board are in agreement with the current revisions of DB-CH-06900 and DB-CH-06901.

SECONDARY CHEMISTRY Time 0240 Date 5/13/92

Daily FW

O_2	0.12 ppb	Fe(ss)	≤ 10 ppb
N_2H_4	27 ppb	pH	9.56
SiO_2	≤ 10 ppb	measured H^+	.0740 umhos/cm
Na^+	0.9 ppb	Quarterly FW	
Cl^-	1.0 ppb	Pb	NA ppb Date NA

Condensate

O_2 1.20 ppb

Monthly FW

Cu NA ppb Date NA

Reviewed by _____ Time/Date 0715 / 5/13/92

CHEMISTRY SAMPLE RESULTS BETWEEN 07:15 TO 08:50

FIGURE 8.3-3

CHEMICAL ANALYSES STATUS

Duty Chemistry Supervisor/Analyst: Have the Shift Supervisor review and sign this status sheet prior to delivering to the Control Room.

BORON ANALYSIS		TIME	DATE
RCS	* ppm	0715	5/3/92
PZR	* ppm	to	
BWST	2017 ppm	09:00	
PWST	— ppm		
BAAT 1-1	11990 ppm		
BAAT 1-2	12015 ppm		
CWRT 1-1	1520 ppm		
CWRT 1-2	395 ppm		
CFT 1-1	2195 ppm		
CFT 1-2	2200 ppm		
SFP	2300 ppm		

TIME 07:15-09:10 DATE 5/3/92

O_2	≤ 5	ppb
Cl^-	≤ 0.050	ppm
F^-	≤ 0.020	ppm
Li^+	2.05	ppm
pH	*	
H_2	42.7	cc/Kg
N_2	3.4	cc/Kg
TDG	46.1	cc/Kg
DEI	7.9E-3	μCi/ml
Specific Activity	0.246	μCi/ml

COVER GAS ANALYSES Time 07:15 to 09:00 Date 5/3/92

	H_2	O_2
WGST	0.4	3.1
CWRT 1-1	0.35	2.4
CWRT 1-2	0.8	2.1

Primary to Secondary Leakage
Time 08:20 Date 5/3/92
$\frac{2.7E4}{1440}$ gpd = 15.1 gpm

NOTE: Ensure all stated limits on Control Room Status Board are in agreement with the current revisions of DB-CH-06900 and DB-CH-06901.

SECONDARY CHEMISTRY Time 07:15 to 09:00 Date 5/3/92

Daily FW

O_2	0.14 ppb	Fe(ss)	≤ 10 ppb
N_2H_4	28.2 ppb	pH	9.42
SiO_2	≤ 10 ppb	measured H^+	0.0955 umhos/cm
Na^+	1.7 ppb	Quarterly FW	
Cl^-	1.1 ppb	Pb	NA ppb Date NA

Condensate

O_2 1.22 ppb

Monthly FW

Cu NA ppb Date NA

Reviewed by _____ Time/Date 09:00 / 5/3/92

*	Boron	pH
0715-0745	655 ppm	6.7
0800	660	6.6
0815	864	6.5
0830	1185	6.2
0845	1244	6.1

8.4 PASS SAMPLE DATA

The scenario postulates up to 50% gap activity released into the primary coolant following the Main Steam line rupture one hour into the Exercise, prior to this event all chemistry samples (if taken) could be via the normal sampling methods and equipment. Data for this early period in the scenario can be found in Section 8.3. Once the gap activity has been released into the coolant, however, sampling will have to be performed using the Post Accident Sampling System (PASS).

Following the Main Steam line rupture, the plant indications provided by the Simulator will prompt the Players to be concerned about what is happening to the core (to assist in emergency classification and protective action determinations) and to want to know what type of source term exists inside Containment (for performing dose assessment). The PASS can be used to obtain this type of information and thus, PASS sample results are provided in this section.

Data is furnished in Table 8.4-1 for the following sample points:

- Reactor Coolant System
- Containment Building Sump
- Containment Building Atmosphere
- Pressurizer

Of concern to the individuals drawing the liquid samples are the area radiation levels before (refer to Figure 8.4-1), during (refer to Figure 8.4-2) and after (refer to Figure 8.4-3) the sample is drawn. The PASS Controller should release this information as appropriate to the Players actions. A liquid sample is the most likely to be performed.

If a containment atmosphere sample is taken, the radiation levels at the sample area can be given by the Controller as being 175 mR/hr during recirc. General area radiation levels at all other times can be given as background, since this sample skid is located in the Auxiliary Building, Elevation 585', Fuel Handling Area, Room 300.

Post accident sample data for Station Vent has not been provided since the high range process monitors for this function will remain in service throughout the duration of the Exercise. Because of ALARA concerns, a post accident Station Vent sample should not be drawn as long as the monitors are working.

PASS AREA DOSE RATES - BEFORE SAMPLE

FIGURE 8.4-1

RADIOLOGICAL SURVEY FORM
ED 7995

SURVEY NUMBER	R.W.P NUMBER
92-XXXXX	92-XXXX

BUILDING	ELEVATION	AREA/ROOM/SYSTEM	DATE	TIME
Aux.	545'	PASS & Maintenance Hot Shop	5/13/92	0910

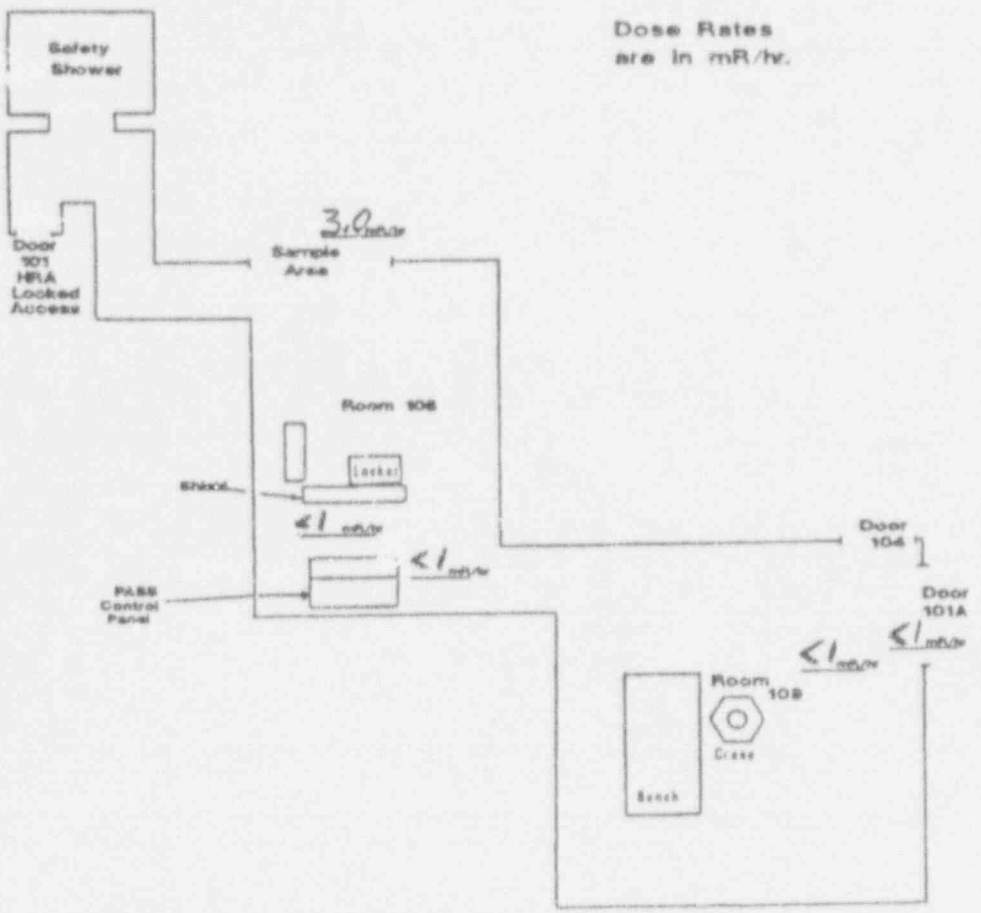
PURPOSE: Rad Survey "Before" PASS Sample — % POWER: 0

LEGEND

All radiation readings are in mR/h unless otherwise noted.

○ - SMEAR △ - NEUTRON β - BETA □ - AIR SAMPLE ★ - CONTACT

RA - RADIATION AREA HRA - HIGH RADIATION AREA CA - CONTAMINATED AREA HCA - HIGH CONTAMINATION AREA



INSTRUMENTS USED

MODEL NUMBER	ID NUMBER	CAL DUE DATE
2000W	2.7.163	10-10-92
RO-2A	2.7.138	9-17-92

PREPARED BY — NAME (Print): [illegible] — SIGNATURE: [illegible] — DATE: 5/13/92

APPROVED BY — NAME (Print): OSC RC Coord — SIGNATURE: [illegible] — DATE: 5/13/92

REVIEWED BY — NAME (Print): — SIGNATURE: — DATE:

PAGE 1 OF 1 PAGES

PASS AREA DOSE RATES - DURING SAMPLE

FIGURE 8.4-2

RADIOLOGICAL SURVEY FORM
ED 7995

SURVEY NUMBER	R.W.P. NUMBER
92-XXXX	92-XXXX

BUILDING	ELEVATION	AREA/ROOM/SYSTEM	DATE	TIME
Aux.	545'	PASS & Maintenance Hot Shop	5/13/92	0910+

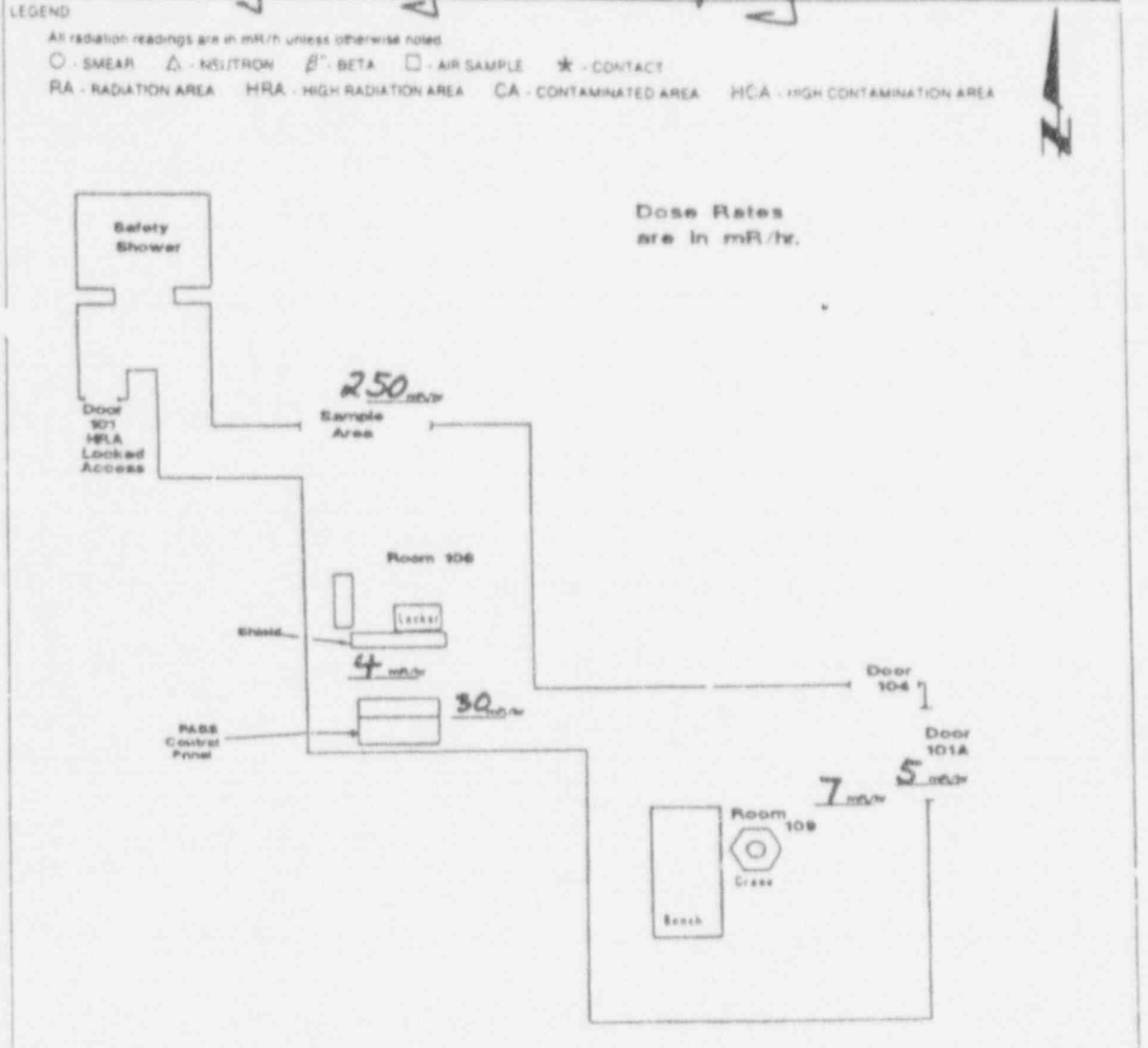
PURPOSE: Rad Survey "During" PASS Sampling — % POWER: 0

LEGEND

All radiation readings are in mR/h unless otherwise noted.

○ - SMEAR △ - NEUTRON β - BETA □ - AIR SAMPLE ★ - CONTACT

RA - RADIATION AREA HRA - HIGH RADIATION AREA CA - CONTAMINATED AREA HCA - HIGH CONTAMINATION AREA



INSTRUMENTS USED

MODEL NUMBER	ID NUMBER	CAL DUE DATE
2000W	27,163	10-10-92
10-2A	27,158	9-17-92

PREPARED BY — NAME (Print): [illegible] — SIGNATURE: [signature] — DATE: 5/13/92

APPROVED BY — NAME (Print): OSC RC Coord. — SIGNATURE: [signature] — DATE: 5/13/92

REVIEWED BY — NAME (Print) — SIGNATURE — DATE

PAGE 1 OF 1 PAGES

PASS AREA DOSE RATES - AFTER SAMPLE

FIGURE 8.4-3

RADIOLOGICAL SURVEY FORM
ED 7995

SURVEY NUMBER: 92-XXXX | R/W P NUMBER: 92-XXXX

BUILDING: Aux | ELEVATION: 545' | AREA/ROOM/SYSTEM: PASS & Maintenance Hallway | DATE: 5/13/92 | TIME: 0910+

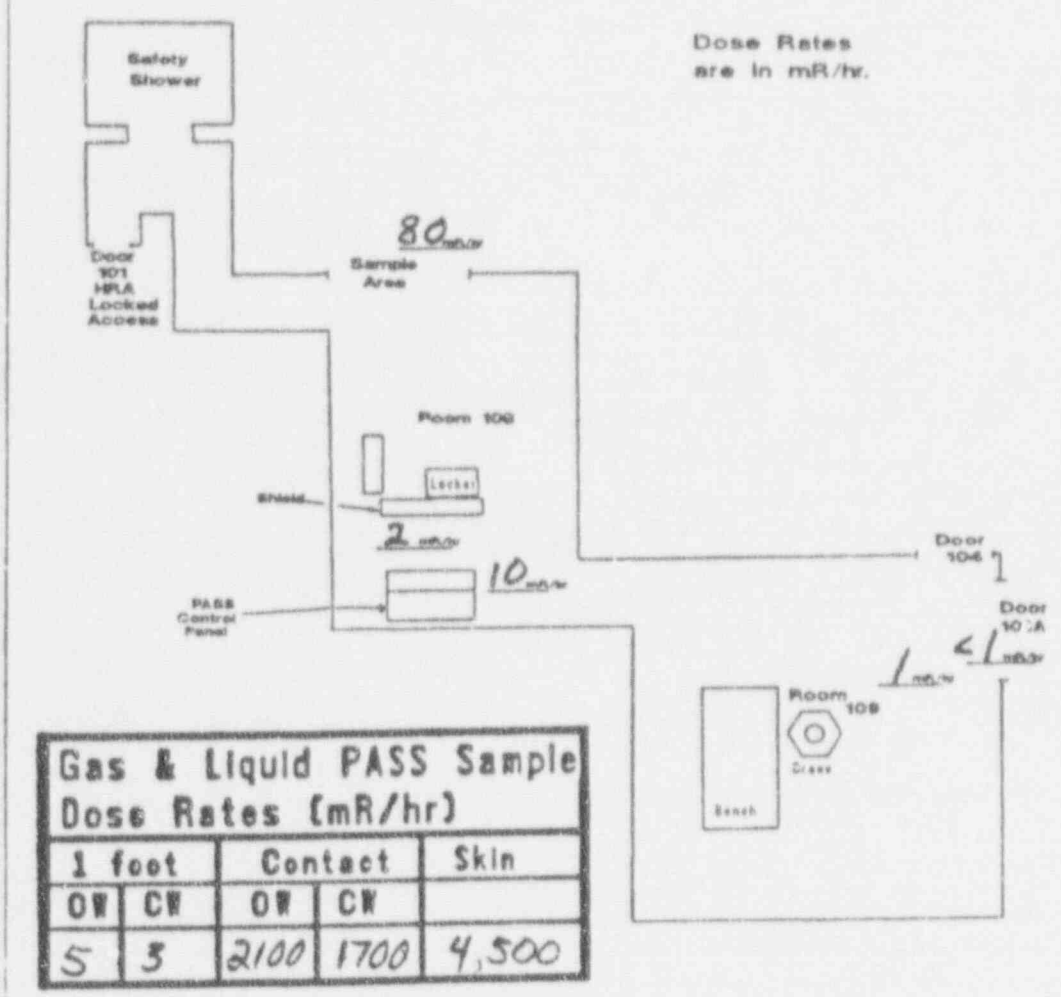
PURPOSE: Rad Survey "After" PASS Sample | % POWER: 0

LEGEND

All radiation readings are in mR/h unless otherwise noted.

○ - SMEAR △ - NEUTRON β - BETA □ - AIR SAMPLE ★ - CONTACT

RA - RADIATION AREA HRA - HIGH RADIATION AREA CA - CONTAMINATED AREA HCA - HIGH CONTAMINATION AREA



Gas & Liquid PASS Sample Dose Rates (mR/hr)				
1 foot		Contact		Skin
OW	CW	OW	CW	
5	3	2100	1700	4,500

INSTRUMENTS USED

MODEL NUMBER	ID NUMBER	CAL DUE DATE
2000W	2.7.163	10-10-92
RO-2A	2.7.138	9-17-92

PREPARED BY: NAME (Print) [illegible] | SIGNATURE [illegible] | DATE 5/13/92

APPROVED BY: NAME (Print) OSCR Coord. | SIGNATURE [illegible] | DATE 5/13/92

REVIEWED BY: NAME (Print) | SIGNATURE | DATE

PAGE 1 OF 1 PAGES

PASS SAMPLE RESULTS

TABLE 8.4-1

	RCS	CONTAINMENT SUMP	CONTAINMENT ATMOSPHERE	PRESSURIZER
Sample Pressure PSIA	365	28	28	365
Temperature °F	120	80	115	118
Approx. Time	10:00	10:00	10:00	10:00
System Pressure PSIA	370	30	30	370
Temperature °F	345	150	200	440
Activity µci/cc				
Kr-88	3.8	4.8E-2	2.7	3.2
Kr-85	15.4	1.9E-1	13.4	14.9
Kr-85m	2.2	2.8E-2	1.5	1.9
Xe-133	3.7E2	4.6	3.2E-1	3.4E2
Xe-135	7.3	9.1E-2	8.7E-3	7.1
I-131	38.2	1.5	1.2E-3	37.8
I-133	8.0	3.2E-1	6.4E-3	7.6
I-135	2.5	0.1	2.0E-3	2.2
Cs-134	6.0	7.5E-2	4.8E-3	5.8
Cs-137	9.1	1.1E-1	7.3E-3	8.9
Np-239	1.9E-3	2.3E-5	6.1E-10	1.7E-3
Ba-140	2.5E-6	7.0E-8	1.8E-13	2.3E-6
Boron PPM	1550	---	---	1500

ATTACHMENT 2: PASS CHECKLIST

CHECKLIST FOR PASS LIQUID SAMPLE

NOTE

Refer to HS-EP-02620, Emergency Exposure Control and KI Distribution, if the decision to take the sample results in operator exposure ≥1250 mRem.

The TSC shall determine the radiological hazards associated with obtaining a PASS liquid sample in accordance with DB-CH-06000, Post Accident Radiological Sampling and Analysis and DB-CH-00007, Post Accident Radiological Sampling and Analysis, by:

1. Requesting the OSC to obtain current radiological conditions in appropriate areas.

2. Performing an evaluation based on projected dose rates after sampling.

3. Determination of operator dose shall be made as follows:

	Activity	Area Dose Rate (mRem/hr)		Time (hrs)	Calc. Dose (mRem)
a.	Dress out in preparation for obtaining the liquid PASS samples, including briefing.	0.1	(x)	0.5	0.05
b.	Transit to PASS skid from Chem. Lab.	10	(x)	0.04	0.4
c.	Initial PASS system checkout and lineup.	20	(x)	0.57	11.4
d.	PASS system sample purge up to sample cave isolation.	500	(x)	0.17	85
e.	Degas sample, collect gaseous and liquid samples in vials and put vials in transport containers.	25	(x)	0.17	4.25
f.	Demineralized water flush of sample cave and sample needles.	120	(x)	0.20	24

ATTACHMENT 2: PASS CHECKLIST (Continued)

CHECKLIST FOR PASS LIQUID SAMPLE (Continued)

	Activity	Area Dose Rate (mRem/hr)	Time (hrs)	Calc. Dose (mRem)
g.	PASS skid and mimic board sample valve lineup check.	100 (x)	0.03	3,0
h.	Transit to lab with transport container.	150 (x)	0.07	10,5
i.	Preparation of liquid and gaseou gamma spectroscopy samples.	125 (x)	0.07	8,75
j.	Gamma spectroscopy samples analysis.	200 (x)	0.17	34
	Boron analysis.	100 (x)	0.83	83
l.	Store remaining samples and waste.	100 (x)	0.03	3,0
			Total	267,35 mRem

If the total projected calculated dose to the operator from area dose rates is less than 1250 mRem, recommend a sample be taken and obtain the Emergency Plant Manager's approval to draw the sample.

If the projected calculated dose exceeds 1250 mRem, recommend a sample not be taken until the dose rates are reduced.

SECTION 9.0

METEOROLOGICAL AND OFFSITE RADIOLOGICAL DATA

This section provides meteorological, field monitoring, and offsite assembly monitoring/decontamination information for Controller use when simulating offsite response conditions.

9.1 METEOROLOGICAL SUMMARY

This section contains the meteorological parameters modeled to coincide with the scenario sequence of events.

The Control Room Simulator will closely model this data and automatically disseminate it over the Data Acquisition and Display System (DADS) during the Exercise. Controllers should not provide hardcopy or verbal meteorological data to the Players as long as the Simulator is running. The Players should obtain meteorological data from DADS as they would normally.

NOTE: If the Simulator should malfunction during the course of the Exercise, Controllers are then permitted to release the data provided in this section.

Data in this section includes the following:

- Meteorological Overview Information
- Meteorological Data Summary
- Meteorological Forecast Information
- Meteorological Cue Cards

METEOROLOGICAL OVERVIEW INFORMATION

TABLE 9.1-1

General:

- Normal temperatures, barometric pressures and cloud cover for a May time period.
- No precipitation.
- Control Room Simulator will display meteorological data based on pre-designated parameters. The data will be provided to the other emergency facilities by the Simulator via the Data Acquisition and Display System (DADS) terminals.

Specific:

- Wind direction will begin from the Northwest at seasonal wind speeds (approximately 8 MPH).
- From 0700 AM until 1030 AM, the wind will slowly change directions and speed to Northeasterly at approximately 1.5 MPH.
- From 1030 AM until 0100 PM, the wind will hold relatively steady from the Northeast at approximately 1 to 2 MPH stability class F.
- From 0100 PM until the end of the day, the wind speed will increase and become less stable.

METEOROLOGICAL DATA SUMMARY

TABLE 9.1-2

Drill Time	Clock Time	M001 100-m WD	M002 75-m WD	M003 10-m WD	M004 100-m WS	M005 75-m WS	M006 10-m WS	M007 100-m SD	M008 75-m SD	M009 10-m SD	M0010 Delta T 100-10m	M0011 Delta T 75-10m	M0012 Amb Temp	M0013 100-m Dew Pt	M0014 10-m Dew Pt	M0015 Precip
00/00	0700	315	314	315	10.0	9.3	8.2	8.8	8.7	8.6	-2.5	-1.7	70.7	43.1	41.2	0.0
00/15	0715	318	317	316	9.7	9.1	8.0	8.7	8.6	8.5	-2.4	-1.7	70.8	43.5	41.5	0.0
00/30	0730	321	320	322	9.4	8.7	7.8	8.6	8.5	8.4	-2.1	-1.5	70.9	44.4	42.6	0.0
00/45	0745	322	321	323	9.1	8.4	7.6	8.5	8.4	8.3	-1.9	-1.4	70.9	44.6	42.4	0.0
01/00	0800	325	323	326	8.8	7.9	7.3	8.4	8.3	8.2	-1.5	-1.2	71.2	45.3	43.6	0.0
01/15	0815	329	326	328	8.2	7.5	6.8	8.3	8.2	8.1	-1.3	-1.1	71.3	46.7	44.2	0.0
01/30	0830	333	329	330	7.6	7.2	6.5	8.2	8.1	8.0	-1.2	-0.9	71.7	46.5	44.8	0.0
01/45	0845	338	332	333	7.4	6.7	6.3	8.1	8.0	7.9	-1.1	-0.8	72.2	47.6	45.4	0.0
02/00	0900	342	339	338	7.1	6.3	5.8	8.2	8.1	7.9	-1.0	-0.7	72.5	48.7	46.8	0.0
02/15	0915	345	342	343	6.7	6.1	5.6	8.0	7.9	7.8	-0.9	-0.6	72.8	49.9	47.5	0.0
02/30	0930	348	347	349	6.4	5.7	5.2	7.9	7.8	7.7	-0.7	-0.6	73.3	49.3	47.4	0.0
02/45	0945	358	360	353	5.8	5.6	4.9	7.5	7.3	7.1	-0.6	-0.5	73.4	51.4	48.1	0.0
03/00	1000	5	360	8	5.0	4.9	4.1	6.2	5.9	5.2	-0.3	-0.1	73.6	51.5	48.5	0.0
03/15	1015	18	17	20	3.6	3.3	2.8	5.0	4.7	4.2	0.9	1.1	73.9	51.7	48.2	0.0
03/30	1030	40	38	40	2.2	1.9	1.5	3.8	3.6	3.3	1.9	1.8	74.3	52.3	49.8	0.0
03/45	1045	42	40	44	2.1	1.8	1.6	3.7	3.5	3.2	2.2	1.9	74.5	52.4	49.3	0.0
04/00	1100	40	36	41	2.1	1.8	1.5	3.6	3.4	3.1	2.6	1.8	74.6	52.5	49.8	0.0
04/15	1115	44	38	42	2.2	1.7	1.4	3.7	3.5	2.8	2.8	1.9	74.9	52.6	49.6	0.0
04/30	1130	45	42	44	2.4	1.8	1.5	3.4	2.7	2.6	2.9	2.3	75.4	53.4	50.3	0.0
04/45	1145	45	44	45	2.5	1.9	1.5	2.8	2.5	2.4	3.3	2.4	75.6	53.6	50.9	0.0
05/00	1200	46	45	44	1.9	1.6	1.3	2.6	2.3	2.2	3.5	2.7	75.8	53.7	50.3	0.0
05/15	1215	44	44	43	2.3	1.8	1.5	2.4	2.1	1.9	3.5	3.0	75.4	54.5	51.6	0.0
05/30	1230	45	45	45	2.2	1.7	1.4	2.5	2.2	2.1	3.7	3.1	75.6	54.3	51.2	0.0
05/45	1245	45	44	44	1.9	1.6	1.3	2.3	2.0	1.8	3.5	2.9	74.7	55.1	52.7	0.0
06/00	1300	46	45	45	2.3	1.8	1.6	3.2	2.6	2.2	3.0	2.3	75.1	56.7	53.2	0.0
06/15	1315	44	43	45	2.6	2.2	2.0	3.5	3.3	2.8	2.9	2.0	75.3	56.2	53.3	0.0
06/30	1330	45	44	44	2.8	2.3	2.2	3.7	3.6	3.3	2.8	1.9	75.6	56.9	53.4	0.0
06/45	1345	44	45	45	4.4	3.9	3.5	4.3	3.8	3.6	2.6	1.8	75.8	55.3	52.8	0.0
07/00	1400	46	45	44	6.0	5.4	5.0	4.8	4.4	3.9	2.5	1.7	75.5	54.7	51.3	0.0
07/15	1415	38	37	39	7.0	6.3	5.7	5.6	4.9	4.7	2.0	1.3	75.2	53.9	50.5	0.0
07/30	1430	40	36	39	8.4	6.9	6.2	5.9	5.2	4.9	1.7	0.9	74.8	53.1	50.2	0.0
07/45	1445	42	44	41	9.7	7.3	6.6	6.8	6.5	5.8	1.1	0.3	74.8	52.3	49.2	0.0
08/00	1500	40	41	42	10.3	8.8	7.4	8.9	8.5	8.2	0.6	-0.9	74.6	52.4	49.6	0.0
08/15	1515	44	43	40	10.9	9.4	8.7	10.7	10.3	9.7	-1.1	-1.3	74.2	52.2	49.3	0.0
08/30	1530	43	42	42	11.5	11.0	10.1	13.2	12.9	12.6	-2.2	-1.9	73.9	51.7	49.1	0.0

Average meteorological conditions during release:

Wind speed:	1.5 MPH
Wind direction (from):	40 Degrees
Stability class:	F

METEROLOGICAL FORECAST INFORMATION

TABLE 9.1-3

Instructions:

The Control Cell should release the following information as if representing the National Weather Service at the Toledo Express Airport. The information is normally provided via a tape recording, however, for the purposes of the Exercise the Control Cell can just read the information given below when contacted by Players.

- If morning (8:00 a.m. to 12:00 p.m) forecast information is requested, read the following:

  THIS IS A DRILL. WEATHER CONDITIONS FOR WEDNESDAY MORNING, MAY 13TH...NORTHWEST WINDS ARE EXPECTED FROM 5 TO 10 KNOTS, WAVES AROUND 3 FEET. THURSDAY, WINDS FROM 15 TO 25 KNOTS, CREATING WAVES FROM THE SOUTHWEST AT 4 TO 6 FEET....FOR THE TOLEDO AREA, WE ARE CURRENTLY UNDER PARTLY SUNNY SKIES, AT 72 DEGREES, RELATIVE HUMIDITY 61%, BAROMETRIC PRESSURE AT 30.2 INCHES AND FALLING. FOR THE AFTERNOON, TEMPERATURES ARE EXPECTED TO REACH 76 DEGREES WITH WINDS COMING FROM THE NORTHEAST AT 2 TO 3 KNOTS. THIS IS THE NATIONAL WEATHER SERVICE AT THE TOLEDO EXPRESS AIRPORT. HAVE A GOOD DAY. THIS IS A DRILL.

- If afternoon (12:00 p.m. to 3:00 p.m.) forecast information is requested, read the following:

  "THIS IS A DRILL. WEATHER CONDITIONS FOR WEDNESDAY AFTERNOON, MAY 13TH...NORTHEAST WINDS AT 2 TO 3 KNOTS, WAVES AROUND 2 FEET. THURSDAY, WINDS FROM 15 TO 25 KNOTS, CREATING WAVES FROM THE SOUTHWEST AT 4 TO 6 FEET ...FOR THE TOLEDO AREA, WE ARE CURRENTLY UNDER SUNNY SKIES, AT 75 DEGREES, RELATIVE HUMIDITY 68%, BAROMETRIC PRESSURE AT 29.7 INCHES AND HOLDING STEADY. THIS IS THE NATIONAL WEATHER SERVICE AT THE TOLEDO EXPRESS AIRPORT. HAVE A GOOD DAY. THIS IS A DRILL."

9.2 FIELD RADIATION DATA

This section of the manual provides information necessary for Controllers to use in simulating offsite radiation levels due to the radioactive plume that is released during the course of the Exercise.

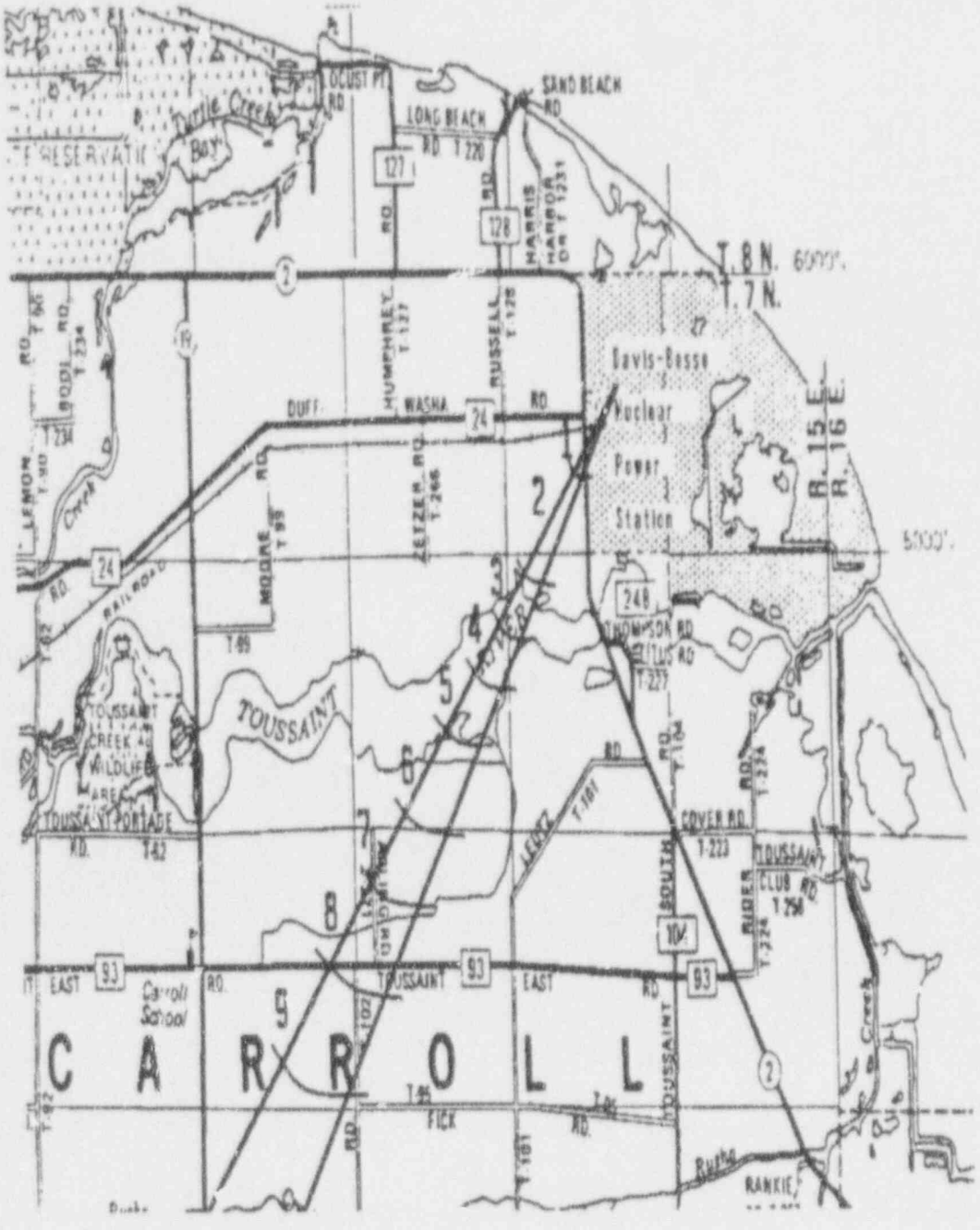
The release path is: 1) crud burst and fuel clad activity equivalent to approximately 50% gap is released into the primary coolant at 0900, 2) an 800 GPM tube rupture in #2 OTSG having occurred at 0800 provides a path for the primary activity to get into the secondary system, 3) at the same time a Main Steam line rupture inside Containment on #2 OTSG allows the radioactivity to get into the Containment atmosphere, 4) at time 1150, a Containment vacuum breaker failure caused by the increasing Containment pressure provides a path for the activity to flow to the annulus space outside of Containment, and finally 5) the Emergency Ventilation System (EVS) takes a suction on the annulus space and exhausts the radioactivity (i.e., noble gases) out the Station Vent. (It is assumed that any particulates such as radioiodines are filtered out by the EVS.)

The release continues until the Containment vacuum breaker is repaired at time 1245. Meteorological conditions during this time frame are as follows:

Wind Speed	1.5 MPH
Wind Direction (from)	40 Degrees
Stability Class	F (Moderately Stable)

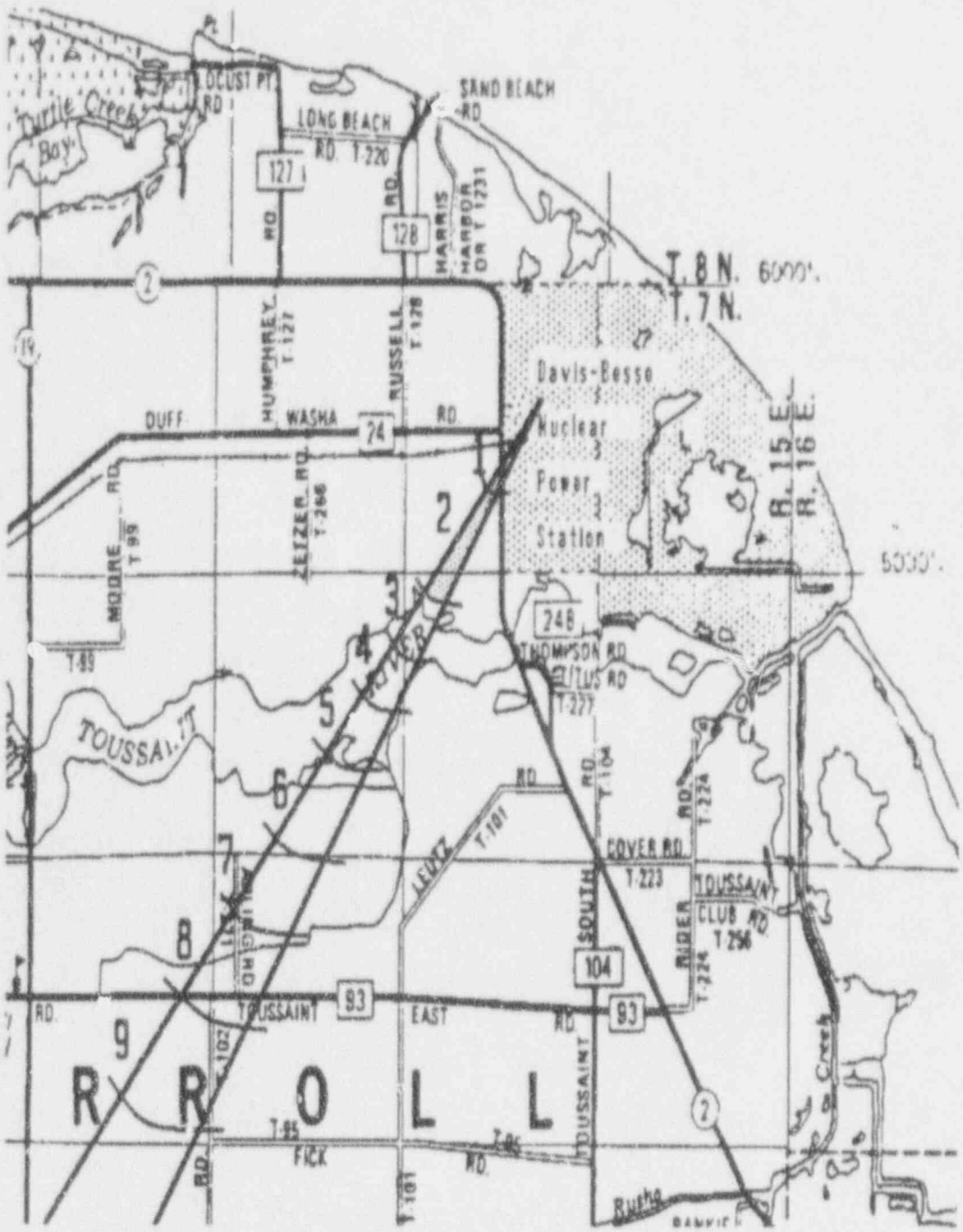
With the release containing only noble gases, all field readings for radioiodines and particulates will be "as read", thus no tables are provided for PRM-6 or SAM-2 readings in CPM. Controllers should only indicate whole body readings on the RSO-5 survey meter per the indicated values on the "Radioactive Plume Travel Maps" provided on the following pages. A map is provided for times 1215, 1230, 1245, 1300, 1315, 1330, 1345, 1400, and 1415. Controllers must interpolate the readings on the maps to give the Players some indication of plume travel and the variation of radiation levels between the edges of the plume and plume centerline.

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1215



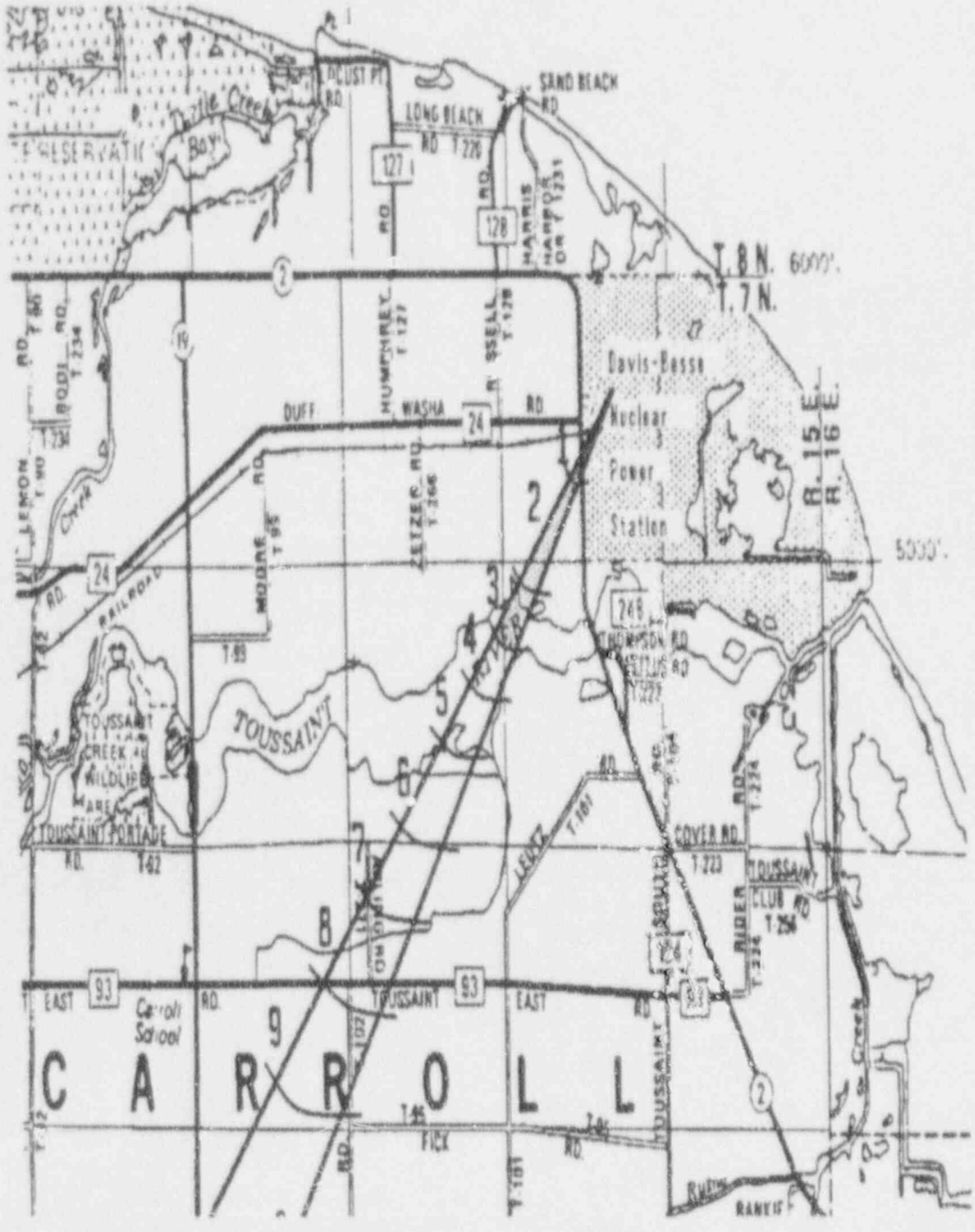
Time: 12:15		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	As Read	As Read	As Read
3	1.4	As Read	As Read	As Read
4	1.75	As Read	As Read	As Read
5	2.1	As Read	As Read	As Read
6	2.5	As Read	As Read	As Read
7	2.9	As Read	As Read	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1230



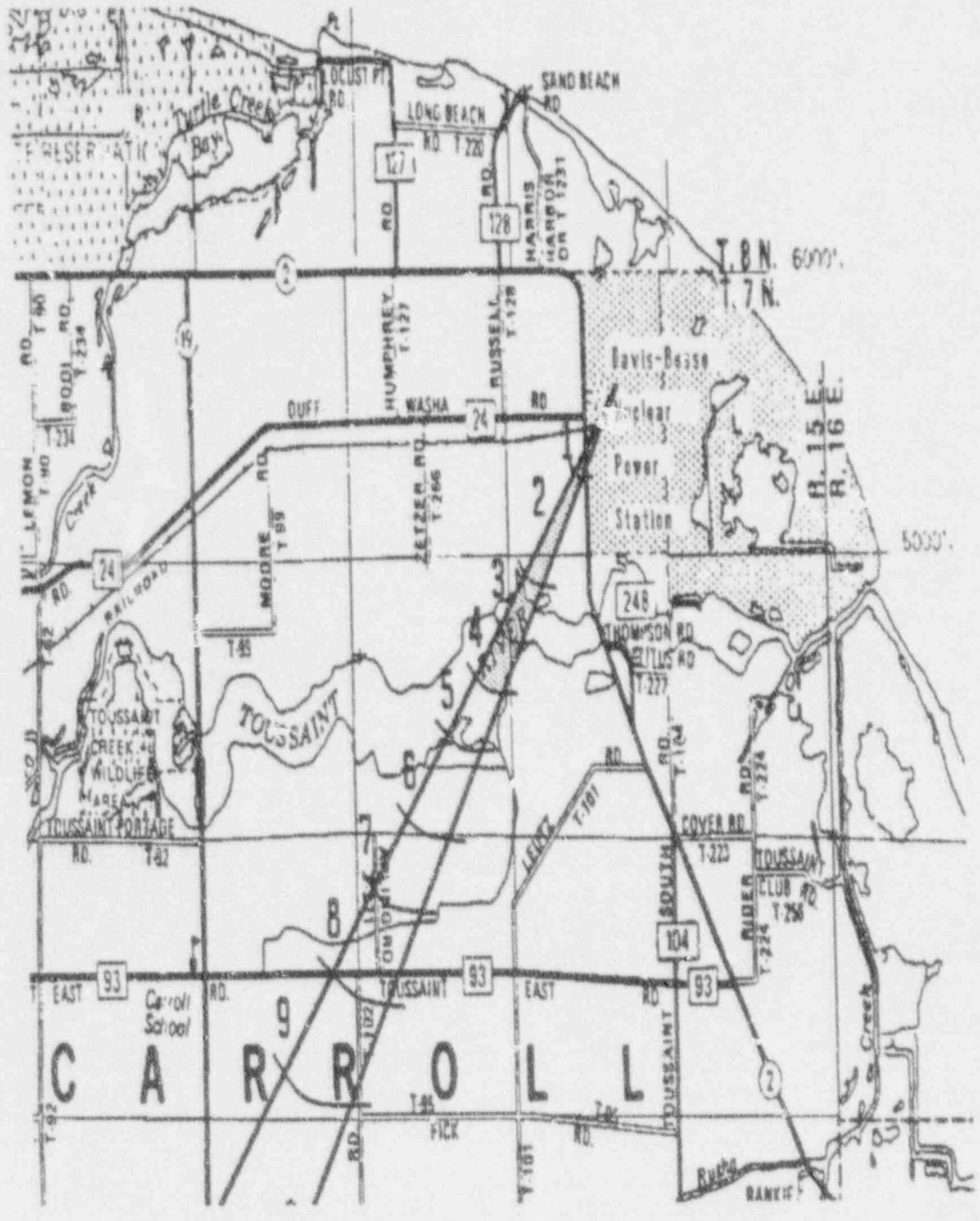
Time: 12:30		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	1.4E3	1.7E3	As Read
3	1.4	As Read	As Read	As Read
4	1.75	As Read	As Read	As Read
5	2.1	As Read	As Read	As Read
6	2.5	As Read	As Read	As Read
7	2.9	As Read	As Read	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1245



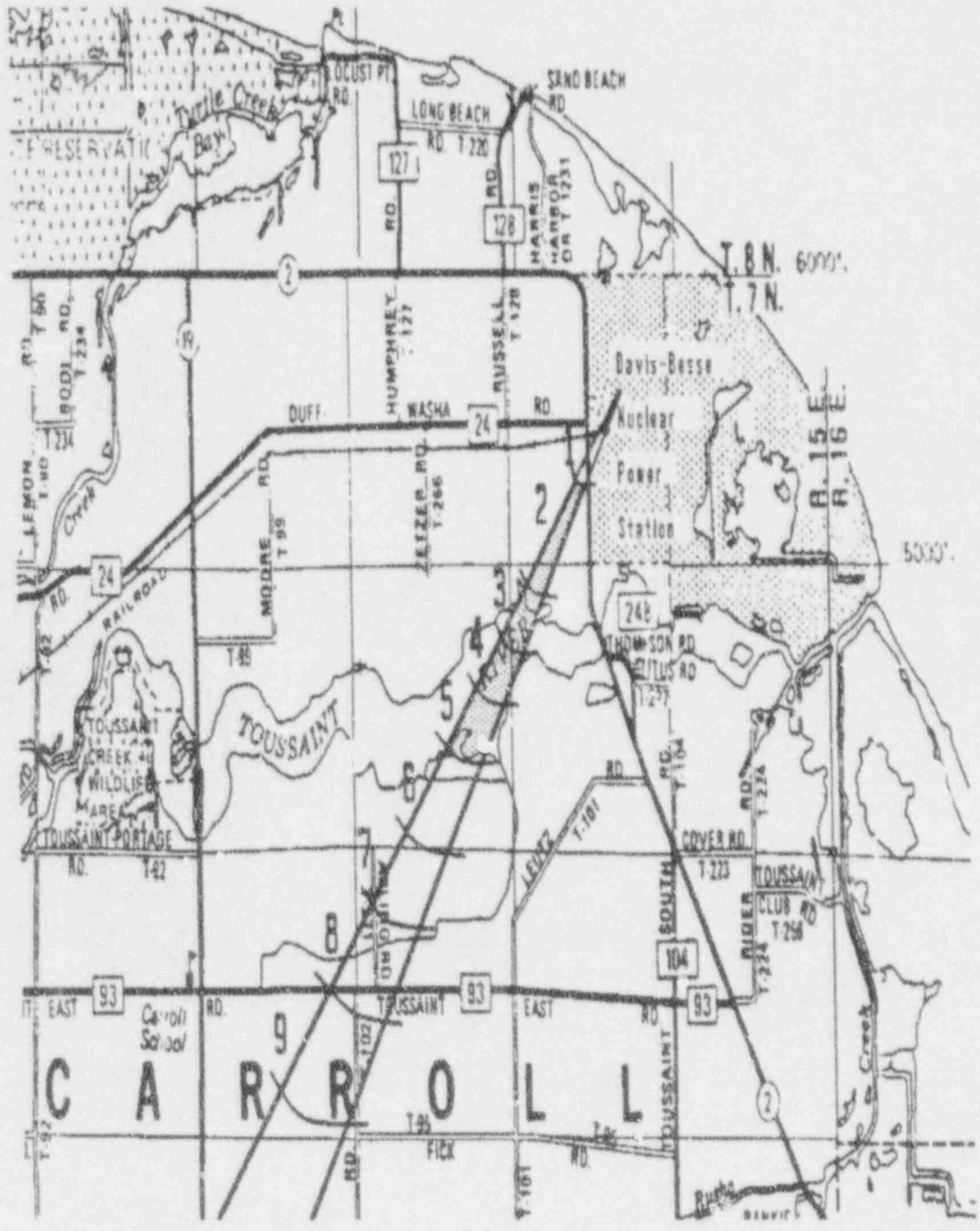
Time: 12:45		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	1.4E3	1.7E3	As Read
3	1.4	1.0E2	1.4E3	As Read
4	1.75	As Read	As Read	As Read
5	2.1	As Read	As Read	As Read
6	2.5	As Read	As Read	As Read
7	2.9	As Read	As Read	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1300



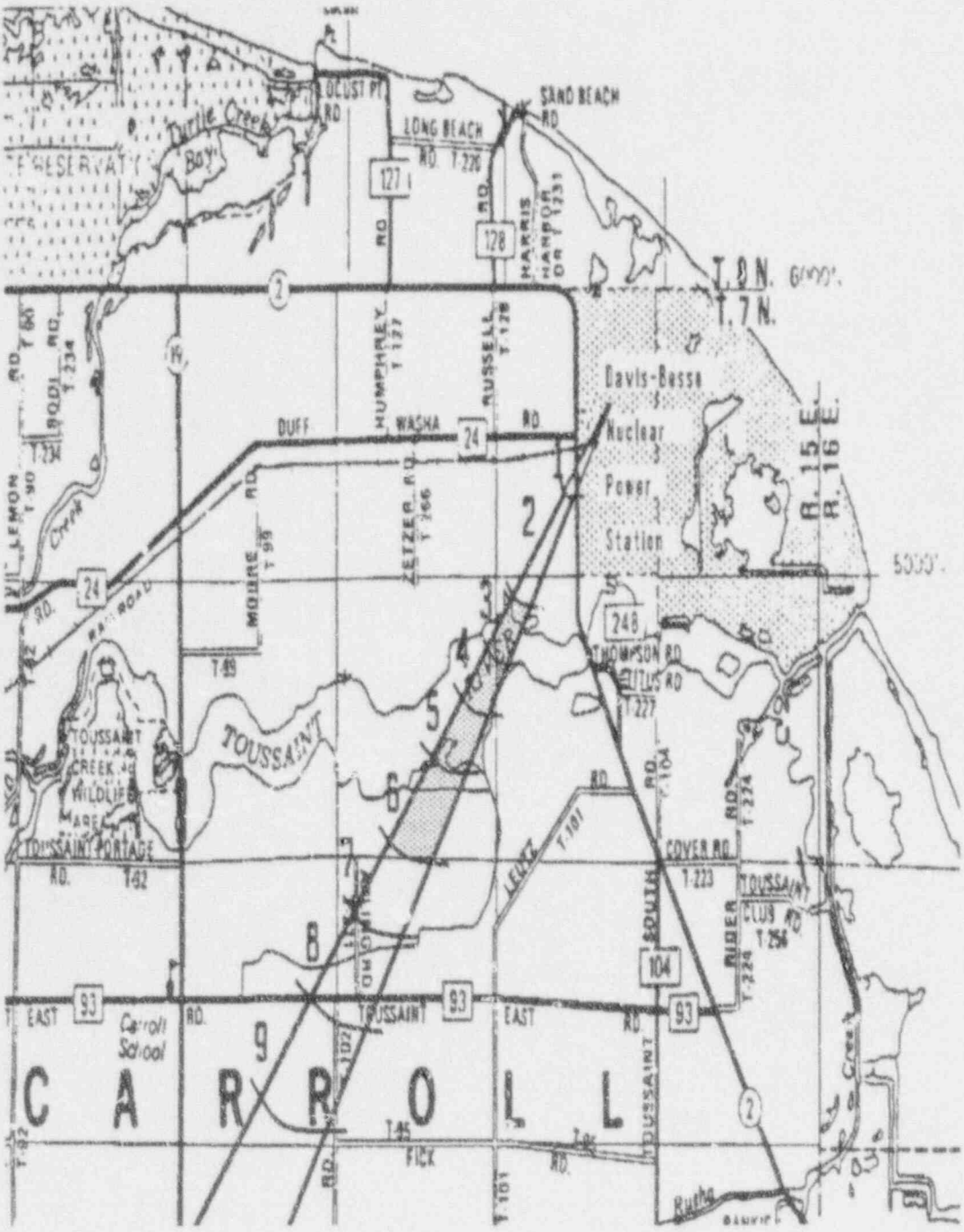
Time: 13:00		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	1.4E3	1.7E3	As Read
3	1.4	9.3E2	9.8E3	As Read
4	1.75	720	725	As Read
5	2.1	As Read	As Read	As Read
6	2.5	As Read	As Read	As Read
7	2.9	As Read	As Read	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1315



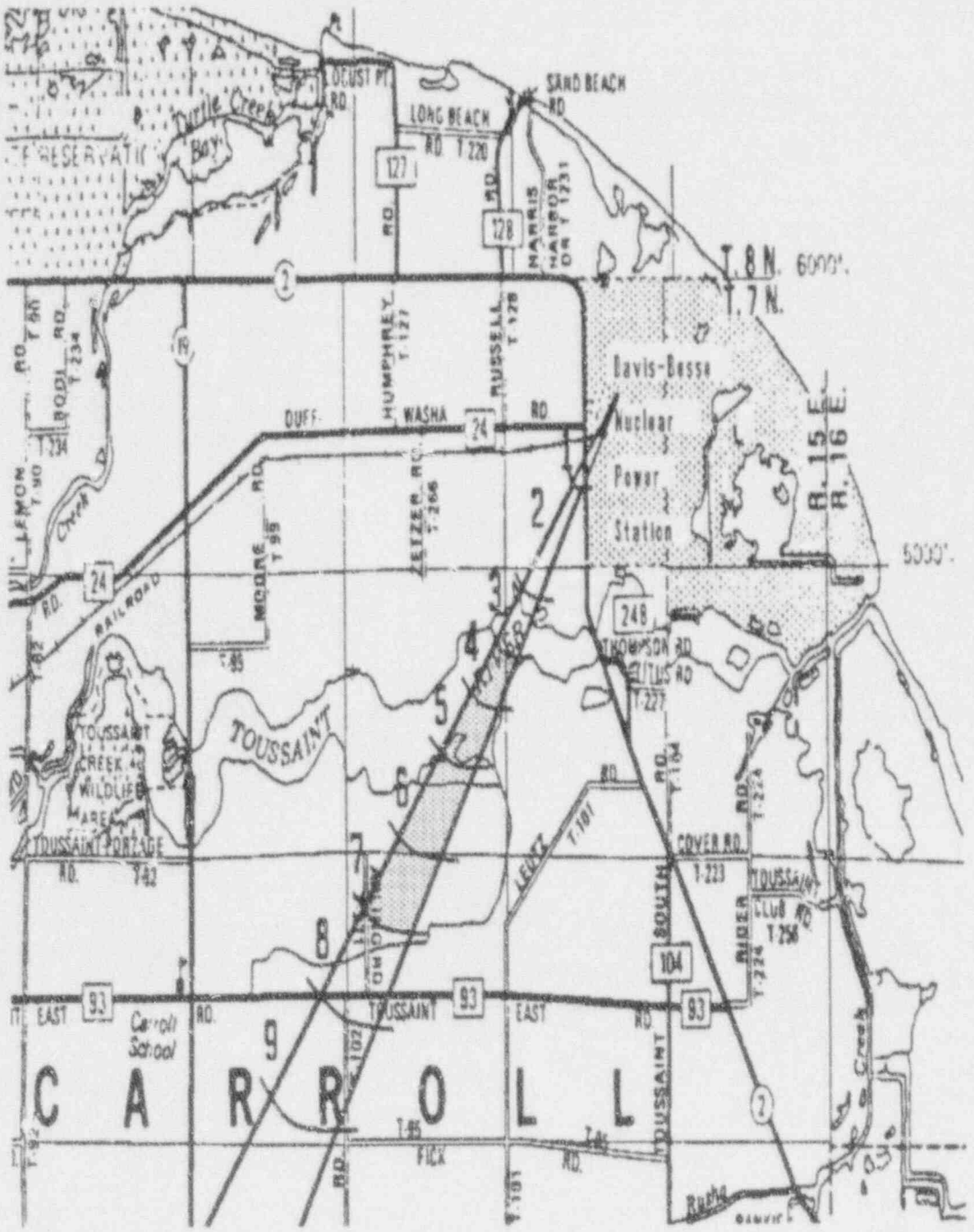
Time: 13:15		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	1.3E3	1.6E3	As Read
3	1.4	9.5E2	1.0E3	As Read
4	1.75	730	740	As Read
5	2.1	475	482	As Read
6	2.5	As Read	As Read	As Read
7	2.9	As Read	As Read	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1330



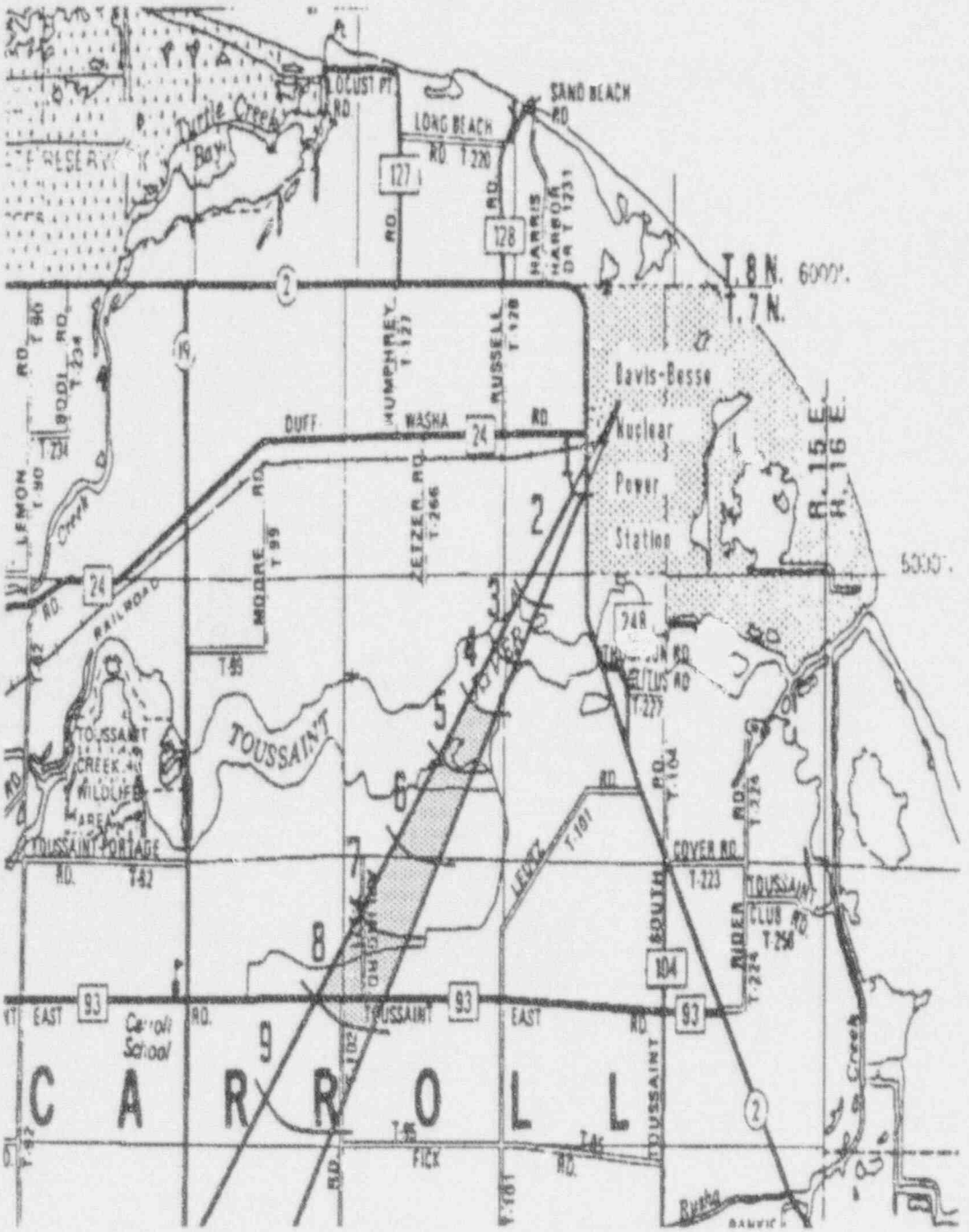
Time: 13:30		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	As Read	As Read	As Read
3	1.4	1.0E3	1.3E3	As Read
4	1.75	725	730	As Read
5	2.1	480	495	As Read
6	2.5	365	372	As Read
7	2.9	As Read	As Read	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1345



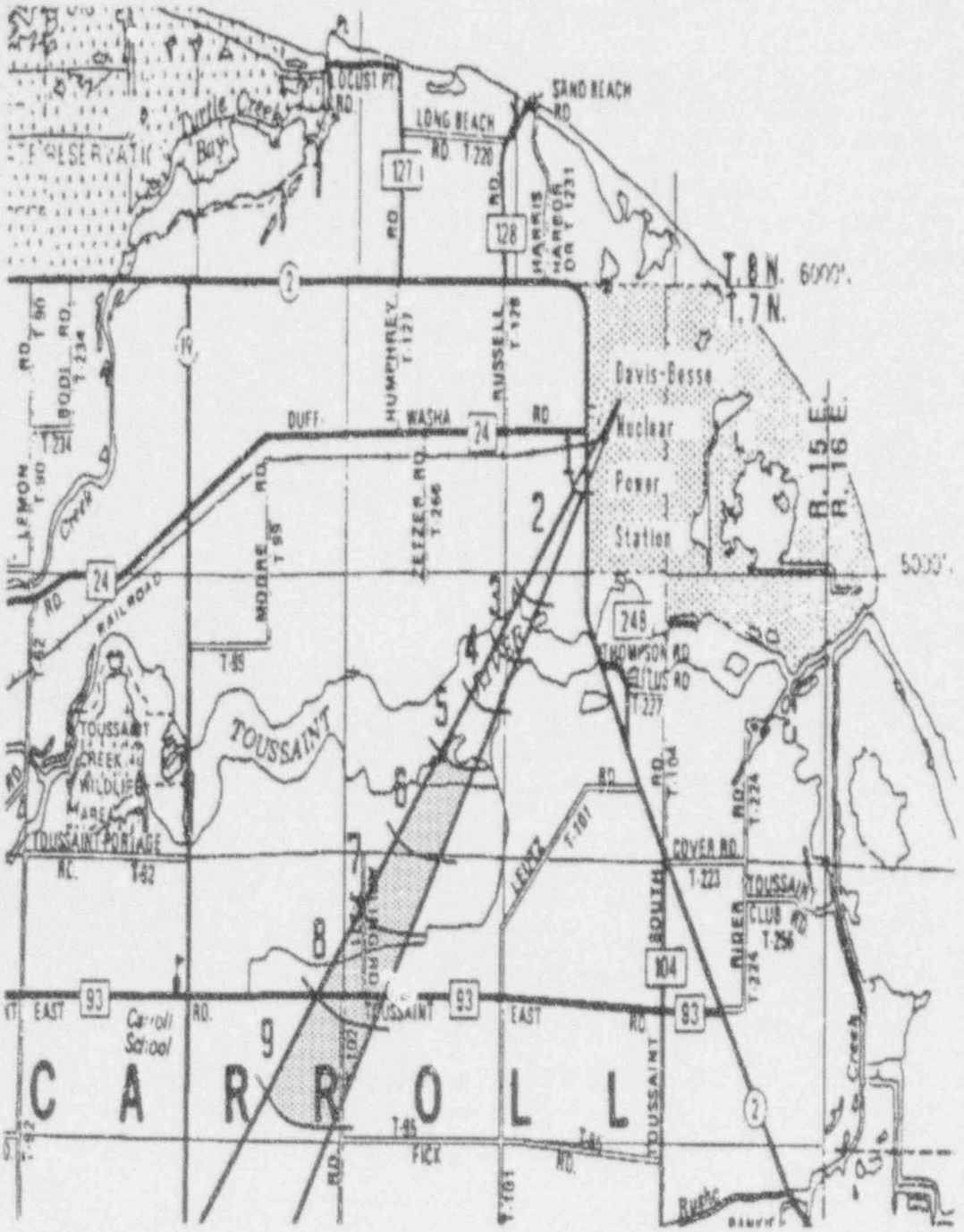
Time: 13:45		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	As Read	As Read	As Read
3	1.4	As Read	As Read	As Read
4	1.75	725	730	As Read
5	2.1	390	410	As Read
6	2.5	365	370	As Read
7	2.9	290	305	As Read
8	3.25	As Read	As Read	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1400



Time: 14:00		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	As Read	As Read	As Read
3	1.4	As Read	As Read	As Read
4	1.75	As Read	As Read	As Read
5	2.1	380	395	As Read
6	2.5	342	353	As Read
7	2.9	278	284	As Read
8	3.25	257	262	As Read
9	3.6	As Read	As Read	As Read

RADIOACTIVE PLUME TRAVEL MAP AT TIME 1415



Time: 14:15		CenterLine Readings		
Map Sector	Distance (miles)	Closed Window (mR/hr)	Open Window (mR/hr)	PRM-6/HP-260 (net cpm)
1	0.6	(Refer to Onsite Map.)		
2	1.0	As Read	As Read	As Read
3	1.4	As Read	As Read	As Read
4	1.75	As Read	As Read	As Read
5	2.1	As Read	As Read	As Read
6	2.5	340	348	As Read
7	2.9	275	286	As Read
8	3.25	253	259	As Read
9	3.6	220	227	As Read

STATE OF OHIO NUCLEAR DATA SYSTEM

Although this is considered a "utility only" Exercise, the State has elected to provide limited participation for training purposes and to aid in demonstrating communications flow by the utility emergency organization. They will also be performing independent dose assessment activities at the State EOC.

During an actual emergency the State can access plant information to perform dose assessment via a computer link called the Nuclear Data System (NDS). However, this link can not be used with the Simulator. For this reason, the following data sheets will be provided as handouts to participants at the State EOC.

9.3 OFFSITE ASSEMBLY, MON/DECON OF STATION PERSONNEL

This section of the manual contains the information needed to control the offsite assembly of station personnel, including the monitoring and decontamination activities necessary to demonstrate this objective.

A pre-designated group of six to ten individuals will be used to demonstrate the Station's offsite assembly and monitoring/decontamination capability. This group of individuals will be pre-staged at the training center. It will be assumed that the personnel being relocated are maintenance workers that were not evacuated earlier and do not appear to be needed at the present time. Some of these individuals had been in the Turbine Building working on the High Temperature Demineralizer spill and/or on the Condensate Polishers and as a result came in contact with radioactive contaminants that had been initially present or subsequently spread by the Steam Generator tube rupture. A subsequent failure of the portal monitor at the PPF permits the contaminated individuals to exit without being detected. Their contamination is spread to one of their cars when they touch, lean on, and step into it.

By procedure, offsite assembly is not required until declaration of a General Emergency, however, if conditions warrant in the judgement of the Emergency Director, offsite assembly could occur as early as the Alert declaration. In order to prevent personnel from having to "stand by" for several hours unnecessarily, cue cards will be issued to the Emergency Director coordinating the start time of this activity to be just after lunch at 1210.

An Emergency Control Center Controller will hold an informational cue card for the Emergency Director to implement the offsite assembly. The informational cue card will explain what is to happen and when, and give a phone number where the individuals can be contacted to begin the offsite assembly simulation. Two company vehicles will be pre-staged to provide transportation for these individuals.

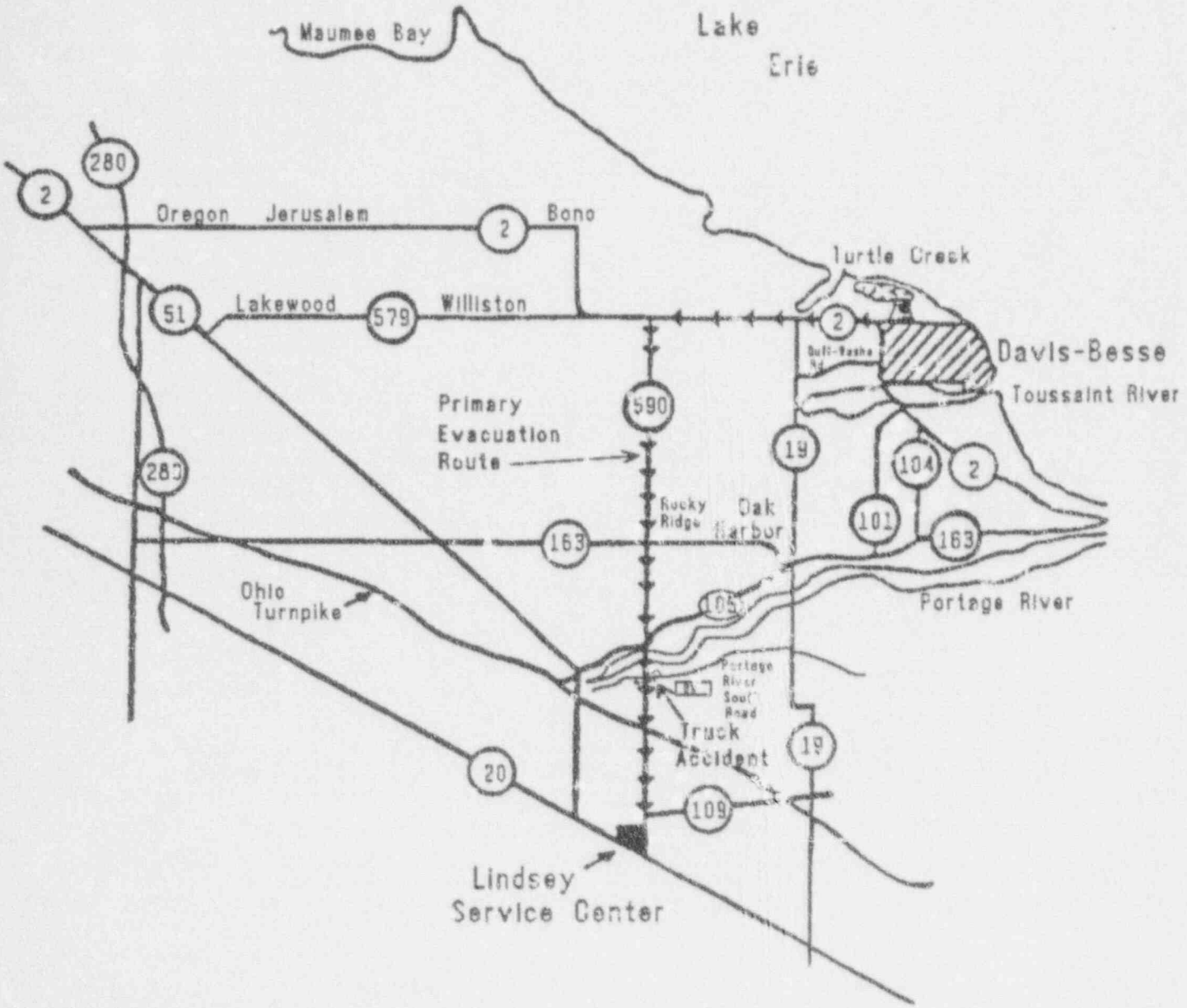
Before the group leaves the station, however, an alternate route will have to be determined by the Emergency Control Center since earlier reports from Ottawa County will indicate that the primary route is blocked. (Refer to Figure 9.3-1, Offsite Assembly Routes.)

Finally, once the group arrives at the offsite assembly point (i.e., Toledo Edison's Lindsey facility), they will undergo both vehicle and personal monitoring. One of the vehicles (refer to Figure 9.3-2) and three of the personnel (refer to Table 9.3-1) will be simulated to be contaminated. During the vehicle monitoring demonstration, the Controller should allow the first vehicle to be free of contamination with all readings being given "as read". The readings on the second vehicle should be given as indicated in Figure 9.3-2. During the personnel monitoring demonstrations, the Controller should relay contamination levels as indicated in Table 9.2-1 at random intervals. For example, the first person surveyed could be free of contamination, the second can be contaminated. The fourth and sixth could be contaminated and all others clean.

Monitoring and decontamination demonstrations will be performed by Radiological Controls personnel who have been dispatched from the Station.

OFFSITE ASSEMBLY ROUTES

FIGURE 9.3-1

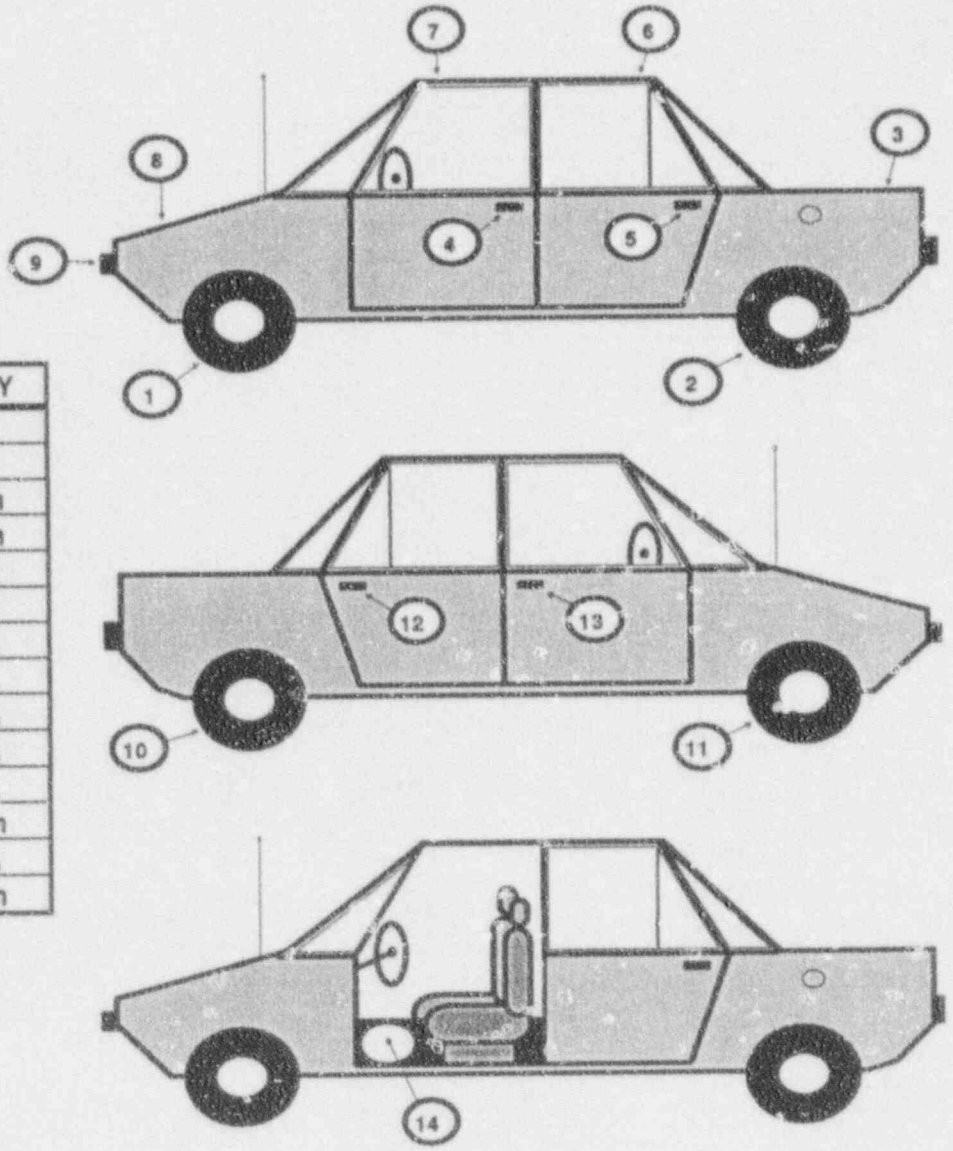


BW = Brushwellman Plant

= Intersection is blocked due to accident

VEHICLE CONTAMINATION

FIGURE 9.3-2



NO	ACTIVITY
1	< MDA
2	< MDA
3	300cpm
4	400cpm
5	< MDA
6	< MDA
7	< MDA
8	< MDA
9	< MDA
10	< MDA
11	< MDA
12	200cpm
13	< MDA
14	500cpm

PERSONNEL CONTAMINATION

TABLE 9.3-1

Note: All readings are in CPM

2nd Person Surveyed:

Initial Contamination		After 1st Decon	After 2nd Decon	After 3rd Decon
Palm of L Hand -	450	300	200	0
Top of R Forearm -	200	50	0	
Wristwatch on R Arm -	300	(Watch should be removed and bagged before beginning skin decon.)		

4th Person Surveyed:

Initial Contamination		After 1st Decon	After 2nd Decon	After 3rd Decon
Palm of R Hand -	600	450	0	0
Face on L Cheek -	250	100	0	
Face on Chin -	400	200	75	0

6th Person Surveyed:

Initial Contamination		After 1st Decon	After 2nd Decon	After 3rd Decon
Palm of L Hand -	300	150	0	
Palm of R Hand -	400	200	0	
Shirt at Stomach Area -	200	(No stomach contamination once shirt is removed.)		
Bottom of L Shoe -	600	(No contamination of feet once shoes are removed.)		
Top of R Shoe -	150			

10.0 EQUIPMENT REPAIR DATA

This section contains the equipment repair information modeled to coincide with the scenario sequence of events. It is designed to be provided to the repair personnel/teams who are dispatched from the Operations Support Center (OSC) during the course of the Exercise. Equipment data only is provided in this section. For in-plant radiation levels that personnel may encounter during repair activities, Controllers must refer to Section 8.1 of this manual.

The data in this section is to be used to explain both; 1) equipment out of service during the initial conditions, and 2) malfunctions that occur later during the response and recovery stages of the Exercise. In either case, these events are usually centered around one particular piece of equipment. Thus for this Exercise, the following equipment sections have been prepared:

- #1 Containment Spray Pump *
- #2 Station Air Compressor *
- Valve SW-1358 (For #3 Containment Air Cooler) *
- Valve DD-5366 (Inlet for the High Temperature Demineralizer Heat Exchanger)
- #1 & #2 Containment Air Coolers
- #2 Containment Spray Pump
- Containment Vacuum Breaker CV-5071

For those sections indicated with an "*", separate envelopes will be available for use by the Controllers. Each envelope will include maintenance work packages that can be given to the Players once the OSC has been activated and questions concerning these work activities arise. The information provided in the work packages will consist of; 1) a Maintenance Work Order (MWO), 2) a tagout list, 3) the applicable maintenance procedure, and 4) a parts list.

CAUTION: Drill tags are to be hung at the Simulator only. No drill tags are to be displayed or placed on any components in the plant!

#1 CONTAINMENT SPRAY PUMP

Initial Controller Instructions:

As part of the initial conditions when the Exercise starts, it is assumed that:

- The #1 Containment Spray Pump (CSP) is out of service due to an alignment problem (refer to Figure CSP1). It was tagged out at 0500 and maintenance began per procedure DB-MM-09046.

- It is currently hour 2 of a 72 hour Action Statement per Limiting Condition for Operation (LCO) 3.6.2.1.

Player Instructions:

When asked by the OSC Players as to the specific cause of the problem and what maintenance work is in progress, give them the envelope labeled "#1 Containment Spray Pump", which encloses a maintenance work package, and inform them that:

"This is a drill. During the last surveillance test of the #1 Containment Spray Pump, the pump was observed to have a vibrational mis-alignment problem. As a result, the pump was declared inoperable and the coupling was to be disassembled for inspection and/or repair. At 05:00 AM this morning, it was tagged out. The tag out list is provided in the work package. Maintenance personnel originally assigned to this task completed the disassembly process and are in the process of inspecting the pieces of the coupling. It is currently hour 2 of a 72 hour Tech Spec action statement. This is a drill."

Follow-up Controller Instructions:

Once the Players understand the above, they should be observed informing the TSC of the #1 CSP condition (if asked). If the decision is made to work on the coupling, allow the Repair Team to go through the normal steps it would take to perform the work up until time 11:50. After 11:50, radiation levels in the Auxiliary Building will start to increase and the Players must make a determination as to exposure control and whether work should continue on this pump.

If the repair efforts are continued, observe the precautions taken to limit exposure to personnel. When they observe their survey meter, issue rad levels per Section 8.1 of this manual. In keeping with the sequence of events, the work will not be completed until 13:00. Issue cue card CSP-1 at 13:00 to end the repair activities associated with this pump.

If they decide not to continue the repairs, do not issue cue card CSP-1. This will not have a significant impact on the Exercise sequence.

#1 CONTAINMENT SPRAY PUMP

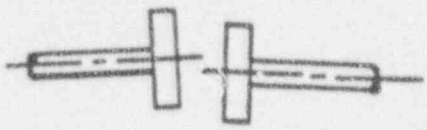
FIGURE CSP1

Containment Spray Pumps (P-56) -- Reference Procedure DB-MM-09046, Enclosure 5

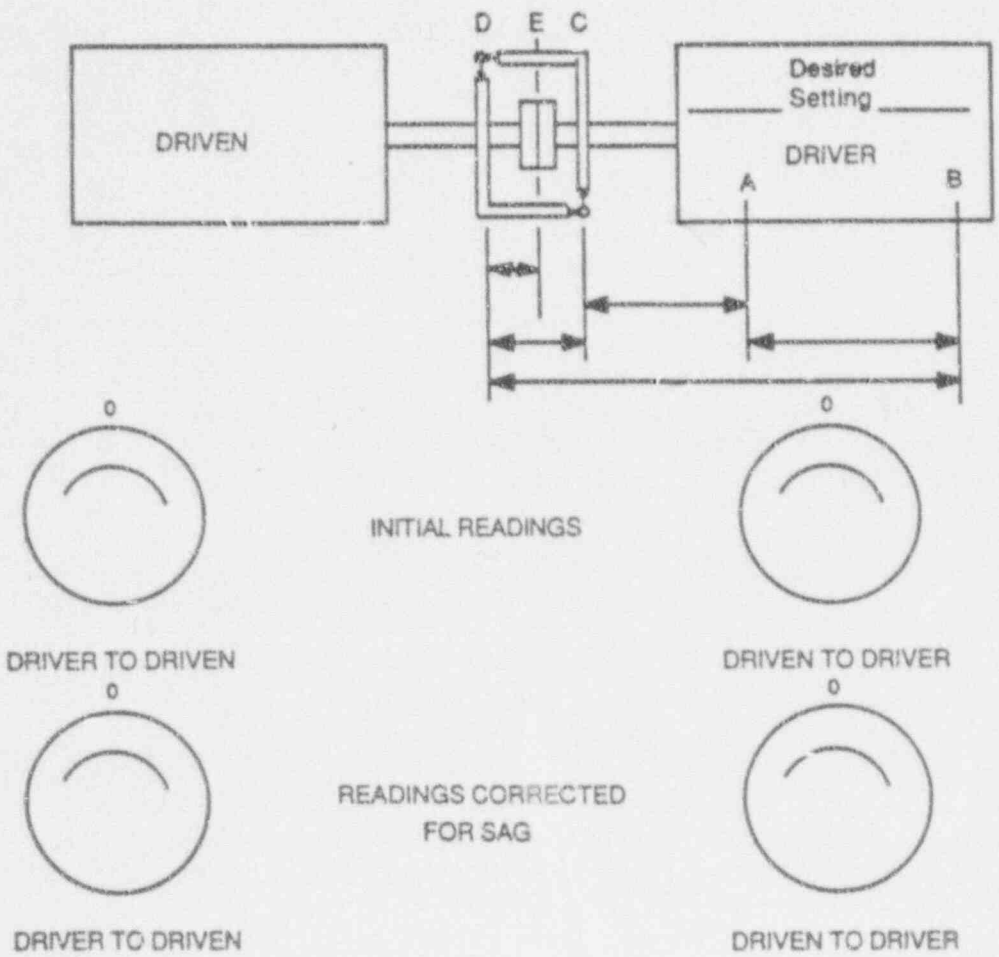
Offset (max. TIR)	2 mils
Angularity (max.)	<0°0'30" or tangent .00015
Offset for Thermal Growth	Driver 4-6 mils low

TYPE OF MISALIGNMENT

COMBINATION OFFSET & ANGULARITY



INDICATOR REVERSE METHOD ALIGNMENT RECORD



DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. CSP-1

TO: Repair Team Working on
#1 Containment Spray Pump

TIME: 13:00

T: 06/00

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Relay the following message to the OSC Manager:

"This is a drill. We have completed work on the #1 Containment Spray Pump. Red tags can be removed and Operations should be able to restart the pump whenever they're ready. This is a drill."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. CSP-1

TO: OSC Controller

TIME: 13:00

T: 06/00

ANTICIPATED RESPONSE:

Tags are removed at the Simulator and the pump is started.

INSTRUCTIONS:

Issue this message to the Repair Team working on #1 CSP no matter where they are in their work efforts. The scenario sequence of events calls for the return of the pump at this time.

CAUTION: Drill tags are to be hung at the Simulator only. **No drill tags are to be displayed or placed on any components in the plant!**

****

THIS IS A DRILL

****

#2 STATION AIR COMPRESSOR

Initial Controller Instructions:

As part of the initial conditions when the Exercise starts, it is assumed that:

- The #2 Station Air Compressor (refer to Figure SAC2) is tagged out for routine maintenance and inspection per procedure DB-MM-09156.

Player Instructions:

When asked by the OSC Players as to the specific cause of the problem and what maintenance work is in progress, they should be informed that:

"This is a drill. The #2 Station Air Compressor had been tagged out earlier this morning for preventive maintenance. The oil has been drained out of the unit and it's breaker removed. The breaker has since been fully disassembled. Work has stopped for the moment, however, it is scheduled to resume after lunch. This is a drill."

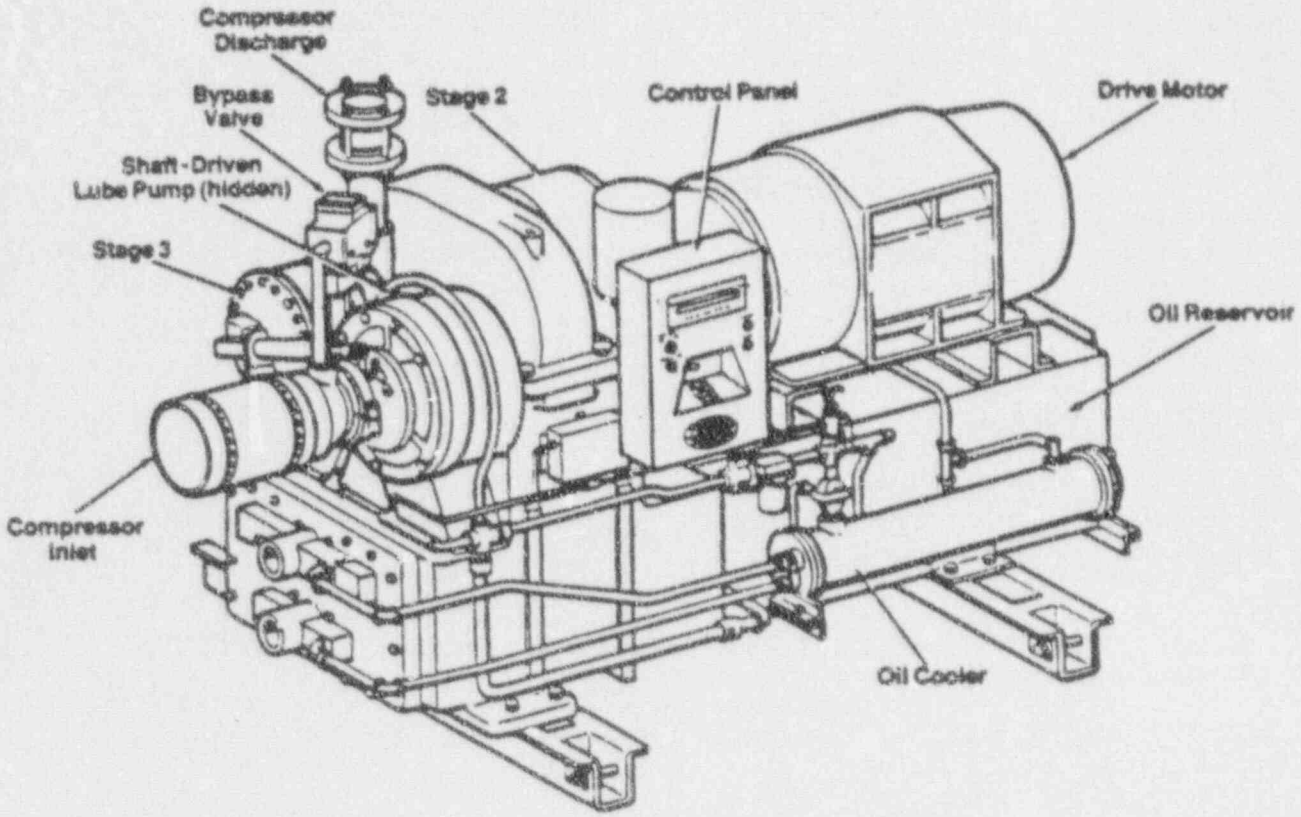
Follow-up Controller Instructions:

Once the Players understand the above, they should be observed informing the TSC of the #2 Station Air Compressor condition (if asked) and discussing the need to perform emergency repairs. It is not crucial to the outcome of the scenario, so whatever actions they take is okay.

This component failure has been added to the scenario as a means to permit Players to decide whether it is necessary to pursue all maintenance activities. It adds a bit of realism, since not all component outages or failures have a direct bearing on the outcome of the plant emergency.

#2 STATION AIR COMPRESSOR

FIGURE SAC2



VALVE SW-1358 (FOR #3 CONTAINMENT AIR COOLER)

Initial Controller Instructions:

As part of the initial conditions when the Exercise starts, it is assumed that:

- The #3 Containment Air Cooler is out of service for valve stem replacement on valve SW-1358.

Player Instructions:

When asked by the OCC Players as to the specific cause of the problem and what maintenance work is in progress, they should be informed that:

"This is a drill. SW-1358 valve stem replacement has been completed, however, the air isolation valve at SW-1358 would not isolate the control air. Air isolation valve IA-723 was closed to isolate the air to SW-1358, but this also isolated the air to SW-1356 and SW-1357 causing these valves to fail to open. This is a drill."

Follow-up Controller Instructions:

Once the Players understand the above, they should be observed informing the TSC of the valves condition (if asked). If the decision is made to work on the valve, allow the Repair Team to go through the normal steps it would take to perform the work up until time 11:50. After 11:50, radiation levels in the Auxiliary Building will start to increase and the Players must make a determination as to exposure control and whether work should continue.

If the repair efforts are continued, observe the precautions taken to limit exposure to personnel. When they observe their survey meter, issue rad levels per Section 8.1 of this manual. In keeping with the sequence of events, the work will not be completed until 12:15. Issue cue card SW-1 at 12:15 to end the repair activities associated with this valve.

If they decide not to continue the repairs, do not issue cue card SW-1. This will not have a significant impact on the Exercise sequence. Notify the Lead Exercise Controller of this decision by calling extension 8182.

If work continues, simulate the following: During the replacement of the air isolation valve, the swagelok fitting at the valve will not work because it is stripped. This fitting will need to be replaced. (Will need additional work instructions added to package and get the fitting from the Warehouse.)

After work is completed, the air isolation valve is opened.

IA-723 air isolation valve is opened, but no air is available at the valve nor at Valves SW-1356 and SW-1357. The problem is with IA-723 and is due to it's stem breaking off inside the valve body. This valve cannot be replaced at this time, however, due to other components which would be placed out of service. (Provide alternate air to valves.)

An alternate source of air is then provided to the valve.

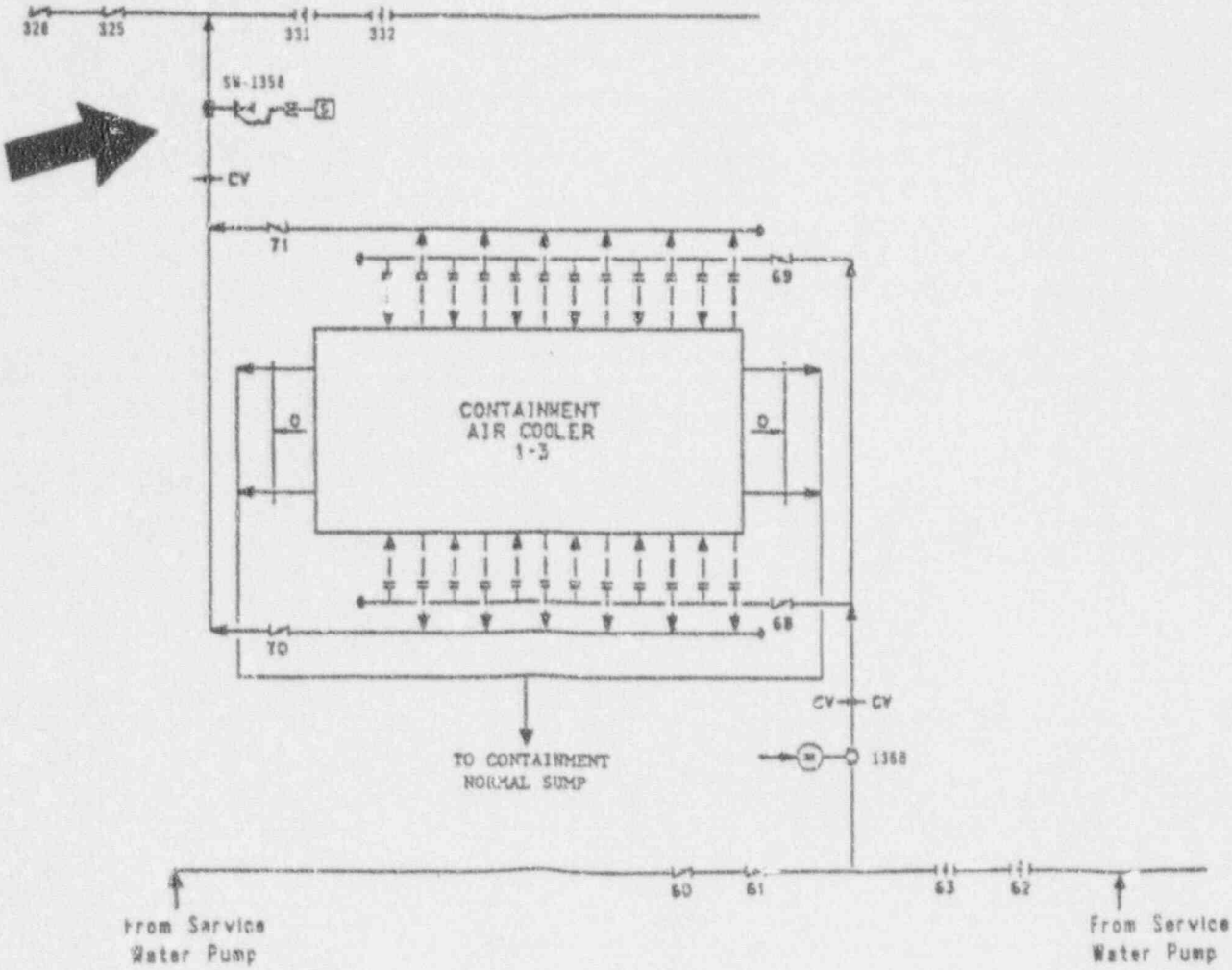
Calibration of valve is started and completed.

Operations performs a final check by starting fan C1-3, which should open the valve but the valve fails to open. The problem now is that SV-1358A is hanging up. (Either replace valve or bang on valve body.)

Valve calibration procedure: IC 2700.23
Valve Data Package: 1358-TV-01

VALVE SW-1358 (FOR #3 CONTAINMENT AIR COOLER)

FIGURE SW1358



DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise CUE CARD NO. SW-1

TO: Repair Team Working On Valve SW-1368

TIME: 12:15

T: 05/15

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Relay the following message to the OSC Manager:

"This is a drill. We have completed work on valve SW-1368, service water to the #3 Containment Air Cooler. Red tags can be removed and Operations should be able to reopen the valve whenever they're ready. This is a drill."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. SW-1

TO: OSC Controller

TIME: 12:15

T: 05/15

ANTICIPATED RESPONSE:

Tags are removed at the Simulator and the valve is opened, returning Containment Air Cooler #3 to service.

INSTRUCTIONS:

Issue this message to the Repair Team working on valve SW-136B no matter where they are in their work efforts. The scenario sequence of events calls for the return of the Containment cooler at this time.

Caution: Drill tags are to be hung at the Simulator only. **No drill tags are to be displayed or placed on any components in the plant!**

****

THIS IS A DRILL

****

VALVE DD-5366 (INLET VALVE FOR HIGH TEMP, DEMIN, HEAT EXCHANGER)

Initial Controller Instructions:

As part of the initial conditions when the Exercise starts, it is assumed that:

- A piping gasket has been leaking by on a flange to valve DD-5366 (i.e., inlet valve to the Moisture Separator Drain Demineralizer heat Exchanger on the 585' level of the Turbine Building). Two individuals have been assigned to replace the gasket. (Refer to Figure DD5366.)

Player Instructions:

When asked by the OSC Players as to the specific cause of the problem and what maintenance work is in progress, they should be informed that:

Before 07:30 -

"This is a drill. A flange on valve DD-5366, an inlet valve to the Moisture Separator Drain Demineralizer Heat Exchanger, has been leaking excessively. Two individuals have already been assigned to work on this task this morning. No additional support is necessary. This is a drill."

After 07:30 -

"This is a drill. Two individuals were replacing a piping gasket on a flange to valve DD-5366. The isolation valve leaked by pressurizing the line. One individual was on a step ladder loosening the bolts on the flange when the hot water sprayed out on him. He is being/has been treated by the First Aid Team. Following the initial spray of water, the flange leakage reduced to a trickle flow, which was stopped when an Equipment Operator at the scene used additional force to close isolation valve RD-73. This is a drill."

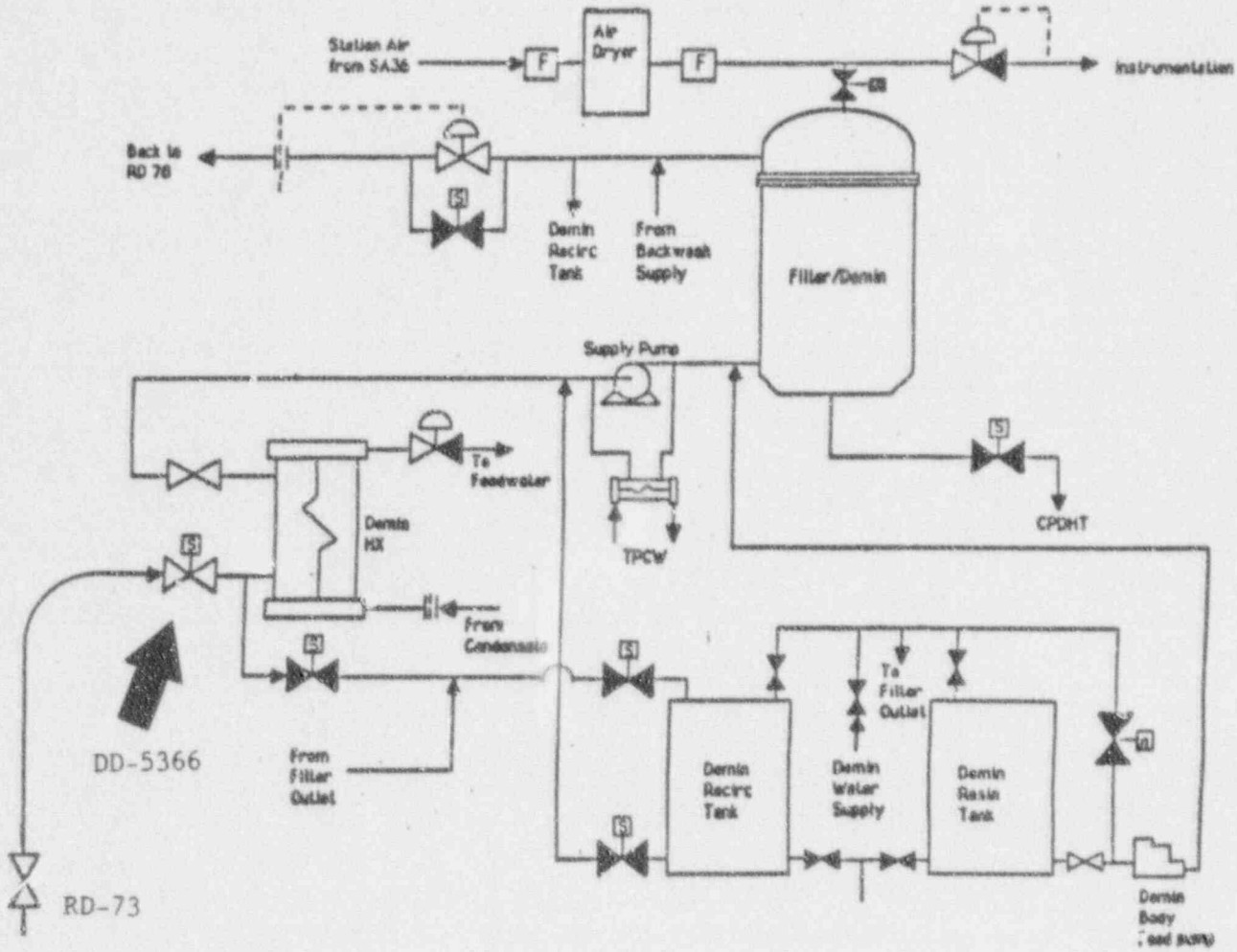
Follow-up Controller Instructions:

Once the Players understand the above, they should be observed informing the TSC of the condition (if asked) of the scene at valve DD-5366. Players should be observed roping off and/or deconning the area. (Refer to radiation survey maps in Section 8.2.)

They may or may not simulate completing the gasket replacement on valve DD-5366. Allow them to make this decision. It will have no further bearing on the outcome of the scenario sequence of events.

VALVE DD-5366 (INLET VALVE FOR HIGH TEMP. DEMIN. HEAT EXCHANGER)

FIGURE DD5366



#1 & #2 CONTAINMENT AIR COOLERS

Initial Controller Instructions:

As part of the sequence of events, it is assumed that both the #1 and #2 Containment Air Coolers fail at time 07:35 because of:

- Isolated or unrelated failures (i.e., Service Water flow restrictions, air blockage, etc.) preventing normal and emergency operation of the Containment coolers. (Refer to Figure CAC12.)
- The loss of these coolers may not be observed in the Control Room (Simulator) due to the absence of alarms. *
- The cause of the failures may not be readily apparent when the situation is investigated.

  * Loss of the coolers may become apparent after 08:00 when the steam line rupture begins increasing Containment pressure. The Operators may observe that a delta T does not exist across the coolers, which indicates they are not removing heat.

Player Instructions:

When initially asked by the OSC Players as to the specific cause of the problem and what maintenance work has been performed, they should be informed that:

"This is a drill. No additional information is available. All conditions for operation of the #1 and #2 Containment Air Coolers are as observed or as found in the plant. This is a drill."

Follow-up Controller Instructions:

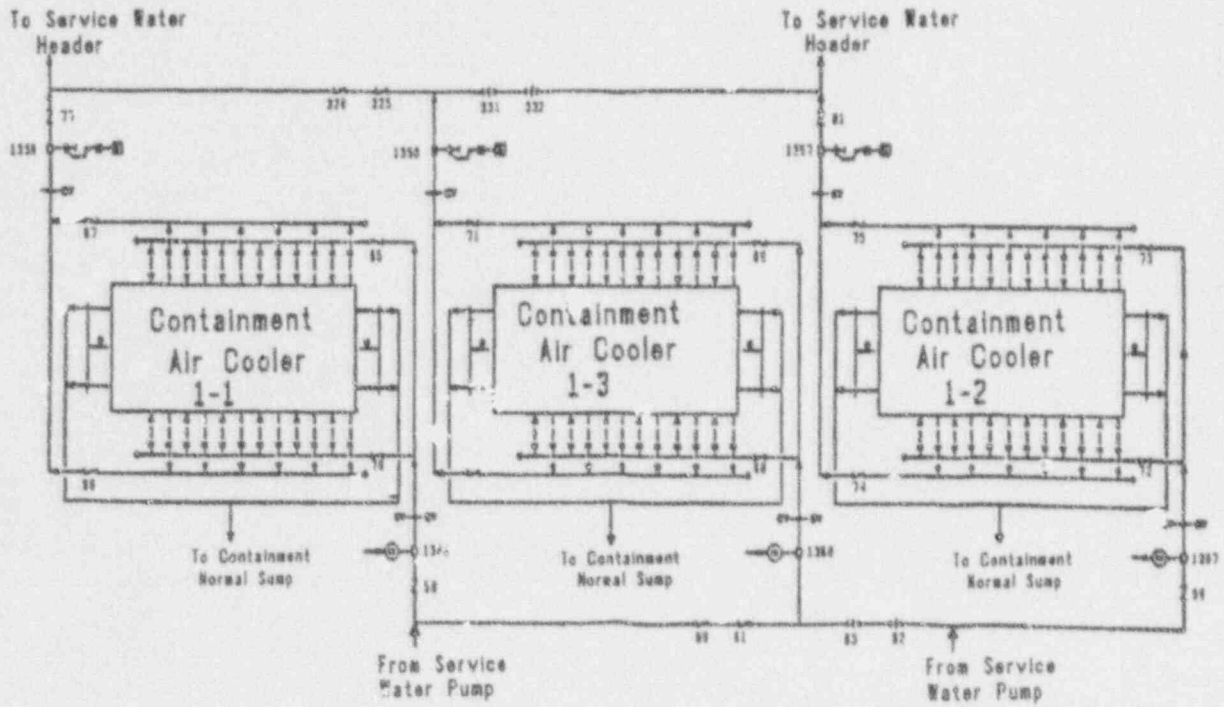
Once the Players understand the above, they should be observed evaluating the situation and informing the TSC of the results of their assessment. If they check valve lineups, inform them that they are in the positions as indicated in the plant (i.e., a normal lineup).

If they simulate actions to correct the problem, inform them that no change has taken place. Containment coolers are still performing as indicated (at the simulator).

This problem will not be resolved during the course of the Exercise. It should become a recovery item to investigate this problem once the Containment can be entered following a decrease in radiation levels.

#1 & #2 CONTAINMENT AIR COOLERS

FIGURE CAC12



#2 CONTAINMENT SPRAY PUMP

Initial Controller Instructions:

As part of the sequence of events, it is assumed that the #2 Containment Spray Pump fails at around 08:15 because:

- As Containment pressure increases due to the steam line break, Players may want to initiate Containment spray to control pressure and Containmen radiation concentration.
- If they attempt to start #2 Containment Spray Pump, it will fail to start and a Repair Team should be sent to investigate.

Player Instructions:

When asked by the OSC Players as to the specific cause of the problem and what maintenance work has been performed, they should be informed that:

"This is a drill. During manual initiation, #2 Containment Spray Pump failed to start. No maintenance work has yet taken place. This is a drill."

Follow-up Controller Instructions:

Once the Players understand the above, they should be observed assessing the situation and attempting to return the pump to service. They should also keep the TSC informed of progress as its being made.

In order to follow the sequence of events, maintenance efforts on this pump will be completed at 10:50. Issue cue card CSP-2 at 10:50 to end the repair activities associated with this pump.

If they simulate attempting to rotate the pump by hand, then inform hem they are successful. If they simulate meggaring the motor, inform them that they find nothing wrong. If they check the breaker (refer to Figure CSP2), inform them that everything at the breaker appears to be normal. If they attempt to close the breaker again the breaker will close then immediately open. Each attempt to reclose the breaker will give the same results. The failure is due to the trip latch being out of adjustment.

If a spare breaker is installed, and not tested prior to installation, it will trip due to a faulty SST device.

#2 CONTAINMENT SPRAY PUMP

FIGURE CSP2

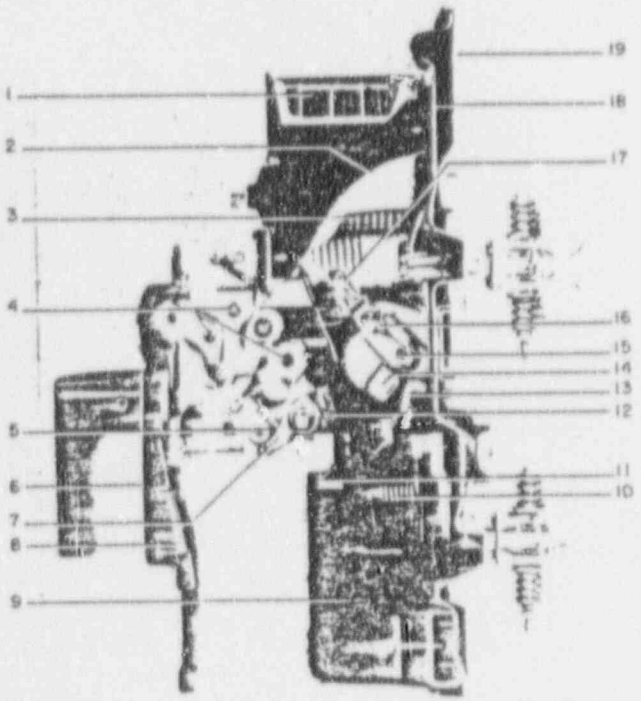
Containment Spray Pump -- Breaker Problem

GEI-50299 Power Circuit Breakers Types AK-2-15 and AK-2/3-25

Should the mechanism continue to function improperly after the proper latch engagement has been set and the corrective measures listed in the "Trouble Shooting" chart carried out, it is generally recommended that no attempt be made to repair the mechanism interior but that a replacement mechanism assembly be obtained from the factory.

REPLACEMENT

1. If the breaker is electrically operated, remove the front escutcheon by taking four screws from flange. If the breaker is a drawout type, two small round head screws must also be removed from the bottom edge of the escutcheon. (For removal of front escutcheon from manually operated breakers, see procedure described below.)
2. Remove arc quenchers (See "Arc Quencher").
3. Disconnect the two insulated connecting links between the mechanism and the contacts as in step 2 of the procedure for "Separation of Front and Back Frames".
4. Remove the two elastic stop nuts, which fasten the upper extensions of mechanism frame to studs connecting with rear frame.
5. Remove four screws which fasten the bottom of the mechanism frame to the horizontal cross member of the front frame.



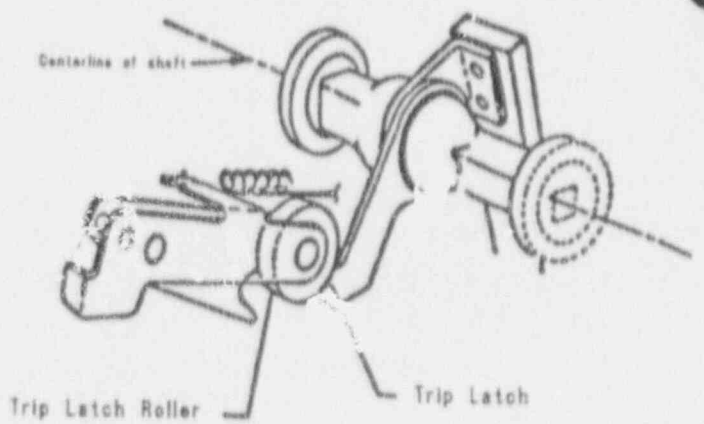


Figure 6. (8024516) Cut Away Model of Manually Operated AK-[illegible] reaker

1. Arc Quen[illegible]ler
2. Ceramic Sid[illegible]ates
3. Steel Plates
4. Fixed Centers in Mechanism
5. Latch Roller
6. Escutcheon
7. Trip Latch
8. Handle Return Spring
9. Overload Device
10. Series Coil of Overload Device
11. Trip Arm of Overload Device
12. Trip Paddle
13. Movable Contact Pivot S[illegible]port
14. Crossbar
15. Movab[illegible]ntact Pivot
16. Conta[illegible] A[illegible]ust-ment)
17. Movab[illegible]act
18. Moulde[illegible]mpound Bar
19. Steel Bac[illegible] Plate

DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. CSP-2

TO: Repair Team Working On
#2 Containment Spray Pump

TIME: 10:50

T: 03/50

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Relay the following message to the OSC Manager:

"This is a drill. We have completed work on the #2 Containment Spray Pump. Red tags can be removed and Operations should be able to restart the pump whenever they're ready. This is a drill."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. CSP-2

TO: OSC Controller

TIME: 10:50

T: 03/50

ANTICIPATED RESPONSE:

The tags are removed at the Simulator and the pump is started.

INSTRUCTIONS:

Issue this message to the Repair Team working on #2 CSP no matter where they are in their work efforts. The scenario sequence of events calls for the return of the pump at this time.

Caution: Drill tags are to be hung at the Simulator only. **No drill tags are to be displayed or placed on any components in the plant!**

****

THIS IS A DRILL

****

CONTAINMENT VACUUM BREAKER CV-5071

Initial Controller Instructions:

As part of the sequence of events, it is assumed that Containment integrity is lossed when Vacuum Breaker CV-5071 fails at 11:50 because:

- CV-5071's associated check valve has been stuck open since the last outage when vacuum breaker testing had been performed.
- As Containment pressure increases, the dynamic forces present cause valve CV-5071 to fail to open.

Player Instructions:

When asked by the OSC Players as to the specific cause of the problem and what maintenance work has been performed, they should be informed that:

"This is a drill. Control Room indications are that Containment vacuum breaker valve CV-5071 indicates open and will not close. No maintenance work has as yet taken place. This is a drill."

Follow-up Controller Instructions:

Once the Players understand the above, they should be observed assessing the situation and attempting to close the valve. They should also keep the TSC informed of progress as its being made. They may guess that this is the source of the radiation release to the environment.

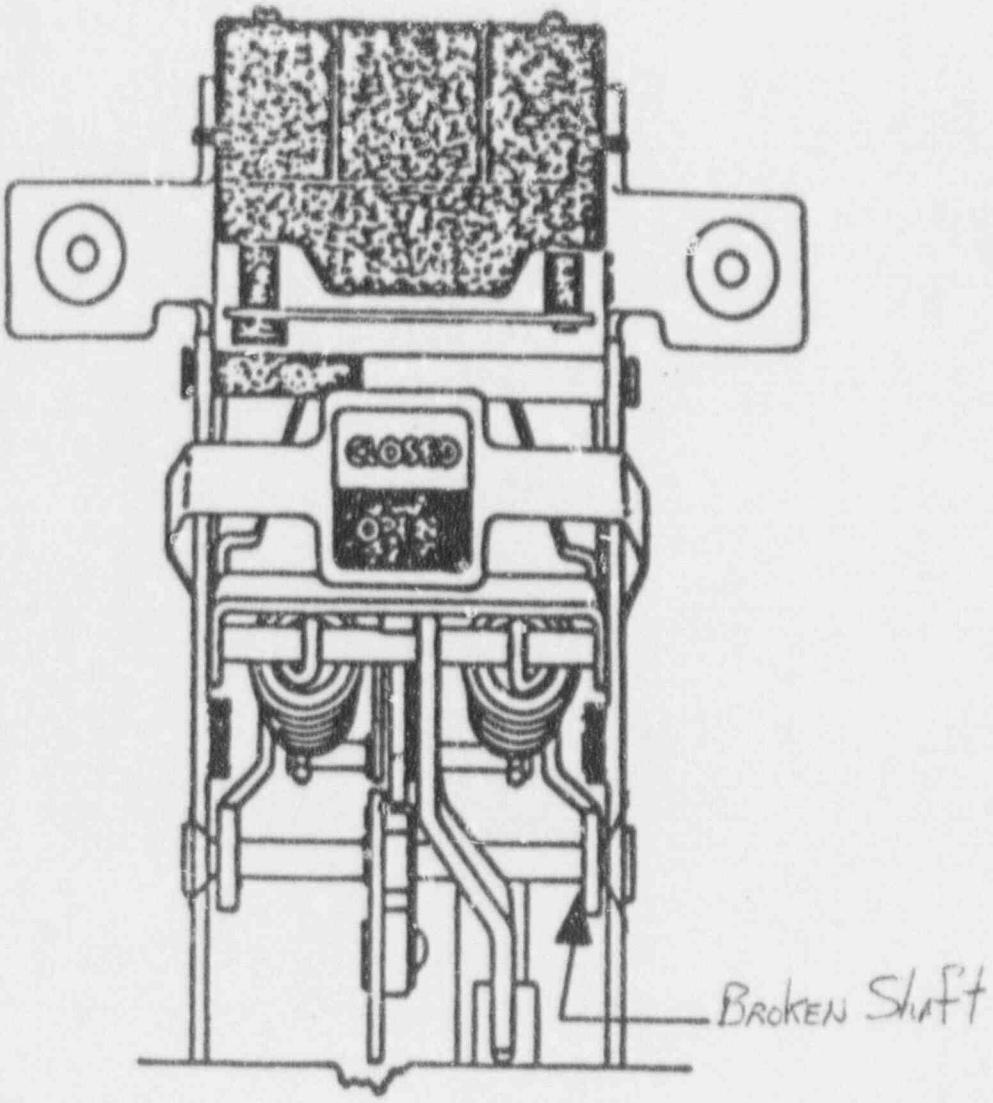
In order to follow the sequence of events, maintenance efforts on this valve will be completed at 12:45. Issue cue card CVB-1 at 12:45 to end the repair activities associated with this valve. The offsite radiation release will be terminated at this time.

If they attempt to go to the valve, refer to Section 8.2 for area radiation levels. They will find that they are too high to work on the valve. If they check the breaker (refer to Figure CVB1), inform them that indications are that the breaker has failed and needs repaired or replaced.

CONTAINMENT VACUUM BREAKER CV-5071

FIGURE CVB1

Valve CV-5071 -- Breaker Problem



DBNPS EMERGENCY PREPAREDNESS EXERCISE CUE CARD

SCENARIO NO. 1992 Evaluated Exercise

CUE CARD NO. CVB-1

TO: Repair Team Working on
Valve CV-5071

TIME: 12:45

T: 05/45

****

THIS IS A DRILL

DO NOT initiate actions affecting normal plant operations.

****

INFORMATION:

Relay the following message to the OSC Manager:

"This is a drill. We have completed work on the Containment Vacuum Breaker CV-5071. Red tags can be removed and Operations should be able to reclose the valve whenever they're ready. This is a drill."

****

THIS IS A DRILL

****

DBNPS EMERGENCY PREPAREDNESS CUE CARD (Cont'd)

CUE CARD NO. CVB-1

TO: OSC Controller

TIME: 12:45

T: 05/45

ANTICIPATED RESPONSE:

The tags are removed at the Simulator and the valve is reclosed.

INSTRUCTIONS:

Issue this message to the Repair Team working on CV-5071 no matter where they are in their work efforts. The scenario sequence of events calls for the return of the valve at this time.

Caution: Drill tags are to be hung at the Simulator only. **No drill tags are to be displayed or placed on any components in the plant!**

****

THIS IS A DRILL

****

AUXILIARY BOILER

Initial Controller Instructions:

At some point in the scenario (approximately 0740), the operators will fire the Auxiliary Boiler. It will start and operate normally. Then at 0810 the Auxiliary Boiler will trip off line and alarm in the Control Room (CTRM).

Player Instructions:

When the Equipment Operator (EO) arrives at the Auxiliary Boiler and checks the alarm panel, there will be a "Flame Fail" alarm. All pumps and the forced draft fan are running normally, however, the boiler has tripped. It is anticipated the operator will acknowledge the alarm and attempt to re-fire the boiler. It will operate normally through the purge cycle, however, no fuel oil will be delivered to the boiler.

Follow-up Controller Instructions:

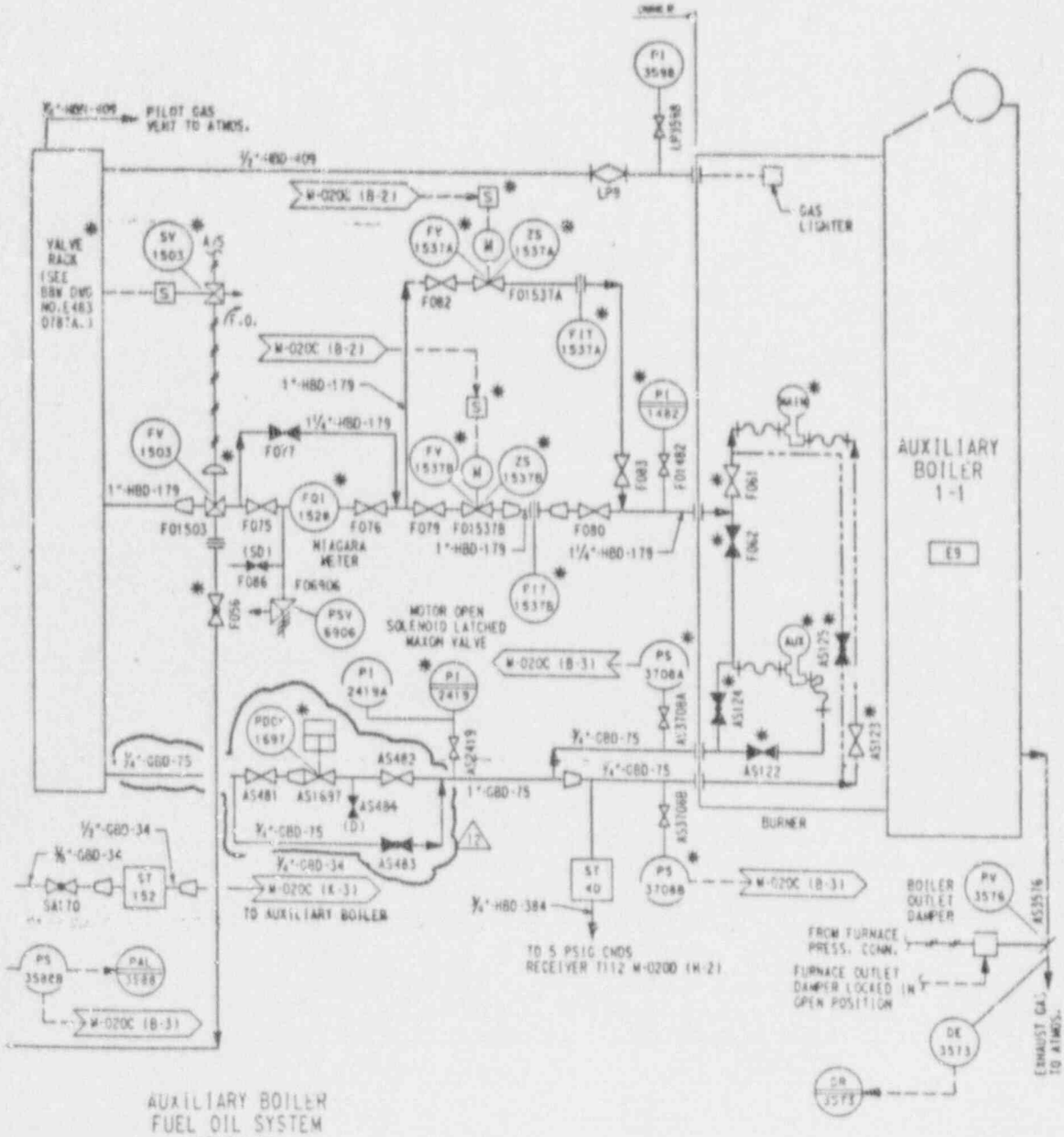
The tripping mechanism is a failure of valve FO-1537B, a Maxon High Flow Safety Shutoff (refer to Figure AB-1). This valve is a solenoid latched valve with a position indicator visible through a window on the valve body. This window faces the wall, and a mirror has been attached to the wall so this indicator can be viewed. If they check this valve, the indicator will indicate the valve is shut, and it never opens. The only indication of this failure will be this valve indication. All other start up functions on the boiler will be normal; that is, all pumps will function, the forced draft fan will operate normally, the purge cycle will function normally, but FO-1537B will not open.

The problem is that the latching solenoid has an open winding. This is an I&C problem, and indications to an I&C tech would be that power is supplied to the valve, but it won't stay open.

If they should switch from the "Power" mode to the "Heating" mode, the boiler will fire and operate normally because FO-1537A - another Maxon Low Flow Safety Shutoff - is used instead of FO-1537B. It is doubtful they will take this action.

AUXILIARY BOILER FUEL OIL SYSTEM

FIGURE AB-1



AUXILIARY BOILER
FUEL OIL SYSTEM
(BY B & W)