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SEE RPI

SUBJECT: Forwards "WA Nuclear Project 2 Environ Equipment
 Qualification Rept for Safety-Related Equipment," Vols 1,2 &
 3, in response to NRC 800221 ltr.Rept will be incorporated
 into FSAR amend.

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Office of the Director
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Washington Public Power Supply System

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Docket #50-397

September 15, 1982
G02-82-782

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

Subject: NUCLEAR PROJECT NO. 2
QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT

Reference: Letter, D. F. Ross (NRC) to Operating License Applicants,
"Qualification of Safety-Related Electrical Equipment",
dated February 21, 1980

Enclosed are twenty (20) copies of the WNP-2 Environmental Equipment
Qualification Report for Safety-Related Equipment. This report will
be incorporated into an amendment to the WNP-2 FSAR.

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G. D. Bouchey, Manager
Nuclear Safety and Licensing

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WS Chin, BPA (399)
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WNP-2
NUREG 0588 ENVIRONMENTAL
EQUIPMENT QUALIFICATION
REPORT

Volume 1

September 1982

Washington Public Power Supply System

Richland, Washington 99352

Control # 8210070141

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REPORT ON THE
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ENGINEERING REPORT

WNP-2 ENVIRONMENTAL QUALIFICATION REPORT
FOR SAFETY RELATED EQUIPMENT

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STATEMENTS
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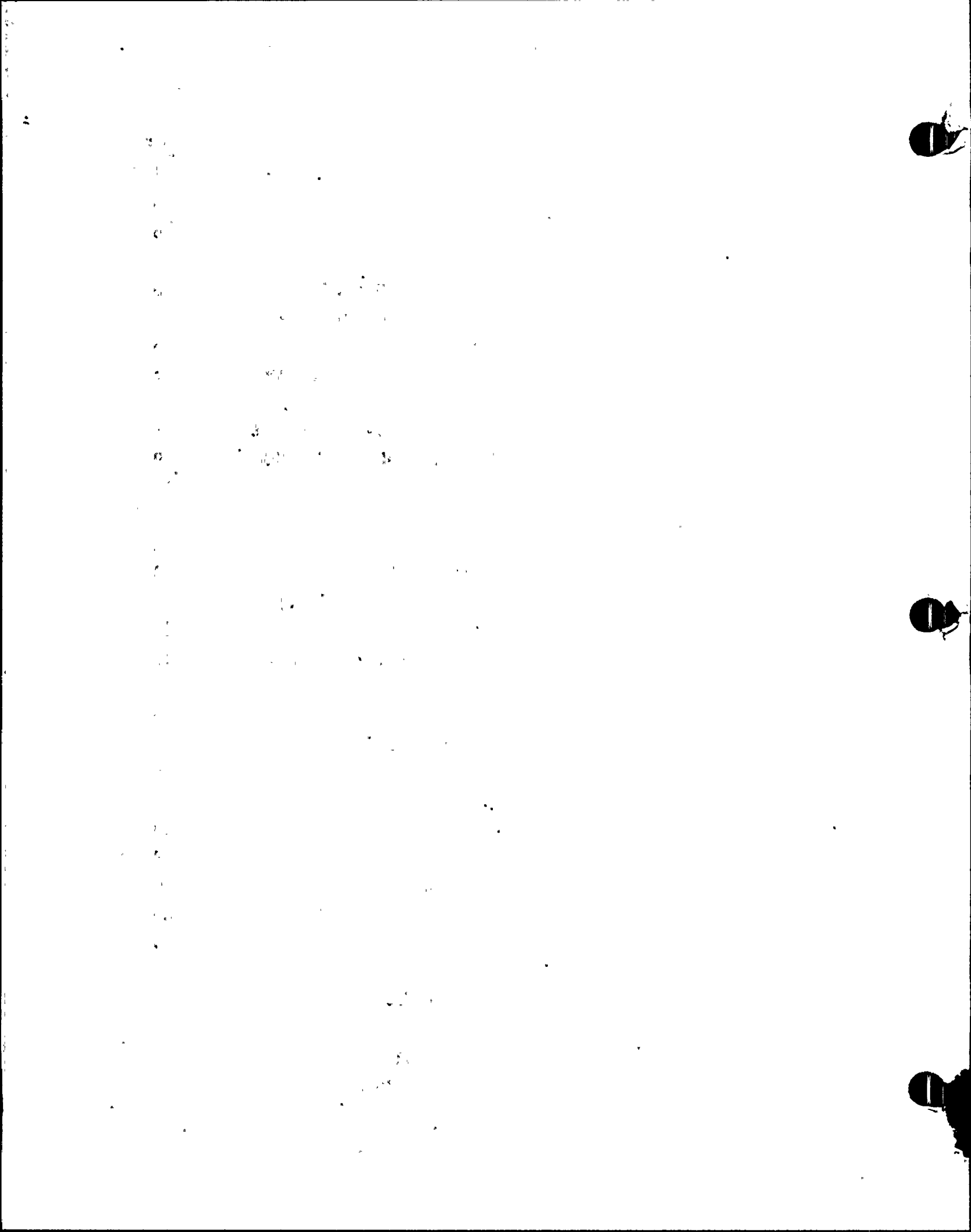
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DISCUSSION

for Washington Public
Number 2 (WNP-2) were
listed that N22 equipment
in balance of plant equipment
and classes were made to these

and identifying EEE-74
of Class I equipment
the supply system was not
the equipment. A review was
based on this
for general upgrade of

in December 1979 to promote
of equipment qualification pro-
to the NRC staff for the
for the near-term oper-
was issued prior to
the review was the category II

that the supply system
qualification program to
with the criteria and
were to be justified.
in April 1980, taking
Revision I of the NUREG was
the supply system's concerns as

1.0 INTRODUCTION

The original equipment qualification requirements for Washington Public Power Supply System (Supply System) Nuclear Project Number 2 (WNP-2) were described in the PSAR. These requirements specified that NSSS equipment be designed to good nuclear industry practices and Balance of Plant equipment be qualified to IEEE 323-71. Initial equipment purchases were made to these requirements.

In November 1974, Regulatory Guide 1.89 was issued identifying IEEE 323-74 as the generally acceptable level for qualification of Class 1E equipment. Based on construction permit requirements, the Supply System was not required to upgrade the qualification status of the equipment. A review was made to determine the impact of the revised requirements. Based on this review, it was determined that there was not a need for general upgrade of equipment.

NUREG-0588 (Reference 1) was issued for comment in December 1979 to promote a more orderly and systematic implementation of equipment qualification programs by the industry. It also provided guidance to the NRC staff for its use in ongoing licensing review for new as well as for the near-term operating license plants. The WNP-2 Construction Permit SER was issued prior to July 1, 1974; therefore, the basis for the WNP-2 review was the Category II requirements.

In February 1980, the NRC requested (Reference 2) that the Supply System perform a review of the existing environmental qualification program to identify the degree to which the program complied with the criteria and positions in NUREG 0588. Deviations from the NUREG were to be justified. The Supply System provided comments to the NUREG in April 1980, taking exception to certain criteria and positions. Revision 1 of the NUREG was issued with answers and clarifications to the Supply System's concerns as

well as other concerns raised by the industry. Resolution of these concerns are still underway with a conclusion to be achieved as part of a planned rule making on this issue.

The Supply System has undertaken an aggressive equipment qualification program to assure all Class 1E equipment is qualified to NUREG 0588, Category II. Class 1E equipment at WNP-2 have been identified. Normal, abnormal and accident service conditions have been defined for plant areas that could be exposed to a harsh environment. A detailed review of the available qualification data has been made for the equipment in harsh environments. Actions have been initiated to upgrade the qualification documentation where deficient and to requalify components, when necessary. This report describes the methodology and summarizes the current status of the equipment qualification activities.

This report also provides an analysis of the capability of operating WNP-2 during an interim period between September 1983 and November 30, 1985. This Justification for Interim Operation identifies critical electrical equipment required for safe operation. It also identifies equipment requiring further environmental qualification corrective actions and establishes the priority for environmental qualification activities until commercial operation.

and instructions for application of the qualification data to the equipment. The sources of information for the qualification data are identified in the review. The review identifies the equipment requiring qualification corrective actions and establishes the priority for environmental qualification activities until commercial operation.

the qualification data for each Class 1E equipment item. The qualification data is based on the categorization of the equipment as defined in NUREG 0588, Appendix E.

2.0 CLASS 1E EQUIPMENT LIST

A list of all Engineered Safety Feature Systems and associated Class 1E equipment was prepared. All parameters required to perform the qualification evaluations have been determined, including normal and accident operational requirements, operating time and manufacturer's data. The equipment locations have been verified to fully define the service conditions.

Class 1E was defined according to IEEE 323-74 (Reference 3). The following definition was used:

The safety classification of the electric equipment and systems that are essential to emergency reactor shutdown, containment isolation, reactor core cooling, and containment and reactor heat removal, or otherwise are essential in preventing significant release of radioactive material to the environment.

Instrumentation for the operator to follow the course of an accident was also defined as Class 1E. This includes instrumentation identified as a result of TMI-2 Lessons Learned and Regulatory Guide 1.97.

Based on this definition, specific criteria were developed to determine the equipment that is Class 1E. The criteria and instructions for application of the criteria are contained in Reference 4. All plant systems were reviewed in accordance with these criteria. The sources of information for the review were the FSAR, Technical Specifications, System Flow Diagrams, Electrical Diagrams and Technical Manuals. The review identified the Class 1E equipment in each system by equipment number.

Additional operational data were determined during the documentation review. The following information was determined for each Class 1E component:

- o Use. The equipment use during accident and/or normal plant shutdown conditions. This field is based on the categorization of equipment suggested in Item 2, Appendix E of NUREG 0588.

o Safety Function: The Class 1E function or functions a piece of equipment or system is required to perform or monitor. Safety functions include emergency reactor shutdown, containment isolation, reactor core cooling, containment heat removal, reactor heat removal and prevention of release of radioactive material to the environment.

o Required Operating Time. The time a component is required to be functional or retain its pressure integrity following a Design Basis Accident.

The application of these definitions and the codes used are fully described in Appendix A.

A plant walkdown was performed to determine the manufacturer's data for Class 1E components. The walkdown included verifying manufacturer, model, serial number and location. These data were obtained directly from the nameplate for installed equipment. Equipment in the warehouse or on order was identified through applicable purchase and receiving documents.

During the walkdown, the location of the equipment in the plant was documented to assist with the definition of the required service conditions and the calculation of the integrated radiation exposure.

The operational, manufacturer's and location data for all Class 1E equipment were tabulated and computerized. For the purposes of this submittal, the Class 1E equipment that will experience the environmental conditions of design basis accidents for which it must function or through which it must not fail are provided. This list is included in Appendix A.

Class 1E equipment which will experience the environmental accident conditions and cannot fail in any manner and not be detrimental to plant safety or accident mitigation is provided along with the justification in Appendix D.

3.0 ENVIRONMENTAL SERVICE CONDITIONS

The normal, abnormal and accident service conditions were defined for all areas of primary containment and the reactor building containing Class 1E equipment. The service conditions were defined as described below.

3.1 NORMAL AND ABNORMAL CONDITIONS

The temperature, pressure and humidity ranges expected during normal operation were defined based on Reference 5 and 6. Abnormal conditions due to temporary HVAC failure are also defined in Reference 5 and 6. Appendix B presents the normal and abnormal conditions for primary containment and the reactor building.

The 40-year normal radiation dose is included in the radiation doses discussed in Section 3.2.3 of this report.

3.2 ACCIDENT CONDITIONS - HARSH ENVIRONMENTS

The primary containment and most areas of the reactor building will be exposed to a harsh environment following a postulated LOCA/MSLB. A harsh environment is defined as:

An area that would be exposed to a significant increase in the maximum temperature, pressure and humidity during design basis events AND/OR the total radiation dose (normal + accident) is above 10^4 rad.

3.2.1 Temperature/Pressure Inside Containment

The accident environments inside primary containment are defined according to Reference 5 and the WNP-2 FSAR (Reference 6). The accident profiles presented in Appendix B, were determined from a General Electric analysis of the response of a BWR Mark II containment to a full spectrum of possible LOCA/MSLB. This analysis was modified by a WNP-2 plant specific analysis to

present a profile that is representative of the response of the WNP-2 containment (Reference 20). The accident conditions due to a main steam line break are included by the specified profile.

3.2.2.2.2. Spray (see 3.2.2.2.1)
Operator initiation of a demineralized water spray could be used in primary containment at WNP-2 to mitigate the effects of an accident. No credit for this operator action has been taken in defining the temperature/pressure conditions inside containment, however, spray impingement on affected Class 1-E equipment has been reevaluated.

3.2.3. Radiation Inside and Outside Containment

The accident radiation environments in the primary containment has been defined according to Section II.B.2 of NUREG 0737 (Reference 7) and NUREG 0588, Rev. 1. The calculated accident environment is based on the most severe nonmechanistic design basis accident during or following which equipment must function. This includes consideration of the entire spectrum of FSAR Chapter 15 accidents which can lead to a degraded core condition. The source term assumptions for postulated accidents are consistent with those defined in NUREG 0588 and Regulatory Guides 1.3 and 1.7. The source terms are calculated using the ORIGEN code (Reference 8).

For the review performed in this report the radiation environment in the primary containment was defined per Reference 19. This is a plant specific evaluation. Reference 19 contains the methodology and results of this evaluation. The results of this evaluation are provided in Appendix B for general areas of the containment and Reactor Building and also in Appendix C for each specific equipment:

The radiation environment in the reactor building is defined according to Section II.B.2 of NUREG 0737 (Reference 7) and NUREG 0588, Rev. 1 and includes the sum of direct accident gamma dose, airborne gamma dose and 40-year normal gamma dose. The airborne dose is conservatively based on the maximum primary containment to reactor building leakage rate.

Airborne activity in both the containment and reactor building was calculated using the plateout assumptions of NUREG CR-0009 (Reference 9).

The reactor building was divided into zones to define the equipment doses. The worst target (Class 1 component with the highest dose) in each zone was then chosen. The total integrated dose (TID) to this component was calculated using the QAD-P5A computer code (Reference 10). This TID was used as the required qualification level for most equipment in the zone. In cases of multiple components specific TID's were calculated for zones.

The methodology and results of the zone dose radiation evaluations are documented in calculation packages in Reference 11. Appendix B of this report contains a table of the radiation doses inside primary containment and the radiation zone maps for the reactor building. It should be noted that the containment and the reactor building radiation levels are six month integrated doses. Doses for equipment with shorter operating times were determined from the calculated packages in Reference 11 and are detailed in Appendix C on Equipment Qualification Report Summary Sheets.

3.2.4 Flooding

The top of the main vents from the drywell to the suppression pool are approximately 12 inches above the drywell floor. This is the maximum flood level since any excess water would drain to the suppression pool. No Class 1E equipment or connections are located between the diaphragm floor and the top of the downcomer vent pipes inside the wet well except for the wet well level system which is totally enclosed in a water tight conduit system.

As required by NUREG 0803 (Reference 15), the effects due to line breaks in the Control Rod Drive system have been evaluated. No safety related equipment would be submerged due to a break in this system (Reference 16).

The possibility of flooding in the reactor building is currently under evaluation. The reactor building flooding analysis will be completed and

affected equipment identified by the audit and available for NRC review. The procedure being used in this evaluation consists of the following sequential steps:

1. Calculate the maximum source flow (gpm) for each room.

2. Calculate the water depth using the following assumptions:

o Floor area used to determine water depth excluded floor opening areas, in order to allow for curbs and lips.

o Twenty minute operator reaction time was allowed per NRC Question 211.059.

o No exit flow was considered.

3. Perform a field walkdown to identify room exit paths (for drainage) and equipment located below conservative flood level for impacted areas.

4. Recalculate flood level considering water exit paths.

5. List equipment still flooded following recalculation.

6. Perform a safe shutdown analysis.

7. List flooded equipment required for safe shutdown.

8. Protect, relocate, or qualify equipment required for safe shutdown that is impacted by flood analysis.

9. Prepare report.

3.2.15 Temperature/Pressure Outside Containment

Class I E equipment in the reactor building could be exposed to two postulated accident types: a LOCA/MSLB in primary containment or an HELB in the

reactor building. These conditions were determined from References 5, 6, 7, and 12. As explained in Section 4.0 of this report, equipment is evaluated to the worst accident environment in which it is required to function.

A LOCA/MSLB in primary containment would cause an increase in the reactor building's temperature and humidity. The maximum conditions are presented in Profile 4 of Appendix B (Reference 21).

The effects of all postulated high energy line breaks in the reactor building were determined. Breaks in the following high energy lines were considered:

- 26" main steam line (envelops feedwater line break)
- 4" RCIC steam line
- 6" RWCU steam line
- 4" RWCU steam line
- 4" Auxiliary steam
- 3" Auxiliary steam

Temperature/pressure profiles were developed for all areas that could be affected by these breaks. These profiles are presented in Appendix B.

The accident profile due to a main steam line break in the steam tunnel was determined from Reference 5. The remaining temperature/pressure profiles in the reactor building were developed using the RELAP4 and COMPARE MODIA computer models (References 13 and 14). Detailed modeling of compartments and fluid flow paths were made. Heat sinks were modeled using appropriate heat transfer correlations.

A safe shutdown analysis has been performed for all postulated accidents. This analysis is contained in Section 6 and Appendix D of this report (labelled "Justification for Interim Operation" (JIO)). All items in Table B of the JIO will be evaluated and qualification documentation provided prior to full power operation. Corrective action planned on these items are provided in Table B.

3.3 MILD ENVIRONMENT AREAS IN SECONDARY CONTAINMENT

A mild environment is an area in which the maximum temperatures, pressures and humidity are not expected to change significantly during or following design basis events. In addition, the cumulative radiation dose to equipment in these areas is below 10^4 rad (Reference 17).

Some of the motor control center rooms in the reactor building are classified as mild environments. These rooms are isolated and serviced by Class 1 HVAC systems so the temperature, pressure and humidity conditions will not change significantly. Also, the total radiation dose (normal + accident) in these rooms is less than 10^4 rad.

The following service conditions for these areas have been determined:

$$\begin{aligned} T_{\max} &= 108^{\circ}\text{F} \\ P_{\max} &= \text{atmospheric} \\ \text{R.H.}_{\max} &= 90\% \end{aligned}$$

Radiation less than 10^4 rad TID

Section 4.2.3 provides the Supply System's position on environmental qualification of safety related equipment in a mild environment.

Environmental Qualification
Data Bank

Environmental Qualification
Data Bank

Supply System
Criteria for
(Reference 18)

Section 4.2.3

Environmental Qualification

4.0 QUALIFICATION METHODS

The purpose of the equipment qualification evaluations is to ensure that all Class 1E equipment will perform its safety function during its installed period and in the harsh environment following a LOCA or HELB. To accomplish this, the Class 1E equipment at WNP-2 was evaluated in accordance with the guidelines in NUREG 0588, Category II. The Equipment Qualification Reports in Appendix C summarize the evaluations that have been performed. Backup documentation and calculations are contained on file at the Supply System's offices.

4.1 EQUIPMENT EVALUATIONS

The following steps are involved in evaluating the qualification of the Class 1E equipment:

a. Data Collection

Available test data and analyses were sought for the Class 1E equipment. Data sources included the equipment vendors, the NSSS supplier (General Electric), the architect/engineer (Burns and Roe) and other utilities with the same equipment. Additionally, the Supply System is participating in the generic qualification activities of the BWR Utility Equipment Environmental Qualification Group and the EPRI Equipment Qualification Data Bank.

b. Acceptance Criteria Definition

The acceptance criteria to which Class 1E equipment qualification plans, tests and analyses are evaluated have been developed. These criteria are based on NUREG 0588, Category II. The Supply System Engineering Procedure, titled "Acceptance Criteria for WNP-2 Safety-Related Equipment Qualification" (Reference 18), documents the criteria that have been developed. Section 4.2 of this report highlights the major points of the acceptance criteria.

Documentation Review

The qualification data are evaluated to determine whether the equipment is qualified in accordance with the acceptance criteria. Supplementary analyses are performed to complete the documentation, when necessary. The Equipment Qualification Reports in Appendix C summarize the evaluations that have been performed.

Resolution of Qualification Deficiencies

In cases where insufficient documentation is available, requalification is initiated. The requalification method is chosen based on a number of factors, including the available test data, the severity of the accident environment and the complexity of the component. Evaluations, such as analysis of the materials of construction and failure modes and effects analysis, are performed when required. Replacement, testing, shielding and relocation are also used to resolve qualification deficiencies.

4.2 TECHNICAL APPROACH

The technical approach, contained in Reference 18, was used to determine the qualification level of each component. This meets the intent of the guidelines in NUREG 0588, Category II, and in many cases are more conservative.

The selection of qualification methods is based on the severity of the accident conditions and the function of the component. Two controlling types of harsh environments have been determined at WNP-2.

Severe Harsh environments--This environment is created by a LOCA/MSLB inside containment and is characterized by high temperatures, high pressures, high radiation levels, steam conditions, 100% relative humidity and possible demineralized water spray. This condition is found only in the primary containment.

2. Moderate Harsh environments--This environment is created by a high energy line break outside containment and is characterized by high to moderate temperatures, steam conditions and increased humidity. Neither high pressure nor high radiation are present in this environment. Flooding analyses are currently being prepared as described in Section 3.2.4 of this report.

These conditions can produce harsher environments than would be present during normal operation. With the exception of the SGTS, Hydrogen Recombiner, and ECCS spaces which have high radiation levels during postulated LOCA conditions, the Reactor Building is characterized by moderate radiation, temperature and humidity levels. Significant changes in pressure and steam conditions would not occur.

In conformance with Appendix E of NUREG 0588, safety related equipment that must function during a harsh environment has been classified. The specific environment that this equipment will experience has been provided in the Equipment Qualification Reports in Appendix C.

4.2.1 Equipment Inside Primary Containment

In the containment, where equipment will experience the direct effects of a LOCA, a rigorous set of criteria was established. This approach was taken due to the severe harsh environmental conditions that occur. An sequential test (aging, radiation, temperature/pressure under steam conditions) was a required element of the documentation. Test data was evaluated to IEEE-323, 1974. The evaluation included verifying the estimated life, radiation exposure, steam temperature/pressure levels and duration were adequate to envelop the containment environmental service conditions. However, when test durations were less than the required period of operability, evaluations were performed to establish the test duration deficiency was adequately covered by a greater than required post LOCA test condition. The test results were reviewed to verify that the component met its required performance characteristics before, during, and after testing.

4.2.2.2 Equipment Inside the Reactor Building (Secondary Containment)

Most Class 1E equipment in the reactor building is not required to function for both the steam line break accident and the secondary harsh environment created by the LOCA inside containment.

For equipment in the Reactor Building radiation zones that must function during the LOCA but is not required to function to mitigate the effects of a steam line break, a less rigorous evaluation criteria was used. Analysis of material thermal and radiation capability was allowed. In most cases, elevated temperature testing with steam conditions and high relative humidity testing data was available to demonstrate the components' capability to the thermal and humidity conditions. Missing in the documentation was information addressing the components capability to withstand the radiation levels. Evaluation to verify that the material functional threshold levels were greater than the service conditions was performed to supplement the documentation. This material radiation analysis was limited to equipment that does not contain sensitive transistor and integrated circuit solid state components.

The functional radiation threshold for a component was based on the material and functions of each non-metallic part. The applicable material property (i.e., compression, set, elongation, etc.) was considered. In some cases the material functional threshold was found to be greater than the radiation level that first causes a noticeable change in the material (threshold level). These cases were generally static applications such as gaskets and O-rings.

Material handbooks were consulted to determine the humidity susceptibility of selected materials of construction such as gaskets and O-rings. Test data was required for nonsealed electrically energized parts such as motor windings and solenoid coils.

For equipment located in the Reactor Building high radiation zones previously mentioned, radiation testing documentation which demonstrates the components capability was required.

For equipment that must function during a LOCA and also function to mitigate the steam line break accident, testing to the steam line break conditions was a required element in the documentation review. However, sequential radiation testing in conjunction with the steam line break was not a required element. Material radiation effects evaluation as described previously was allowed. This approach is acceptable because it is not required to postulate that both these events occur simultaneously. Therefore, the steam conditions and the radiation conditions would not occur simultaneously as they are produced by separate accidents.

4.2.3 Equipment Located in Mild Environments

A mild environment is defined to be an environment that would be no more severe than would occur during normal power plant operations or during anticipated operational occurrences.

Class 1E and safety related mechanical (SRM) equipment located in mild or benign environments satisfy general quality and surveillance requirements applicable to safety related equipment, including 10CFR50 Appendix-B. The Class 1E and SRM equipment purchased and documented under the above quality requirements satisfy the environmental qualification requirements for safety related equipment located in mild environments.

4.3 MARGIN

Margin, or conservatism, is added to the aspects of the equipment qualification procedure. This is done to account for normal variations in commercial production of equipment and reasonable errors in defining acceptable performance.

The qualification requirements were established using conservative assumptions and analytical procedures. The reactor building thermal hydraulic profiles have been developed using conservative computer codes. The required radiation doses were developed using conservative source terms, as discussed in Section 3.2.3 of this report.

A minimum operating time of one hour was used for most of the equipment that is required to perform its safety function within a short time into the event and, once its function is complete, subsequent failures are not detrimental to plant safety. In the specific cases where less than one hour was used, a system and component function evaluation was performed to determine a more realistic, yet conservative operating time.

4.4. AGING

The purpose of evaluating equipment aging is to assure that equipment will perform its safety function in an advanced life state during or following the hostile environment following a LOCA/HELB. The program developed by the Supply System addresses this issue within the context of current aging technologies.

An estimated life has been determined for Class 1E equipment located in both harsh and benign environments. The life is calculated based on accelerated aging test data and current analytical techniques (Arrhenius model, 100C Rule). Manufacturer's recommendations are also evaluated when determining an estimated life.

Aging of equipment in the reactor building will be addressed through preventive maintenance/surveillance programs. These programs will assure that all Class 1E equipment in these areas will be capable of performing its safety function during and following an accident. Inspection programs are being developed to track component degradation. Rebuild and replacement schedules are being established based on materials known to be age susceptible. Operating experience at other plants and manufacturer recommendations are being utilized. Since the reactor building is accessible during

plant operation, these activities will be performed on a regular basis. Component degradation will be tracked and equipment upgraded as required.

Common mode failure of Class 1E equipment due to aging effects is an unlikely event, in any case. Structural isolation of the Class 1E equipment restricts the effects of a postulated accident. This, and the equipment estimated life calculations coupled with surveillance/maintenance programs provide adequate engineering protection against common mode failure of safety related equipment.

4.5 SAFETY RELATED MECHANICAL EQUIPMENT (HARSH ENVIRONMENTS)

Mechanical equipment has not generally demonstrated the degree of sensitivity to environmental exposure that the electrical equipment have. The metallic parts of the mechanical equipment comprise the major portion and non-metallic parts are generally utilized in the equipment in such a manner that the degradation of mechanical properties will not substantially affect the required active safety function of the equipment.

Although we are confident in the ability of mechanical equipment to perform required safety functions, a reevaluation of this equipment's ability to function under harsh environmental conditions will be made.

The Supply System intends to implement the following reevaluation program upon concurrence by the NRC to document the safety related mechanical equipment environmental qualification. Safety related mechanical equipment (SRM) is broken down into equipment sets as illustrated by Figure 4-1. This equipment may be required to function during and after an accident to mitigate the consequence of an accident, and to safely shut down the reactor. The SRM equipment that require environmental qualification are defined to be active valve and pump sub-sets exposed to a harsh environment that must function during an accident. See Figure 4-1.

The environmental parameters, and assigned margins, are identical to those used in the environmental qualification of the Class 1E driving component, e.g., valve actuator, pump motor. These parameters are:

- Radiation
- Temperature
- Pressure
- Water spray
- Steam/humidity
- Submergence.

In addition, the fluid conditions (temperature, pressure, radiation fluid chemistry) processed by SRM equipment is considered in the environmental qualification. The qualification of this equipment also considers the individual equipment operating time required for performance of the safety function. The environmental parameters are contained in Appendix B of this report. Chapter 3 of the FSAR contains the design requirements for SRM equipments handling process fluids. Where process fluid conditions are equal or more severe than the accident environmental service conditions, the SRM equipment is considered environmentally qualified without further evaluation.

The program methodology for environmental qualification of SRM equipment is dependent on location of the equipment. SRM equipment located in mild environments is addressed in Section 4.2.3.

SRM equipment that must function during an accident located in areas susceptible to LOCA and HELB effects are qualified through a materials analysis in addition to the surveillance and maintenance program activities. The equipment and materials analysis identifies any susceptibility and weakness to radiation, high temperature, high pressure, steam, water spray and submergence. Any effects from the above are factored into the surveillance/maintenance program. Where the analysis clearly indicates a part failure, a failure modes and effects analysis is performed to determine the part failure impact on the equipment's ability to perform the safety function.

The evaluation criteria used to perform this equipment and materials analysis is as follows:

- o Non-metallic materials (seals, gaskets, lubricants, hydraulic fluids, phenolics, etc.) are analyzed for susceptibility to the normal and accident environmental parameters, mentioned previously. The tools used in this analysis include Arrhenius methods, the material's temperature rating, pressure rating (if applicable), radiation resistance, and susceptibility to chemical and moisture exposure.
- o Non-metallics (valve packing, O-rings, etc.) exposed to process fluids (primary water, etc.) are evaluated for their ability to operate properly under the accident conditions. The tools, above, are used here in addition to manufacturer's recommendation.
- o Active metallic components (valve stems, pump shafts) are evaluated against susceptibility to corrosive attack due to exposure to steam, water spray and submergence. The tools employed here are proper engineering design and design reviews, as well as quality assurance inspection and surveillance/maintenance programs.
- o In addition to the above criteria, the evaluation takes into consideration advisory communication from the NRC Staff (IE Bulletins, Notices, etc.) and industry (EPRI efforts, manufacturer's bulletins, and other utilities).

The results of the equipment and materials analysis are then coupled with the surveillance and maintenance program to provide proper qualification of safety related mechanical equipment located in harsh, inaccessible areas.

4.6 DOCUMENTATION

The Class 1E Equipment Qualification Reports in Appendix C summarize the qualification evaluations that have been performed. Tests, analyses and other documentation used to demonstrate that each component is qualified for its application and meets its specific performance requirements are on file at the Supply System.

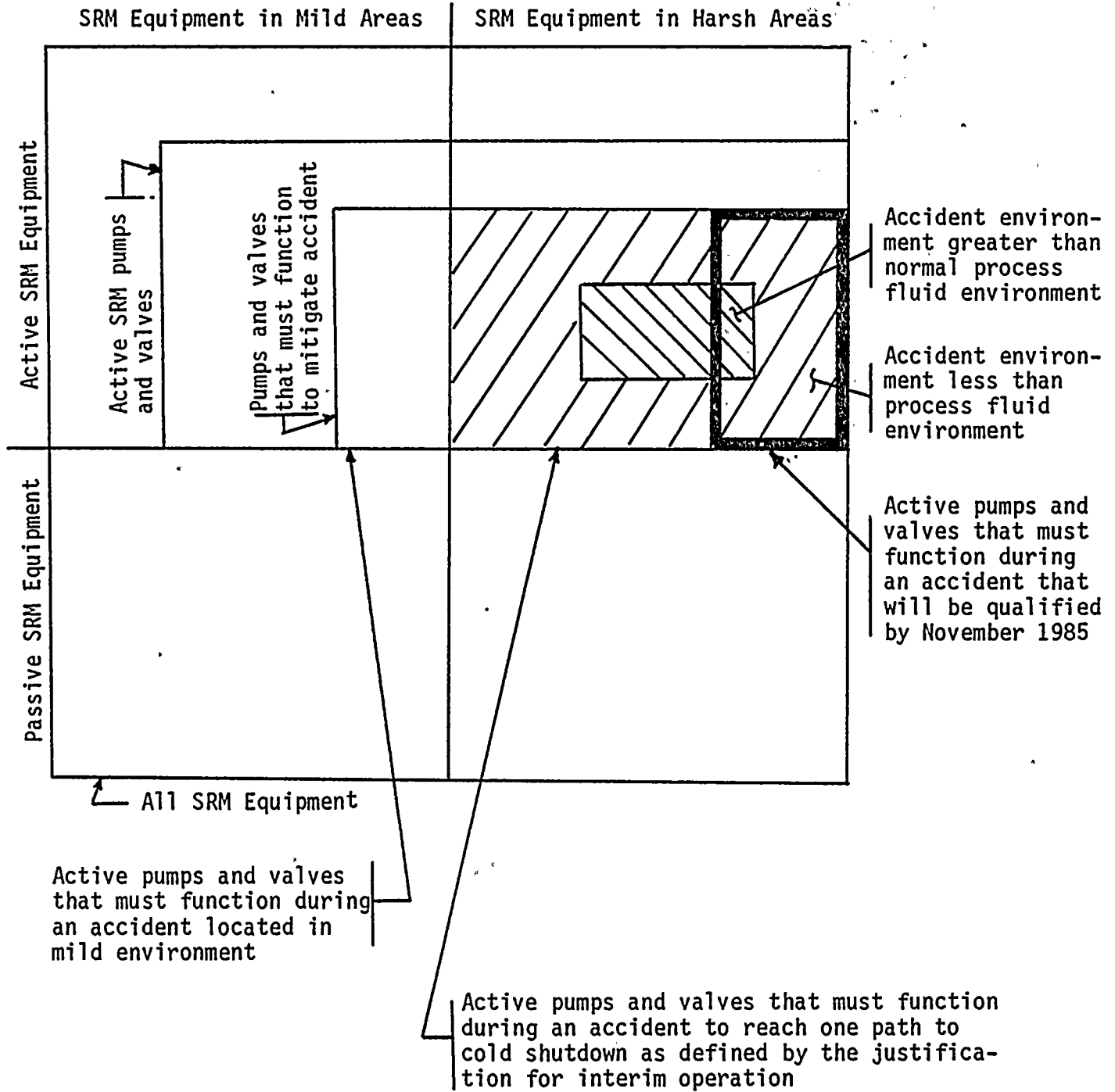


Figure 4-1

5.0 QUALIFICATION RESULTS

The environmental qualification status of the components identified on the Class 1E Equipment List (Appendix A) has been evaluated. The status of the evaluations is presented on the Equipment Qualification Reports in Appendix C.

5.1 EFFORTS TO DATE

The Class 1E List (Appendix A) identifies the safety related electrical equipment, along with its respective qualification status. The available qualification documentation has been obtained and reviewed for this equipment. The reviews, supplemented by engineering analyses, have determined that most of the components meet the intent of NUREG 0588, Category II. In some cases, it has been determined that there is insufficient documentation to support complete qualification. These cases are being resolved as the qualification evaluation is completed. The method for completing the qualification is included on the individual Equipment Qualification Reports in Appendix C.

5.2 ON-GOING ACTIVITIES

Evaluation and requalification of Class 1E equipment at WNP-2 is continuing. The following activities are being performed:

- o Qualification documentation is being obtained for recently identified equipment. This includes equipment being procured to address Reg. Guide 1.97 concerns.
- o LOCA tests have been completed on terminal blocks. Test specifications are being developed for other equipment types.
- o Certain components, such as limit switches, solenoid valves and motor operators, are being replaced with components qualified to IEEE 323-74.

- o Where required, motor control center rooms are shielded from direct radiation to make them mild environments (TID 104 rad).
- o A preventive maintenance/surveillance program is being developed to address equipment aging.
- o The impact of NUREG 0803 on the equipment qualification program is being evaluated.

In addition to the activities to resolve component specific qualification deficiencies, the Supply System is pursuing a number of generic qualification activities. These activities, which are being performed to keep abreast of the current equipment qualification technology, include the following:

- o The Supply System is a member of the EPRI Equipment Qualification Advisory Group. The Supply System is also participating in a BWR Utility Equipment Environmental Qualification Group (EQUATE).
- o New Class 1E equipment located in harsh environment areas currently being ordered are specified to be qualified to IEEE 323-74, unless sound reasons to the contrary exist.
- o IE Bulletins, Circulars and Information Notices are being reviewed to determine their impact on the WNP-2 equipment qualification program.
- o The Supply System is participating in other industry cost-sharing groups.
- o Direct service contracts are in place with testing laboratories to perform equipment qualification testing.

6.0 JUSTIFICATION FOR INTERIM OPERATION

To obtain an operating license for WNP-2, the Supply System has been notified (Reference 2) that safety-related electrical equipment shall be reviewed using NUREG 0588, Category II, "Interim Staff Position on Environmental Qualifications of Safety-Related Electrical Equipment", as the basis for determining the adequacy of the safety-related equipment's documentation. Furthermore, the NRC staff has informed (Reference 22) the Supply System that where there are deficiencies, the Supply System should commit to corrective action consistent with the requirements to establish qualification. If fuel loading occurs before complete qualification can be obtained, justification for operation until corrective actions are completed must be provided.

In addition, the NRC Staff's proposed final rule 10CFR50.49, regarding environmental qualification of safety-related electric equipment, states that "the applicant for an operating license shall perform an analysis to ensure that the plant can be safely operated pending completion of environmental qualification." For WNP-2, the Equipment Qualification Program is in process and, as demonstrated by this report, many components have been shown qualified by existing documentation. However, it is unlikely that all safety-related electrical equipment will be fully documented before desired full power operation of WNP-2. Therefore, a Justification for Interim Operation (JIO) has been performed. It is concluded that, upon documentation of the qualification of a minimum set of safety-related electrical equipment, WNP-2 can be safely operated pending completion of the Environmental Qualification Program for all safety-related electrical equipment.

The basis for this conclusion is in establishing the ability to accomplish the following six safety functions with a minimum set of safety-related electrical equipment.

1. Emergency Reactor Shutdown
2. Containment Isolation
3. Reactor Core Cooling

4. Containment Integrity
5. Core Residual Heat Removal
6. Prevention of Significant Release of Radioactive Material to the Environment

The methodology and results of this JIO analysis are provided herein (Reference Appendix D, Justification for Interim Operation Report). The following are the main elements of the analysis.

o Accident Definition

The accidents that potentially result in a harsh environment inside the primary containment or reactor building were identified. Seven types of accidents were identified: three Loss-of-Coolant Accidents (LOCAs) and four High Energy Line Breaks (HELBs). The environmental conditions (pressure, temperature, humidity, and radiation) associated with these accidents, and the areas of the plant affected, were determined.

o Safety Sequence Analysis

A Safety Sequence Analysis was performed to determine all of the safety-related systems required to achieve the six safety functions. For each postulated accident, Safety Sequence Diagrams (SSDs) were prepared. The SSDs identified the systems required to mitigate each accident, shut down the reactor, and maintain it in a safe condition by accomplishing the necessary safety functions.

o Safety-Related Equipment

The safety-related electrical equipment for the systems identified in the Safety Sequence Analysis was taken from the safety-related equipment list.

o Failure Modes and Effects Analysis

A Failure Modes and Effects Analysis (FMEA) was performed for all safety-related equipment, in the systems identified by the SSA, that need not function to achieve the six safety functions. All equipment whose failure was determined to have no adverse effect on plant safety or accident mitigation need not be qualified for any accident environment, but it will be qualified for its normal service environment. The analysis included determining the justification for classifying the equipment that need not be environmentally qualified for a harsh environment.

o Selection of Minimum Required Equipment

Safety-related electrical equipment, in the systems identified by the SSA, that is required to operate to achieve the six safety functions, or must not fail in a manner detrimental to the six safety functions, was evaluated. A minimum set of this equipment in a single success path to achieve the required safety functions, for all evaluated accidents, was determined. This minimum set of equipment will have documentation of environmental qualification, or adequate justification will be provided, prior to full power operation of WNP-2. The documentation of this minimum set of safety-related electrical equipment ensures that the required safety functions will be achieved for all evaluated LOAs and HELBs that potentially result in a harsh environment.

The safety-related electrical equipment not requiring documentation prior to full power operation, including redundant or diverse systems and fuel pool cooling, will be documented to establish its qualification prior to November 30, 1985.

7.0 SUMMARY

This document summarizes the evaluation of environmental qualification of Class 1E equipment in WNP-2, performed in accordance with NUREG 0588, Category II. It provides a summary of the Environmental Qualification Program that is being undertaken by the Supply System. The program will ensure that all Class 1E equipment will perform its safety-related function during normal, abnormal and postulated accident conditions.

The present status of the evaluation is as follows:

- o Normal, abnormal and accident service conditions in primary containment and the reactor building (harsh environments) have been defined. Flooding is currently being evaluated.
- o Class 1E equipment has been identified by the tag number along with its required safety function, use, and required operating time. The location and manufacturer's data for most of this equipment have been determined.
- o The qualification status of identified Class 1E equipment has been determined. The status of some equipment not installed will be determined as additional data is received.
- o Corrective actions are being taken to resolve qualification documentation deficiencies.

Of the Class 1E components identified, qualification data has been evaluated and a qualification status has been determined for 3078 (96%) of these components. The status of the equipment evaluations is as follows:

- o 2716 (85%) components are qualified to the environmental service conditions

- o 94 components are being replaced or purchased qualified
- o 119 components are being type tested
- o 149 components are being qualified by engineering evaluations.
- o 120 components require additional data to determine the qualification status

The qualification status of each component is described on the Equipment Qualification Reports in Appendix C.

This report documents the current status of the environmental equipment qualification program at WNP-2.

8.0 REFERENCES

1. NRC Office of Nuclear Reactor Regulation, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", NUREG 0588, Rev. 1.
2. NRC Division of Project Management, "Qualification of Safety-Related Electrical Equipment", letter from D. F. Ross (NRC) to Operating Licenses Applicants, February 1980.
3. The Institute of Electrical and Electronics Engineers, Inc. (IEEE), "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations", IEEE Standard 323-1974.
4. EDS Nuclear Inc., "Review of 1E/1M Equipment Lists for Safety-Related Systems", Project Instruction No. 7, Job No. 1140-001, Revision 3, October 12, 1981.
5. General Electric Environmental Design Specification No. 22A3008, Revision 5, April 1977.
6. Washington Public Power Supply System, "WNP-2 - Final Safety Analysis Report".
7. NRC Office of Nuclear Reactor Regulation, "Clarification of TMI Action Plan Requirements", NUREG 0737, Rev. 0, October 31, 1980.
8. ORIGEN, "Isotope Generation and Depletion Code", RSIC Computer Code Collection, Oak Ridge National Laboratory, Updated September 27, 1979.
9. NRC Office of Nuclear Reactor Regulation, "Technological Bases for Models of Spray Washout of Airborne Contaminants in Containment Vessels", NUREG CR-0009, 1978.

10. QAD-P5A, "Point Kernel General Purpose Shielding Code", RSIC Computer Code Collection, Oak Ridge National Laboratory.
11. EDS Nuclear Inc., Zone Dose Calculations, Series 0740-004-xxx.
12. Washington Public Power Supply System Calculations:

NE-02-81-06-0	NE-02-81-13-0	NE-02-81-17-0
NE-02-81-07-0	NE-02-81-14-0	NE-02-81-18-0
NE-02-81-08-0	NE-02-81-15-0	NE-02-81-19-0
NE-02-81-09-0	NE-02-81-16-0	NE-02-81-20-0
13. Idaho National Engineering Laboratory, "RELAP4/MOD5, A Computer Program for Transient Thermal Hydraulic Analysis of Nuclear Reactors and Related Systems", Volumes I and II, ANCR-NUREG 1335, September 1976.
14. COMPARE MOD1A - NUREG/CR-1185.
15. NRC Office of Nuclear Reactor Regulation, "Generic Safety Evaluation Report Regarding Integrity of BWR Scram System Piping", NUREG 0803.
16. Washington Public Power Supply System, "Supply System Response to NRC SER Issue - Pipe Breaks in BWR Scram Discharge Volume", Memo R. O. Vosburgh to C. D. Taylor, December 30, 1981.
17. EPRI, "Radiation Effects on Organic Materials in Nuclear Plants", Report NP-2129, Project 1707-3, November 1981.
18. Washington Public Power Supply System, "Acceptance Criteria for WNP-2 Safety Related Equipment Qualification", Engineering Instruction No. EDI-4.8.
19. WNP-2 Final Shielding Evaluation Report, September 1982.

20. Washington Public Power Supply System Calculation NE-02-82-39-0.
21. Washington Public Power Supply System Calculation NE-02-81-14-0.
22. NRC Office of Nuclear Reactor Regulation, "Safety Evaluation Report", NUREG-0892, March 1982.



APPENDIX A

CLASS 1E EQUIPMENT LIST

Appendix A contains the following information:

- Class 1E List Users Manual: a description of the use fields and abbreviations on the Class 1E List A.1
- System Code List: a list of system abbreviations used on the Class 1E Equipment List A.10
- Component Table: a list of the component abbreviations used on the Class 1E Equipment List A.14
- Class 1E Equipment List



Class 1E Equipment List Users Manual: Description of codes used on the
Class 1E list

Column Designation	Description
1. CONTRACT	The contract under which the equipment was purchased. The contracts beginning with 02 and Contract 59 were with the NSSS supplier. The two-digit contracts are for equipment purchased through our A/E and the three-digit contracts indicate equipment purchased through contractors at the construction site.
2. COMPOSITE NO.	The composite, such as instrument rack or valve, on which a component is located.
3. EQUIPMENT NO.	The equipment piece number (EPN) is listed. It is composed of the system designation (a complete list is enclosed), a component code (list enclosed) and a unique identifier.
4. MFG	Manufacturer: Contains the code prepared for the industry by Southwest Research Corporation indicating the company who manufactured the equipment. In a few cases where the manufacturer has not been determined, the supplier's code was put in this column until the manufacturer has been determined.
5. MFG MODEL NO.	The manufacturer's model number. In the cases where this has not been determined, General Electric purchased part drawing number or other applicable information is supplied.



6. Q.I.D.

The Qualification Identification is a six-digit number indicating a file which contains all the qualification documentation for that EPN along with summary forms and plant walk-through records.

7. LV

Level assigned to equipment. An identifier which will permit the sorting of the 1E/1M list into major pieces of equipment, instrumentation and subcomponent parts.

Level 1: Class 1E/1M composite equipment which requires qualification of the overall assembly. Each composite piece of equipment will be identified with a unique Equipment Piece Number (EPN) and will have the symbol "+" added to the end of the EPN. Motor operated valves would be listed as composite equipment with a level designation of 1.

Other examples would include the diesel generator skids, pump skids, air handling units, filter/dryer assemblies, air compressors, etc.

Level 2: A Class 1E/1M component or instrument function which requires individual qualification.

The instrument function is described by an instrument loop which could include a sensor, a switch, an alarm, an indicator and/or a controller. Whenever an instrument loop is identified as Safety-Related, the sensor will receive a Level 2 designation and all other instrument loop components will be designated Level 3.



Example 1: For a motor-operated valve, the valve body, valve motor, and external limit switches (if they have a Safety-Related function) are all Level 2 components.

Example 2: An instrument consisting of a flow element, flow transmitter, flow switch and flow indicator would have the flow element as Level 2 with the other components as Level 3.

Level 3: Any 1E/1M instrumentation component not included in Level 2.

Example: A flow transmitter associated with a 1E/1M flow element would be designated as Level 3.

Level 4: A subcomponent of a class 1E/1M component.

Example: Internal limit switch to motor operators for valves, dropping resistors, pressure transmitter circuit boards, wiring, indicating lights, etc.

8. EC

The Class 1 action that a piece of equipment or a system is required to perform or monitor that makes it Safety Related.

A component may provide one or more of the safety functions listed below.

<u>Symbol</u>	<u>Function</u>
A.	Emergency Reactor Shutdown including SCRAM Signals and Reactivity Insertion.



<u>Symbol</u>	<u>Function</u>
B.	Containment Isolation B1 Primary Containment B2 Reactor Building
C.	Emergency Core Heat Removal
D.	Containment Atmosphere Control
E.	Core Residual Heat Removal, including Long-Term Cooling
F.	Prevention of the Release of Radioactive Material to the Environment
G.	No Active Safety Function but a Passive Integrity Function
H.	Emergency Electrical Power Systems, AC and DC.
I.	Instrumentation to Follow the Course of an Accident
J.	Compartment Heat Removal for Equipment Oper- ability or Personnel Habitability

9. PLANT LOCATION The location of the component within the plant by building, elevation and coordinates.



10. Q.S.

Qualification Status (second column) indicates the environmental qualification of the equipment. The following list shows the meaning of the codes used.

- A - Acceptable, thermal aging completed
- B - Acceptable, thermal aging being covered by surveillance
- C - Acceptable, not installed
- D - No documentation in files
- G - Being requalified by modification of the hardware or the environment
- M - Being requalified by analysis
- N - Not Acceptable, requalification method not yet determined
- P - Purchasing qualified replacement
- R - Not reviewed
- T - Being requalified by test

The first column shows the seismic qualification status.

11. F/O HOURS

The time, in hours, a component is required to function following an accident.

12. EQUIPMENT
DESCRIPTION

A description of the equipment function.



13. DRAWING

The plant P&ID on which the component appears.

14. USE

Contains codes which describe equipment use during accident and/or normal plant shutdown conditions. The USE field is based on Item 2 Appendix E of NUREG 0588.

The "USE" input field is a two-digit field. The first digit shows the equipment operability requirement for accident mitigation and the second shows the equipment operability requirements for Hot or Cold shutdown conditions.

X X

0 The equipment is not required before, during or after an accident.

Example: Equipment in this category provides no active function, but may provide a passive function by containing radioactive material outside the Reactor Building. It need not be qualified to demonstrate operability, even under non-accident service environments.

1 Equipment that will experience the environmental conditions of design basis accidents for which it must function to mitigate said accidents, and that will be qualified to demonstrate operability in the accident environment for the time required for accident mitigation with safety margin to failure.



Example: Equipment in this category is required for accident mitigation of accidents analyzed in the FSAR. This includes: pumps, valves, electrical equipment, instrumentation to follow the course of an accident, etc.

2 Equipment will experience environmental conditions of design basis accidents through which it need not provide an active function for mitigation of said accidents, but through which it must not fail in a manner detrimental to plant safety or accident mitigation, and that will be qualified to demonstrate the capability to withstand any accident environment for the time during which it must not fail with safety margin to failure.

Example: Equipment in this category must not actively fail in a manner detrimental to plant safety, e.g., a motor operated valve that is normally shut would be categorized as a "2" if its inadvertent opening would be detrimental to plant safety. Equipment that provides only a passive integrity function on a potentially contaminated system will be categorized as a "2" and will have a "G" placed in the "EC" column.

Category 2 will include all manual boundary, integrity, test and root valves which may be exposed to post-LOCA and radioactive drain systems components (FDR and EDR).



3 Equipment that will experience environmental conditions of design basis accidents through which it need not function for mitigation of said accidents, and whose failure (in any mode) is deemed not detrimental to plant safety or accident mitigation, and need not be qualified for any accident environment but will be qualified for its nonaccident service environment.

Example: Equipment in this category is limited to the 1E/1M equipment in the "harsh environments" which is Safety-Related only to prevent the release of radioactive material and will not be exposed to post-LOCA radioactive fluids.

This category will include the components of the Reactor Water Clean-up System downstream of the second containment isolation valve.

4 Equipment that will not experience environmental conditions of design basis accidents and that will be qualified to demonstrate operability under the expected extremes of its accident service environment. This equipment would be located outside the Reactor Building.

Second Digit

X X

0 The equipment is not required to operate to shut down the plant during normal conditions.



- 1 The equipment is required to operate for Hot Shutdown only, during normal plant conditions.
- 2 The equipment is required to operate for Cold Shutdown only during normal plant conditions.
- 3 The equipment is required to operate for both Hot Shutdown and Cold Shutdown during normal conditions.



WNF-2 MASTER EQUIPMENT LIST
SYSTEM CODE LIST
SYSTEM TITLE

PROJ	SYSTEM CODE	SYSTEM TITLE
02	ANN	ANNUNCIATORS
02	APRM	AVERAGE POWER RANGE MONITOR SYSTEM
02	AR	AIR REMOVAL SYSTEM
02	ARM	AREA RADIATION MONITORING
02	AS	AUXILIARY STEAM SYSTEM
02	BA	BACKWASH AIR SYSTEM
02	BCF	BOILER CHEMICAL FEED SYSTEM
02	BD	BLOWDOWN SYSTEM
02	BS	BLEED (EXTRACTION) STEAM SYSTEM
02	C	CONTAINMENT STRUCTURES AND APPURTANCES
02	CAC	CONTAINMENT ATMOSPHERE CONTROL SYSTEM
02	CAS	CONTROL AIR SYSTEM
02	CBD	CIRCULATING WATER BLOWDOWN SYSTEM
02	CEP	CONTAINMENT EXHAUST PURGE SYSTEM
02	CF	CHEMICAL FEED SYSTEM
02	CIA	CONTAINMENT INSTRUMENT AIR SYSTEM
02	CL	CHLORINE SYSTEM
02	CHS	CONTAINMENT MONITORING SYSTEM
02	CH	CONTAINMENT NITROGEN SYSTEM
02	CND	CONDENSOR DRAINS / VENTS SYSTEM
02	CO	AUXILIARY CONDENSATE SYSTEM
02	COND	NUCLEAR CONDENSATE SYSTEM
02	CO2	CARBON DIOXIDE SYSTEM
02	CPR	CONDENSATE DEMINERALIZER SYSTEM
02	CRA	CONTAINMENT RETURN AIR SYSTEM
02	CRD	CONTROL ROD DRIVE SYSTEM
02	CSP	CONTAINMENT SUPPLY PURGE SYSTEM
02	CTHA	C-T. ELECTRICAL BLDG MIXED AIR (HVAC) SYSTEM
02	CVB	CONTAINMENT VACUUM BREAKER SYSTEM
02	CV	CIRCULATING WATER SYSTEM
02	DCW	DIESEL COOLING WATER SYSTEM
02	DE	DIESEL EXHAUST (ENGINE) SYSTEM
02	DEA	DIESEL BUILDING EXHAUST AIR (HVAC) SYSTEM
02	DEH	DIGITAL-ELECTRO-HYDRAULIC CONTROL SYSTEM
02	DG	DIESEL GENERATOR SYSTEM
02	DLO	DIESEL LUBE OIL SYSTEM
02	DMA	DIESEL BUILDING MIXED AIR (HVAC) SYSTEM
02	DO	DIESEL OIL SYSTEM
02	DOA	DIESEL BUILDING OUTSIDE AIR (HVAC) SYSTEM
02	DRA	DIESEL BUILDING RETURN AIR (HVAC) SYSTEM
02	DSA	DIESEL STARTING AIR SYSTEM
02	DW	DEMINERALIZED WATER SYSTEM
02	E	ELECTRICAL SYSTEM
02	ED	EQUIPMENT DRAIN SYSTEM (PIPING ONLY)
02	EDR	EQUIPMENT DRAINS RADIOACTIVE SYSTEM
02	ES	EXHAUST STEAM (TURBINES) SYSTEM
02	FD	FLOOR DRAIN SYSTEM
02	FDR	FLOOR DRAIN RADIOACTIVE SYSTEM
02	FO	FUEL OIL SYSTEM
02	FP	FIRE PROTECTION SYSTEM
02	FPC	FUEL POOL COOLING SYSTEM



PROJ	SYSTEM CODE	SYSTEM TITLE
02	FW	FILTERED WATER SYSTEM
02	GEA	GUARD HOUSE EXHAUST AIR (HVAC) SYSTEM
02	GFP	GUARD HOUSE FIRE PROTECTION SYSTEM
02	GMA	GUARD HOUSE MIXED AIR (HVAC) SYSTEM
02	GOA	GUARD HOUSE OUTSIDE AIR (HVAC) SYSTEM
02	GPWH	GUARD HOUSE PCTABLE HOT WATER SYSTEM
02	GRA	GUARD HOUSE RETURN AIR (HVAC) SYSTEM
02	GY	GLYCOL SYSTEM
02	HCO	HEATING STEAM CONDENSATE SYSTEM
02	HD	HEATER DRAIN SYSTEM
02	HHW	HEATING HOT WATER SYSTEM
02	HPCS	HIGH PRESSURE CORE SPRAY SYSTEM
02	HS	HEATING STEAM SYSTEM
02	HV	HEATER VENT SYSTEM
02	HY	RCC HYDRAULIC CONTROL
02	H2	HYDROGEN SYSTEM
02	IBD	ISO PHASE BUS DUCT SYSTEM
02	IRM	INTERMEDIATE RANGE MONITOR
02	LD	LEAK DETECTION SYSTEM
02	LE	LABORATORY EQUIPMENT
02	LPCS	LOW PRESSURE CORE SPRAY SYSTEM
02	LPRM	LOCAL POWER RANGE MONITOR SYSTEM
02	MD	MISCELLANEOUS DRAIN SYSTEM
02	MET	METEOROLOGICAL SYSTEM
02	MS	MAIN STEAM (NUCLEAR) SYSTEM
02	MSH	MACHINE SHOP EQUIPMENT
02	MSLC	MAIN STEAM LEAKAGE CONTROL SYSTEM
02	MSRV	MAIN STEAM RELIEF VALVE SYSTEM (PIPING ONLY)
02	MT	MATERIAL TRANSFERT SYSTEM
02	MV	MISCELLANEOUS VENTS (PIPING ONLY)
02	MW	MISCELLANEOUS WASTE SYSTEM
02	MWR	MISCELLANEOUS WASTE (RADIOACTIVE) SYSTEM
02	NSSE	NUCLEAR SYSTEM SERVICING EQUIPMENT SYSTEM
02	OG	OFF GAS SYSTEM
02	P	PUMP HOUSE (ALL) BLDG, STRUCTURE & APPURTANCES
02	PEA	PUMP HOUSE EXHAUST AIR (HVAC) SYSTEM
02	PI	PROCESS INSTRUMENTATION SYSTEM
02	PMA	PUMP HOUSE MIXED AIR (HVAC) SYSTEM
02	POA	PUMP HOUSE OUTSIDE AIR (HVAC) SYSTEM
02	FRA	PUMP HOUSE RETURN AIR (HVAC) SYSTEM
02	PS	PROCESS SAMPLING SYSTEM
02	PSR	PROCESS SAMPLING RADIOACTIVE SYSTEM
02	FV	PROCESS VENT SYSTEM
02	PVR	PROCESS VENTS RADIOACTIVE SYSTEM
02	PWC	POTABLE COLD WATER
02	PWH	POTABLE HOT WATER
02	PWR	PROCESS RADIOACTIVE (SOLIDS) SYSTEM
02	R	REACTOR BLDG STRUCTURE & APPURTANCES
02	ROB	ROD BLOCK MONITOR SYSTEM
02	FCC	CLOSED COOLING WATER SYSTEM
02	RCIC	REACTOR CORE ISOLATION COOLING SYSTEM



PROJ	SYSTEM CODE	SYSTEM TITLE
02	RD	ROOF DRAIN SYSTEM (PIPING ONLY)
02	REA	REACTOR BUILDING EXHAUST AIR (HVAC) SYSTEM
02	RFT	REACTOR FEEDWATER TURBINE SYSTEM
02	RFW	REACTOR FEEDWATER SYSTEM
02	RHR	RESIDUAL HEAT REMOVAL SYSTEM
02	ROA	REACTOR BUILDING OUTSIDE AIR (HVAC) SYSTEM
02	RPS	REACTOR PROTECTION SYSTEM
02	RPWH	REACTOR BUILDING POTABLE HOT WATER
02	RRR	REACTOR BUILDING RETURN AIR (HVAC) SYSTEM
02	RRC	REACTOR RECIRCULATION SYSTEM
02	RWCU	REACTOR WATER CLEANUP SYSTEM
02	S	SAMPLING SYSTEM
02	SA	SERVICE AIR SYSTEM
02	SAT	SULFURIC ACID TREATMENT SYSTEM
02	SCH	SERVICE BUILDING CHILLED WATER SYSTEM
02	SCI	SUPERVISORY CONTROL INSTRUMENTATION
02	SCW	STATOR COOLING WATER SYSTEM
02	SEA	SERVICE BUILDING EXHAUST AIR (HVAC) SYSTEM
02	SEC	PLANT SECURITY SYSTEM
02	SEIS	SEISMIC MONITORING SYSTEM
02	SGT	STANDBY GAS TREATMENT SYSTEM
02	SHCO	SERVICE BUILDING HEATING CONDENSATE SYSTEM
02	SHHW	SERVICE BUILDING HEATING HOT WATER SYSTEM
02	SLC	STANDBY LIQUID CONTROL SYSTEM
02	SM	SAMPLING SYSTEM
02	SHA	SERVICE BUILDING MIXED AIR (HVAC) SYSTEM
02	SO	SEAL OIL SYSTEM
02	SPTH	SUPPRESSION POOL TEMP MONITORING SYSTEM
02	SPWH	SERVICE BUILDING POTABLE HOT WATER SYSTEM
02	SRA	SERVICE BUILDING RETURN AIR (HVAC) SYSTEM
02	SRM	SOURCE RANGE MONITOR SYSTEM
02	SS	SEALING STEAM SYSTEM
02	SW	STANDBY SERVICE WATER SYSTEM
02	T	TURBINE BLDG STRUCTURE & APPURTANCES
02	TEA	TURBINE BUILDING EXHAUST AIR (HVAC) SYSTEM
02	TEST	TEST EQUIPMENT AND INSTRUMENTS
02	TG	TURBINE GENERATOR
02	TIP	TRAVERSING IN CORE PROBE SYSTEM
02	THU	TOWER MAKE UP WATER SYSTEM
02	TO	TURBINE LOEE OIL SYSTEM
02	TOA	TURBINE BUILDING OUTSIDE AIR (HVAC) SYSTEM
02	TPWH	TURBINE BUILDING POTABLE HOT WATER SYSTEM
02	TRA	TURBINE BUILDING RETURN AIR (HVAC) SYSTEM
02	TSW	PLANT SERVICE WATER SYSTEM
02	VR	RADIOACTIVE VENT (PIPING ONLY)
02	W	RADWASTE BLDG STRUCTURE & APPURTANCES
02	WCH	WASTE BUILDING CHILLED WATER SYSTEM
02	WEA	WASTE BUILDING EXHAUST AIR (HVAC) SYSTEM
02	WHCO	WASTE BUILDING HEATING CONDENSATE SYSTEM
02	WMA	WASTE BUILDING MIXED AIR (HVAC) SYSTEM
02	WNP2	GENERAL SITE STRUCTURES, SYSTEMS & EQUIPMENT



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WNP-2 MASTER EQUIPMENT LIST
SYSTEM CODE LIST
SYSTEM TITLE

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PROJ	SYSTEM CODE	SYSTEM TITLE
02	WOA	WASTE BUILDING OUTSIDE AIR (HVAC) SYSTEM
02	WPWH	WASTE BUILDING POTABLE HOT WATER SYSTEM
02	WRA	WASTE BUILDING RETURN AIR (HVAC) SYSTEM
02	WRE	WASTE BUILDING REFRIGERATION SYSTEM

A.13



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

COMP CODE	COMPONENT IDENTIFICATION	C	NRD- R COMP	ABCDEF	G	UNIT	H	UNIT	J	UNIT	L	IE	C/ GR	P S	P M	SPARE PART NO	SAF CLS
AC	AIR CONDITIONING UNIT	M	BLOWER	X A ##		SCFM		PSIG		HP	C	#				02-015	
AD	AIR DAMPER	M	VALVEX	B G		IN		PSIG		DEGF	C	#				02-019	
AH	AIR HANDLING UNIT	M	BLOWER	C A ##		SCFM				HP	D	#				02-024	
ALH	ALARM			VS ED							B	#				02-187	
ALT	ALTERNATING RELAY		CKTBKR	EXC				DEGF		AMP	B	#				02-355	
AH	AMMETER	E	INSTRU	IT							B	#				02-295	
AMP	AMPLIFIER		INSTRU	VX CA							B	#				02-195	
ANN	ANNUNCIATORS	E	ANNUNC	CB###	#							#				02-	
AO	AIR OPERATOR	M	VALVOP	##		LB		FTLB			C	#				02-303	
AR	AIR RECEIVER											#				02-120	
AR	ALARM RECORDER											#				02-205	
ASM	AIR SWITCH	I	VALVEX	X							B	#				02-325	
AUX	AUX. INST. CR ELECT. EQUIP	I	INSTRU	XY###							B	#				02-165	
AV	AIR RELEASE VALVE	M	VALVEX	XFL		IN		PSIG		DEGF	D	#				02-130	
AW	AIR WASHER	M	FILTER	A ##				PSID		MICR	C	#				02-024	OT
AY	ANALYZER	I	INSTRU	A							B	#				02-150	
BD	BOARD	E		###							B	#				02-	
BJM	BRANCH JUNCTION MODULE	I	INSTRU	XYD							B	#				02-385	
BL	BELER	M	MECFUN	XX ##		FTLB		RPM		RPM	C	#				02-020	
BLR	BELER	M	HTEXCH	B		KSFT		PSIG		MBH	C	#				02-025	OT
BUOY	BUOY	I	MECFUN	#####	#						D	#				02-175	OT
B0	24 VOLT BATTERY	E	BATTERY					VDC		AMPH	B	#				02-260	
B1	125 VOLT BATTERY	E	BATTERY					VDC		AMPH	B	#				02-260	
B2	250 VOLT BATTERY	E	BATTERY					VCC		AMPH	B	#				02-260	
B3																02-	
C	COMPRESSOR	M	BLOWER	##		SCFM		PSIG		HP	C	#				02-010	
CAR	CHLORINE ANALYZER/RECORDER	I	INSTRU	A				VAC		DEGF	B	#				02-150	
CB	CIRCUIT BREAKER	E	CKTBKR	A						AMP	B	#				02-265	
CBL	CABLE	E	ELECON	CXXXXX								#				02-	
CC	COOLING COIL	M	HTEXCH	CH		KSFT		PSIG		MBH	C	#				02-055	
CCU	CENTRAL CONTROL UNIT	I	INSTRU	UCCFF	#							#				02-	
CE	CONDUCTIVITY ELEMENT	I	INSTRU	CE							B	#				02-170	
CF	CHARCOAL FILTER	M	FILTER	A ##		SCFM		PSID		MICR	B	#				02-040	
CHL	CHLORINATORS	M		#####	#						C	#				02-	
CI	CONDUCTIVITY INDICATOR	I	INSTRU	CI#CX							B	#				02-175	
CIS	CONDUCTIVITY INDIC. SWITCH	I	INSTRU	CSI							B	#				02-325	
CIST	CONDUCTIVITY IND TRAN SWITCH	I	INSTRU	CTS							B	#				02-230	
CIT	CONDUCTIVITY INDIC. TRANSMIT	I	INSTRU	CTI							B	#				02-230	
CNTR	CONTACTOR, *CL. 1E ONLY*	E	CKTBKR	B				DEGF		AMP		#				02-	
COE	CORROSION SENSOR	I	INSTRU	XEN							B	#				02-	
COMP	COMPUTER	I	INSTRU									#				02-202	
CON	CONDUCTIVITY ANAL/CONTROLLER	I	INSTRU	CX							B	#				02-155	
CONN	CONNECTOR, *CL. 1E ONLY*	E	ELECON	AXXXXX								#				02-	
COR	CORROSION RECORDER	I	INSTRU	XR#							B	#				02-	
CP	CONTRCL PANEL	E		#####	#						B	#				02-	
CPL	CATA COUPLER	I	INSTRU	NYRCK#	00001	VDC		ZZZ		ZZZ		#				02-035	
CR	CRIODE, *CL. 1E ONLY*											#				02-	
CR	CONDUCTIVITY RECORDER											#				02-205	
CR	CHILLER											#				02-055	
CRA	CRANE	M	MECFUN	CX ##		FTLB		RPM	RPM		C	#				02-106	
CRM	CONTRCL ROOM MODULE	I	INSTRU	UYDCK								#				02-	
CS	CONDUCTIVITY SWITCH	I	INSTRU	CS#							B	#				02-325	
CT	CURRENT TRANSFORMER											#				02-345	



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

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COMP CODE	COMPONENT IDENTIFICATION	C R	NPRO COMP	ABCDEF	G	UNIT	H	UNIT	J	UNIT	L	IE	C/GR	P/S	P/H	SPARE PART NO	SAF CLS
CT	CONDUCTIVITY TRANSMITTER															02-230	
CT	COOLING TOWER															02-059	
CU	CONDENSING UNIT	M	ACCUMU	X	###			PSIG		DEGF						02-080	
CO	24 VOLT BATTERY CHARGER	E	BATTERY							VDC		AMPH	B			02-261	
C1	125 VOLT BATTERY CHARGER	E	BATTERY							VDC		AMPH	B			02-261	
C2	250 VOLT BATTERY CHARGER	E	BATTERY							VDC		AMPH	B			02-261	
C3																02-	
C	DAMPER	M	VALVEX	B	G			IN		PSIG		DEGF	D			02-019	OT
CC	DUST COLLECTOR	M	FILTER					SCFM		PSID		MICR	C			02-024	OT
DE	DENSITY ELEMENT	I	INSTRU	XEN	###								B			02-170	
DET	DETECTOR	I	INSTRU	ASE	AG								B			02-170	
DFS	DIFFERENTIAL FLOW SWITCH	I	INSTRU	FSDE									B			02-325	
DIF	DIFFUSER	M	PIPEXX	X				IN		PSIG			C			02-080	OT
DISC	FUSED DISCONNECT	E	CKTBK	A	A					DEGF		AMP				02-	
CLR	DIFFERENTIAL LEVEL RECORDER	I	INSTRU	LRO									B			02-205	
DLS	DIFFERENTIAL LEVEL SWITCH	I	INSTRU	LSD									B			02-325	
DLT	DIFFERENTIAL LEVEL TRANSMITTER	I	INSTRU	LTD									B			02-230	
DH	DEMINERALIZER	M	DIMIX					GRH		PSID		GMSF	B			02-042	
DMS	DEHISTER	M	AIRDRY	CD				PSIG		SCFM		DEGF				02-	
CHTR	CEMHO METER	E	INSTRU	IINC	B					APP		AMP				02-295	
DOE	DISSOLVED OXYGEN ELEMENT	I	INSTRU	XEN									B			02-170	
DOIT	DISSOLVED OXYGEN INDIC TRANS	I	INSTRU	ATI									B			02-230	
DOOR	DOOR	M	PENETR	Z	###								D			02-115	OT
DP	DISTRIBUTION PANEL	E	CKTBK	K	Q	B		120	VAC	DEGF		AMP	B			02-305	
DPC	D PRESS CONTROLLER	I	INSTRU	PCD									B			02-155	
DPE	DRIP PAN ELBOW	M	PIPEXX					IN		PSIG			O			02-080	OT
DPI	D PRESS INDICATOR	I	INSTRU	PID									B			02-175	
OPIC	D PRESS INDICAT. CONTROLLER	I	INSTRU	PCI									B			02-155	
CPIR	D PRESS INDICAT RECORDER	I	INSTRU	PRI									B			02-205	
CPIS	D PRESS INDICATING SWITCH	I	INSTRU	PSI									B			02-325	
OPIT	D PRESS INDICAT TRANSMITTER	I	INSTRU	PTS									B			02-230	
DPR	D PRESS RECORDER	I	INSTRU	PRO									B			02-205	
DPRC	D PRESS RECORDING CONTROLLER	I	INSTRU	PCR									B			02-205	
DPS	D PRESS SWITCH	I	INSTRU	PSD									B			02-325	
DPT	D PRESS TRANSMITTER	I	INSTRU	PTD									B			02-230	
DRVE	DRIVE	M	CRDRVE	ARN	###								B			02-069	
DS	DENSITY SWITCH	I	INSTRU	XSN									B			02-325	
DT	DENSITY TRANSMITTER	I	INSTRU										B			02-230	
DT	DRIVE TURBINE												B			02-125	
DTIS	D TEMP INDICATING SWITCH	I	INSTRU	TSI									B			02-325	
DTRS	D TEMP RECORDING SWITCH	I	INSTRU	TRS									B			02-205	
DTT	D TEMP TRANSMITTER	I	INSTRU	TTD									B			02-230	
DV	DECERATOR	M	HTEXCH							PSIG		MBH	C			02-055	
DV	DUMP VALVE	M	VALVEX					IN		PSIG		DEGF	C			02-130	
DVSP	DRAIN VALVE SPV	E	VALVEX	XEX				IN		PSIG		DEGF	B			02-	
DY	DRYER	M	AIRDRY					PSIG		SCFM		DEGF	C			02-982	
E/H	ELECTROHYDRAULIC CONVERTER	I	INSTRU	EXN									B			02-165	
E/P	ELECTROPIEUMATIC CONVERTER	I	INSTRU	EY									B			02-165	
E/S	ELECTRONIC POWER SUPPLY	I	INSTRU	XP	XX								B			02-195	
EAMP	VOLTAGE AMPLIFIER OR PREAMPL	I	INSTRU	EYY	AF											02-177	
ED	EDUCTOR	M	PUMPXX	K				FTHO		GFM			C			02-081	OT
EFSX	EXCESS FLOW CHECK VALVE	M	VALVEX	CXX	B			IN		PSIG		DEGF	B			02-130	
ENC	ELECTRIC HEATING COIL	E	HEATER	XNN	###								C			02-290	



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
MASTER EQUIPMENT LIST
COMPONENT TABLE

COMP CODE	COMPONENT IDENTIFICATION	C	NPRD	ABCDEF	G	UNIT	H	UNIT	J	UNIT	C	IE	C/	P	P	SPARE	SAF
		R	COMP								L	EE	GR	S	M	PART-NO	CLS
EHO	ELECTROHYDRAULIC OPERATOR	H	VALVOP	C	##	LB		FTLB	#	#	B	#				02-304	
EI	VOLTMETER(SEE V FOR B&R USE)	E	INSTRU	E	INCB#											02-295	
EJ	EXPANSION JOINT	H	PIPEXX	X	X	IN		PSIG	#	#	C	#		#	#	02-080	
EJC	EJECTOR, INJECTOR OR SUCTOR	H	PUMPXX	K	##	FTHO		GPM	#	#	C	#				02-081	
ELEV	ELEVATOR	E	HECFUN	XX	##	FTLB		RPM	#	RPM	C	#				02-106	
ELF	EMER LIGHT FIXTURE, *CL.1E*	E	ELECON	X	ABXX	VAC										02-	
ELP	EMERGENCY LIGHTING PANEL	E	CKTBKR	X	DAB#	VAC		DEGF		AMP	B	#				02-305	
EMSQ	PEAN SQUARE VOLTAGE DEVICE	I	INSTRU	E	YVAF											02-177	
ENG	ENGINE	H	ENGINE		##	HP		CYL		RPM	B	#				02-060	
EPP	EMERGENCY POWER PANEL	E	CKTBKR	X	DAB#	VAC		DEGF		AMP	B	#				02-305	
EQ	SPECIALITY EQUIP AND TOOLS										C	#				02-035	
ES	EXHAUST SILENCER	H	PIPEXX	X	#	IN		PSIG	#	#	D	#		#	#	02-080	OT
ESH	ELECTRIC STRIP HEATER	E	HEATER	X	####	#	#	#	#	#	C	#				02-290	
ETD	TRANSOLCER, VOLTAGE	I	INSTRU	E	YV	#					B	#				02-	
EUH	ELECTRIC UNIT HEATER	E	HEATER	X	####	#	#	#	#	#	C	#				02-290	OT
EV	EVAPORATOR	H	HTEXCH	E	#	KSFT		PSIG		MBH	C	#		#	#	02-059	
EX	EXHAUSTER	H	BLOWER	C	A	##		SCFM		PSIG	D	#				02-280	
EXC	EXCITER	E	GENERA	X	##	RPM					B	#				02-285	
F	FIPING FILTER	H	FILTER		##			PSID		HICR	C	#				02-	
FA	FLAME ARRESTOR	H	PIPEXX	X	#	IN		PSIG	#	#	D	#		#	#	02-080	OT
FC	FAN COIL															02-024	
FC	FLOW CONTROLLER	H	PIPEXX	X	#	IN			#	#	D	#		#	#	02-159	
FCN	FILL CONNECTION	H	PIPEXX	X	#	IN			#	#	D	#		#	#	02-080	OT
FCV	FLOW CONTROL VALVE	H	VALVEX	F	G	IN		PSIG		DEGF	C	#				02-133	
FE	FLCW ELEMENT	I	INSTRU	F	EA	##	#	#	#	#	B	#		#	#	02-170	
FG	FLOW GLASS	I	INSTRU	F	INCC	#	#	#	#	#	B	#		#	#	02-175	OT
FGEV	FUNCTION GENERATOR	I	INSTRU													02-177	
FH	FUME HOOD	H	BLOWER	D	##	SCFM		PSIG		HP	D	#				02-024	OT
FI	FLOW INDICATOR	I	INSTRU	F	I	##	#	#	#	#	B	#				02-175	
FIC	FLOW INDICATING CONTROLLER	I	INSTRU	F	CI	##	#	#	#	#	B	#				02-155	
FIS	FLOW INDICATING SWITCH	I	INSTRU	F	SI	##	#	#	#	#	B	#				02-325	
FIT	FLOW INDICATING TRANSMITTER	I	INSTRU	F	TI	##	#	#	#	#	B	#				02-230	
FL	FILTER	H	FILTER		##	SCFM		PSID		HICR	C	#		#		02-040	
FLT	FILTER	H	FILTER		##	GPM		PSID		HICR	C	#		#		02-040	
FLX	FLEXIBLE CONNECTION	H	PIPEXX	X	##	IN		PSIG	#	#	C	#				02-080	
FN	FAN	H	BLOWER	C	A	##		SCFM		PSIG	D	#				02-280	
FO	FRESH ACTUATED OPERATOR	H	VALVOP	D	##						B	#				02-304	
FQ	FLOW INTEGRATOR	I	INSTRU	F	QH	#					B	#				02-180	
FQI	FLOW INTEGRATING INDICATOR	I	INSTRU	F	QI	#					B	#				02-180	
FQS	FLOW INTEGRATING SWITCH	I	INSTRU	F	SQ	##	#	#	#	#	B	#				02-325	
FR	FLOW RECORDER	I	INSTRU	F	R	##	#	#	#	#	B	#				02-205	
FRC	FLOW RECORDING CONTROLLER	I	INSTRU	F	C	##	#	#	#	#	B	#				02-205	
FRCS	FLOW RECORDING CTRL SWITCH	I	INSTRU	F	C	##	#	#	#	#	B	#				02-205	
FRS	FLOW RECORDING SWITCH	I	INSTRU	F	S	##	#	#	#	#	B	#				02-205	
FS	FLOW SWITCH	I	INSTRU	F	S	##	#	#	#	#	B	#				02-325	
FSPV	FLOW CONTRCL VLV-SPV.	E	VALVEX	X	EX	IN		PSIG		DEGF	B	#				02-	
FT	FLOW TRANSMITTER	I	INSTRU	F	T	##	#	#	#	#	B	#				02-230	
FTD	TRANSDUCER, FREQUENCY	I	INSTRU	F	Y	##	#	#	#	#	B	#				02-	
FU	FILTER UNIT	H	FILTER		##			PSID		HICR	C	#		#		02-	
FUB	FUSE BLOCK HOLDER *CL.1E ONLY*	E	CKTBKR	A	##		#	DEGF		AMP						02-	
FUSE	FUSE *CL.1E ONLY*	E	CKTBKR	A	X	##	#	DEGF		AMP						02-	
FX	FLOW TEST POINT	I	INSTRU	F	X	##	#	#	#	#	C	#		#	#	02-080	OT
GEN	GENERATOR	E	GENERA	D	A	RPM		VAC		KW	B	#		#	#	02-285	



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

COMP CODE	COMPONENT IDENTIFICATION	C	NPRD COMP	ABCDEF	G	UNIT	H	UNIT	J	UNIT	L	IE	C/GR	P/S	P/H	SPARE PART NO	SAF CLS
EVT	GRAVITY VENTILATOR	H	BLOWER	DXD ##		SCFM					D					02-024	OT
H	HEATER	E	HEATER	X####							C					02-290	
HAS	HIGH AMPLITUDE SELECTOR	I	INSTPU	UY#							B					02-325	
HC	HEATING COIL	H	HEATER	####							C					02-290	
HCU	HYDRAULIC CONTROL UNIT	H	CROOVE	X####							B					02-065	
HF	HIGH EFFICIENCY FILTER	H	FILTER	A ##		SCFM		PSID		MICR	B					02-040	
HGR	HANGER, SNUBBER, STRUT & SUPPT	H	SUPPORT			KIPS										02-	
HO	HYDRAULIC OPERATOR	H	VALVOP	C ##		LB		FTLB			B					02-304	
HOI	HOIST	H	HECFUN	C# ##		FTLB		RPM		RPM	C					02-106	
HP	HYDRAULIC POWER UNIT	H	HECFUN	DXD ##		FTLB		RPM		RPM	B					02-068	
HR	HYDROGEN RECOMBINER	H	RECOMB	####		BTUH		SCFM		DEGF	B					02-054	
HS	HOSE STATION	H	PIPEXX	X A #		IN		PSIG			D					02-045	OT
HT	HYDRANT	H	VALVEX	FAD		IN					D					02-045	OT
HTP	HOT WATER HEAT EXCHANGER	H	HTEXCH	#####							C					02-055	OT
HU	HUMIDIFIER	H	HTEXCH	E #		KSFT		PSIG		MBH	C					02-024	OT
HV	HEATING AND VENTILATION UNIT	H	HTEXCH	GH #		KSFT				MBH	D					02-024	
HX	HEAT EXCHANGER	H	HTEXCH	0 #		KSFT		PSIG		MBH	C					02-055	
HXM	FREQUENCY METER	E	INSTRU	SINCC		HZ		HZ		HZ						02-	
H2R	HYDROGEN RECORDER	I	INSTRU	ARR #							B					02-205	
I/P	CURRENT/PNEUMATIC CONVERTER	I	INSTRU	IY#DC#							B					02-165	
IL	INDICATOR LIGHT, *CL. 1E ONLY*	I	INSTRU	ZINCK		MV		MV								02-	
IN	INVERTER	E	GENERA	FDA#FD				VAC		KW	B					02-185	
IR	INSTRUMENT RACK	E	MECFUN	XAX #												02-	
ITO	TRANSDUCER, CURRENT	I	INSTRU	IY#							B					02-	
JI	WATTMETER (SEE W FOR B&R USE)	E	INSTRU	IINC#				WATT		WATT						02-295	
JP	JET PUMP	H	PUMPXX	K #		FTHO		GPM			B					02-026	
LA	LIGHTNING ARRESTOR										B					02-	
LAG	ELECTRONIC TIME DELAY	I	INSTRU	UY#							B					02-325	
LAS	LOW AMPLITUDE SELECTOR	I	INSTRU	UY#							B					02-325	
LC	LEVEL CONTROLLER	I	INSTRU	LC#							B					02-155	
LCV	LEVEL CONTROL VALVE	H	VALVEX	F X		IN		PSIG		DEGF	C					02-133	
LE	LEVEL ELEMENT	I	INSTRU	LEN #							B					02-170	
LG	LEVEL GLASS	I	INSTRU	LINC#							B					02-175	OT
LI	LEVEL INDICATOR	I	INSTRU	LIN #							B					02-175	
LIC	LEVEL INDICATING CONTROLLER	I	INSTRU	LCI #							B					02-155	
LIS	LEVEL INDICATING SWITCH	I	INSTRU	LSI #							B					02-325	
LITS	LEVEL INDIC TRANS SWITCH	I	INSTRU	LTS #							B					02-230	
L4S	LIMIT SWITCH	E	INSTRU	ZSN #							B					02-325	
LMS	LOCAL MANUAL SWITCH	E	INSTRU	ZSN #							B					02-325	
LHTR	VOLTAGE/CURRENT SIGNAL LIMIT	I	INSTRU	VC FE							B					02-155	
LOC	LUBE OIL CONDITIONER	H	FILTER	C ##		GPH		PSID		MICR	B					02-075	OT
LP	LIGHTING PANEL	E	CKTBKR	X DAB #		20E VAC		DEGF		AMP	B					02-305	
LPW	ELECTRONIC POWER SUPPLY (E/S)	I	INSTRU	XP XX#							B					02-195	
LR	LEVEL RECORDER										B					02-205	
LRS	LEVEL RECORDING SWITCH	I	INSTR	LRS #							B					02-205	
LS	LEVEL SWITCH	I	INSYPU	LS#							B					02-325	
LSPV	LEVEL CONTROL VLV-SPV	E	VALVEX	XEX		IN		PSIG		DEGF	B					02-	
LT	LEVEL TRANSMITTER	I	INSTRU	LTH #							B					02-250	
LTO	TRANSDUCER LEVEL	I	INSTRU	LTE #							B					02-	
L4S	LOW VOLUME SELECTOR	I	INSTRU	UY#							B					02-325	
LX	LEVEL TEST POINT	I	INSTRU	LE#BX#												02-080	OT
M	MOTOR	E	MOTORX	## #						RPM	C					02-300	
N/A	MANUAL OR AUTO STATION	I	INSTRU	UC#							B					02-155	

A.17



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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

A.18

COMP CODE	COMPONENT IDENTIFICATION	C	MPRD	ABCDEF	G	UNIT	H	UNIT	J	UNIT	C	IE	C/	P	P	SPARE	SAF	
		R	COMP								L	EE	GR	S	M	PART	NO	CLS
MC	MOISTURE CONTROLLER			X							B						02-155	
MC	MOTOR CONTROL CENTER			X							B						02-305	
ME	MOISTURE ELEMENT	I	INSTRU	HE	N	N	N	N	N	N	B						02-170	
MI	MOISTURE INDICATOR	I	INSTRU	HI	N	N	N	N	N	N	B						02-175	
MIC	MOISTURE INDIC CONTROLLER	I	INSTRU	HCI	N	N	N	N	N	N	B						02-155	
MIS	MOISTURE INDICATING SWITCH	I	INSTRU	HSI	N	N	N	N	N	N	B						02-325	
MO	MOTOR OPERATOR	E	VALVOP		N		LB	FTLB			C						02-302	
MR	MOISTURE RECORDER	I	INSTRU	HR	N						B						02-205	
MS	MOISTURE SEPARATOR	M	HTEKCH				KSFT	PSIG		MBH	C						02-055	
MT	MOISTURE TRANSMITTER	I	INSTRU	HT	N						B						02-230	
MV/I	M/VOLT TO CURRENT CONVERTER	I	INSTRU	EY	DD						B						02-165	
MV/P	MILLIVOLT TO PNEUMATIC CONVE	I	INSTRU	EY	N						B						02-165	
MX	MIXER	M	HECFUN		N		FTLB	RPM		RPM	C						02-121	OT
MZ	MULTIZONE AIR CONDITIONER	M	HTEKCH	GH	N		KSFT			MBH	C						02-015	
N	NOZZLE	M	PIPEXX	E	N		IN	PSIG			C						02-080	OT
NR	NEUTRAL GROUNDING RESISTOR	E	ELECON	X			VAC				B						02-345	
OSC	OSCILLOGRAPH	E	INSTRU	ER	N						B						02-315	
O2R	OXYGEN RECORDER	I	INSTRU	AR	N						B						02-205	
P	PUMP	M	PUMPXX		N		FTHO	6PH		RPM	C						02-090	
PBU	SEISMIC PLAYBACK UNIT	I	INSTRU								B						02-205	
FC	PRESSURE CONTROLLER	I	INSTRU	PC	N						B						02-155	
PCV	PRESSURE CONTROL VALVE	M	VALVEX	H			IN	PSIG		DEGF	C						02-133	
PH	FH ANALYZER	I	INSTRU	AC	N						B						02-150	
FHE	FH ELEMENT	I	INSTRU	PE	N						B						02-170	
PHIC	FH INDICATING CONTROLLER	I	INSTRU	ACI	N						B						02-155	
PHIT	FH INDICATING TRANSMITTER	I	INSTRU	ATI	N						B						02-230	
PHRC	FH RECORDING CONTROLLER	I	INSTRU	ACR	N						B						02-205	
PHT	FH TRANSMITTER	I	INSTRU	AT	N						B						02-230	
PI	PRESSURE INDICATOR	I	INSTRU	PI	N						B						02-175	
PIC	PRESSURE INDICATING CONTROLLER	I	INSTRU	PCI	N						B						02-155	
PIS	PRESSURE INDICATING SWITCH	I	INSTRU	PSI	N						B						02-325	
POE	POSITION INDICATION ELEMENT	I	INSTRU	E							B						02-175	
POI	POSITION INDICATOR	I	INSTRU	ZI	N						B						02-175	
POS	POSITION SWITCH	I	INSTRU	ZS	N						B						02-325	
POT	POSITION TRANSMITTER	I	INSTRU	ZT	N						B						02-230	
POTR	POSITION TRANSMITTER, CL. 1E ONLY	E	ELECON	XXXX							B						02-	
PP	PUMP PACKAGE										B						02-090	
PP	POWER PANEL										B						02-305	
PR	PRESSURE RECORDER	I	INSTRU	PR	N						B						02-205	
PROG	PROGRAMMER	I	INSTRU	UYC							B						02-	
PRV	PRESSURE REDUCING VALVE	M	VALVEX	FH			IN	PSIG		DEGF	C						02-133	
PS	PRESSURE SWITCH	I	INSTRU	PS	N						B						02-325	
PSV	SOLENOID PILOT VALVE	E	VALVEX	XEX			IN	PSIG		DEGF	B						02-134	
PT	POTENTIAL TRANSFORMER										B						02-345	
PT	PRESSURE TRANSMITTER										B						02-230	
PTD	PRESSURE TRANSDUCER	I	INSTRU								B						02-165	
PUI	PURITY INDICATOR	I	INSTRU	XI	N						B						02-175	
PUIT	PURITY INDIC TRANSMITTER	I	INSTRU	XTI	N						B						02-230	
PUS	PURITY SWITCH	I	INSTRU	XSI	N						B						02-325	
PV	PILOT VALVE	M	VALVEX	X			IN	PSIG		DEGF	C						02-130	
PWC	CEW POINT TRANSMITTER	I	INSTRU	HT	N						B						02-230	
PWS	PIPE WHIP RESTRAINT	M	SUPPORT	I	N		KIPS				D						02-080	
PX	PRESSURE TEST POINT	I	INSTRU	PX	N						C						02-080	OT



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

A.19

COMP CODE	COMPONENT IDENTIFICATION	C	NPRD	ABCDEF	G	UNIT	H	UNIT	J	UNIT	L	IE	C/	P	P	SPARE	SAF		
		R	COMP									EE	GR	S	H	PART	NO	CLS	
QDC	QUICK DISCONNECT COUPLING	H	PIPEXX	X	#	IN		PSIG	#		D	#						02-	OT
QHM	QUICK RUN TIME METER	E	INSTRU	XINCC							HR							02-	
QSV	QUICK ACTING SOLENOID PILOT	E	VALVEX	XEX		IN		PSIG			DEGF	B						02-134	
R/I	RESISTANCE/CURRENT CONVER	I	INSTRU	YYN	#						B							02-165	
RAM	RADIATION AMPLIFIER	I	INSTRU	RP#	#						B							02-016	
RC	REMOTE CAPPER																	02-395	
RC	RADIATION CONTROLLER																	02-155	
RC	RECOMBINER																	02-054	
RD	RUPTURE DISC	H	PIPEXX	#	#	IN		PSIG	#		C	#						02-085	
RE	RADIATION ELEMENT	I	INSTRU	REN	#						B							02-170	
REL	FLOW BALANCING RELAY	I	INSTRU	UY#	#						B							02-355	
RES	RESISTOR, 1/4W, 1% ONLY	E	ELECON	XXXXXX														02-	R
RF	REFRIGERATION MACHINE	H	HTEXCH	C	#	KSFT		PSIG			MBH	C	#					02-015	
RI	RADIATION INDICATOR	I	INSTRU	RI#	#						B	#						02-175	
RIS	RADIATION INDICATING SWITCH	I	INSTRU	R	#						B	#						02-325	
RLY	RELAY	E	RELAYX	#	#						B	#						02-355	
RMC	REMOTE MANUAL CONTROLLER	I	INSTRU	MCSEX	#						B	#						02-155	
RMS	REMOTE MANUAL CONTROL SWITCH	E	CKTBRK	ECDAAA							DEGF	AMP	B					02-325	OT
RO	RESTRICTING ORIFICE	H	PIPEXX	D	#	IN		PSIG	#		C	#						02-080	
ROD	ROD	H	CONROD	EFBB#	#						B	#						02-026	
RPV	REACTOR PRESSURE VESSEL	H	VESSEL	A###	#			PSIG			DEGF	B	#					02-026	
RR	RADIATION RECORDER	I	INSTRU	RR#	#						B	#						02-209	
RS	RADIATION SWITCH	I	INSTRU	RS#	#						B	#						02-325	
RSA	RESPONSE SPECTRUM ANNUNCIATOR	I	INSTRU	UX#	#						B	#						02-251	
RSH	RADIATION SAMPLER	I	INSTRU	RENXX	#						B	#						02-	OT
RSR	TRIAXIAL RESPONSE SPECTRUM R	I	INSTRU	VR#	#													02-205	
RSRT	RSR TRANSDUCER FOR RSA	I	INSTRU															02-205	
RST	RESIN TRAP	H	FILTER		#	GPM		PSIO			MICR	C	#					02-100	
RT	RADIATION TRANSMITTER	I	INSTRU	RT#	#						B	#						02-230	
RV	RELIEF VALVE	H	VALVEX	F B	#	IN		PSIG			DEGF	C	#					02-085	
RVT	ROOF VENTILATOR	H	BLOWER	D	#	SCFM		PSIG			HP	D	#					02-024	OT
S	ELECTRONIC TRIP UNIT			X	#													02-187	
S	SILENCER			X	#													02-030	
SC	SPEED CONTROLLER	I	INSTRU	SC#	#						B	#						02-155	
SCR	SCREEN	H	FILTER	A	#			PSIO			MICR	D	#					02-100	OT
SE	SPEED ELEMENT	I	INSTRU	SEX	#						B	#						02-170	
SEW	SAFETY EYE WASH	H		#####	#													02-	OT
SH	6.9 KV SWITCH GEAR	E	CKTBRK	FACAFE	6900	VAC	#		2000		AMP	B						02-330	
SI	SPEED INDICATOR	I	INSTRU	XT	#						B	#						02-175	
SIOA	SILICON AND OXYGEN ANALYZER	I	INSTRU	AEN	#						B	#						02-150	
SL	490VOLT SWITCH GEAR	E	CKTBRK	FACACD	480	VAC	#				AMP	B						02-330	
SH	4.16KV SWITCH GEAR	E	CKTBRK	FACASE	4160	VAC	#				AMP	B						02-330	
SMA	TRIAXIAL ACCELERATION SENSOR	I	INSTRU	VEI#	#													02-170	
SMD	SMOKE DETECTOR	I	INSTRU	XSE	#						B	#						02-045	
SMX	STATIC MIXER	H	PIPEXX	X	#	IN		PSIG	#		C	#						02-080	OT
SNB	SNUBBER	H	SUPPORT	D	#	KIPS					C	#						02-080	
SP	SAMPLE POINT	H	PIPEXX	X	#	IN		PSIG	#		C	#						02-210	OT
SPV	SOLENOID PILOT VALVE	E	VALVEX	XEX	#	IN		PSIG			DEGF	B						02-134	
SQRT	SQUARE ROOT EXTRACTOR	I	INSTRU	UY#	#						B	#						02-165	
SR	SAMPLE RACK	E		#####	#						B	#						02-	
SS	SELECTOR SWITCH	H	CKTBRK	FABA	#			DEGF			AMP							02-325	
SS	SPEED SWITCH	H	CKTBRK	FAB#	#			DEGF			AMP							02-	
ST	STRAINER	I	INSTRU	VEI#	#													02-100	



WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

COMP CODE	COMPONENT IDENTIFICATION	C	R	NPRD	ABCDEF	G	UNIT	H	UNIT	J	UNIT	C	IE	C/	P	SPARE	SAF
				COMP								L	EE	GR	S	PART NO	CLS
ST	SEISMIC TRIGGER	I		INSTRU	VEI AH											02-325	
SUH	STEAM UNIT HEATER	H		HTEKCH	AH #		KSFT		PSIG		MBH	C	#			02-024	OT
SUM	SUMMER	I		INSTRU	UQH #							B				02-215	
SUMP	SUMP	H		ACCUMU	BX-NN			PSIG	DEGF			D	#			02-120	OT
SV	SOLENOID OPERATED VALVE	E		VALVEX	XE			IN	PSIG			B				02-	
T	TRAP	H		VALVEX	XFP			IN	PSIG			DEGF	C			02-110	
T/SS	(TEMP) SELECTOR SWITCH	E		CKTBKR	E DA A				DEGF			AMP	B			02-325	
TA	TRIP AUXILIARY UNIT	I		INSTRU												02-177	
TAFE	MAGNETIC TAPE UNIT	I		INSTRU	HRNGX #	#	ZZZ	#	ZZZ	#	ZZZ					02-035	
TBE	TURBIDITY ELEMENT	I		INSTRU	XEH #	#						B	#			02-170	
TBIT	TURBIDITY INDICATING TRANS	I		INSTRU	KTI #	#						B	#			02-	
TBR	TURBIDITY RECORDER	I		INSTRU	KRN #	#						B	#			02-205	
TBS	TURBIDITY SWITCH	I		INSTRU	XSN #	#						B	#			02-325	
TBT	TURBIDITY TRANSMITTER	I		INSTRU	XTN #	#						B	#			02-230	
TC	TEMPERATURE CONTROLLER	I		INSTRU	CH #	#						B	#			02-155	
TCV	TEMPERATURE CONTROL VALVE	H		VALVEX				IN	PSIG			DEGF	C			02-133	
TD	TIME DELAY RELAY															02-355	
TD	TRANSFER DOLLY															02-395	
TDS	TIME DELAY SWITCH	I		INSTRU	XSX #	#						B	#			02-325	
TE	TEMPERATURE ELEMENT	I		INSTRU	TEM #	#						B	#			02-170	
TI	TEMPERATURE INDICATOR	I		INSTRU	TI# #	#						B	#			02-175	
TIC	TEMP INDICATING CONTROLLER	I		INSTRU	TCI #	#						B	#			02-155	
TIS	TEMP INDICATING SWITCH	I		INSTRU	SI #	#						B	#			02-325	
TK	TANK	H		ACCUMU				PSIG	DEGF			C	#			02-120	
TH	TIMER	I		INSTRU	XSC #	#						B	#			02-225	
TQ	TIME TOTALIZER	I		INSTRU	XQN #	#						B	#			02-130	
TQR	TORQUE RECORDER	I		INSTRU	XRQ #	#						B	#			02-205	
TQS	TORQUE SWITCH	I		INSTRU	XSQ #	#						B	#			02-325	
TQT	TORQUE TRANSMITTER	I		INSTRU	XTQ #	#						B	#			02-230	
TR	TRANSFORMER															02-345	
TR	TEMPERATURE RECORDER															02-205	
TR	TRIAXIAL RECORDER															02-205	
TRB	TERMINAL BLOCK/STRIP*CL.1E*	E		ELECON	AAXXXX											02-	
TRL	TRANSLATOR	I		INSTRU	EYEE #	#	ZZZ	00001	VDC	00001	VDC					02-035	
TRS	TEMPERATURE RECORDING SWITCH	I		INSTRU	TSR #	#						B	#			02-205	
TS	TEMPERATURE SWITCH	I		INSTRU	SN #	#						B	#			02-325	
TSC	TEMPERATURE SCANNER	I		INSTRU	TT##							B	#			02-150	
TT	TEMPERATURE TRANSMITTER	I		INSTRU	TT #	#						B	#			02-230	
TV	TEST VALVE	I		VALVEX	F			IN	PSIG			DEGF	C	#		02-130	
TX	THERMOWELL	I		PIPEXX	F A			IN	PSIG			C	#			02-	OT
TY	RELAY,PNEUMATIC CONTROL	I		INSTRU	PC#AA #	#										02-	
UFM	UNIPLEX FIELD MODULE	I		INSTRU	UYYCK #	#										02-	
V	VALVE	H		VALVEX				IN	PSIG			DEGF	C	#		02-130	
V	USE EI FOR MEL(D&R USE ONLY)	H		VALVEX				IN	PSIG			DEGF	C	#		02-130	
VARM	VAR METER	E		INSTRU	EI#CB#											02-295	
VATD	TRANSOLCER,VAR	E		INSTRU	YN							B	#			02-	
VB	VACUUM BREAKER	H		VALVEX				IN	PSIG			C	#			02-085	
VBAM	VIBRATION AMPLIFIER	I		INSTRU	VP# #	#						B	#			02-	
VBE	VIBRATION ELEMENT	I		INSTRU	VE# #	#						B	#			02-170	
VBEC	VIBRATION/ECCENTRICITY INOIC	I		INSTRU	VEN #	#						B	#			02-325	
VBIS	VIBRATION INDICATING SWITCH	I		INSTRU	VSI #	#						B	#			02-325	
VBS	VIBRATION SWITCH	I		INSTRU	VSN #	#						B	#			02-325	
VD	VIEWING DEVICE	H		PIPEXX	A #	#		IN	PSIG			C	#			02-395	OT

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 MASTER EQUIPMENT LIST
 COMPONENT TABLE

COMP CODE	COMPONENT IDENTIFICATION	C	NPRD	ABCDEF	G	UNIT	H	UNIT	J	UNIT	C	IE	C/	P	P	SPARE	SAF
		R	COMP								L	EE	GR	S	M	PART NO	CLS
VX	INSTRUMENT ISOLATION VALVE	M	VALVEX	FAD	B	IN		PSIG		DEGF	C	#		#	#	02-	
VZ	VAPORIZER	M	HTEXCH	E	#	KSFT		PSIG		MBH	C	#		#	#	02-055	
U	USE JI FOR MEL(B&R USE ONLY)															02-	
WDR	WIND DIRECTION RECORDER	I	INSTRU	ZR#GA	00005	VDC	#	ZZZ	00005	VDC						02-035	
WDT	WIND DIRECTION TRANSMITTER	I	INSTRU	ZETE#	00540	DEG	00001	VDC	00001	VDC						02-035	
WHM	WATT-HOUR METER	E	INSTRU	IQIC#												02-295	
WSR	WIND SPEED RECORDER	I	INSTRU	SR#GA	00005	VDC	#	ZZZ	00005	VDC						02-035	
WST	WIND SPEED TRANSMITTER	I	INSTRU	SETAI	00090	MPH	00001	VCC	00001	VDC						02-035	
WTD	WATT TRANSDUCER	E	INSTRU	Y#							B					02-	
WUH	WATER UNIT HEATER	M	HTEXCH	A	#	KSFT		PSIG		MBH	C	#		#	#	02-055	
X	PRIMARY CONTAINMENT PENETRAT	M	PENETR	###												02-115	
XE	ELEMENT, SPECIAL TYPES	I	INSTRU	E												02-170	
XR	RECORDER, SPECIAL TYPES	I	INSTRU													02-	
XT	TRANSMITTER, SPECIAL TYPES	I	INSTRU													02-230	
33C	VLV TRVL POS SW CLOSED	E	INSTRU	ZS#	#	#	#	#	#	#	B	#	#	#	#	02-	
33IC	VLV TRVL POS SW INTER CLOSED	E	INSTRU	ZS#	#	#	#	#	#	#	B	#	#	#	#	02-	
33IO	VLV TRVL POS SW INTER OPEN	E	INSTRU	ZS#	#	#	#	#	#	#	B	#	#	#	#	02-	
33O	VLV TRVL POS SW OFEN	E	INSTRU	ZS#	#	#	#	#	#	#	B	#	#	#	#	02-	
33TC	VLV TRVL POS SW TORQ CLOSED	E	INSTRU	QS#	#	#	#	#	#	#	B	#	#	#	#	02-	
33TO	VLV TRVL POS SW TORQ OPEN	E	INSTRU	QS#	#	#	#	#	#	#	B	#	#	#	#	02-	
42	ELECTRICAL MOTOR START COIL	E	CKTBRK	D				DEGF		AMP	B	#				02-	

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CONTRACT	LEVEL	DESCRIPTION EC USE SAFETY FUNCTION	MODEL A/E DRAWING	STATUS S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
						TEST	ANL	ED	AGEING	DBE	C	HOURS
				BLOG ELEV DETAIL	ZONE	ROOM	ACCURACY					
				A/E DRAWING	A/E ZONE			COMPOSITE EPN				
CAC-TE-4A		T165 80500		A A	339006	F	Y	21	00	09	4320	
TEMP ELEMENT DISCH FROM CAC-MS-1B				R	578	M.5/6.6	R73	R604	CAC-HR-1A+			
71	2	A 1 0 D	M554	E14								
CAC-TE-4B		T165 80500		A A	339006	F	Y	21	00	09	4320	
TEMP ELEMENT DISCH FROM CAC-MS-1B				R	578	M.5/7.4	R73	R604	CAC-HR-4B+			
71	2	A 1 0 D	M554	E4								
CAC-TE-5A		T165 80500		A A	339006	F	Y	21	00	09	4320	
PREHEATER 1A HI TEMP SHUTDOWN				R	577	M.5/6.6	R73	R604	CAC-HR-1A+			
71	2	A 1 0 D	M544	D13								
CAC-TE-5B		T165 ML-61385		A A	339006	F	Y	21	00	09	4320	
PREHEATER 1B HI TEMP SHUTDOWN				R	577	M.5/7.4	R73	R604	CAC-HR-1B+			
71	2	A 1 0 D	M554	D2								
CAC-TE-6A		T165 80500		A A	339006	F	Y	21	00	09	4320	
MOISTURE SEPTR 1A HI TEMP SHUTDOWN				R	578	M.5/6.6	R73	R604	CAC-HR-1A+			
71	2	A 1 0 D	M554	E13								
CAC-TE-6B		T165 80500		A A	339006	F	Y	21	00	09	4320	
MOISTURE SEPTR 1B HI TEMP SHUTDOWN				R	578	M.5/7.4	R73	R604	CAC-HR-1B+			
71	2	A 1 0 D	M554	E13								
CAC-TIC-4A		B045 50-701003AAAA1		A A	341001	F	Y	21	00	09	4320	
TEMP CNTL DISCH CAC-MS-1A				R	575	M.5/5.7	R73	R604	E-CP-CAC/HR1A+			
71	3	A 1 0 D	M554	E13								
CAC-TIC-4B		B015 50-701003AAAA1		A A	341001	F	Y	21	00	09	4320	
TEMP CNTL DISCH CAC-MS-1B				R	572	M.5/8.0	R73	R604	E-CP-CAC/HR1B+			
71	3	A 1 0 D	M554	E4								
CAC-TS-1A		H422 RBA/3W-100/D-X1-X4		A A	355007	F	Y	21	00	09	4320	
TEMP SWITCH DISCH CAC-FN-1A				R	575	M.2/5.7	R73	R604	E-CP-CAC/HR1A+			
71	3	A 1 0 D	M554	E13								
CAC-TS-1B		H422 RBA/3W-100/D-X1-X4		A A	355007	F	Y	21	00	09	4320	
TEMP SWITCH DISCH CAC-FN-1B				R	575	M.5/8.0	R73	R604	E-CP-CAC/HR1B+			
71	3	A 1 0 D	M554	E3								
CAC-TS-2A		H422 RBA/3W-400/D-X1-X4		A A	355007	F	Y	21	00	09	4320	
0-1500F ON CAC-EHC-1A				R	575	M.3/5.8	R73	R604	E-CP-CAC/HR1A+			
71	3	A 1 0 D	M554	E13								
CAC-TS-2B		H422 RBA/3W-400/D-X1-X4		A A	355007	F	Y	21	00	09	4320	
0-1500F ON CAC-EHC-1B				R	575	M.5/8.0	R73	R604	E-CP-CAC/HR1B+			
71	3	A 1 0 D	M554	E2								
CAC-TS-3A		H422 RBA/3W-400/D-X1-X4		A A	355007	F	Y	21	00	09	4320	
0-1200F ON CAC-EHC-1A				R	575	M.3/5.8	R73	R604	E-CP-CAC/HR1A+			
71	3	A 1 0 D	M554	E13								



CONTRACT	LEVEL	ECPN	MFG	DESCRIPTION	MODEL	STATUS	S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TM	HL	TEST	ANL	FD	C
		EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY			
CAC-TS-3B			M422	RBA/3W-400/D-X1-X4		A A	355007	F	Y	21	00		09	4320
0-1200F ON CAC-EHC-1B							R 575 M.5/8.0		R73	R604				E-CP-CAC/HR1B+
71	3	A	1	0	D		M554		E2					
CAC-TS-5A			M422	RBA/3W-400/D-X1-X4		A A	355007	F	Y	21	00		09	4320
0-1500F DISCH CAC-EHC-1A							R 575 M.3/5.8		R73	R604				E-CP-CAC/HR1A+
71	3	A	1	0	D		M554		E13					
CAC-TS-5B			M422	RBA/3W-400/D-X1-X4		A A	355007	F	Y	21	00		09	4320
E-CP-CAC/HR1B+							R 575 M.5/8.0		R73	R604				E-CP-CAC/HR1B+
71	3	A	1	0	D		M554		D2					
CAC-TS-6A			M422	RBA/3W-100/D-X1-X4		A A	355007	F	Y	21	00		09	4320
0-340F DISCH CAC-HS-1A							R 575 M.3/5.8		R73	R604				E-CP-CAC/HR1A+
71	3	A	1	0	D		M554		E13					
CAC-TS-6B			M422	RBA/3J-100/D-X1-X4		A A	355007	F	Y	21	00		09	4320
0-340F DISCH CAC-HS-1B							R 575 M.5/8.0		R73	R604				E-CP-CAC/HR1B+
71	3	A	1	0	D		M554		E4					
CAC-TT-4A			B045	TYPE 740		A D	357001	F	Y	21	00		09	4320
TEMP TRANS DISCH CAC-HS-1A							R 575 M.0/5.8		R73	R604				CAC-HR-1A+
71	3	A	1	0	D		M554		E13					
CAC-TT-4B			B045	B045 TYPE 740		D	357001	F						4320
TEMP TRANS DISCH CAC-HS-1B							R 575 M.5/8.0		R73					CAC-HR-1B+
71	3	A	1	0	D		M554		E4					
CAS-V-453			M095	MV250-4										4320
1" SO GLOBE ROOT CTRL WW VAC BRKRS							R 479 M.3/7.5							CAS-V-453+
215	2	A	2	0	B1		M510		K8					
CEP-LMS-1A			N007	EA74080100		A B	200015							4320
LMS FOR CEP-V-1A							R 563 J.1/5.4							CEP-V-1A+
68	2	A	2	3	B1,F		#		J13					
CEP-LMS-1B			N007	1703100		A B	200009							4320
LMS FOR CEP-V-1B							R 563 J.1/5.3							CEP-V-1B+
68	2	A	2	3	B1,F		#		J13					
CEP-LMS-2A			N007	EA74080100		A B	200015							4320
LMS FOR CEP-V-2A							R 558 J.1/5.4							CEP-V-2A+
68	2	A	2	3	B1,F		M543		J13					
CEP-LMS-2B			N007	1703100		A B	200009							4320
LMS FOR CEP-V-2B							R 559 J.4/5.3							CEP-V-2B+
68	2	A	2	3	B1,F		M543		J13					
CEP-LMS-3A			N007	74080100		A A	200015							4320
LMS FOR CEP-V-3A							R 491 H.4/5.4							CEP-V-3A+
68	2	A	2	3	B1,F		M543		C14					







CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
							S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ
			EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CIA-RLY-21A				S440	219XBP				M	283041						4320
				CONTROL RELAY CLOSES ON LO PRESS				R	548	N.8/5.7					E-IR-67+	
218	3	A	1	0	E		E519/18		F6							
CIA-RLY-21B				S440	219XBP				M	283041						4320
				CONTROL RELAY CLOSES ON LO PRESS				R	550	N.7/8.2					E-IR-68+	
218	3	A	1	0	C/E		E519/18		F6							
CIA-SPV-10A				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/4.3		R23	R105			
215	2	A	1	0	C		M556		G8							
CIA-SPV-10B				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH.				R	440	N.1/7.0		R23	R105			
215	2	A	1	0	C		M556		F8							
CIA-SPV-11A				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/4.3		R23	R105			
215	2	A	1	0	C		M556		G8							
CIA-SPV-11B				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/7.0		R23	R105			
215	2	A	1	0	C		M556		F8							
CIA-SPV-12A				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/4.3		R23	R105			
215	2	A	1	0	C		M556		G8							
CIA-SPV-12B				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/7.0		R23	R105			
215	2	A	1	0	C		M556		F8							
CIA-SPV-13A				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/4.3		R23	R105			
215	2	A	1	0	C		M556		G8							
CIA-SPV-13B				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/7.0		R23	R105			
215	2	A	1	0	C		M556		F8							
CIA-SPV-14A				M090	HV229HQ-S2				T	T	315023					4320
				0.5" SOL PILOT ON N2 BOTTLE DISCH				R	440	N.1/4.3		R23	R105			
215	2	A	1	0	C		M556		G8							
CIA-SPV-14B				M090	HV229HQ-S2				T	T	315023					4320
				.5" SOL PILOT VLV ON N2 BTTL DISCH				R	440	N.1/7.0		R23	R105			
215	2	A	1	0	C		M556		F8							
CIA-SPV-15A				M090	HV229HQ-S2				T	T	315023					4320
				.5" SOL PILOT VLL ON N2 BTTL DISCH				R	440	N.1/4.3		R23	R105			
215	2	A	1	0	C		M556		G8							



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
		EC USE SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY						
CIA-SPV-15B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-16B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/4.3		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-17B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-18B	M090	HV229HQ-S2			T T	315023			4320					
		0.5" SOL PILOT ON N2 BOTTLE DISCH.	R	440 N.1/4.3		R23	R105							
215	2	A 1 0 B1	M556		F8									
CIA-SPV-19B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-1A	M090	HV229HQ-S2			T T	315023			4320					
		0.5" SOL PILOT ON N2 BOTTLE DISCH	R	440 N.0/4.3		R23	R105							
215	2	A 1 0 C	M556		G8									
CIA-SPV-1B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-2A	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/4.3		R23	R105							
215	2	A 1 0 C	M556		G8									
CIA-SPV-2B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-3A	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/4.3		R23	R105							
215	2	A 1 0 C	M556		G8									
CIA-SPV-3B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									
CIA-SPV-4A	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/4.3		R23	R105							
215	2	A 1 0 C	M556		G8									
CIA-SPV-4B	M090	HV229HQ-S2			T T	315023			4320					
		.5" SOL PILOT VLV ON N2 BTTL DISCH	R	440 N.1/7.0		R23	R105							
215	2	A 1 0 C	M556		F8									



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
				S	E	QID	TH	HL	TEST ANL	FO C	FREQ	AGING
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE							
CIA-SPV-5A		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/4.3		R23	R105				
215	2	A	1 0 C	M556	G8							
CIA-SPV-5B		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/7.0		R23	R105				
215	2	A	1 0 C	M556	F8							
CIA-SPV-6A		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/4.3		R23	R105				
215	2	A	1 0 C	M556	G8							
CIA-SPV-6B		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/7.0		R23	R105				
215	2	A	1 0 C	M556	F8							
CIA-SPV-7A		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/4.3		R23	R105				
215	2	A	1 0 C	M556	G8							
CIA-SPV-7B		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/7.0		R23	R105				
215	2	A	1 0 C	M556	F8							
CIA-SPV-8A		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/4.3		R23	R105				
215	2	A	1 0 C	M556	G8							
CIA-SPV-8B		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/7.0		R23	R105				
215	2	A	1 0 C	M556	F8							
CIA-SPV-9A		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/4.3		R23	R105				
215	2	A	1 0 C	M556	G8							
CIA-SPV-9B		M090	MV229HQ-S2		T T	315023						4320
.5" SOL PILOT VLV ON N2 BTTL DISCH				R 440	N.1/7.0		R23	R105				
215	2	A	1 0 C	M556	F8							
CIA-TDS-1A												4320
3 SEC DELAY FOR CIA-PROGR-1A				R 550	H.8/5.8					E-IR-67+		
3	A	1 0	C,E	E519/1B	D6							
CIA-TDS-1B												4320
3 SEC DELAY FOR CIA-PROGR-1B				R 548	H.7/8.2					E-IR-68+		
3	A	1 0	C,E	E519/1B	D6							
CIA-V-39A		M090	MV229HS-S2		T T	36100R						4320
.5" SOL. AIR TIE TO N2 HDR				R 540	K.0/4.3		R52			CIA-V-39A+		
215	2	A	1 0 B1	M556	H7							



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
				S E QID	TM HL TEST ANL FO. C	FREQ	AGING DBE C	HOURS	
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN	
		EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE					
CIA-SPV-5A	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/4.3		R23	R105			
215	2	A 1 0 C	M556	GB					
CIA-SPV-5B	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/7.0		R23	R105			
215	2	A 1 0 C	M556	F8					
CIA-SPV-6A	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/4.3		R23	R105			
215	2	A 1 0 C	M556	GB					
CIA-SPV-6B	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/7.0		R23	R105			
215	2	A 1 0 C	M556	F8					
CIA-SPV-7A	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/4.3		R23	R105			
215	2	A 1 0 C	M556	GB					
CIA-SPV-7B	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/7.0		R23	R105			
215	2	A 1 0 C	M556	F8					
CIA-SPV-8A	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/4.3		R23	R105			
215	2	A 1 0 C	M556	GB					
CIA-SPV-8B	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/7.0		R23	R105			
215	2	A 1 0 C	M556	F8					
CIA-SPV-9A	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/4.3		R23	R105			
215	2	A 1 0 C	M556	GB					
CIA-SPV-9B	M090	HV229HQ-S2	T T	315023				4320	
.5" SOL PILOT VLV ON N2 BTTL DISCH			R 440 N.1/7.0		R23	R105			
215	2	A 1 0 C	M556	F8					
CIA-TDS-1A								4320	
3 SEC DELAY FOR CIA-PROGR-1A			R 550 H.8/5.8				E-IR-67+		
3	A	1 0 C,E	E519/1B	D6					
CIA-TDS-1B								4320	
3 SEC DELAY FOR CIA-PROGR-1B			R 548 H.7/8.2				E-IR-68+		
3	A	1 0 C,E	E519/1B	D6					
CIA-V-39A	M090	HV229MS-S2	T T	361008				4320	
.5" SOL. AIR TIE TO N2 HDR			R 540 K.0/4.3		R52		CIA-V-39A+		
215	2	A 1 0 B1	M556	H7					



EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*		
				S F	QID	TM	HL	TEST ANL	EQ C	FREQ
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE					
CIA-V-39B		M090	MV229HS-S2		T T	361008				4320
.5" SOL. AIR TIE TO N2 HDR				R 540	M.8/7.7	R13				CIA-V-39B+
215	2	A	1 0	81	M556	F7				
CHS-AY-1		B135	7C(H2)AND 755(02)		P A	025002				4320
H202 ANALYZER			SR-13	R 548	M6/4.5	R63				S-SR-13+
92B	2	A	1 3	I	M543	E6				
CHS-AY-2		B135	7C(H2)AND 755(02)		P A	025002				4320
H202 ANALYZER				R 548	M6/4.5					S-SR-14+
92B	2	A	1 3	I	M543	H14				
CHS-LT-1		R369	1151		B D	209007	N 14 00	50		24
SUPPRES. CHAMB. WTR. LEVEL MONIT. IR-				R 465	J.5/4.3	R32	R206			
59	2	A	1 3	I	M543	B14				
CHS-LT-2		R369	10P4D22T003PB		B B	209007	N 14 00	50		24
SUPPRES CHAMBER WTR LEVEL MONIT IR				R 464	M.2/7.7	R33	R214			
59	2	A	1 3	I	M543	B6				
CHS-HE-1		P047	600-09A		P D	217002				24
HE FOR DRYWELL				C 536	190 D AZ		C45			
220	2	A	1 3	I	M543	E13				
CHS-HE-2		P047	600-09A		P D	217002				24
HE FOR DRYWELL				R 536	195 D AZ		R46			
220	2	A	1 3	I	M543	F7				
CHS-HE-3		P047	600-09A		P D	217002				24
HE FOR DRYWELL				C 536	195 D AZ		C44			
220	2	A	1 3	I	M543	E7				
CHS-HE-4		P047	600-09A		P D	217002				24
HE FOR DRYWELL				R 536	190 D AZ		R54			
220	2	A	1 3	I	M543	E13				
CHS-HE-5		P047	600-09A		P D	217002				24
HE FOR DRYWELL				R 536	45 D AZ		R56			
220	2	A	1 3	I	M543	E7				
CHS-HT-1		P047	M26E		D	224001				24
HT FOR DRYWELL				C 536			C45			
220	3	A	1 3	I	M543	E13				
CHS-HT-2		P047	M26E		D	224001				24
HT FOR DRYWELL				R 536			R46			
220	3	A	1 3	I	M543	F7				
CHS-HT-3		P047	M26E		D	224001				24
HT FOR DRYWELL				R 536						
220	3	A	1 3	I	M543	E7				



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DRE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E DRAWING	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CMS-HT-4	P047	M26E							D	224001					24
MT FOR DRYWELL															
220	3	A	1	3	I	M543	R 536	E13		R54					
CMS-HT-5	P047	M26E							D	224001					24
MT FOR DRYWELL															
220	3	A	1	3	I	M543	R 536	E7		R52					
CMS-PT-1	R369	1151GP4A22HBGE3							A B	259003	R N	14	00	07	4320
CONTAINMENT PRESS. MONITORING IR-6															
58	2	A	1	3	I	M543	R 555 5.8/H.8	F13		R63				E-IR-67+	
CMS-PT-2	R369	1151GP7A22HBGE3							A B	259003	R N	14	00	07	4320
CONTAINMENT PRESS MONITORING IR-68															
58	2	A	1	3	I	M543	R 551 8.2/H.7	G7		R61				E-IR-68+	
CMS-PT-2R	R369	163C1564P442203							A B	259003					4320
PRIMARY CONT. PRESS.															
59	2	A	2	0	G	M543	R 550 H.7/8.2	G7		R61				E-IR-68+	
CMS-PT-3	R369	1151GP2A22HBGE3							A B	259003	R N	14		07	4320
SUPPRES.CHAMB.PRESS.MONITOR IR-66															
59	2	A	1	0	I	M543	R 501 N.0/5.1	C15		R43	R305			E-IR-66+	
CMS-PT-4	R369	1151GP2A2278GE3							A B	259003	R N	14		07	4320
SUPPRES.CHAMB.PRESS.MONITOR IR-63															
59	2	A	1	0	I	M543	R 501 L.4/9.3	D6		R41	R305			E-IR-63+	
CMS-PT-5	R369	1151GT7A22HBGE3							A B	259003	R N	14		07	4320
CONTAINMENT PRESS.MONITORING IR-67															
59	2	A	1	3	I	M543	R 555 5.8/H.8	G13		R63	R504			E-IR-67+	
CMS-PT-6	R369	1151GP4A22HBGE3							A B	259003	R N	14		07	4320
CONTAINMENT PRESS.MONITORING IR-68															
59	2	A	1	3	I	M543	R 551 8.2/H.7	H7		R61	R504			E-IR-68+	
CMS-PT-6R	R369	1GP7A22T0003PB							A B	259003	R N	14		07	4320
CONTAINMENT PRESS.HIGH RANGE															
59	2	A	2	0	G	M543	R 550 N.7/8.2	H7		R61				E-IR-68+	
CMS-RE-12A															4320
RE FOR DRYWELL															
2	A	1	3	I		M543	R	F13						S-SR-20+	
CMS-RE-12B															4320
RE FOR DRYWELL															
2	A	1	3	I		M543	R	F6						S-SR-21+	
CMS-RE-27B	R220	RS-C4-1606-203								D	277005				4320
RE FOR LOCA DRYWELL MONITOR															
92B	2	A	1	3	I	M544	R 526 K.3/7.1	G3		R57					



CONTRACT	LEVEL	EPN	DESCRIPTION EC USE	MFG SAFETY FUNCTION	MODEL A/E DRAWING	STATUS S E	BLOG ELEV A/E ZONE	QID DETAIL	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
									TM	HL	TEST	ANL	EQ	C	FREQ	AGING	DBE
CMS-RE-270			R220	RS-C4-1606-203		D	277005										4320
			92B	2	A	1	3	I	H544	R	611	H.3/6.2	G3				
CMS-TE-21			H329	TC-2370-BB-A-250-TT		D N	339002										4320
			218	2	A	1	3	I	H543	C	515	264	DEG	AZ	C38		
CMS-TE-22			H329	TC-2370-BB-250-TT		D N	339002										4320
			218	2	A	1	3	I	H543	C	515	276	DEG	AZ	C38		
CMS-TE-23			H329	TC-2370-BB-A-250-TT		D N	339002										4320
			218	2	A	1	3	I	H543	C	515	71	DEG	AZ	C38		
CMS-TE-41			H329	TC-113X-T-A-24-3		D N	339002										24
			218	2	A	1	0	I	H543	C	451	2	DEG	AZ	C25		
CMS-TE-42			H329	TC-113X-T-A-24-3		D N	339002										24
			218	2	A	1	0	I	H543	C	492	225	DEG	AZ	C36		
CMS-TE-43			H329	TC-113X-T-A-24-3		D N	339002										24
			218	2	A	1	0	I	H543	C	451	225	DEG	AZ	C26		
CMS-TE-44			H329	TC-113X-T-A-24-3		D N	339002										24
			218	2	A	1	0	I	H543	C	492	2	DEG	AZ	C35		
CRA-M-1A1			R165	/365TCZ		H	213039										
			67	2	A	2	3	N	H543	C	501	62	D	AZ	R30	C45	CRA-FC-1A+
CRA-M-1A2			R165	/444TCZ		H	213040										
			67	2	A	2	3	N	H543	C	501	66	D	AZ	R30	C45	CRA-FC-1A+
CRA-M-1B1			R165	/365TCZ		H	213039										
			67	2	A	2	3	N	H543	C	501	182	D	AZ	R30	C46	CRA-FC-1B+
CRA-M-1B2			R165	/444TCZ		H	213040										
			67	2	A	2	3	N	H543	C	501	186	D	AZ	R30	C56	CRA-FC-1B+
CRA-M-1C1			R165	/365TCZ		H	213039										
			67	2	A	2	3	N	H543	C	501	271	D	AZ	R30	R46	CRA-FC-1C+





EPN	MFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E DRAWING	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
CRA-M-50	R165	600287-8/A0M					S M	213037	Y	14	00	60		4320
10HP/17.1A MTR DRIVER	CRA-FN-5D					C	572 90	D AZ R17	R74				CRA-FN-5D+	
22A	2	A	1	3	D	H543		H11						
CRD-E/P-1	G080	15887013P7						D	104001					1.0
ELECTRIC/PNEUMATIC CONVERTER						R	524	M.8/3.8						
02	2	A	2	1	A	H528		C8						
CRD-LS-13A	M040	5.0-751-1X-MPG-S13HY					A B	207004	W	N	14	00	00	.17
CRD LEVEL - -						R	522	J2/6.9	R51	R404				
02C12	2	A	1	3	A	H528		J11						
CRD-LS-13B	M040	5.0-751-1X-MPG-S13HY					A B	207004	W	N	14	00	00	.17
CRD LEVEL - -						R	530	J2/6.9	R51	R404				
02C12	2	A	1	3	A	H528		J11						
CRD-LS-13C	M040	5.0-751-1X-MPG-M13HY					A B	207004	W	N	14	00	00	.17
CRD LEVEL - -						R	532	J.4/4.9	R52	R404				
02C12	2	A	1	3	A	H528		J6						
CRD-LS-13D	M040	5.0-751-1X-MPG-M13HY					A B	207004	W	N	14	00	00	.17
CRD LEVEL - -						R	532	J.4/4.9	R52	R404				
02C12	2	A	1	3	A	H528		J7						
CRD-LS-13E	M040	5.0-751-2X-MPG-M14HY					A B	207004	W	N	14	00	00	.17
CRD LEVEL - -						R	528	J.4/4.9	R52	R408				
02C12	2	A	1	3	A	H528		H7						
CRD-LS-13F	M040	5.0-751-2X-MPG-M14HY					A B	207004	W	N	14	00	00	.17
CRD LEVEL - -						R	525	J.4/4.9	R52	R408				
02C12	2	A	1	3	A	H528		H7						
CRD-POS-1260219	H302							B						.17
POSITION SWITCH						R	522	L5/8.4					CRD-HCU-0219+	
02C12	3	A	1	0	A	H528		C4						
CRD-POS-1260223	H302							B						.17
POSITION SWITCH						R	522	L5/8.4					CRD-HCU-0223+	
02C12	3	A	1	0	A	H528		C4						
CRD-POS-1260227	H302							B						.17
POSITION SWITCH						R	522	L5/8.4					CRD-HCU-0227+	
02C12	3	A	1	0	A	H528		C4						
CRD-POS-1260231	H302							B						.17
POSITION SWITCH						R	522	L5/8.4					CRD-HCU-0231+	
02C12	3	A	1	0	A	H528		C4						
CRD-POS-1260235	H302							B						.17
POSITION SWITCH						R	522	K2/8.4					CRD-HCU-0235+	
02C12	3	A	1	0	A	H528		C4						





EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	Q10	TM	HL	TEST	ANL	FQ	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-POS-1261019		M302.													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1019+
CRD-POS-1261023		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1023+
CRD-POS-1261027		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1027+
CRD-POS-1261031		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1031+
CRD-POS-1261035		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	K2/8.4				CRD-HCU-1035+
CRD-POS-1261039		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	K2/8.4				CRD-HCU-1039+
CRD-POS-1261043		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	K2/8.4				CRD-HCU-1043+
CRD-POS-1261047		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	K2/8.4				CRD-HCU-1047+
CRD-POS-1261051		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	K2/8.4				CRD-HCU-1051+
CRD-POS-1261407		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1407+
CRD-POS-1261411		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1411+
CRD-POS-1261415		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1415+
CRD-POS-1261419		M302													.17
POSITION SWITCH															
02C12	3	A	1	0	A		M528		R	522	L5/8.4				CRD-HCU-1419+





CONTRACT	LEVEL	EPN	DESCRIPTION EC USE	MFG SAFETY FUNCTION	MODEL A/E DRAWING	STATUS S E QTD	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
							BLDG ELEV A/E DRAWING	DETAIL A/E ZONE	IM HL TEST	ANL FO C ACCURACY	FREQ	AGING DBE C	HOURS COMPOSITE EPN	
CRD-POS-1261819 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 L5/8.4 C4	B						CRD-HCU-1819+	.17
CRD-POS-1261823 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 L5/8.4 C4	B						CRD-HCU-1823+	.17
CRD-POS-1261827 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 L5/8.4 C4	B						CRD-HCU-1827+	.17
CRD-POS-1261831 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 L5/8.4 C4	B						CRD-HCU-1831+	.17
CRD-POS-1261835 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1835+	.17
CRD-POS-1261839 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1839+	.17
CRD-POS-1261843 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1843+	.17
CRD-POS-1261847 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1847+	.17
CRD-POS-1261851 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1851+	.17
CRD-POS-1261855 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1855+	.17
CRD-POS-1261859 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 K2/8.4 C4	B						CRD-HCU-1859+	.17
CRD-POS-1262203 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 L5/8.4 C4	B						CRD-HCU-2203+	.17
CRD-POS-1262207 POSITION SWITCH 02C12	3	A	1 0 A	H302	M528	R 522 L5/8.4 C4	B						CRD-HCU-2207+	.17











EPN	MFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E	BLOG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E	DRAWING	A/E						
CRD-POS-1263439		M302												
POSITION SWITCH							R 522 K2/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3439+	
CRD-POS-1263443		M302												
POSITION SWITCH							R 522 K2/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3443+	
CRD-POS-1263447		M302												
POSITION SWITCH							R 522 K2/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3447+	
CRD-POS-1263451		M302												
POSITION SWITCH							R 522 K2/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3451+	
CRD-POS-1263455		M302												
POSITION SWITCH							R 522 K2/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3455+	
CRD-POS-1263459		M302												
POSITION SWITCH							R 522 K2/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3459+	
CRD-POS-1263803		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3803+	
CRD-POS-1263807		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3807+	
CRD-POS-1263811		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3811+	
CRD-POS-1263815		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3815+	
CRD-POS-1263819		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3819+	
CRD-POS-1263823		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3823+	
CRD-POS-1263827		M302												
POSITION SWITCH							R 522 L5/8.4							.17
02C12	3	A	1	0	A		H528	C4					CRD-HCU-3827+	



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*							
				S	F	QID	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE						
CRD-POS-1263831		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3831+
CRD-POS-1263835		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3835+
CRD-POS-1263839		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3839+
CRD-POS-1263843		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3843+
CRD-POS-1263847		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3847+
CRD-POS-1263851		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3851+
CRD-POS-1263855		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3855+
CRD-POS-1263859		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	K2/8.4				CRD-HCU-3859+
CRD-POS-1264203		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	L5/8.4				CRD-HCU-4203+
CRD-POS-1264207		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	L5/8.4				CRD-HCU-4207+
CRD-POS-1264211		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	L5/8.4				CRD-HCU-4211+
CRD-POS-1264215		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	L5/8.4				CRD-HCU-4215+
CRD-POS-1264219		H302													
POSITION SWITCH															.17
02C12	3	A	1 0	A		M528			R	522	L5/8.4				CRD-HCU-4219+





EPN	HFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*						
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	OBE	C	HOURS
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY	FUNCTION	A/E	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
							A/E	DRAWING	A/E	ZONE						
CRD-POS-1264619		M302								B						.17
POSITION SWITCH								R 522 L5/8.4						CRD-HCU-4619+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264623		M302								B						.17
POSITION SWITCH								R 522 L5/8.4						CRD-HCU-4623+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264627		M302								B						.17
POSITION SWITCH								R 522 L5/8.4						CRD-HCU-4627+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264631		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4631+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264635		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4635+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264639		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4639+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264643		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4643+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264647		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4647+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264651		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4651+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1264655		M302								B						.17
POSITION SWITCH								R 522 K2/8.4						CRD-HCU-4655+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1265011		M302								B						.17
POSITION SWITCH								R 522 L5/8.4						CRD-HCU-5011+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1265015		M302								B						.17
POSITION SWITCH								R 522 L5/8.4						CRD-HCU-5015+		
02C12	3	A	1	0	A			M528		C4						
CRD-POS-1265019		M302								B						.17
POSITION SWITCH								R 522 L5/8.4						CRD-HCU-5019+		
02C12	3	A	1	0	A			M528		C4						



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
				S	E	QTD	TM	HL	TEST	ANL	FO	C	FREQ	AGING
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE	EPN
CRD-POS-1265023		M302												.17
POSITION SWITCH							R	522 L5/8.4					CRD-HCU-5023+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265027		M302												.17
POSITION SWITCH							R	522 L5/8.4					CRD-HCU-5027+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265031		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5031+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265035		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5035+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265039		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5039+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265043		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5043+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265047		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5047+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265051		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5051+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265415		M302												.17
POSITION SWITCH							R	522 L5/8.4					CRD-HCU-5415+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265419		M302												.17
POSITION SWITCH							R	522 L5/8.4					CRD-HCU-5419+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265423		M302												.17
POSITION SWITCH							R	522 L5/8.4					CRD-HCU-5423+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265427		M302												.17
POSITION SWITCH							R	522 L5/8.4					CRD-HCU-5427+	
02C12	3	A	1	0	A			M528				C4		
CRD-POS-1265431		M302												.17
POSITION SWITCH							R	522 K2/8.4					CRD-HCU-5431+	
02C12	3	A	1	0	A			M528				C4		



CONTRACT	EPN	LEVEL	DESCRIPTION			MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
			EC	USE	SAFETY FUNCTION		BLOG ELEV	S F	QID	TH	HL	TEST	ANL	EQ	FREQ	AGING	DBE
						A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY				COMPOSITE EPN			
CRD-POS-1265435					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5435+			
CRD-POS-1265439					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5439+			
CRD-POS-1265443					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5443+			
CRD-POS-1265447					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5447+			
CRD-POS-1265819					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4	C4						CRD-HCU-5819+			
CRD-POS-1265823					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4	C4						CRD-HCU-5823+			
CRD-POS-1265827					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4	C4						CRD-HCU-5827+			
CRD-POS-1265831					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5831+			
CRD-POS-1265835					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5835+			
CRD-POS-1265839					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5839+			
CRD-POS-1265843					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4	C4						CRD-HCU-5843+			
CRD-POS-1270219					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4	C4						CRD-HCU-0219+			
CRD-POS-1270223					M302												
POSITION SWITCH								B									.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4	C4						CRD-HCU-0223+			







CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*		
							S	E	QID	TH	HL	TEST	ANL
		BLDG ELEV		DETAIL		ZONE		ROOM		ACCURACY		COMPOSITE EPN	
EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE	EPN		
CRD-POS-1271411			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/8.4						CRD-HCU-1411+	
CRD-POS-1271415			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/8.4						CRD-HCU-1415+	
CRD-POS-1271419			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/8.4						CRD-HCU-1419+	
CRD-POS-1271423			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/R.4						CRD-HCU-1423+	
CRD-POS-1271427			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/8.4						CRD-HCU-1427+	
CRD-POS-1271431			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/8.4						CRD-HCU-1431+	
CRD-POS-1271435			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 K2/8.4						CRD-HCU-1435+	
CRD-POS-1271439			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 K2/8.4						CRD-HCU-1439+	
CRD-POS-1271443			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 K2/8.4						CRD-HCU-1443+	
CRD-POS-1271447			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 K2/8.4						CRD-HCU-1447+	
CRD-POS-1271451			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 K2/8.4						CRD-HCU-1451+	
CRD-POS-1271455			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 K2/8.4						CRD-HCU-1455+	
CRD-POS-1271803			POSITION SWITCH	M302		B							.17
02C12	3	A	1 0 A		M528	R 522 L5/8.4						CRD-HCU-1803+	



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
							S	E	QID	TH	HL	TEST	ANL	FO
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
						A/E DRAWING	A/E ZONE							
CRD-POS-1271807														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1807+	
CRD-POS-1271811														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1811+	
CRD-POS-1271815														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1815+	
CRD-POS-1271819														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1819+	
CRD-POS-1271823														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1823+	
CRD-POS-1271827														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1827+	
CRD-POS-1271831														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 L5/8.4 C4						CRD-HCU-1831+	
CRD-POS-1271835														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4 C4						CRD-HCU-1835+	
CRD-POS-1271839														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4 C4						CRD-HCU-1839+	
CRD-POS-1271843														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4 C4						CRD-HCU-1843+	
CRD-POS-1271847														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4 C4						CRD-HCU-1847+	
CRD-POS-1271851														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4 C4						CRD-HCU-1851+	
CRD-POS-1271855														
POSITION SWITCH														.17
02C12	3	A	1	0	A	M528	R 522 K2/8.4 C4						CRD-HCU-1855+	



CONTRACT	LEVEL	EPN	DESCRIPTION	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
							S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ
			EC	USE	SAFETY FUNCTION	A/E DRAWING	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-POS-1271859					M302											.17
POSITION SWITCH							R	522	K2/8.4						CRD-HCU-1859+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272203					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2203+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272207					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2207+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272211					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2211+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272215					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2215+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272219					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2219+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272223					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2223+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272227					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2227+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272231					M302											.17
POSITION SWITCH							R	522	L5/8.4						CRD-HCU-2231+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272235					M302											.17
POSITION SWITCH							R	522	K2/8.4						CRD-HCU-2235+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272239					M302											.17
POSITION SWITCH							R	522	K2/8.4						CRD-HCU-2239+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272243					M302											.17
POSITION SWITCH							R	522	K2/8.4						CRD-HCU-2243+	
02C12	3		A	1	0	A		M528		C4						
CRD-POS-1272247					M302											.17
POSITION SWITCH							R	522	K2/8.4						CRD-HCU-2247+	
02C12	3		A	1	0	A		M528		C4						



EPN		HFG		MODEL		STATUS		***SEISHIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*		
CONTRACT	LEVEL	DESCRIPTION EC	USE	SAFETY FUNCTION	A/E	BLDG ELEV DRAWING	SE	QID	IM	HL TEST	ANL FO C	FREQ	AGING DBE C	HOURS
						A/E ZONE	DETAIL	ZONE	ROOM	ACCURACY			COMPOSITE EPN	
CRD-POS-1272251														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 K2/8.4 C4						CRD-HCU-2251+	
CRD-POS-1272255														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 K2/8.4 C4						CRD-HCU-2255+	
CRD-POS-1272259														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 K2/8.4 C4						CRD-HCU-2259+	
CRD-POS-1272603														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2603+	
CRD-POS-1272607														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2607+	
CRD-POS-1272611														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2611+	
CRD-POS-1272615														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2615+	
CRD-POS-1272619														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2619+	
CRD-POS-1272623														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2623+	
CRD-POS-1272627														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2627+	
CRD-POS-1272631														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 L5/8.4 C4						CRD-HCU-2631+	
CRD-POS-1272635														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 K2/8.4 C4						CRD-HCU-2635+	
CRD-POS-1272639														
POSITION SWITCH							B							.17
02C12	3	A	1 0	A		M528	R 522 K2/8.4 C4						CRD-HCU-2639+	



EPN	HFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*						
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C	HOURS
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY	FUNCTION	A/E	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
							A/E	DRAWING	A/E	ZONE						
CRD-POS-1272643		H302								B						.17
POSITION SWITCH														CRD-HCU-2643+		
02C12	3	A	1	0	A			H528		R 522 K2/8.4						
										C4						
CRD-POS-1272647		H302								B						.17
POSITION SWITCH														CRD-HCU-2647+		
02C12	3	A	1	0	A			H528		R 522 K2/8.4						
										C4						
CRD-POS-1272651		H302								B						.17
POSITION SWITCH														CRD-HCU-2651+		
02C12	3	A	1	0	A			H528		R 522 K2/8.4						
										C4						
CRD-POS-1272655		H302								B						.17
POSITION SWITCH														CRD-HCU-2655+		
02C12	3	A	1	0	A			H528		R 522 K2/8.4						
										C4						
CRD-POS-1272659		H302								B						.17
POSITION SWITCH														CRD-HCU-2659+		
02C12	3	A	1	0	A			H528		R 522 K2/8.4						
										C4						
CRD-POS-1273003		H302								B						.17
POSITION SWITCH														CRD-HCU-3003+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273007		H302								B						.17
POSITION SWITCH														CRD-HCU-3007+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273011		H302								B						.17
POSITION SWITCH														CRD-HCU-3011+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273015		H302								B						.17
POSITION SWITCH														CRD-HCU-3015+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273019		H302								B						.17
POSITION SWITCH														CRD-HCU-3019+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273023		H302								B						.17
POSITION SWITCH														CRD-HCU-3023+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273027		H302								B						.17
POSITION SWITCH														CRD-HCU-3027+		
02C12	3	A	1	0	A			H528		R 522 L5/8.4						
										C4						
CRD-POS-1273031		H302								B						.17
POSITION SWITCH														CRD-HCU-3031+		
02C12	3	A	1	0	A			H528		R 522 K2/8.4						
										C4						





WASHINGTON PUBLIC POWER SUPPLY SYSTEM
WNP-2 CLASS 1E EQUIPMENT LIST

CONTRACT	LEVEL	EPN	DESCRIPTION			MFG	MODEL	BLDG ELEV	ELEV	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
			EC	USE	SAFETY						FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	FREQ
CRD-POS-1273427				H302					B									
			POSITION SWITCH				R 522 L5/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3427+			.17
CRD-POS-1273431				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3431+			.17
CRD-POS-1273435				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3435+			.17
CRD-POS-1273439				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3439+			.17
CRD-POS-1273443				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3443+			.17
CRD-POS-1273447				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3447+			.17
CRD-POS-1273451				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3451+			.17
CRD-POS-1273455				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3455+			.17
CRD-POS-1273459				H302					B									
			POSITION SWITCH				R 522 K2/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3459+			.17
CRD-POS-1273803				H302					B									
			POSITION SWITCH				R 522 L5/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3803+			.17
CRD-POS-1273807				H302					B									
			POSITION SWITCH				R 522 L5/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3807+			.17
CRD-POS-1273811				H302					B									
			POSITION SWITCH				R 522 L5/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3811+			.17
CRD-POS-1273815				H302					B									
			POSITION SWITCH				R 522 L5/8.4											
		02C12	3	A	1 0	A	M528		C4						CRD-HCU-3815+			.17



CONTRACT	LEVEL	EPN	DESCRIPTION EC USE	MFG SAFETY FUNCTION	MODEL	BLDG A/E DRAWING	ELEV A/E	STATUS S E	QID	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*		
										TM	HL	TEST	ANL	EQ	C	FREQ
										ACCURACY		COMPOSITE EPN				
CRD-POS-1273819				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	L5/8.4				CRD-HCU-3819+		
CRD-POS-1273823				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	L5/8.4				CRD-HCU-3823+		
CRD-POS-1273827				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	L5/8.4				CRD-HCU-3827+		
CRD-POS-1273831				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3831+		
CRD-POS-1273835				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3835+		
CRD-POS-1273839				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3839+		
CRD-POS-1273843				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3843+		
CRD-POS-1273847				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3847+		
CRD-POS-1273851				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3851+		
CRD-POS-1273855				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3855+		
CRD-POS-1273859				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	K2/8.4				CRD-HCU-3859+		
CRD-POS-1274203				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	L5/8.4				CRD-HCU-4203+		
CRD-POS-1274207				H302				B								.17
POSITION SWITCH																
02C12	3	A	1 0 A		M528			R	522	L5/8.4				CRD-HCU-4207+		

















CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
							S E	QID	TH HL TEST	AVL ED C	FREQ	AGING DBE C
				EC USE SAFETY FUNCTION	BLOG ELEV A/E DRAWING	DETAIL A/E ZONE	ZONE	ROOM	ACCURACY			COMPOSITE EPN
CRD-PS-130/1451			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 K2/8.4		R51					CRD-HCU-1451+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1455			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 K2/8.4		R51					CRD-HCU-1455+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1803			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1803+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1807			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1807+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1811			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1811+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1815			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1815+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1819			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1819+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1823			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1823+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1827			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1827+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1831			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 L5/8.4		R53					CRD-HCU-1831+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1835			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 K2/8.4		R51					CRD-HCU-1835+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1839			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 K2/8.4		R51					CRD-HCU-1839+
02C12	2	A	1 3	A	M528	C4						
CRD-PS-130/1843			B069	B1T-GH32SS		A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS					R 522 K2/8.4		R51					CRD-HCU-1843+
02C12	2	A	1 3	A	M528	C4						



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*						
				S	E	QID	TM	HL	TEST	ANL	FD	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE						
CRD-PS-130/1847	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	K2/8.4		R51								CRD-HCU-1847+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/1851	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	K2/8.4		R51								CRD-HCU-1851+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/1855	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	K2/8.4		R51								CRD-HCU-1855+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/1859	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	K2/8.4		R51								CRD-HCU-1859+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2203	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2203+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2207	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2207+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2211	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2211+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2215	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2215+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2219	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2219+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2223	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2223+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2227	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2227+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2231	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	L5/8.4		R53								CRD-HCU-2231+
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/2235	B069	B1T-GH32SS	A	B	256019	F	N	11	01						.17
ACCUM PRESS 970-940 PSIG DECREAS			R	522	K2/8.4		R51								CRD-HCU-2235+
02C12	2	A	1	3	A		H528		C4						



CONTRACT	EPN	LEVEL	DESCRIPTION EC USE	MFG SAFETY FUNCTION	MODEL	BLDG ELEV A/E DRAWING	STATUS S.E. DETAIL A/E ZONE	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
								ZONE	ROOM	ACCURACY	AGING	QBE	C	HOURS
	CRD-PS-130/2239		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 K2/8.4		R51					CRD-HCU-2239+	
	CRD-PS-130/2243		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 K2/8.4		R51					CRD-HCU-2243+	
	CRD-PS-130/2247		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 K2/8.4		R51					CRD-HCU-2247+	
	CRD-PS-130/2251		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 K2/8.4		R51					CRD-HCU-2251+	
	CRD-PS-130/2255		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 K2/8.4		R51					CRD-HCU-2255+	
	CRD-PS-130/2259		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 K2/8.4		R51					CRD-HCU-2259+	
	CRD-PS-130/2603		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2603+	
	CRD-PS-130/2607		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2607+	
	CRD-PS-130/2611		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2611+	
	CRD-PS-130/2615		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2615+	
	CRD-PS-130/2619		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2619+	
	CRD-PS-130/2623		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2623+	
	CRD-PS-130/2627		B069 ACCUM PRESS 970-940 PSIG DECREAS	B1T-GH32SS		A B	256019	F	N	11	01			.17
	02C12	2	A 1 3 A		M528	R 522 L5/8.4		R53					CRD-HCU-2627+	



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*				
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
						A/E DRAWING	A/E ZONE							
CRD-PS-130/2631	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 L5/8.4				R53			CRD-HCU-2631+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2635	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2635+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2639	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2639+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2643	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2643+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2647	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2647+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2651	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2651+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2655	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2655+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/2659	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 K2/8.4				R51			CRD-HCU-2659+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/3003	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 L5/8.4				R53			CRD-HCU-3003+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/3007	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 L5/8.4				R53			CRD-HCU-3007+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/3011	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 L5/8.4				R53			CRD-HCU-3011+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/3015	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 L5/8.4				R53			CRD-HCU-3015+	
02C12	2	A 1 3 A				M528	C4							
CRD-PS-130/3019	B069	B1T-GH32SS					A B	256019	F N	11 01				.17
ACCUM PRESS 970-940 PSIG DECREAS						R 522 L5/8.4				R53			CRD-HCU-3019+	
02C12	2	A 1 3 A				M528	C4							



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E	DRAWING	A/E	ZONE						
CRD-PS-130/3023	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/8.4			R53				CRD-HCU-3023+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3027	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/8.4			R53				CRD-HCU-3027+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3031	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3031+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3035	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3035+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3039	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3039+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3043	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3043+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3047	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3047+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3051	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3051+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3055	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3055+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3059	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7			R52				CRD-HCU-3059+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3403	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7			R53				CRD-HCU-3403+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3407	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7			R53				CRD-HCU-3407+	
02C12	2	A	1	3	A		H528			C4					
CRD-PS-130/3411	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7			R53				CRD-HCU-3411+	
02C12	2	A	1	3	A		H528			C4					



EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
					S	E	QID	TM	HL	TEST	ANL	FD	C	FREQ
CONTRACT	LEVEL	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
CRD-PS-130/3415	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3415+	.17	
02C12	2	A	1 3	A	M528		R 522 L5/3.7	C4	R53					
CRD-PS-130/3419	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3419+	.17	
02C12	2	A	1 3	A	M528		R 522 L5/3.7	C4	R53					
CRD-PS-130/3423	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3423+	.17	
02C12	2	A	1 3	A	M528		R 522 L5/3.7	C4	R53					
CRD-PS-130/3427	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3427+	.17	
02C12	2	A	1 3	A	M528		R 522 L5/3.7	C4	R53					
CRD-PS-130/3431	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3431+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3435	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3435+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3439	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3439+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3443	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3443+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3447	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3447+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3451	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3451+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3455	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3455+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3459	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3459+	.17	
02C12	2	A	1 3	A	M528		R 522 K2/3.7	C4	R52					
CRD-PS-130/3803	ACCUM PRESS 970-940 PSIG DECREAS	B069	BIT-GH32SS	A B	256019	F N	11	01				CRD-HCU-3803+	.17	
02C12	2	A	1 3	A	M528		R 522 L5/3.7	C4	R53					







CONTRACT	EPN	LEVEL	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*				
							SE	QJD	TM	HL	TEST	ANL	FO	C
				USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
				EC	A/E DRAWING	A/E ZONE								
CRD-PS-130/4251			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4251+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4255			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4255+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4259			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4259+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4607			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7		R53				CRD-HCU-4607+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4611			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7		R53				CRD-HCU-4611+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4615			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7		R53				CRD-HCU-4615+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4619			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7		R53				CRD-HCU-4619+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4623			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7		R53				CRD-HCU-4623+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4627			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 L5/3.7		R53				CRD-HCU-4627+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4631			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4631+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4635			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4635+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4639			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4639+	
02C12	2	A	1	3	A		H528		C4					
CRD-PS-130/4643			B069	BIT-GH32SS		A B	256019	F	N	11	01			.17
ACCUM PRESS 970-940 PSIG DECREAS						R	522 K2/3.7		R52				CRD-HCU-4643+	
02C12	2	A	1	3	A		H528		C4					







EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	QID	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY	FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
							A/E	DRAWING	A/E	ZONE					
CRD-PS-130/5831	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS							R	522 K2/3.7		R52				CRD-HCU-5831+	
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/5835	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS							R	522 K2/3.7		R52				CRD-HCU-5835+	
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/5839	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS							R	522 K2/3.7		R52				CRD-HCU-5839+	
02C12	2	A	1	3	A		H528		C4						
CRD-PS-130/5843	B069	B1T-GH32SS							A B	256019	F N	11	01		.17
ACCUM PRESS 970-940 PSIG DECREAS							R	522 K2/3.7		R52				CRD-HCU-5843+	
02C12	2	A	1	3	A		H528		C4						
CRD-PT-52									P P	259001					.17
PRESSURE TRANSMITTER AIR SUP.							R	526 H.8/3.8		R53				CRD-IR-3+	
02	2	A	2	0	G		H528		D12						
CRD-SV-117/0219	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 L5/8.4						CRD-HCU-0219+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0223	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 L5/8.4						CRD-HCU-0223+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0227	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 L5/8.4						CRD-HCU-0227+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0231	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 L5/8.4						CRD-HCU-0231+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0235	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 K2/8.4						CRD-HCU-0235+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0239	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 K2/8.4						CRD-HCU-0239+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0243	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 K2/8.4						CRD-HCU-0243+	
02C12	2	A	1	3	A		H528		D2						
CRD-SV-117/0615	A610	HVA904052-J							A A	315020					1.0
SCRAM SOLENOID PILOT CRD-V-126&127							R	522 L5/8.4						CRD-HCU-0615+	
02C12	2	A	1	3	A		H528		D2						





EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*					
				S E	91D	TM	HL	TEST ANL	FO C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE							
CRD-SV-117/1031	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1031+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1035	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4								CRD-HCU-1035+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1039	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4								CRD-HCU-1039+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1043	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4								CRD-HCU-1043+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1047	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4								CRD-HCU-1047+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1051	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4								CRD-HCU-1051+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1407	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1407+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1411	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1411+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1415	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1415+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1419	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1419+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1423	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1423+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1427	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1427+	
02C12	2	A	1 3	A	M528		D2					
CRD-SV-117/1431	A610	HVA904052-J		A A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4								CRD-HCU-1431+	
02C12	2	A	1 3	A	M528		D2					



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
			S E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	EC	USE	SAFETY	FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E	DRAWING	A/E	ZONE					
CRD-SV-117/1435	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 K2/8.4					CRD-HCU-1435+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1439	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 K2/8.4					CRD-HCU-1439+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1443	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 K2/8.4					CRD-HCU-1443+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1447	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 K2/8.4					CRD-HCU-1447+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1451	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 K2/8.4					CRD-HCU-1451+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1455	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 K2/8.4					CRD-HCU-1455+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1803	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1803+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1807	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1807+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1811	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1811+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1815	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1815+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1819	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1819+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1823	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1823+		1.0
02C12	2	A	1	3	A		M528	D2						
CRD-SV-117/1827	A610	HVA904052-J						A A	315020					
SCRAM SOLENOID PILOT	CRD-V-126&127					R	522 L5/8.4					CRD-HCU-1827+		1.0
02C12	2	A	1	3	A		M528	D2						







EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
				S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE	EPN			
	EC	USE	A/E	DRAWING	A/E								
CRD-SV-117/2615	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 L5/8.4					CRD-HCU-2615+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2619	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 L5/8.4					CRD-HCU-2619+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2623	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 L5/8.4					CRD-HCU-2623+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2627	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 L5/8.4					CRD-HCU-2627+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2631	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 L5/8.4					CRD-HCU-2631+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2635	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2635+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2639	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2639+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2643	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2643+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2647	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2647+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2651	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2651+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2655	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2655+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/2659	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 K2/8.4					CRD-HCU-2659+				
02C12	2	A	1	3	A	M528		D2					
CRD-SV-117/3003	A610	HVA904052-J	A	A	315020					1.0			
SCRAM SOLENOID PILOT CRD-V-126&127			R	522 L5/8.4					CRD-HCU-3003+				
02C12	2	A	1	3	A	M528		D2					



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
				S E	QID	TH HL TEST ANL ED C	FREQ	AGING DBE C	HOURS
CONTRACT	LEVEL	DESCRIPTION	BLOG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE	EPN
		EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE					
CRD-SV-117/3007	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4					CRD-HCU-3007+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3011	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4					CRD-HCU-3011+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3015	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4					CRD-HCU-3015+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3019	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4					CRD-HCU-3019+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3023	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4					CRD-HCU-3023+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3027	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 L5/8.4					CRD-HCU-3027+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3031	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3031+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3035	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3035+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3039	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3039+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3043	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3043+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3047	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3047+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3051	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3051+	
02C12	2	A 1 3 A	H528	D2					
CRD-SV-117/3055	A610	HVA904052-J		A A	315020				1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R 522 K2/8.4					CRD-HCU-3055+	
02C12	2	A 1 3 A	H528	D2					









CONTRACT	LEVEL	DESCRIPTION			MODEL	BLOG ELEV	STATUS S E QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
		EC	USE	SAFETY FUNCTION				TM	HL	TEST ANL	EQ C	FREQ	AGING
					A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-SV-117/4235		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4235+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4239		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4239+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4243		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4243+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4247		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4247+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4251		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4251+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4259		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4259+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4607		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 L5/8.4							CRD-HCU-4607+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4611		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 L5/8.4							CRD-HCU-4611+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4615		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 L5/8.4							CRD-HCU-4615+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4619		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 L5/8.4							CRD-HCU-4619+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4623		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 L5/8.4							CRD-HCU-4623+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4627		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 L5/8.4							CRD-HCU-4627+	1.0
02C12	2	A	1 3	A	M528		D2						
CRD-SV-117/4631		A610	HVA904052-J			A A	315020						
SCRAM SOLENOID PILOT		CRD-V-126&127			R 522 K2/8.4							CRD-HCU-4631+	1.0
02C12	2	A	1 3	A	M528		D2						



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*						
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE							
CRD-SV-117/4635	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-4635+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/4639	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-4639+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/4643	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-4643+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/4647	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-4647+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/4651	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-4651+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/4655	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-4655+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5011	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4							CRD-HCU-5011+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5015	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4							CRD-HCU-5015+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5019	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4							CRD-HCU-5019+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5023	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4							CRD-HCU-5023+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5027	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4							CRD-HCU-5027+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5031	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-5031+			
02C12	2	A	1	3	A	M528		D2							
CRD-SV-117/5035	A610	HVA904052-J			A	A	315020								1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4							CRD-HCU-5035+			
02C12	2	A	1	3	A	M528		D2							





EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*						
				S	E	Q10	TM	HL	TEST	ANL	FO	C	FREQ	AGING
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
	EC	USE	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY						
CRD-SV-117/5819	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-5819+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-117/5823	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-5823+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-117/5827	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-5827+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-117/5831	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4				CRD-HCU-5831+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-117/5835	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4				CRD-HCU-5835+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-117/5839	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4				CRD-HCU-5839+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-117/5843	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4				CRD-HCU-5843+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-1174255	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4				CRD-HCU-4255					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-118/0219	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-0219+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-118/0223	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-0223+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-118/0227	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-0227+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-118/0231	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4				CRD-HCU-0231+					
02C12	2	A	1	3	A	M528		D2						
CRD-SV-118/0235	A610	HVA904052-J	A	A	315020				1.0					
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4				CRD-HCU-0235+					
02C12	2	A	1	3	A	M528		D2						



















EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*													
				S	E	QID	TH	HL	TEST	ANL	EQ	C	FREQ	AGING	DBE	C	HOURS				
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN												
	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE													
CRD-SV-118/3439	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	K2/8.4															CRD-HCU-3439+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3443	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	K2/8.4															CRD-HCU-3443+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3447	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	K2/8.4															CRD-HCU-3447+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3451	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	K2/8.4															CRD-HCU-3451+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3455	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	K2/8.4															CRD-HCU-3455+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3459	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	K2/8.4															CRD-HCU-3459+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3803	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3803+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3807	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3807+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3811	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3811+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3815	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3815+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3819	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3819+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3823	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3823+	1.0
02C12	2	A	1	3	A	M528		D2													
CRD-SV-118/3827	A610	HVA904052-J	A	A	315020																
SCRAM SOLENOID PILOT		CRD-V-126&127	R	522	L5/8.4															CRD-HCU-3827+	1.0
02C12	2	A	1	3	A	M528		D2													



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
									TM	HL	TEST	ANL	FO	C	FREQ
			EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE	EPN
CRD-SV-118/3831				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3831+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3835				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3835+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3839				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3839+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3843				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3843+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3847				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3847+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3851				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3851+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3855				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3855+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/3859				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	K2/8.4						CRD-HCU-3859+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/4203				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	L5/8.4						CRD-HCU-4203+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/4207				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	L5/8.4						CRD-HCU-4207+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/4211				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	L5/8.4						CRD-HCU-4211+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/4215				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	L5/8.4						CRD-HCU-4215+	
02C12	2	A	1 3	A		M528		D2							
CRD-SV-118/4219				A610	HVA904052-J	A A									1.0
SCRAM SOLENOID PILOT			CRD-V-126&127			R	522	L5/8.4						CRD-HCU-4219+	
02C12	2	A	1 3	A		M528		D2							



EPN	HFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*				
			S	E	Q/D	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	EC	USE	SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-SV-118/4223	A610	HVA904052-J			A	A	315020							1.0
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4						CRD-HCU-4223+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4227	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4						CRD-HCU-4227+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4231	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4231+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4235	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4235+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4239	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4239+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4243	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4243+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4247	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4247+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4251	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4251+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4255	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4255+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4259	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	K2/8.4						CRD-HCU-4259+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4607	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4						CRD-HCU-4607+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4611	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4						CRD-HCU-4611+			
02C12	2	A	1	3	A	H528		D2						
CRD-SV-118/4615	A610	HVA904052-J			A	A	315020						1.0	
SCRAM SOLENOID PILOT	CRD-V-126&127		R	522	L5/8.4						CRD-HCU-4615+			
02C12	2	A	1	3	A	H528		D2						









EPN	HFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*				
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE											
CRD-SV-120/0227	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0227+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0231	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0231+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0235	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-0235+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0239	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-0239+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0243	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-0243+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0615	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0615+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0619	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0619+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0623	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0623+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0627	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0627+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0631	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-0631+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0635	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-0635+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0639	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/R.4								CRD-HCU-0639+		
02C12	2	A	2	0	A,B1		H528			C4					
CRD-SV-120/0643	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-0643+		
02C12	2	A	2	0	A,B1		H528			C4					



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*		
							Q10	TM	HL	TEST	ANL	FO	C	FREQ
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
					A/E DRAWING	A/E ZONE								
CRD-SV-120/0647				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-0647+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1011				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1011+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1015				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1015+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1019				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1019+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1023				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1023+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1027				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1027+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1031				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1031+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1035				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1035+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1039				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1039+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1043				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1043+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1047				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1047+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1051				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1051+			
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-120/1407				A610	HVA1709662A		A B	324007					4320	
.5"SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1407+			
02C12	2	A	2 0	A,B1	H528		C4							



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
							S	E	Q10	IM	HL TEST	ANL FO C
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN	
					A/E DRAWING	A/E ZONE						
CRD-SV-120/1411				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1411+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1415				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1415+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1419				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1419+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1423				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1423+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1427				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1427+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1431				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1431+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1435				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1435+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1439				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1439+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1443				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1443+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1447				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1447+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1451				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1451+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1455				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-1455+	
02C12	2	A	2 0	A,B1	H528		C4					
CRD-SV-120/1803				A610	HVA1709662A		A B	324007				4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-1803+	
02C12	2	A	2 0	A,B1	H528		C4					





CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
							S E	QID	TM	HL	TEST	ANL	EQ	C	FREQ
			EC	USE	SAFETY FUNCTION	A/E	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
							A/E	DRAWING	A/E	ZONE					
CRD-SV-120/1859				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4					CRD-HCU-1859+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2203				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2203+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2207				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2207+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2211				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2211+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2215				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2215+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2219				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2219+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2223				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2223+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2227				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2227+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2231				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	L5/8.4					CRD-HCU-2231+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2235				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4					CRD-HCU-2235+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2239				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4					CRD-HCU-2239+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2243				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4					CRD-HCU-2243+		
02C12	2	A	2 0	A,B1	H528				C4						
CRD-SV-120/2247				A610	HVA1709662A				A B	324007					4320
			.5" SOLENOID WITHDRAW EXHAUST VALVE			R	522	K2/8.4					CRD-HCU-2247+		
02C12	2	A	2 0	A,B1	H528				C4						



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLOG	ELEV	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
									SE	Q10	TH	HL	TEST	ANL	FO	C
LEVEL		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
CRD-SV-120/2251			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 K2/8.4						CRD-HCU-2251+	
CRD-SV-120/2255			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 K2/8.4						CRD-HCU-2255+	
CRD-SV-120/2259			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 K2/8.4						CRD-HCU-2259+	
CRD-SV-120/2603			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2603+	
CRD-SV-120/2607			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2607+	
CRD-SV-120/2611			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2611+	
CRD-SV-120/2615			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2615+	
CRD-SV-120/2619			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2619+	
CRD-SV-120/2623			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2623+	
CRD-SV-120/2627			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2627+	
CRD-SV-120/2631			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 L5/8.4						CRD-HCU-2631+	
CRD-SV-120/2635			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 K2/8.4						CRD-HCU-2635+	
CRD-SV-120/2639			.5"SOLENOID WITHDRAW EXHAUST VALVE	A610	HVA1709662A			A B	324007							4320
02C12	2	A	2 0	A,B1		H528		R	522 K2/8.4						CRD-HCU-2639+	



CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*				
							S	E	QTD	TM	HL	TEST	ANL	FO
				EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
				A/E	DRAWING	A/E	ZONE							
CRD-SV-120/2643			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-2643+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/2647			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-2647+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/2651			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-2651+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/2655			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-2655+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/2659			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-2659+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3003			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3003+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3007			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3007+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3011			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3011+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3015			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3015+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3019			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3019+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3023			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3023+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3027			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-3027+		
02C12	2	A	2 0	A, B1	M528			C4						
CRD-SV-120/3031			A610	HVA1709662A		A B	324007							4320
.5" SOLENOID WITHDRAW EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-3031+		
02C12	2	A	2 0	A, B1	M528			C4						



EPN	HFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	TH	HL	TEST	ANL	FO	C	FREQ	AGING	OBE	C
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
		EC USE SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE								
CRD-SV-120/3035	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3035+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3039	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3039+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3043	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3043+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3047	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3047+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3051	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3051+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3055	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3055+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3059	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4					CRD-HCU-3059+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3403	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4					CRD-HCU-3403+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3407	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4					CRD-HCU-3407+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3411	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4					CRD-HCU-3411+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3415	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4					CRD-HCU-3415+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3419	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4					CRD-HCU-3419+					
02C12	2	A 2 0 A,B1		H528		C4								
CRD-SV-120/3423	A610	HVA1709662A			A B	324007								4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4					CRD-HCU-3423+					
02C12	2	A 2 0 A,B1		H528		C4								







EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
				S E	QID	TM HL TEST ANL ED C	FREQ	AGING DBE C	HOURS
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN	
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE				
CRD-SV-120/4211	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 L5/8.4					CRD-HCU-4211+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4215	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 L5/8.4					CRD-HCU-4215+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4219	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 L5/8.4					CRD-HCU-4219+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4223	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 L5/8.4					CRD-HCU-4223+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4227	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 L5/8.4					CRD-HCU-4227+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4231	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4231+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4235	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4235+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4239	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4239+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4243	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4243+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4247	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4247+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4251	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4251+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4255	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4255+	
02C12	2	A	2 0	A,B1	H528		C4		
CRD-SV-120/4259	A610	HVA1709662A		A B	324007				4320
.5*SOLENOID WITHDRAW EXHAUST VALVE			R 522 K2/8.4					CRD-HCU-4259+	
02C12	2	A	2 0	A,B1	H528		C4		



CONTRACT	LEVEL	EPN	HFG	DESCRIPTION	MODEL	BLDG ELEV	STATUS	S E QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
									TM	HL	TEST	ANL	FO	C	FREQ
				EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-SV-120/4607			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4				CRD-HCU-4607+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4611			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4				CRD-HCU-4611+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4615			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4				CRD-HCU-4615+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4619			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4				CRD-HCU-4619+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4623			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4				CRD-HCU-4623+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4627			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 L5/8.4				CRD-HCU-4627+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4631			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4631+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4635			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4635+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4639			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4639+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4643			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4643+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4647			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4647+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4651			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4651+			
02C12	2	A	2 0	A,B1	M528			C4							
CRD-SV-120/4655			A610	HVA1709662A			A B	324007							4320
				.5"SOLENOID WITHDRAW EXHAUST VALVE			R	522 K2/8.4				CRD-HCU-4655+			
02C12	2	A	2 0	A,B1	M528			C4							





CONTRACT	LEVEL	EPN			DESCRIPTION	MFG	MODEL	BLDG	ELEV	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
		EC	USE	SAFETY FUNCTION							A/E DRAWING	A/E ZONE	S E	Q10	TM HL TEST	ANL EQ C	FREQ
CRD-SV-120/5843	2	A	20	A,B1	A610	HVA1709662A			R 522 K2/8.4	A B	324007					CRD-HCU-5843+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0219	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0219+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0223	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0223+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0227	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0227+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0231	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0231+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0235	2	A	20	A,B1	A610	HVA1709662A			R 522 K2/8.4	A B	324007					CRD-HCU-0235+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0239	2	A	20	A,B1	A610	HVA1709662A			R 522 K2/8.4	A B	324007					CRD-HCU-0239+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0243	2	A	20	A,B1	A610	HVA1709662A			R 522 K2/8.4	A B	324007					CRD-HCU-0243+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0615	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0615+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0619	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0619+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0623	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0623+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0627	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0627+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						
CRD-SV-121/0631	2	A	20	A,B1	A610	HVA1709662A			R 522 L5/8.4	A B	324007					CRD-HCU-0631+	4320
02C12	2	A	20	A,B1	A610	HVA1709662A			M528	A B	324007						







CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISHIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
							S E	91D	TM	HL TEST	ANL FO C	FREQ
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY		COMPOSITE EPN
						A/E DRAWING	A/E ZONE					
CRD-SV-121/1451				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4						CRD-HCU-1451+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1455				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4						CRD-HCU-1455+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1803				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1803+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1807				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1807+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1811				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1811+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1815				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1815+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1819				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1819+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1823				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1823+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1827				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1827+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1831				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4						CRD-HCU-1831+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1835				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4						CRD-HCU-1835+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1839				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4						CRD-HCU-1839+
02C12	2	A	2 0	A,B1		H528	C4					
CRD-SV-121/1843				A610	HVA1709662A		A B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4						CRD-HCU-1843+
02C12	2	A	2 0	A,B1		H528	C4					



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
CRD-SV-121/1847	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-1847+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/1851	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-1851+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/1855	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-1855+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/1859	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-1859+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2203	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2203+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2207	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2207+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2211	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2211+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2215	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2215+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2219	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2219+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2223	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2223+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2227	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2227+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2231	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-2231+		
02C12	2	A	2	0	A,B1	H528			C4						
CRD-SV-121/2235	A610	HVA1709662A							A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-2235+		
02C12	2	A	2	0	A,B1	H528			C4						



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLDG	ELEV	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
									S E	QID	TH	HL	TEST	ANI	FO
			EC	USE	SAFETY	FUNCTION	A/E	DRAWING	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
CRD-SV-121/2239				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 K2/8.4				CRD-HCU-2239+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2243				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 K2/8.4				CRD-HCU-2243+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2247				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 K2/8.4				CRD-HCU-2247+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2251				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 K2/8.4				CRD-HCU-2251+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2255				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 K2/8.4				CRD-HCU-2255+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2259				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 K2/8.4				CRD-HCU-2259+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2603				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2603+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2607				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2607+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2611				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2611+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2615				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2615+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2619				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2619+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2623				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2623+		
02C12	2	A	2 0	A,B1		H528			C4						
CRD-SV-121/2627				A610	HVA1709662A			A B	324007						4320
			.5"SOLENOID INSERT EXHAUST VALVE					R	522 L5/8.4				CRD-HCU-2627+		
02C12	2	A	2 0	A,B1		H528			C4						





EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE					
CRD-SV-121/3023	A610	HVA1709662A				A	B	324007						4320
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-3023+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3027	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-3027+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3031	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3031+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3035	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3035+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3039	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3039+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3043	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3043+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3047	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3047+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3051	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3051+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3055	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3055+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3059	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	K2/8.4								CRD-HCU-3059+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3403	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-3403+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3407	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-3407+	
02C12	2	A	2	0	A,B1	M528		C4						
CRD-SV-121/3411	A610	HVA1709662A				A	B	324007					4320	
.5"SOLENOID INSERT EXHAUST VALVE			R	522	L5/8.4								CRD-HCU-3411+	
02C12	2	A	2	0	A,B1	M528		C4						



EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
				S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE	EPN			
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE				
CRD-SV-121/3415		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	L5/8.4			CRD-HCU-3415+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3419		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	L5/8.4			CRD-HCU-3419+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3423		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	L5/8.4			CRD-HCU-3423+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3427		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	L5/8.4			CRD-HCU-3427+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3431		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3431+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3435		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3435+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3439		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3439+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3443		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3443+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3447		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3447+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3451		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3451+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3455		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3455+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3459		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	K2/8.4			CRD-HCU-3459+				
02C12	2	A	2 0	A,B1		H528		C4					
CRD-SV-121/3803		A610	HVA1709662A			A	B	324007		4320			
.5"SOLENOID INSERT EXHAUST VALVE				R	522	L5/8.4			CRD-HCU-3803+				
02C12	2	A	2 0	A,B1		H528		C4					



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-SV-121/3807	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4							CRD-HCU-3807+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3811	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4							CRD-HCU-3811+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3815	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4							CRD-HCU-3815+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3819	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4							CRD-HCU-3819+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3823	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4							CRD-HCU-3823+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3827	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4							CRD-HCU-3827+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3831	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3831+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3835	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3835+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3839	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3839+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3843	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3843+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3847	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3847+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3851	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3851+	
02C12	2	A	2	0	A,B1	H528		C4						
CRD-SV-121/3855	A610	HVA1709662A						A	B	324007				4320
.5*SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4							CRD-HCU-3855+	
02C12	2	A	2	0	A,B1	H528		C4						



EPN	MFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
			S	E	QID	TM	HL	TEST	ANL	FD	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	EC	USE	SAFETY	FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
						A/E	DRAWING	A/E	ZONE						
CRD-SV-121/3859	A610	HVA1709662A						A B	324007						4320
.5*SOLENOID INSERT EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-3859+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4203	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4203+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4207	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4207+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4211	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4211+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4215	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4215+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4219	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4219+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4223	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4223+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4227	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 L5/8.4					CRD-HCU-4227+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4231	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-4231+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4235	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-4235+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4239	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-4239+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4243	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-4243+			
02C12	2	A	2	0	A,B1		M528	C4							
CRD-SV-121/4247	A610	HVA1709662A						A B	324007					4320	
.5*SOLENOID INSERT EXHAUST VALVE						R	522 K2/8.4					CRD-HCU-4247+			
02C12	2	A	2	0	A,B1		M528	C4							





CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
							S	E	QID	TM	HL TEST	ANL	FO C
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E DRAWING	A/E ZONE						
CRD-SV-121/4647				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-4647+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/4651				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-4651+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/4655				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-4655+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5011				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-5011+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5015				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-5015+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5019				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-5019+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5023				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-5023+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5027				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 L5/8.4					CRD-HCU-5027+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5031				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-5031+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5035				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-5035+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5039				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-5039+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5043				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-5043+		
02C12	2	A	2 0	A,B1		M528	C4						
CRD-SV-121/5047				A610	HVA1709662A		A B	324007					4320
.5"SOLENOID INSERT EXHAUST VALVE						R 522 K2/8.4					CRD-HCU-5047+		
02C12	2	A	2 0	A,B1		M528	C4						











CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLDG ELEV	STATUS S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TM	HL	TEST	ANL	FO	C
			EC	USE	SAFETY FUNCTION	A/E DRAWING	DETAIL	ZONE	ROOM	ACCURACY			COMPOSITE EPN	
CRD-SV-122/1439				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 K2/8.4						CRD-HCU-1439+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1443				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 K2/8.4						CRD-HCU-1443+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1447				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 K2/8.4						CRD-HCU-1447+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1451				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 K2/8.4						CRD-HCU-1451+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1455				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 K2/8.4						CRD-HCU-1455+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1803				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1803+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1807				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1807+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1811				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1811+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1815				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1815+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1819				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1819+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1823				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1823+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1827				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1827+		
02C12	2	A	2 0	A,B1	H528		C4							
CRD-SV-122/1831				A610	HVA1709662A		A B	324007					4320	
			.5" SOLENOID WITHDRAW DRIVE VALVE			R 522 L5/8.4						CRD-HCU-1831+		
02C12	2	A	2 0	A,B1	H528		C4							



EPN	HFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
			S	E	TM	HL	TEST	ANL	FO	C	FREQ	AGING
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE				
CRD-SV-122/1835	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1835+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/1839	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1839+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/1843	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1843+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/1847	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1847+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/1851	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1851+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/1855	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1855+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/1859	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 K2/8.4					CRD-HCU-1859+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/2203	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 L5/8.4					CRD-HCU-2203+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/2207	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 L5/8.4					CRD-HCU-2207+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/2211	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 L5/8.4					CRD-HCU-2211+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/2215	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 L5/8.4					CRD-HCU-2215+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/2219	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 L5/8.4					CRD-HCU-2219+	
02C12	2	A	2	0	A,B1	M528		C4				
CRD-SV-122/2223	A610	HVA1709662A			A B	324007						4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R	522 L5/8.4					CRD-HCU-2223+	
02C12	2	A	2	0	A,B1	M528		C4				



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	S E QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
								TH	HL	TEST ANL	FO C	FREQ	AGING
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E DRAWING	A/E ZONE						
CRD-SV-122/2227				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 L5/8.4					CRD-HCU-2227+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2231				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 L5/8.4					CRD-HCU-2231+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2235				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2235+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2239				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2239+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2243				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2243+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2247				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2247+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2251				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2251+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2255				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2255+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2259				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 K2/8.4					CRD-HCU-2259+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2603				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 L5/8.4					CRD-HCU-2603+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2607				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 L5/8.4					CRD-HCU-2607+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2611				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 L5/8.4					CRD-HCU-2611+		
02C12	2	A	2 0	A,B1		H528							
CRD-SV-122/2615				A610	HVA1709662A		A B	324007					4320
			.5*	SOLENOID WITHDRAW DRIVE VALVE		R 522 L5/8.4					CRD-HCU-2615+		
02C12	2	A	2 0	A,B1		H528							











EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*		
				S.E.	QID	TM	HL	TEST ANL	EQ C	FREQ.
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE					
CRD-SV-122/3847	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4				CRD-HCU-3847+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/3851	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4				CRD-HCU-3851+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/3855	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4				CRD-HCU-3855+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/3859	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4				CRD-HCU-3859+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4203	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4203+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4207	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4207+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4211	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4211+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4215	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4215+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4219	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4219+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4223	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4223+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4227	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4				CRD-HCU-4227+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4231	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4				CRD-HCU-4231+	
02C12	2	A	2 0	A,B1	M528					
CRD-SV-122/4235	A610	HVA1709662A	A B	324007						4320
.5*SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4				CRD-HCU-4235+	
02C12	2	A	2 0	A,B1	M528					



EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
				S E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	OBE
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
	EC	USE	A/E	DRAWING	A/E	ZONE								
CRD-SV-122/4239	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4239+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4243	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4243+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4247	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4247+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4251	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4251+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4255	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4255+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4259	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4259+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4607	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4								CRD-HCU-4607+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4611	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4								CRD-HCU-4611+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4615	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4								CRD-HCU-4615+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4619	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4								CRD-HCU-4619+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4623	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4								CRD-HCU-4623+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4627	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4								CRD-HCU-4627+	
02C12	2	A	2 0	A,B1		H528		C4						
CRD-SV-122/4631	A610	HVA1709662A	A B	324007										4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4								CRD-HCU-4631+	
02C12	2	A	2 0	A,B1		H528		C4						



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
				S E	QID	TM HL TEST ANL FO C	FREQ	AGING DBE C	HOURS
CONTRACT	LEVEL	DESCRIPTION	BLOG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN	
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE				
CRD-SV-122/4635	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-4635+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/4639	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-4639+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/4643	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-4643+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/4647	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-4647+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/4651	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-4651+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/4655	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-4655+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5011	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4			CRD-HCU-5011+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5015	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4			CRD-HCU-5015+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5019	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4			CRD-HCU-5019+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5023	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4			CRD-HCU-5023+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5027	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 L5/8.4			CRD-HCU-5027+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5035	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-5035+	
02C12	2	A	2 0	A,B1	M528		C4		
CRD-SV-122/5039	A610	HVA1709662A	A B	324007					4320
.5"SOLENOID WITHDRAW DRIVE VALVE					R 522 K2/8.4			CRD-HCU-5039+	
02C12	2	A	2 0	A,B1	M528		C4		





CONTRACT	LEVEL	EPN	DESCRIPTION	MEG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*				
							S.E.	QID	TM	HL	TEST	ANI	EQ	C
				USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
CRD-SV-122/5823			.5" SOLENOID WITHDRAW DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 L5/8.4						CRD-HCU-5823+	
CRD-SV-122/5827			.5" SOLENOID WITHDRAW DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 L5/8.4						CRD-HCU-5827+	
CRD-SV-122/5831			.5" SOLENOID WITHDRAW DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-5831+	
CRD-SV-122/5835			.5" SOLENOID WITHDRAW DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-5835+	
CRD-SV-122/5839			.5" SOLENOID WITHDRAW DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-5839+	
CRD-SV-122/5843			.5" SOLENOID WITHDRAW DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-5843+	
CRD-SV-123/0219			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 L5/8.4						CRD-HCU-0219+	
CRD-SV-123/0223			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 L5/8.4						CRD-HCU-0223+	
CRD-SV-123/0227			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 L5/8.4						CRD-HCU-0227+	
CRD-SV-123/0231			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 L5/8.4						CRD-HCU-0231+	
CRD-SV-123/0235			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-0235+	
CRD-SV-123/0239			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-0239+	
CRD-SV-123/0243			.5" SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A	A B	324007							4320
02C12	2	A	2 0	A,B1	M528	R	522 K2/8.4						CRD-HCU-0243+	









EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***	*ENV. (E) PARAMETERS*						
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	AGING	DBE	C	HOURS
		EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE							COMPOSITE EPN
CRD-SV-123/1831	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 L5/8.4							CRD-HCU-1831+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1835	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1835+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1839	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1839+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1843	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1843+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1847	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1847+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1851	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1851+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1855	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1855+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/1859	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 K2/8.4							CRD-HCU-1859+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/2203	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 L5/8.4							CRD-HCU-2203+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/2207	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 L5/8.4							CRD-HCU-2207+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/2211	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 L5/8.4							CRD-HCU-2211+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/2215	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 L5/8.4							CRD-HCU-2215+
02C12	2	A 2 0 A,B1	M528	C4							
CRD-SV-123/2219	A610	HVA1709662A	A B	324007							4320
.5"SOLENOID INSERT DRIVE VALVE			R	522 L5/8.4							CRD-HCU-2219+
02C12	2	A 2 0 A,B1	M528	C4							



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
									TH	HL	TEST	ANL	FO	C	FREQ
		EC USE		SAFETY FUNCTION		BLDG ELEV		DETAIL		ZONE ROOM		ACCURACY		COMPOSITE EPN	
		A 2 0		A,B1		M528		R 522 L5/8.4		A B 324007		C4			
CRD-SV-123/2223			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2223+	
CRD-SV-123/2227			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2227+	
CRD-SV-123/2231			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2231+	
CRD-SV-123/2235			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2235+	
CRD-SV-123/2239			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2239+	
CRD-SV-123/2243			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2243+	
CRD-SV-123/2247			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2247+	
CRD-SV-123/2251			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2251+	
CRD-SV-123/2255			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2255+	
CRD-SV-123/2259			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2259+	
CRD-SV-123/2603			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2603+	
CRD-SV-123/2607			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2607+	
CRD-SV-123/2611			.5"SOLENOID INSERT DRIVE VALVE	A610	HVA1709662A										4320
02C12	2	A	2 0	A,B1										CRD-HCU-2611+	

















EPN	MFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE							
CRD-SV-123/5035	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5035+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5039	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5039+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5043	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5043+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5047	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5047+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5051	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5051+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5415	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 L5/8.4								CRD-HCU-5415+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5419	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 L5/8.4								CRD-HCU-5419+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5423	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 L5/8.4								CRD-HCU-5423+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5427	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 L5/8.4								CRD-HCU-5427+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5431	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5431+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5435	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5435+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5439	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5439+	
02C12	2	A	2	0	A,B1	M528		C4							
CRD-SV-123/5443	A610	HVA1709662A			A B	324007									4320
.5*SOLENOID INSERT DRIVE VALVE					R	522 K2/8.4								CRD-HCU-5443+	
02C12	2	A	2	0	A,B1	M528		C4							



CONTRACT	LEVEL	EPN	DESCRIPTION	HFG	MODEL	BLDG ELEV	STATUS S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			COMPOSITE EPH
									TM	HL	TEST ANL FO C	FREQ	AGING	OBE C	
			EC	USE	SAFETY FUNCTION	A/E DRAWING	DETAIL	ZONE	ROOM	ACCURACY					
CRD-SV-123/5447				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 K2/8.4							CRD-HCU-5447+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5819				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 L5/8.4							CRD-HCU-5819+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5823				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 L5/8.4							CRD-HCU-5823+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5827				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 L5/8.4							CRD-HCU-5827+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5831				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 K2/8.4							CRD-HCU-5831+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5835				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 K2/8.4							CRD-HCU-5835+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5839				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 K2/8.4							CRD-HCU-5839+		
02C12	2	A	2 0	A,B1		M528									
CRD-SV-123/5843				A610	HVA1709662A		A B	324007						4320	
			.5" SOLENOID INSERT DRIVE VALVE			R 522 K2/8.4							CRD-HCU-5843+		
02C12	2	A	2 0	A,B1		M528									
CRD-V-110A				A499	HVA-103-632		A B	316007						1.0	
			1.5" SOL. CAS-F-6 DISCH.			R 529 M.6/3.8			R53						
02C12	2	A	1 3	A		M528			D13						
CRD-V-110B				A499	HVA-103-632		A B	316007						1.0	
			1.5" SOL. CAS-F-6 DISCHARGE			R 528 M.8/3.8			R53						
02C12	2	A	1 3	A		M528			D14						
CSP-DPIS-4				B080	288A		B A	086001	N 14 00		04			4320	
			PRIMARY SECONDARY CONTAIN. IR-63			R 501 L4/9.3			R43 R305				E-IR-63+		
58	2	A	1 3	G		M543			C14						
CSP-DPIS-5				B080	288A		B A	086001	N 14 00		04			4320	
			ATMOS. SECONDARY CONTAIN. IR-64			R 501 N.0/5.1			R43 R305				E-IR-64+		
58	2	A	1 3	G		M543			C6						
CSP-DPIS-6				B080	288A		B A	086001	N 14 00		04			4320	
			ATMOS. SECONDARY CONTAIN. IR-64			R 501 N.8/5.5			R43 R305				E-IR-64+		
58	2	A	1 3	G		M543			C6						



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLDG	ELEV	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
									S	E	QID	TM	HL	TEST	ANL
			EC	USE	SAFETY	FUNCTION	A/E	DRAWING	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
CSP-LMS-1				N015	D2400X			C B	200009						4320
LMS FOR CSP-V-1															
68	2	A	2 3	B1,F		H543		R 508 M.5/7.6	D5					CSP-V-1+	
CSP-LMS-2				N015	D2400X			C B	200009						4320
LMS FOR CSP-V-2															
M68	2	A	2 3	B1,F		H543		R 508 M.5/7.4	D6					CSP-V-2+	
CSP-LMS-3				N015	D2400X			A B	200015						4320
LMS FOR CSP-V-3															
68	2	A	2 3	B1,F		H543		R 481 M.6/7.6	D5					CSP-V-3+	
CSP-LMS-4				N015	D2400X			A B	200015						4320
LMS FOR CSP-V-4															
68	2	A	2 3	B1,F		H543		R 478 M.6/7.6	C5					CSP-V-4+	
CSP-LMS-5				N015	D2400X			C B	200015	N	14	00	35		4320
LMS FOR CSP-V-5															
68	2	A	2 3	B1,F		H543		R 475 M.7/8.3	C5	R43				CSP-V-5+	
CSP-LMS-6				N015	D2400X			C B	200015	N	14	00	35		4320
LMS FOR CSP-V-6															
68	2	A	2 3	B1,F		H543		R 480 M.5/7.7	B14	R43				CSP-V-6+	
CSP-LMS-9				N015	D2400X			C B	200015						4320
LMS FOR CSP-V-9															
68	2	A	2 3	B1,F		H543		R 490 M.9/5.1	B6	R43				CSP-V-9+	
CSP-POS-10P1				A415	4-3869-001			A	248002						4320
POS FOR CSP-V-10															
	2	A	1 3	I		E519/11		R 491 M.9/5.1	E3					CSP-V-10+	
CSP-POS-10P12				A415	04-3869-002			A	248002						4320
POS FOR CSP-V-10															
	2	A	1 3	I		E519/11		R 491 M.9/5.1	E3					CSP-V-10+	
CSP-POS-10P2				A415	04-3869-001			A	248002						4320
POS FOR CSP-V-10															
	2	A	1 3	I		E519/11		R 491 M.9/5.1	E3					CSP-V-10+	
CSP-POS-10P3				A415	04-3869-001			A	248002						4320
POS FOR CSP-V-10															
	2	A	1 3	I		E519/11		R 491 M.9/5.1	E3					CSP-V-10+	
CSP-POS-10P4				A415	04-3869-001			A	248002						4320
POS FOR CSP-V-10															
3	2	A	1 3	I		E519/11		R 491 M.9/5.1	E3					CSP-V-10+	
CSP-POS-10P9				A415	04-3869-002			A	248002						4320
POS FOR CSP-V-10															
	2	A	1 3	I		E519/11		R 491 M.9/5.1	E3					CSP-V-10+	



CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*					
							S	F	QID	TM	HL	TEST	ANL	FO	C
		EC	USE	SAFETY	FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
				A/E	DRAWING	A/E	ZONE								
CSP-POS-7P1			A415	04-3869-001		B A	248002								4320
POS FOR CSP-V-7						R	475 N.5/7.7					CSP-V-7+			
2	A	1	3	I	E519/11		E3								
CSP-POS-7P12			A415	04-3869-002		A	248002								4320
POS FOR CSP-V-7						R	475 N.5/7.7					CSP-V-7+			
2	A	1	3	I	E519/11		E3								
CSP-POS-7P2			A415	04-3869-001		B A	248002								4320
POS FOR CSP-V-7						R	475 N.5/7.7					CSP-V-7+			
2	A	1	3	I	E519/11		E3								
CSP-POS-7P3			A415	04-3869-001		A	248002								4320
POS FOR CSP-V-7						R	475 N.5/7.7					CSP-V-7+			
2	A	1	3	I	E519/11		E3								
CSP-POS-7P4			A415	04-3869-001		A	248002								4320
POS FOR CSP-V-7						R	475 N.5/7.7					CSP-V-7+			
2	A	1	3	I	E519/11		E3								
CSP-POS-7P9			A415	04-3869-002		C A	248002								4320
POS FOR CSP-V-7						R	475 N.5/7.7					CSP-V-7+			
2	A	1	3	I	E519/11		E3								
CSP-POS-8P1			A415	04-3869-001		B A	248002								4320
POS FOR CSP-V-8						R	491 H.6/6.0					CSP-V-8+			
2	A	1	3	I	E519/11		E3								
CSP-POS-8P12			A415	04-3869-002		A	248002								4320
POS FOR CSP-V-8						R	491 H.6/6.0					CSP-V-8+			
2	A	1	3	I	E519/11		E3								
CSP-POS-8P2			A415	04-3869-001		B A	248002								4320
POS FOR CSP-V-8						R	492 H.6/6.0					CSP-V-8+			
2	A	1	3	I	E519/11		E3								
CSP-POS-8P3			A415	04-3869-001		B A	248002								4320
POS FOR CSP-V-8						R	491 H.6/6.0					CSP-V-8+			
2	A	1	3	I	E519/11		E3								
CSP-POS-8P4			A415	04-3869-001		B A	248002								4320
POS FOR CSP-V-8						R	491 H.6/6.0					CSP-V-8+			
2	A	1	3	I	E519/11		E3								
CSP-POS-8P9			A415	04-3869-002		B A	248002								4320
POS FOR CSP-V-8						R	491 H.6/6.0					CSP-V-8+			
2	A	1	3	I	E519/11		E3								
CSP-RLY-10CR			S440	219 BBXP		A	283041								4320
RLY CLOSE IND CSP-V-10				PNL VB-1A		R	474 H.6/8.2		R31	R212		E-CP-VB/1A+			
213	3	A	1	3	I	E519/11	E4								









CONTRACT	EPN	LEVEL	DESCRIPTION			MODEL	BLDG ELEV A/E DRAWING	STATUS S E QID DETAIL A/E ZONE	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*				
			EC	USE	SAFETY FUNCTION				TM	HL	TEST ANL	FO C	FREQ	AGING	DBE C	HOURS
E-42-FPC/V172			I005		TYPE D			A A	392001							4320
49	2	A	2 3	J,F,B2		E503/7	R 522 H.5/8.4								E-MC-7BA+	
E-42-FPC/V173			I005		TYPE D			A A	392001							4320
49	2	A	2 3	J,F,B2		E503/7	R 522 H.0/3.9								E-MC-8BA+	
E-42-FPC/V175			I005		TYPE D			A A	392001							4320
49	2	A	2 3	H		E503/7	R 522 H.0/4.0								E-MC-8BA+	
E-42-FPC/V181A			I005		TYPE *D*			A A	392001	F						4320
49	2	A	2 3	G		E503/7	R 522 H.7/8.3								E-MC-7BA+	
E-42-FPC/V181B			I005		TYPE D			A A	392001							4320
49	2	A	2 3	J,F,B2		E503/7	R 522 H.0/3.9								E-MC-8BA+	
E-42-FPC/V184			I005		TYPE *D*			A A	392001	F						4320
49	2	A	2 3	B1		E503/7	R 522 H.0/3.9								E-MC-8BA+	
E-42-LPCS/FCV11			I005		TYPE D			A A	392001							4320
49	2	A	1 0	H		E503/7	R 522 H.7/8.3								E-MC-7BA+	
E-42-LPCS/P2			I005		TYPE A4			A A	392001							4320
49	2	A	1 0	H		E503/8	R 522 H.3/8.3								E-MC-7B+	
E-42-LPCS/V1			I005		TYPE D			A A	392001							4320
49	2	A	1 0	H		E503/7	R 522 H.7/8.3								E-MC-7BA+	
E-42-LPCS/V12			I005		TYPE D			A A	392001							4320
49	2	A	2 0	H		E503/7	R 522 H.7/8.3								E-MC-7BA+	
E-42-LPCS/V5			I005		TYPE D			A A	392001							4320
49	2	A	1 0	H		E503/7	R 522 H.7/8.3								E-MC-7BA+	
E-42-HS/V67A			I005		TYPE D			A A	392001							4320
49	2	A	1 0	H		E503/7	R 522 H.7/8.3								E-MC-7BA+	
E-42-HS/V67B			I005		TYPE D			A A	392001							4320
49	2	A	1 0	H		E503/7	R 522 H.7/8.3								E-MC-7BA+	



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*				
			S	E	QID	TH	HL	TEST	ANL	FO-C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
E-42-MS/V67C	I005	TYPE D												
NEMA1 MTR STR MS-V-67C														4320
49	2	A	1	0	H	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-MS/V67D	I005	TYPE D												
NEMA1 MTR STR MS-V-67D														4320
49	2	A	1	0	H	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/FN1	I005	TYPE A												24
NEMA1 MTR STR HSLC-FN-1														
49	2	A	1	0	H	E503/7	R 526 H.7/8.3				E-MC-7BA+			
E-42-HSLC/FN2	I005	TYPE D												24
STARTING COIL FOR HSLC-FN-2														
49	2	A	1	0	H	E503/8	R 522 N.0/3.5				E-MC-8B+			
E-42-HSLC/V1A	I005	TYPE D												4320
NEMA1 MTR STR HSLC-V-1A														
49	2	A	1	0	H	E503/7	R 522 H.5/8.4				E-MC-7BA+			
E-42-HSLC/V1B	I005	TYPE *D*												4320
NEMA 1 MOTOR STARTER FOR HSLC-V-1B														
49	2	A	2	0	F	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/V1C	I005	TYPE *D*												4320
NEMA 1 MOTOR STARTER FOR HSLC-V-1C														
49	2	A	2	0	F	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/V1D	I005	TYPE *D*												4320
NEMA 1 MOTOR STARTER FOR HSLC-V-1D														
49	2	A	2	0	F	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/V2A	I005	TYPE D												4320
NEMA1 MTR STR HSLC-V-2A														
49	2	A	1	0	H	E503/7	R 522 H.5/8.4				E-MC-7BA+			
E-42-HSLC/V2B	I005	TYPE *D*												4320
NEMA 1 MOTOR STARTER FOR HSLC-V-2B														
49	2	A	2	0	F	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/V2C	I005	TYPE *D*												4320
NEMA 1 MOTOR STARTER FOR HSLC-V-2C														
49	2	A	2	0	F	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/V2D	I005	TYPE *D*												4320
NEMA 1 MOTOR STARTER FOR HSLC-V-2D														
49	2	A	2	0	F	E503/7	R 522 H.7/8.3				E-MC-7BA+			
E-42-HSLC/V3A	I005	TYPE D												4320
NEMA1 MTR STR HSLC-V-3A														
49	2	A	1	0	H	E503/7	R 522 H.5/8.4				E-MC-7BA+			







EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*							
				S	E	Q10	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
		EC USE SAFETY FUNCTION	A/E	DRAWING	A/E										
E-42-RHR/V124B	I005	TYPE D	A	A	392001										4320
NEHA1 MTR STR RHR-V-124B			R	522	N.0/3.8										E-MC-7BA+
49	2	A 2 1 C,E			E503/7										
E-42-RHR/V125A	I005	TYPE "D"	A	A	392001										4320
NEHA1 MTR STR RHR-V-125A			R	522	N.0/3.8										E-MC-8BA+
49	2	A 2 1 C,E			E503/7										
E-42-RHR/V125B	I005	TYPE "D"	A	A	392001	F									4320
NEHA 1 MOTOR STARTER FOR RHR-V125B			R	522	N.0/3.9										E-MC-8BA+
49	2	A 2 1 C			E503/7										
E-42-RHR/V134A	I005	TYPE "D"	A	A	392001										4320
NEHA1 MTR STR RHR-V-134A			R	522	H.7/8.0										E-MC-7BA+
49	2	A 1 0 C,E			E503/7										
E-42-RHR/V134B	I005	TYPE "D"	A	A	392001										4320
NEHA1 MTR STR RHR-V-134B			R	522	N.0/3.8										E-MC-8BA+
49	2	A 1 0 C,E			E503/7										
E-42-RHR/V16A	I005	TYPE "D"	A	A	392001										24
MOTOR START COIL FOR RHR-V-16A			R	572	H.4/5.7										
49	2	A 1 0 C,E			E503/12										
E-42-RHR/V16B	I005	TYPE D	A	A	392001										24
NEHA2 MTR STR RHR-V-16B			R	522	N.0/3.8										E-MC-8BA+
49	2	A 1 0 C,E			E503/7										
E-42-RHR/V17A	I005	TYPE "D"	A	A	392001										24
NEHA2 MTR STR RHR-V-17A			R	572	H.4/5.7										E-MC-7BB+
49	2	A 1 0 C,E			E503/12										
E-42-RHR/V17B	I005	TYPE D	A	A	392001										24
NEHA2 MTR STR RHR-V-17B			R	522	N.0/3.8										E-MC-8BA+
49	2	A 1 0 C,E			E503/7										
E-42-RHR/V21	I005	TYPE D	A	A	392001	F									4320
NEHA 1 MTR STR RHR-V-21			R	522	N.0/4.0										E-MC-8BA+
49	2	A 1 0 H			E503/7										
E-42-RHR/V23	I005	TYPE "H"	A	A	392001	F									4320
NEHA 1 MOTOR STARTER FOR RHR-V-23			R	471	H.7/7.8										E-MC-S2/1A+
49	2	A 1 3 B1,C,E			E505										
E-42-RHR/V24A	I005	TYPE D	A	A	392001										4320
NEHA1 MTR STR RHR-V-24A			R	522	N.0/4.0										E-MC-7BA+
49	2	A 1 0 C,E			E503/7										
E-42-RHR/V24B	I005	TYPE D	A	A	392001										4320
NEHA1 MTR STR RHR-V-24B			R	522	N.0/3.8										E-MC-8BA+
49	2	A 1 0 C,E			E503/7										









CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*				
							S	E	Q10	IM	HL	TEST	ANL	FO	C	FREQ
				EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
E-42-SGT/FN1B2			I005	TYPE *A*		A A			392001	F						4320
49	2	A	1	0	F	R	572	M.7/8.2	E503/12				E-MC-8BB+			
E-42-SGT/V1A			I005	TYPE *D*		A A			392001	F						4320
49	2	A	1	0	D	R	572	M.5/8.2	E503/12				E-MC-7BB+			
E-42-SGT/V3A1			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	576	M.4/5.7	E503/12				E-MC-7BB+			
E-42-SGT/V3A2			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	576	M.7/8.2	E503/12				E-MC-8BB+			
E-42-SGT/V3B1			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	575	M.4/5.7	E503/12				E-MC-7BB+			
E-42-SGT/V3B2			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	575	M.7/8.2	E503/12				E-MC-8BB+			
E-42-SGT/V4A2			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	573	M.7/8.2	E503/12				E-MC-8BB+			
E-42-SGT/V4B1			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	578	M.4/5.7	E503/12				E-MC-7BB+			
E-42-SGT/V4B2			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	576	M.7/8.2	E503/12				E-MC-8BB+			
E-42-SGT/V5A1			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	576	M.4/5.7	E503/12				E-MC-7BB+			
E-42-SGT/V5A2			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	578	M.7/8.2	E503/12				E-MC-8BB+			
E-42-SGT/V5B1			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	575	M.4/5.7	E503/12				E-MC-7BB+			
E-42-SGT/V5B2			I005	TYPE D		A A			392001	F						4320
49	2	A	1	0	D	R	575	M.7/8.2	E503/12				E-MC-8BB+			



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
			S	E	TH	HL	TEST	ANL	FO	C	FREQ	AGING
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
		EC USE SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE						
E-42-SGTEHC1A2	I005	TYPE *G*			A A	392001			4320			
DISC TO SGT EHC-1A2			R	572 H.5/8.2					E-MC-8BB+			
49	2	A 1 0 D		E503/12								
E-42-SGTEHC1B1	I005	5641D TYPE *G*			A A	392001			4320			
BRKR TO SGT-ERC-1B1			R	578 H.4/5.7					E-MC-78B+			
49	2	A 1 0 D										
E-42-SGTEHC1B2	I005	5641D TYPE *G*			A A	392001			4320			
BRKR TO SGT-EHC-1B2			R	572 N.7/8.2					E-MC-8BB+			
49	2	A 1 0 D										
E-42-SLC/P1A	I005	TYPE D			A A	392001	F		4320			
NEHA 3 MOTOR STARTER FOR SLC-P-1A			R	522 H4/8.1					E-MC-7B+			
49	2	A 1 0 D		E503/8								
E-42-SLC/P1B	I005	TYPE D			A A	392001	F		4320			
NEHA 3 MOTOR STARTER FOR SLC-P-1B			R	526 N/3.8					E-MC-8B+			
49	2	A 1 0 D		E503/8								
E-42-SLC/V1A	I005	TYPE D			A A	392001	F		4320			
NEHA 3 MOTOR STARTER FOR SLC-V-1A			R	522 H4/8.1					E-MC-7B+			
49	2	A 1 0 D		E503/8								
E-42-SLC/V1B	I005	TYPE D			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SLC-V-1B			R	526 N/3.8					E-MC-8B+			
49	2	A 1 0 D		E503/8								
E-42-SW/V187A	I005	TYPE *D*			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SW-V-187A			R	522 H.7/8.3					E-MC-7BA+			
49	2	A 4 3 E		E503/7								
E-42-SW/V187B	I005	TYPE *D*			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SW-V-187B			R	522 N.0/3.9					E-MC-8BA+			
49	2	A 1 3 E		E503/7								
E-42-SW/V24A	I005	TYPE D			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SW-V-24A			R	522 H4/8.1					E-MC-7B+			
49	2	A 1 3 C		E503/8								
E-42-SW/V24B	I005	TYPE D			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SW-V-24B			R	522 N0/4.0					E-MC-8BA+			
49	2	A 1 3 C		E503/7								
E-42-SW/V24C	I005	TYPE D			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SW-V-24C			R	522 N0/4.0					E-MC-8BA+			
49	2	A 1 3 C		E503/7								
E-42-SW/V44	I005	TYPE D			A A	392001	F		4320			
NEHA 1 MOTOR STARTER FOR SW-V-44			R	522 H4/8.1					E-MC-7B+			
49	2	A 1 0 C		E503/8								





EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*				
				S E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
		EC USE SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE							
E-CONN-X100B/01	A380	AMPHENOL JACK#82-503	R T	049001									4320
SOURCE RANGE NI CONNECTOR			C	507 102 D AZ R40	R47								
55	3	P 1 3 H		E539/30									
E-CONN-X100B/02	A380	AMPHENOL PLUG#28650	R T	049002									4320
SOURCE RANGE NI CONNECTOR			C	507 102 D AZ R40	R47								
55	3	P 1 3 H		E539/31									
E-CONN-X100C/01	A380	AMPHENOL JACK#82-503	R T	049001									4320
SOURCE RANGE NI CONNECTION			C	511 315 D AZ R40	C44								
55	3	P 1 3 H		E539/30									
E-CONN-X100C/02	A380	AMPHENOL PLUG#28650	R T	049002									4320
SOURCE RANGE NI CONNECTION			C	511 315 D AZ R40	C44								
55	3	P 1 3 H		E539/31									
E-CONN-X100D/01	A380	AMPHENOL JACK#82-503	R T	049001									4320
SOURCE RANGE NI CONNECTION			C	511 322 D AZ R40	C44								
55	3	P 1 3 H		E539/30									
E-CONN-X100D/02	A380	AMPHENOL PLUG#28650	R T	049002									4320
SOURCE RANGE NI CONNECTION			C	511 322 D AZ R40	C44								
55	3	P 1 3 H		E539/31									
E-CONN-X102A/01	A382	SOLIDSTRAND 34130	A	049006									4320
CONNECTOR (SPLICE)			C	534 185 D AZ R40	R56								
218	3	P 4 3 H		E539									
E-CONN-X102A/02	R098	WCSF-N SHRINK TUBE	A	049007									4320
CONNECTOR			C	534 185 D AZ R40									
218	3	P 1 3 H		E539									
E-CONN-X102B/01	A382	SOLIDSTRAND 34130	A	049006									4320
CONNECTOR (SPLICE)			C	534 219 D AZ R40	R56								
218	3	P 1 3 H		E539									
E-CONN-X102B/02	R098	WCSF-N SHRINK TUBE	A	049007									4320
CONNECTOR			C	534 219 D AZ R40									
218	3	P 1 3 H		E539									
E-CP-CAC/HR1A+	A136	S/N P-2040	A A	050106									
HYDROGEN RECOMBINER CONTROL PNL 1A			R	572 H.4/5.8									
1		1 0 D		71-00-0104									
E-CP-CAC/HR1B+	A136	S/N P-2041	A A	050106									
HYDROGEN RECOMBINER CONTROL PNL 1B			R	572 H.7/8.5									
1		1 0 D		71-00-0104									
E-CP-VB/1A+			A										
VAC BRKR RLY PNL			R	471 H7/8.3									
218	1	P 1 1 H		E545/15B									

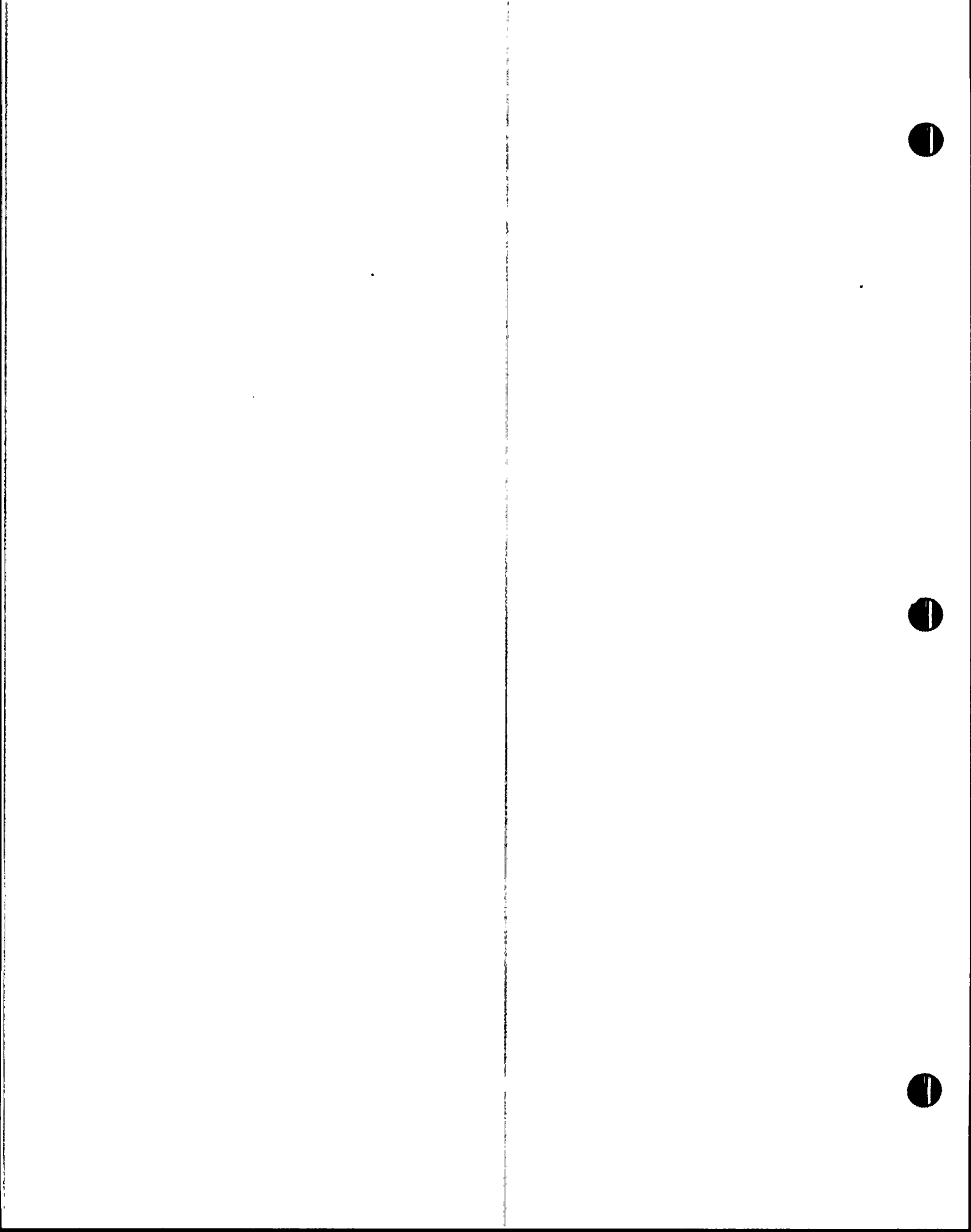




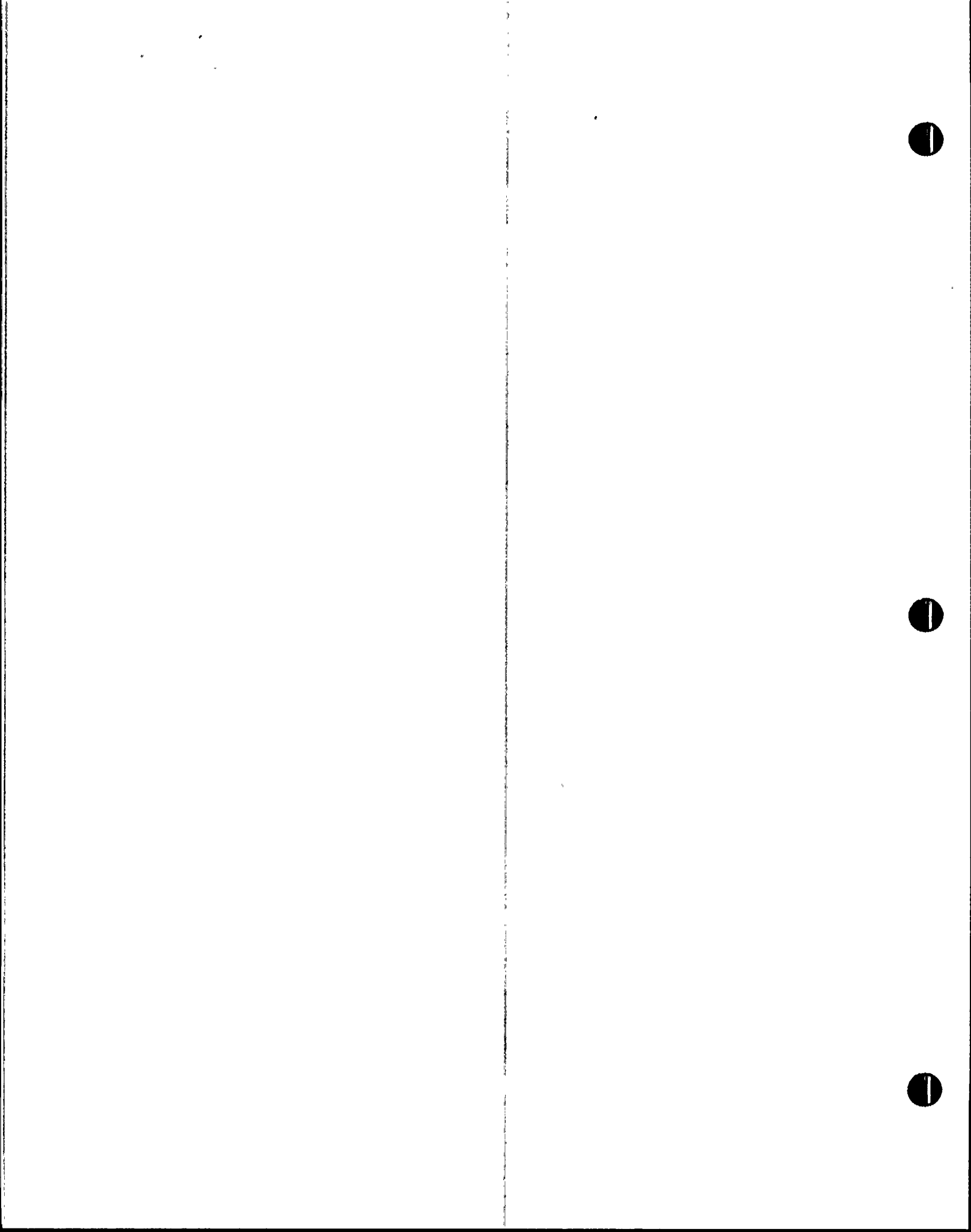
EPN	HFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
				S	E	QID	TM	HL	TEST	ANL	F0	C	FREQ
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
		EC USE SAFETY FUNCTION	A/E	DRAWING	A/E								
E-IR-72+			A A			185002	F N	21 01	33				
58	1	P 2 3 H			R 522 J7/8.3		R404						
					M569				D13				
E-IR-73+			A A			185002	F N	21 01	33				
58	1	P 1 0 H			R 522 H4/4.2		R404						
					M569				G15				
E-IR-74+			A A			185002	F N	21 01	33				
58	1	P 1 0 H			R 522 H4/7		R404						
					M569				E14				
E-IR-P001+		G082	A A			185003	F N	21 03					
02	1	P 1 0 H			R 471 K/4.2		R206						
					M568				G13				
E-IR-P002+		G082	A A			185003	F N	21 03					
02	1	P 2 3 H			R 522 N7/5.0		R404						
					M569				G10				
E-IR-P004+		G082	A A			185003	F N	21 03					
02	1	P 1 3 H			R 522 J5/7.2								
					M569				D13				
E-IR-P005+		G082	A A			185003	F N	21 03					
02	1	P 1 3 H			R 522 N.7/5.6		R404						
					M569				F9				
E-IR-P006+		G082	A A			185003	F N	21 03					
02	1	P 2 3 H			R 471 L5/4.1								
					M568				G12				
E-IR-P008+		G082	A A			185003	F N	21 03					
02	1	P 1 3 H			R 522 N7/9.3		R403						
					M569				C10				
E-IR-P009+		G082	A A			185003	F N	21 03					
02	1	P 2 1 H			R 471 J7/8.0								
					M568				D13				
E-IR-P010+		G082	A A			185003	F N	21 03					
02	2	P 2 1 H			R 471 H5/4.5								
					M568				G11				
E-IR-P011+		G082	A A			185003	F N	21 03					
02	1	P 2 3 H			R 568 H8/4.3		R504						
					M569				G4				
E-IR-P015+		G082 368X270TCG1	A A			185003	F N	21 03					
02	1	P 1 3 H			R 501 H7/7.3		R305						
					M568				D8				



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*						
			S	E	QID	TH	HL	TEST	ANL	EQ	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
		EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE											
E-IR-P017+		G082			A A	185003	F N	21 03							
RCIC SYS INST RACK															
02	1	P 2 1 H	H568		R 471 L/8			D12							
E-IR-P018+		G080			A A	185003	F N	21 03							
RHR-INST RACK DIV 1															
02	1	P 1 3 H	H568		R 501 J.5/3.8			H7							
E-IR-P021+		G082			A A	185003	F N	21 03							
02	1	P 1 3 H	H568		R 501 H9/9.3			R305							
E-IR-P022+		G082			A A	185003	F N	21 03							
02	1	P 2 3 H	H568		R 471 M5/7.9			D11							
E-IR-P024+		G080			A A										
02	1	P 1 0 H	H568		R 471 L.1/4.1			G12							
E-IR-P025+		G082			A A	185003	F N	21 03							
02	1	P 1 3 H	H568		R 501 L9/3.7			R305							
E-IR-P026+		G082			A A	185003	F N	21 03							
02	1	P 1 3 H	H569		R 522 J8/4.6			R404							
E-IR-P029+		G082			A A	185003	F N	21 03							
02	1	P 1 0 H	H568		R 471 K9/3.8			R206							
E-IR-P030+		G082			A A	185003	F N	21 03							
02	1	P 1 3 H	H568		R 501 L6/3.5			R305							
E-IR-P031+		G082			A A	185003	F N	21 03							
02	1	P 1 3 H	H568		R 501 H9/7.7			R305							
E-IR-P032+		G082			A A	185003	F N	21 03							
02	1	P 1 3 H	H568		R 507 L5/3.5			R305							
E-IR-P033+		G083			A A	185003	F N	21 03							
02	1	P 1 3 H	H568		R 501 H8/8.3			D8							
E-IR-P039+		G082			A A	185003	F N	21 03							
02	1	P 1 0 H	H569		R 522 H7/7			E10							







EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	TH	HL	TEST	ANL	FO	C	FREQ	AGING	OBE	C
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE					
E-RLY-HSLCV2A RELAY CUB/8D 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV2B RELAY CUB/4C 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV2C RELAY CUB/8D 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV2D RELAY CUB/4C 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV3A RELAY CUB/8D 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV3B RELAY CUB/8D 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV3C RELAY CUB/8D 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV3D RELAY CUB/4C 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	
E-RLY-HSLCV4 RELAY CUB/7E 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 N.0/3.5 E535/54A-F						E-MC-8B+	
E-RLY-HSLCV5 RELAY CUB/7E 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 N.0/3.5 E535/54A-F						E-MC-8B+	
E-RLY-HSLCV9 RELAY CUB/7E 49	S440	219BBXP							A	283041				4320
	3	A	1	0	F		R 522 N.0/3.5 E535/54A-F						E-MC-8B+	
E-RLY-RCICV63 RELAY CUB/7C 49	S440	219BBXP							A	283041				24
	3	A	2	1	B1,C		R 522 N.0/3.9 E535/55A-F						E-MC-8BA+	
E-RLY-RHRV11A RELAY CUB/4C 49	S440	219BBXP							A	283041				4320
	3	A	1	1	B1,C,E		R 522 H.7/8.3 E535/43A-H						E-MC-7BA+	



CONTRACT	EPN	LEVEL	DESCRIPTION EC	MFG USE	MODEL SAFETY FUNCTION	BLDG ELEV A/E DRAWING	STATUS S E DETAIL A/E ZONE	910	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TM	HL	TEST ANL	FQ	C	FREQ
											ACCURACY	COMPOSITE EPN		
E-RLY-RHRV11B RELAY CUB/7C 49		3	A	1 1	B1,C,E	S440 2198BXP R 522 N.0/3.9 E535/55A-F	A	283041					E-MC-8BA+	4320
E-RLY-RHRV16A RELAY CUB/8B 49		3	A	1 0	B1,C,E	S440 2198BXP R 575 H.6/5.0 E535/44A-E	A	283041					E-MC-7BB+	24
E-RLY-RHRV16B RELAY CUB/7C 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 N.0/3.9 E535/55A-F	A	283041					E-MC-8BA+	24
E-RLY-RHRV17A RELAY CUB/8B 49		3	A	1 0	B1,C,E	S440 2198BXP R 575 H.5/5.0 E535/44A-E	A	283041					E-MC-7BB+	24
E-RLY-RHRV17B RELAY CUB/7C 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 N.0/3.9 E535/55A-F	A	283041					E-MC-8BA+	24
E-RLY-RHRV21 RELAY CUB/7C 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 N.0/3.9 E535/55A-F	A	283041					E-MC-8BA+	4320
E-RLY-RHRV24A RELAY CUB/1B 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 H.7/8.3 E535/43A-H	A	283041					E-MC-7BA+	4320
E-RLY-RHRV26A RELAY CUB/7C 49		3	A	1 1	C,E	S440 2198BXP R 522 H.7/8.3 E535/43A-H	A	283041					E-MC-7BA+	4320
E-RLY-RHRV26B RELAY CUB/7C 49		3	A	1 1	C,E	S440 2198BXP R 522 N.0/3.9 E535/55A-F	A	283041					E-MC-8BA+	4320
E-RLY-RHRV27A RELAY CUB/1B 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 H.7/8.3 E535/43A-H	A	283041					E-MC-7BA+	24
E-RLY-RHRV27B RELAY CUB/7C 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 N.0/3.9 E535/55A-F	A	283041					E-MC-8BA+	24
E-RLY-RHRV3A RELAY CUB/8B 49		3	A	1 3	C,E	S440 2198BXP R 575 H.5/5.0 E535/44A-E	A	283041					E-MC-7BB+	4320
E-RLY-RHRV42A RELAY CUB/1B 49		3	A	1 0	B1,C,E	S440 2198BXP R 522 H.7/8.3 E535/43A-H	A	283041					E-MC-7BA+	4320









CONTRACT	LEVEL	EPN	DESCRIPTION	HEG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*				
							S E	91D	TH	HL	TEST	ANL	FO	C
			EC	USE	SAFETY	FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE	EPN
							A/E	DRAWING	A/E	ZONE				
E-RLY-SGTV5A1 RELAY CUB/8B			S440		219BBXP	A			283041					4320
49	3	A	1	0	D,F		R 575	M.5/5.0					E-MC-7BB+	
							E535/44A-E							
E-RLY-SGTV5A2 RELAY CUB/8C			S440		219DBXP	A			283041					4320
49	3	A	1	0	D,F		R 576	M.9/8.3					E-MC-8BB+	
							E535/56A-E							
E-RLY-SGTV5B1 RELAY CUB/8B			S440		291BBXP	A			283041					4320
49	3	A	1	0	D,F		R 575	M.5/5.0					E-MC-7BB+	
							E535/44A-E							
E-RLY-SGTV5B2 RELAY CUB/8C			S440		219BBXP	A			283041					4320
49	3	A	1	0	D,F		R 576	M.9/8.3					E-MC-8BB+	
							E535/56A-E							
E-RLY-SLCP1A RELAY CUB/8A			S440		219BBXP	A			283041					4320
49	3	A	1	0	A		R 522	M.5/8.3					E-MC-7B+	
							E535/42A-E							
E-RLY-SLCP1B RELAY CUB/7E			S440		219BBXP	A			283041					4320
49	3	A	1	0	A		R 522	M.0/3.5					E-MC-8B+	
							E535/54A-F							
E-RLY-SLCV1A RELAY CUB/8A			S440		219BBXP	A			283041					4320
49	3	A	1	0	A		R 522	M.5/8.3					E-MC-7B+	
							E535/42A-E							
E-RLY-SWV44 RELAY CUB/8A			S440		219BBXP	A			283041					4320
49	3	A	1	0	C,J		R 522	M.5/8.3					E-MC-7B+	
							E535/42A-E							
E-SH-10+			W120		75-DHP-500				D H 305001	F	N			
47A	1	P	2	3	H		R 471	L2/9.0						
							E502/4	J8						
E-SH-11+			W120		75-DHP-500				D H 305001	F	N			
47A	1	P	2	3	H		R 522	M.8/7.4						
							E502/4	G14						
E-SH-12+			W120		75-DHP-500				D H 305001	F	N			
47A	1	P	2	3	H		R 522	M.5/8.0						
							E502/4	G8						
E-SH-9+			W120		75-DHP-500				D H 305001	F	N			
47A	1	P	2	3	H		R 471	K3/9.0						
							E502/4	J14						
E-TR-78A ELP-7B-A TRANSFORMER			S250		122091-3				G A 349004	F	N	21 00	76	4320
218	2	A	2	3	H		R 606	J.6/3.7		R81	R700			E-ELP-78A+
							E503/12	R15						







CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	BLDG ELEV	STATUS S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TM	HL	TEST ANL	FO C	FREQ	AGING
				EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
E-X-102A			W120	55-00-0002			B A	382003		Y				4320
				T/C AND RTD ELECTRICAL PENETRATION										
55	3	P	2 3	H	S796		C 534 189DAZ		R56					
E-X-102B			W120	55-00-0002			B A	382003		Y				4320
				T/C AND RTD ELECTRICAL PENETRATION										
55	3	P	2 3	H	S796		C 534 218DAZ		R56					
E-X-103A			W120	55-00-0002			R A	382003		Y				4320
				MED VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 203DAZ		R56					
E-X-103B			W120	55-00-0002			R A	382003		Y				4320
				MED VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 212DAZ		R56					
E-X-103C			W120	55-00-0002			R A	382003		Y				4320
				MED VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 305 D AZ		R54					
E-X-103D			W120	55-00-0002			R A	382003		Y				4320
				MED VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 322DAZ		R54					
E-X-104A			W120	55-00-0002			B A	382003		Y				4320
				LOW VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 511 112DAZ		R47					
E-X-104B			W120	55-00-0002			B A	382003		Y				4320
				LOW VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 511 115DAZ		R47					
E-X-104C			W120	55-00-0002			B A	382003		Y				4320
				LOW VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 192DAZ		R56					
E-X-104D			W120	55-00-0002			B A	382003		Y				4320
				LOW VOLTAGE POWER ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 222DAZ		R56					
E-X-105A			W120	55-00-0002			B A	382003		Y				4320
				CONTROL AND INDIC ELECTRICAL PENET										
55	3	P	2 3	H	S797		C 507 100 D AZ		R47					
								EB						
E-X-105B			W120	55-00-0002			B A	382003		Y				4320
				CONTROL AND INDIC ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 511 135 D AZ		R47					
E-X-105C			W120	55-00-0002			B A	382003		Y				4320
				CONTROL AND INDIC ELECTRICAL PENET										
55	3	P	2 3	H	S796		C 534 195 D AZ		R56					





CONTRACT	LEVEL	EPN	DESCRIPTION EC USE	MFG SAFETY FUNCTION	MODEL A/E DRAWING	STATUS S E BLDG ELEV DETAIL	QID ZONE	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
								TH	HL	TEST	ANL	FO	C	FREQ	AGING
								ROOM		ACCURACY		COMPOSITE EPN			
FPC-DPIC-1			F130			A									4320
F/DH BYPASS FLOW CONTROL DP														E-IR-62+	
3		A	2 0 G		M526	R 476 H.4/6.8		R61							
FPC-DPIS-11			I204			A									4320
F/DH BYPASS FLOW CONTROL DP														E-IR-62+	
220		A	2 0 G		M526	R 471 H.4/6.8									
FPC-DPIS-12			I204			A									4320
F/DH BYPASS FLOW CONTROL DP														E-IR-62+	
220		A	2 0 G		M526	R 471 H.4/6.8									
FPC-FIC-21						D									4320
FUEL POOL RECIRC FLOW CONTROL															
220		A	1 3 I		M526	R 606		R73							
FPC-FT-16			R369	1153084		C P									4320
FLOW TRANS														E-IR-69+	
220		A	1 3 I		M526	R 522 H.0/8.1		R61							
FPC-FT-17						C P	156009								
FLOW TRAN OF FPC-V-746 & 747															
215		A,G	2 3		M526	R 467		R61							
FPC-LIS-1A			I204	289A		A A	198009		Y	21	00		33+		4320
FPC-TK-1A HIGH-HIGH LEVEL															
215		F	2 0		M526	R 572 K.0/6.8		R71							
FPC-LIS-1B			I204	289A		A A	198009		Y	21	00		33+		4320
FPC-TK-1B HIGH-HIGH LEVEL															
215		F	2 0		M526	R 572 H.0/6.8		R73							
FPC-LIS-2A			I204	289A		A A	198009		Y	21	00		33+		4320
FPC-TK-1A LEVEL CONTROL HIGH SIDE															
215		F	2 0		M526	R 572 K.0/6.8		R71							
FPC-LIS-2B			I204	289A		A A	198009		Y	21	00		33+		4320
FPC-TK-1B LEVEL CONTROL HIGH SIDE															
215		F	2 0		M526	R 572 H.0/6.8		R73							
FPC-LIS-3A1			I204	289A		A A	198009								4320
FPC-TK-1A LEVEL CONTROL LOW SIDE															
215		F	2 0		M526	R 572 K.0/6.9		R71							
FPC-LIS-3A2			I204	289A		A A	198009								4320
FPC-TK-1A LOW-LOW LEVEL															
215		F	2 3		M526	R 572 K.0/6.9		R71							
FPC-LIS-3B1			I204	289A		A A	198009								4320
FPC-TK-1B LEVEL CONTROL LOW SIDE															
215		F	2 0		M526	R 572 H.0/6.9		R73							



EPN	MFG	MODEL	STATUS			***SEISHIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
	EC	USE	SAFETY	FUNCTION	A/E DRAWING	A/E ZONE									
FPC-LIS-382		1204	289A			A A	198009	Y	21	00		17			4320
FPC-TK-1B	LOW-LOW LEVEL				R	572	M.06.9	R73							
220	2	2	3	F	M526			HB							
FPC-LS-4															4320
FUEL POOL LEVEL					R	572		R71							
215	2	A	2	3	F.02	M526		J11							
FPC-LS-5															4320
FUEL POOL LEVEL					R	572		R71							
215	2	A	2	3	B2.F	M526		J10							
FPC-LT-21															4320
FUEL POOL LEVEL					R	606		R73							
220	3	A	2	3	F	M526		J10							
FPC-M-1A		W120	TADP/326TS					P P	213014						4320
50HP/58A MOTOR FOR FPC-P-1A					R	550	M.2/8.5	R63.					FPC-P-1A+		
215	2	2	3	F	M526			D13							
FPC-M-1B		W120	TADP/326TS					P P	213014						4320
50HP/58A MOTOR FOR FPC-P-1B					R	549	M.2/3.6	R63					FPC-P-1B+		
215	2	2	3	F	M526			C13							
FPC-MO-153		L200	SMB-000-5					S A	221001						4320
MO FOR FPC-V-153					R	452	K/7.9	R21					FPC-V-153+		
41A	2	A	1	3	B1	M526		B11							
FPC-MO-154		L200	SMB-000-5					S A	221001						4320
MO FOR FPC-V-154					R	452	J9/8	R21					FPC-V-154+		
41A	2	A	2	3	B1	M526		B11							
FPC-MO-156		L200	SMB-00					G A	221001						4320
MO FOR FPC-V-156					R	468	K2/8.2	R21					FPC-V-156+		
41A	2	A	1	3	B1	M526		C11							
FPC-MO-172								P P	221001						4320
MO FOR FPC-V-172					R	471	K.9/9.0						FPC-V-172+		
41A	2	A	1	3	B2	M526		C9							
FPC-MO-173								P P	221001						4320
MO FOR FPC-V-173					R	471	K/9.4						FPC-V-173+		
41A	2	A	1	3	B2	M526		C8							
FPC-MO-175								P P	221001						4320
MO FOR FPC-V-175					R	550							FPC-V-175+		
41A	2	A	2	3	B2	M526		C10							
FPC-MO-181A								P P	221001						4320
MO FOR FPC-V-181A					R	548							FPC-V-181A+		
41A	2	2	3	F	M526			E14							



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*						
			S	E	QID	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
	EC	USE	SAFETY	FUNCTION	A/E DRAWING	A/E ZONE									
FPC-MO-181B MO FOR FPC-V-181B					P P	221001									4320
41A	2	2 3	F		M526	D14									FPC-V-181B+
FPC-MO-184 MO FOR FPC-V-184					P P	221001									4320
41A	2	A 1 3	B2		M526	R 471 L.0/9.4 C9									FPC-V-184+
FPC-PS-6A PUMP SUCTION PRESSURE P-1A		B070		D2T-M150SS		A A	256018								4320
58	2	A 1 3	F		M526	R 522 J.0/6.9 E14		R51							E-IR-71+
FPC-PS-6B PUMP SUCTION PRESSURE P-1B		B070		D2T-M150SS		A A	256018								4320
58	2	A 1 3	F		M526	R 552 N/8.1 D14		R53							E-IR-69+
FPC-PS-9A PUMP DISCHARGE PRESSURE P-1A		B070		B2T-M12SS		A A	256002								4320
58	2	A 1 3	F		M526	R 522 N.0/8.1 D13		R51							E-IR-71+
FPC-PS-9B PUMP DISCHARGE PRESSURE P-1B		B070		B2T-M12SS		A A	256002								4320
58	2	A 1 3	F		M526	R 524 N.0/8.5 D13		R53							E-IR-69+
FPC-RMS-P/1A RMS FOR FPC-P-1A															4320
	3	A 2 3	G		M526	R 522 J.0/6.9 E14									
FPC-RMS-P/1B RMS FOR FPC-P-1B															4320
	3	A 2 3	G		M526	R 522 N.0/8.1 D14									
FPC-SPV-1 FPC-V-1 F/DH BYPASS		A499		WJNP831654E		B A									4320
220	2	A 1 3	F		M526	R 471 H.4/6.8 C9		R61							E-IR-62+
FPC-SPV-113 FPC CLEANUP BYPASS SOLENOID OPER.		A499		WTHT831654		A A	315004	R N	21	00					4320
215	2	A 2 3	G		M526	R 525 N.0/8.0 C14		R54							E-IR-69+
FPC-TE-6 MEASURES TEMP OF RECIRC. LINE															4320
215	2	A 1 3	F		M526	R 467 F9		R61							
FPC-TE-7 FUEL POOL															4320
215	2	A 1 3	F		M526	R 572 H11		R31							
FPC-TE-8 FUEL POOL															4320
215	2	A 1 3	F		M526	R 572 H10		R31							



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*					
				S	E	GID	TM	HL	TEST ANL	FO C	FREQ	AGING DBE
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE							
FPC-TI-6												4320
TEMP IND FOR FPC-TE-6				R 467	D	R61						
215	3	A	4 3 I	M526	F9							
FPC-TI-7												4320
FUEL POOL				R 471	D	R31						
215	3	A	4 3 I	M526	H10							
FPC-TI-8												4320
FUEL POOL				R 471	D	R31						
215	3	A	4 3 I	M526	H10							
HPCS-DPIS-9		1204	288A									24
HPCS BREAK LOGIC H22-P024				R 475	N A	086001						
02E22	3	A	1 0 C	M520	L.2/3.9	R33	R206					E-IR-P024+
HPCS-FIS-6		1204	289									24
HPCS-P-1 DISCH				R 475	A A	140001	N 14 00					33+
02E22	3	A	1 0 C	M520	L.2/3.9	R33	R206					E-IR-P024+
HPCS-FI-5		G082	50-555-11CHA4UCF									24
HPCS-P-1 DISCH				R 471	A P	156003	N 14 00					33+
02E22	3	A	1 0 I	M520	L.2/3.9	R33	R206					E-IR-P024+
HPCS-LMS-5		N007	84836-0577									24
LMS FOR HPCS-V-5 CONT ISOL				C 549	R P	200007	Y					
69	2	A	2 0 C	M520	L.2/3.9	R17						HPCS-V-5+
HPCS-LS-2A		M040	3.5-751-1X-MPG-M148Y									24
SUPPRESSION POOL LVL HPCS VLV CNTL				R 465	A B	207002	N 14 00					
02E22	2	A	1 0 C	M543	J.5/4.1	R32						
HPCS-LS-2B		M040	159C4294P002									24
SUPPRESSION POOL LVL HPCS VLV CNTL				R 471	A B	207002	N 14 00					
02E22	2	A	1 0 C	M543	M/8.0	R33						
HPCS-M-1		G080	5K6357XC10A									24
3000HP/373A MOTOR DRIVER HPCS-P-1				R 430	B A	213013	Y 01					
02E22	2	A	1 0 C	M520	M.2/3.7	R13	R11					HPCS-P-1+
HPCS-M-3		M120	7504786									24
15HP/18A MOTOR FOR HPCS-P-3				R 430	A B	213016						
35A	2	A	1 0 C	M520	L.5/3.5	R13	R11					HPCS-P-3+
HPCS-M0-1		L200	SMB-000-25/P129									24
1.6HP 3.4A MOTOR OPER. HPCS-V-1				R 435	A A	221001	N 14 00					33+
02E22	2	A	1 0 C	M520	M.0/4.0	R13	R11					HPCS-V-1+
HPCS-M0-10		L200	SMB-3-150/C215Y									24
26.0HP MOTOR OPERATOR HPCS-V-10				R 451	N A	221001	Y 14 00					33
02E22	2	A	1 0 C	M520	H/3.8	R23	R106					HPCS-V-10+





CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
							S E	91D	TH	HL TEST	ANL FO C	FREQ
				EC USE SAFETY FUNCTION	BLDG ELEV A/E DRAWING	DETAIL A/E ZONE	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
LD-TE-1C			N070	145C3224P001		A M	339004	W N	01	99+		24
				LD TE RVCU PHP RH 2 INLET VENT			R 532 M.8/5.0					
02E31	2	A	1 0	F,B1	807E154TC/		2B4					
LD-TE-1D			N070	5641-R-DACAR		A M	339004	W N	01	99+		24
				LD TE RVCU PHP RH 2 INLET VENT			R 532 N.2/5.4					
02E31	2	A	1 0	F,B1	807E154TC/		2F4					
LD-TE-1E			P427	N145C3224P1		A M	339004	N	01	99+		24
				LD TE RVCU HEAT EXCH RH INLET VENT			R 554 K.1/3.4					
02E31	2	A	1 0	F,B1	807E154TC/		2B5					
LD-TE-1F			P427	N145C3224P1		A M	339004	N	01	99+		24
				LD TE RVCU HEAT EXCH RH INLET VENT			R 554 K.1/3.4					
02E31	2	A	1 0	F,B1	807E154TC/		2F5					
LD-TE-24A			N070	N145C3224P1		A M	339004	N	01	99+		24
				LD TE RCIC PIPE ROUTING AREA AMB			R 467					
02E31	2	A	1 0	F,B1	807E154TC/		2B					
LD-TE-24B			N070	N145C3224P1		A M	339004	N	01	99+		24
				LD TE RCIC PIPE ROUTING AREA AMB			R 467					
02E31	2	A	1 0	F,B1	807E154TC/		2F					
LD-TE-25B			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RCIC PIPE ROUTE INLET VENT			R 436					
02E31	2	A	1 0	F,B1	807E154TC/		2F					
LD-TE-26A			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RCIC PIPE ROUTE OUTLET VENT			R 467					
02E31	2	A	1 0	F,B1	807E154TC/		2E					
LD-TE-26B			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RCIC PIPE ROUTE OUTLET VENT			R 467					
02E31	2	A	1 0	F,B1	807E154TC/		2K					
LD-TE-27A			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RHR EQUIP AREA INLET VENT			R 432 L5/9.4	R13	R7			
02E31	2	A	1 0	F,B1	807E154TC/		3B9					
LD-TE-27B			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RHR EQUIP AREA INLET VENT			R 432 K9/9.4	R11	R6			
02E31	2	A	1 0	F,B1	807E154TC/		3F9					
LD-TE-27C			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RHR EQUIP AREA INLET VENT			R 432 L5/9.4	R13	R7			
02E31	2	A	1 0	F,B1	807E154TC/		3B					
LD-TE-27D			N070	N145C3224P1		B M	339004	N	01	99+		24
				LD TE RHR EQUIP AREA INLET VENT			R 432 K9/9.4	R11	R6			
02E31	2	A	1 0	F,B1	807E154TC/		3F					













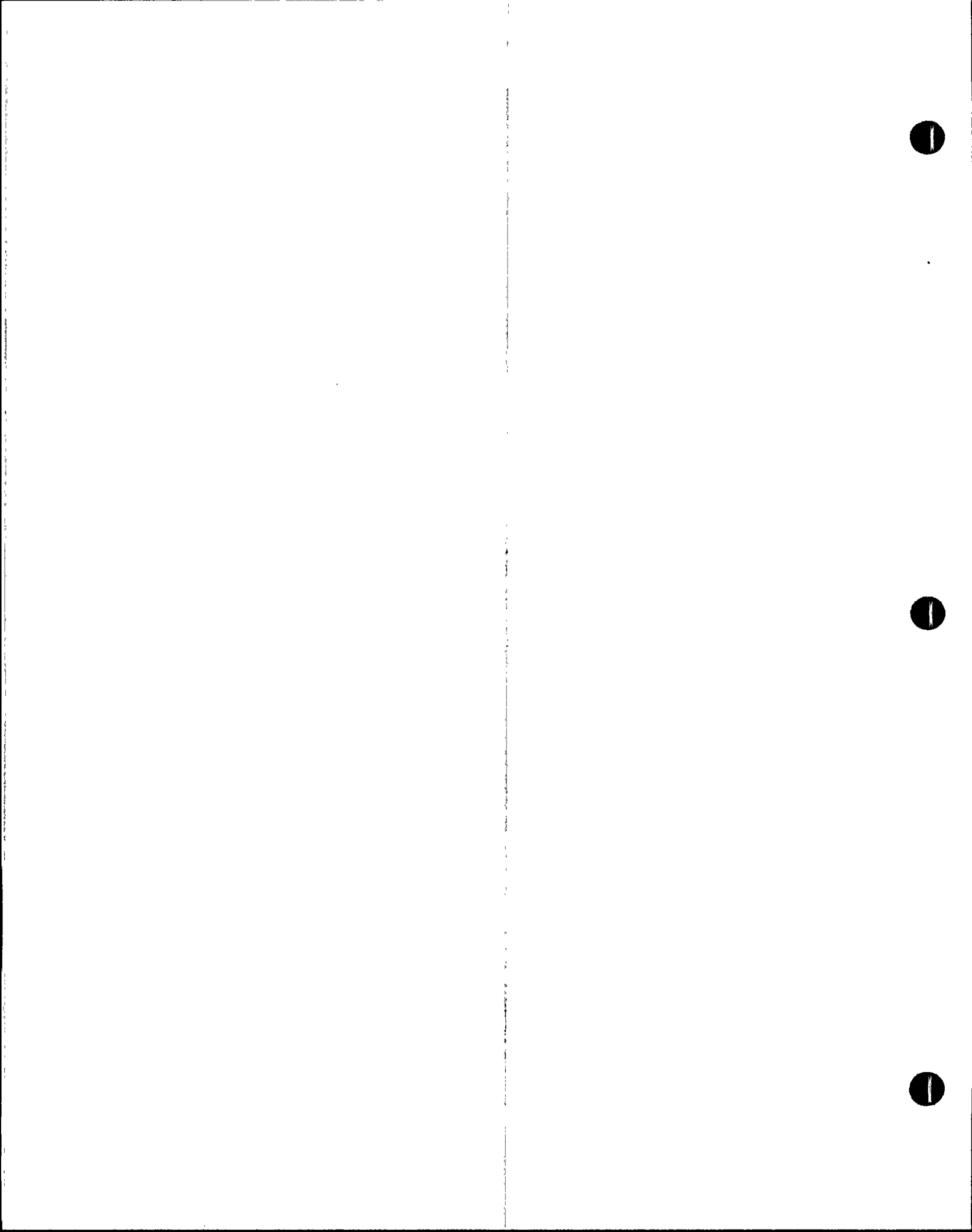
CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	BLDG ELEV	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
								S	E	QID	TM	HL	TEST	ANL
				EC	USE	SAFETY FUNCTION	A/E DRAWING	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
MS-FT-33C			G082	4EAH			A A	156003						4320
MS FLOW - - H22-P010							R 471	M.5/4.5	R33				E-IR-P010+	
02	2	A	2 3	G		M530		H13						
MS-FT-33D			G082	505551118NAAWCH			A A	156003						4320
MS FLOW - - H22-P009							R 471	J.6/8.1	C34				E-IR-P009+	
02	2	A	2 3	G		M530		H5						
MS-FT-34A			G080	5551118NAAWCA			A A	156003	F		22	0 1		4320
NB-JP-1 FLOW TRANSMITTER							R 471	M.5/4.5					E-IR-P010+	
02	2	A	2 3	G		M530		H13						
MS-FT-34B			G080	5551118NAA4WCA			A A	156003	F		22	0 0		4320
NB-JP-11 FLOW TRANSMITTER							R 471	J.6/8.1					E-IR-P009+	
02	2	A	2 3	G		M530		E2						
MS-FT-34C			G080	5551118NAAWCA			A A	156003	F		22	0 1		4320
NB-JP-2 FLOW TRANSMITTER							R 471	M.5/4.5					E-IR-P010+	
02	2	A	2 3	G		M530		H13						
MS-FT-34D			G080	5551118NAA4WCA			A A	156003	F		22	0 0		4320
NB-JP-12 FLOW TRANSMITTER							R 471	J.6/8.1					E-IR-P009+	
02	2	A	2 3	G		M530		E2						
MS-FT-34E			G080	5551118NAA4EAE			A A	156003	F		22	0 1		4320
NB-JP-3 FLOW TRANSMITTER							R 471	M.5/4.5					E-IR-P010+	
02	2	A	2 3	G		M530		H13						
MS-FT-34F			G080	5551118NAA4WCA			A A	156003	F		22	0 0		4320
NB-JP-13 FLOW TRANSMITTER							R 471	J.6/8.1					E-IR-P009+	
02	2	A	2 3	G		M530		E2						
MS-FT-34G			G082	4EAH			A A	156003						4320
NB-JP-4 FLOW TRANSMITTER							R 471	M.5/4.5					E-IR-P010+	
02	2	A	2 3	G		M530		H13						
MS-FT-34H			G082	505551118NAA4WCA			A A	156003						4320
NB-JP-14 FLOW TRANSMITTER							R 471	J.6/8.1					E-IR-P009+	
02	2	A	2 3	G		M530		E2						
MS-FT-34J			G082	4EAH			A A	156003						4320
NB-JP-5 FLOW TRANSMITTER							R 471	M.5/4.5	R33				E-IR-P010+	
02	2	A	2 3	G		M530		H13						
MS-FT-34K			G082	505551118NAA4WCA			A A	156003						4320
NB-JP-15 FLOW TRANSMITTER							R 471	J.6/8.1	R31				E-IR-P009+	
02	2	A	2 3	G		M530		H5						
MS-FT-34L			G082	4EAH			A B	156003						4320
NB-JP-6 FLOW TRANSMITTER H22-P010							R 471	M.5/4.5	R33				E-IR-P010+	
02	2	A	2 3	G		M530		H13						



CONTRACT	LEVEL	EPN	DESCRIPTION	HFG	MODEL	STATUS	S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			COMPOSITE EPN
									TM	HL	TEST	ANL	FO	C	
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY					
					A/E DRAWING	A/E ZONE									
MS-FT-34H				G082	5055511BNAA4WCA	A A	156003							4320	
NB-JP-16 FLOW TRANSMITTER								R 471 J6/8.1					E-IR-P009+		
02	2	A	2 3	G	M530		E2								
MS-FT-34N				G082	4EAH	A A	156003							4320	
NB-JP-7 FLOW TRANSMITTER				H22-P010				R 471 H.5/4.5	R33				E-IR-P010+		
02	2	A	2 3	G	M530		H13								
MS-FT-34P				G082	555111BNAA4WCA	A A	156003							4320	
NB-JP-17 FLOW TRANSMITTER								R 471 H.5/4.5					E-IR-P010+		
02	2	A	2 3	G	M530		F2								
MS-FT-34R				G082	4EAH	A A	156003							4320	
NB-JP-8 FLOW TRANSMITTER				H22-P010				R 471 H.5/4.5	R33				E-IR-P010+		
02	2	A	2 3	G	M530		H13								
MS-FT-34S				G082	555111BNAA4WCA	A B	156003							4320	
NB-JP-18 FLOW TRANSMITTER								R 471 J.6/8.1					E-IR-P009+		
02	2	A	2 3	G	M530		E2								
MS-FT-34T				G082	4EAH	A A	156003							4320	
NB-JP-9 FLOW TRANSMITTER				H22-P010				R 471 H.5/4.5	R33				E-IR-P010+		
02	2	A	2 3	G	M530		H14								
MS-FT-34U				G082	555111BNAA4WCA	A A	156003							4320	
NB-JP-19 FLOW TRANSMITTER								R 471 J.6/8.1					E-IR-P009+		
02	2	A	2 3	G	M530		E2								
MS-FT-34V				G082	4EAH	A A	156003							4320	
NB-JP-10 FLOW TRANSMITTER				H22-P010				R 471 H.5/4.5	R33				E-IR-P010+		
02	2	A	2 3	G	M530		H14								
MS-FT-34W				G080	555111BNAAA4WCA	A A	156003							4320	
MS FLOW - - H22-P009								R 471 J.6/8.1	R31				E-IR-P009+		
02	2	A	2 3	G	M530		H4								
MS-LIS-24A				I204	16483	A A	198001	F N	14 00			33+		24	
REACTOR LEVEL 3 AND 8 TRIPS								R 525 H.4/7.1	R51				E-IR-P004+		
02B22	2	A	1 0	A,B1,C	M529		H12								
MS-LIS-24B				I204	16483	A A	198001	N	14 00			33+		24	
MS LEVEL				H22-P027				R 527 H7/6.8	R53	R404			E-IR-P027+		
02B22	2		1 0	A,B1	M529		J5								
MS-LIS-24C				I204	16483	A A	198001	N	14 00			33+		24	
MS LEVEL				H22-P005				R 526 N8/5.8	R53	R404			E-IR-P005		
02B22	2	A	1 0	A,B1,C	M529		H5								
MS-LIS-24D				I204	16483	A A	198001	F N	14 00			33+		24	
MS LEVEL				H22-P026				R 530 J.9/4.5	R52	R404			E-IR-P026+		
02B22	2	A	1 0	A,U1	M529		J12								







EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*							
				S	E	QID	TM	HL	TEST ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLOG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE									
MS-MO-67D	L200	SMB-000-5/	S A	221001										24
215	2	A	1 3	B1,F	M529	R 501	H7/6.2	R41	R310					MS-V-67D+
MS-PS-20A	B069	164C5354P00R000	A B	256002	F N	14 00								24
02B22	2	A	1 0	A	M529	R 525	J.5/7.1	R51						E-IR-P004+
MS-PS-20B	B069	164C5359P001R02	A B	256002	F N	14 00								24
02B22	2	A	1 0	A	M529	R 524	M.7/6.8	R53	R404					E-IR-P027+
MS-PS-20C	B069	164C5359P001R03	A B	256002	N	14 00								24
02B22	2	A	1 0	A	M529	R 526	N.8/5.8	R53	R404					E-IR-P005+
MS-PS-20D	B069	164C5359P001R02	A B	256002	F N	14 00								24
02B22	2	A	1 0	A	M529	R 542	J.9/4.5	R52	R404					E-IR-P026+
MS-PS-23A	B069	164C5359P001R03	A B	256002	F N	14 00								24
02B22	2	A	1 0	A	M529	R 575	J.5/7.1	R51	R404					E-IR-P004+
MS-PS-23B	B069	164C5359P001R02	A B	256002	F N	14 00								24
02B22	2	A	1 0	A	M529	R 524	M.7/6.8	R53	R404					E-IR-P027+
MS-PS-23C	B069	164C5359P001R03	A B	256002	N	14 00								24
02B22	2	A	1 0	A	M529	R 526	N.8/5.8	R53	R404					E-IR-P005+
MS-PS-23D	B069	164C5359P001R02	A B	256002	F N	14 00								24
02B22	2	A	1 0	A	M529	R 524	J.9/4.5	R52	R404					E-IR-P026+
MS-PS-45A	B069	164C5359P001R03	A B	256002	F N	14 00								24
02B22	2	A	1 0	C	M529	R 524	J.5/4.5	R52	R404					E-IR-P026+
MS-PS-45C	B069	164C5359P001R03	A B	256002	F N	14 00								24
02B22	2	A	1 0	C	M529	R 524	M.7/6.8	R53	R404					E-IR-P027+
MS-PS-45D	B069	164C5359P001R03	A B	256002	F N	14 00								24
02B22	2	A	1 0	C	M529	R 524	M.7/6.8	R53	R404					E-IR-P027+
MS-PS-47A	S382	17N-AAS-SLOTT	A A	256016	F N	14 00								24
02B22	2	A	1 0	C	M529	R 575	J.5/7.1	R51						E-IR-P004+









CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLDG ELEV	DETAIL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV; (E) PARAMETERS*		
									S	E	QID	TH	HL	TEST
			EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY				COMPOSITE EPN
MS-SPV-5BA				A613	C-5246			R R	315008					4320
ADS PILOT FOR MS-RV-5B														
02B22	2	A	1	0	C+E	M529		C	547 80	DEG AZ	R55		MS-RV-5B+	
MS-SPV-5BB				A613	C-5246			R R	315008					4320
ADS PILOT FOR MS-RV-5B														
02B22	2	A	1	0	C+E	M529		C	547 80	DEG AZ	R55		MS-RV-5B+	
MS-SPV-5CA				A613	C-5246			R R	315008					4320
ADS PILOT FOR MS-RV-5C														
02B22	2	A	1	0	C+E	M529		C	547 275	DEG AZ	R54		MS-RV-5C+	
MS-SPV-5CB				A613	C-5246			R R	315008					4320
ADS PILOT FOR MS-RV-5C														
02B22	2	A	1	0	C+E	M529		C	547 275	DEG AZ	R54		MS-RV-5C+	
MS-TE-4A				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-2A														
02B22	2	A	1	0	I	M529		C	541 J4/4.8		C45			
MS-TE-4B				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-2B														
02B22	2	A	1	0	I	M529		C	541 L2/4.2		C45			
MS-TE-4C				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-2D														
02B22	2	A	1	0	I	M529		C	541 J5/7.2		C44			
MS-TE-4D				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-2C														
02B22	2	A	1	0	I	M529		C	541 K1/7.7		C44			
MS-TE-4E				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-1B														
02B22	2	A	1	0	I	M529		C	541 L9/4.3		R47			
MS-TE-4F				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-2B														
02B22	2	A	1	0	I	M529		C	541 L5/4.2		R47			
MS-TE-4G				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-3C														
02B22	2	A	1	0	I	M529		C	541 M5/7.2		R46			
MS-TE-4H				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-3B														
02B22	2	A	1	0	I	M529		C	541 M/4.3		R47			
MS-TE-4J				P427	13309679P001			T M	339020			00	00	24
TE DWNSTRM OF MS-RV-1A														
02B22	2	A	1	0	I	M529		C	541 M7/6.5		R46			



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLOG ELEV	S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TM	HL	TEST	ANL	FO	C
			EC	USE	SAFETY FUNCTION	A/E DRAWING	DETAIL	ZONE	ROOM	ACCURACY			COMPOSITE EPN	
MS-TE-4K				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-1D						C 541 J1/7.0		C44						
02B22	2	A	1	0	I	M529								
MS-TE-4L				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-1C						C 541 J8/7.5		C44						
02B22	2	A	1	0	I	M529		F6						
MS-TE-4M				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-4C						C 541 M6/6.9		R46						
02B22	2	A	1	0	I	M529		F8						
MS-TE-4N				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-5C						C 541 M1/7.3		R46						
02B22	2	A	1	0	I	M529		F8						
MS-TE-4P				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-4D						C 541 K4/7.8		C44						
02B22	2	A	1	0	I	M529		DB						
MS-TE-4R				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-4B						C 541 L9/4.3		R47						
02B22	2	A	1	0	I	M529		D10						
MS-TE-4S				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-4A						C 541 L9/4.8		R47						
02B22	2	A	1	0	I	M529		F9						
MS-TE-4U				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-5B						C 541 J8/4.5		C45						
02B22	2	A	1	0	I	M529		D9						
MS-TE-4V				P427	133D9679P001		T M	339020	Y	00		00	24	
TE DWNSTRM OF MS-RV-3D						C 541 J2/5.0		C45						
02B22	2	A	1	0	I	M529		DB						
MSLC-FT-3A				F180	E13DL		P	156001					24	
LOOP "A" TO MANIFOLD						R 477 H.4/5.7		R32	R206					
215	2	A	1	0	F	M557		C5						
MSLC-FT-3B				F180	E13DL		P	156001					24	
LOOP "B" TO MANIFOLD						R 474 H.4/5.7		R32	R206					
215	2	A	1	0	F	M557		C5						
MSLC-FT-3C				F180	E13DL		P	156001					24	
LOOP "C" TO MANIFOLD						R 477 H.4/5.8		R32	R206					
215	2	A	1	0	F	M557		E5						
MSLC-FT-3D				F180	E13DL		P	156001					24	
LOOP "D" TO MANIFOLD						R 474 H.4/5.8		R32	R206					
215	2	A	1	0	F	M557		E5						



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*		
			S	E	QID	TM	HL TEST	ANL FO C	FREQ	AGING	DBE C
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
		EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE							
MSLC-HO-10	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-10		R 502	H5/6.0	R42	R310				MSLC-V-10+	
215	2	A 1 0 F	H557	H5							
MSLC-HO-1A	L200	SHC-04-3/42		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-1A		R 474	H.5/5.5	R42	R310				MSLC-V-1A+	
215	2	A 1 0 F	H557	C7							
MSLC-HO-1B	L200	SHC-04-3/42		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-1B		R 474	H.5/5.6	R42	R310				MSLC-V-1B+	
215	2	A 1 0 F	H557	C6							
MSLC-HO-1C	W120	TBFC		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-1C		R 474	H.5/5.6	R41	R310				MSLC-V-1C+	
215	2	A 1 0 F	H557	D7							
MSLC-HO-1D	L200	SHC-04-3/42		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-1D		R 474	H.5/5.5	R41	R310				MSLC-V-1D+	
215	2	A 1 0 F	H557	D6							
MSLC-HO-2A	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-2A		R 502	H6/5.3	R42	R310				MSLC-V-2A+	
215	2	A 1 0 F	H557	C8							
MSLC-HO-2B	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-2B		R 502	H6/5.3	R42	R310				MSLC-V-2B+	
215	2	A 1 0 F	H557	C8							
MSLC-HO-2C	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-2C		R 502	H6/6.4	R41	R310				MSLC-V-2C+	
215	2	A 1 0 F	H557	E8							
MSLC-HO-2D	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-2D		R 502	H4/5.8	R41	R310				MSLC-V-2D+	
215	2	A 1 0 F	H557	E8							
MSLC-HO-3A	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-3A		R 502	H6/5.5	R42	R310				MSLC-V-3A+	
215	2	A 1 0 F	H557	C9							
MSLC-HO-3B	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-3B		R 502	H6/5.3	R42	R310				MSLC-V-3B+	
215	2	A 1 0 F	H557	C8							
MSLC-HO-3C	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-3C		R 502	H6/6.4	R41	R310				MSLC-V-3C+	
215	2	A 1 0 F	H557	E9							
MSLC-HO-3D	L200	SHB-000-5/P48		G A	221001						24
1HP MOTOR OPERATOR	MSLC-V-3D		R 502	H4/5.8	R41	R310				MSLC-V-3D+	
215	2	A 1 0 F	H557	E8							









CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*			
							S	E	Q1D	TH	HL	TEST	ANL	FO
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
					A/E DRAWING	A/E ZONE								
MSLC-RLY-CR/5B2				A500	RK225052-CP		N T	283011	F					24
MSL PRESSURE INTERLK (60 SEC TD)						R 527 H.4/4.2		R52				E-IR-73+		
58	3	A	1	0	F	E519/30	G13							
MSLC-RLY-CR/5C1				A500	RK223070-EP		A T	283015	F N	21 00	02		24	
MSL PRESSURE INTERLK (60 SEC TD)						R 527 H.4/4.2		R52				E-IR-73+		
58	3	A	1	0	F	E519/30	D13							
MSLC-RLY-CR/5C2				A500	RK225052-CP		N T	283011	F				24	
MSL PRESSURE INTERLK (60 SEC TD)						R 528 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	D13							
MSLC-RLY-CR/5D1				A500	RK223070-EP		A T	283015	F N	21 00	02		24	
MSL PRESSURE INTERLK (60 SEC TD)						R 527 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	C13							
MSLC-RLY-CR/5D2				A500	RK225052-CP		N T	283011	F				24	
MSL PRESSURE INTERLK (60 SEC TD)						R 528 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	C13							
MSLC-RLY-CR/6A1				A500	RK223070-EP		A T	283015	F N	21 00	02		24	
MSL PRESSURE INTERLK (150 SEC TD)						R 528 H.4/4.2		R52				E-IR-73+		
58	3	A	1	0	F	E519/30	G13							
MSLC-RLY-CR/6A2				A500	RK225052-CP		N T	283011	F				24	
MSL PRESSURE INTERLK (150 SEC TD)						R 528 H.4/4.2		R52				E-IR-73+		
58	3	A	1	0	F	E519/30	G13							
MSLC-RLY-CR/6B1				A500	RK223067-EP		A T	283015	F N	21 00	02		24	
MSL PRESSURE INTERLK (150 SEC TD)						R 528 H.4/4.2		R52				E-IR-73+		
58	3	A	1	0	F	E519/30	F13							
MSLC-RLY-CR/6B2				A500	RK225052-CP		N T	283011	F				24	
MSL PRESSURE INTERLK (150 SEC TD)						R 528 H.4/4.2		R52				E-IR-73+		
58	3	A	1	0	F	E519/30	F13							
MSLC-RLY-CR/6C1				A500	RK223070-EP		A T	283015	F N	21 00	02		24	
MSL PRESSURE INTERLK (150 SEC TD)						R 527 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	C13							
MSLC-RLY-CR/6C2				A500	RK225052-CP		N T	283011	F				24	
MSL PRESSURE INTERLK (150 SEC TD)						R 528 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	C13							
MSLC-RLY-CR/6D1				A500	RK223070-EP		A T	283015	F N	21 00	02		24	
MSL PRESSURE INTERLK (150 SEC TD)						R 527 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	B13							
MSLC-RLY-CR/6D2				A500	RK225052-CP		N T	283011	F				24	
MSL PRESSURE INTERLK (150 SEC TD)						R 528 H.4/4.2						E-IR-73+		
58	3	A	1	0	F	E519/30	B13							





CONTRACT	LEVEL	DESCRIPTION EC USE SAFETY FUNCTION	MFG MODEL	BLDG ELEV A/E DRAWING	STATUS S E DETAIL A/E ZONE	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*				
						QID	TH	HL	TEST	ANL	EQ	C	FREQ
												ACCURACY	COMPOSITE EPN
PI-SV-267		T020	79TT-001		B A	324002							4320
220	2	A 2 0 I	M543		R 536 M:8/6.3								E07
PI-SV-268		T020	1021010-1-B-1-S		B A	324008							4320
220	2	A 2 0 I	M543		R 536								E07
PI-SV-269		T020	1021010-1-B-1-S		B A	324008							4320
220	2	A 2 0 I	M543		R 536								B06
RCC-MO-104					P	221001							.017
MOTOR OPERATOR FOR RCC-V-104												RCC-V-104+	
215	2	A 1 0 B1	M525		R 514 K:0/4.3								E11
RCC-MO-129			R165 FRAME M56		N A	221001							24
MOTOR OPERATOR FOR RCC-V-129												RCC-V-129+	
41A	2	A 1 0 B2	M525		R 548								E5
RCC-MO-130			R165 FRAME M56		N A	221001							24
MOTOR OPERATOR FOR RCC-V-130												RCC-V-130+	
41A	2	A 1 0 B2	M525		R 548								E6
RCC-MO-131			R165 FRAME M56		N A	221001							24
MOTOR OPERATOR FOR RCC-V-131												RCC-V-131+	
41A	2	A 1 0 B2	M525		R 548								E6
RCC-MO-21			L200 SHB-0-15/M56		A A	221001	Y	14	00		35		.017
1HP 2.8A MOTOR OPERATOR RCC-V-21												RCC-V-21+	
41A	2	A 1 0 B1	M525		R 515 K:7/4.1	R42	R312						D10
RCC-MO-40			L200 SHB-0-15/M56		A P	221001	Y	14	00		35		.017
0.7HP 2.3A MOTOR OPERATOR RCC-V-40												RCC-V-40+	
41A	2	A 1 0 B1	M525		C 517 78 D AZ	R47							D11
RCC-MO-5			L200 SHB-0-15/M56		A A	221001	Y	14	00		35		.017
1HP 2.8A MOTOR OPERATOR RCC-V-5												RCC-V-5+	
41A	2	A 1 0 B1	M525		R 515 K:8/4.1	R42	R312						E10
RCIC-DPIS-13A			B080 288A		A A	086001	N	14	00		33+		24
RCIC STM SUPPLY HI FLOW H22-P017												E-IR-P017+	
02E51	2	A 1 1 B1,F	M519		R 471 L:0/8.0	R33	R206						G7
RCIC-DPIS-13B			B080 288A		A A	086001	N	14	00		33+		24
RCIC STM SUPPLY HI FLOW H22-P029												E-IR-P029+	
02E51	2	A 1 1 B1,F	M519		R 471 K9/3.9	R32	R206						F7
RCIC-DPIS-7A			B080 288A		A A	086001	N	14	00		33+		24
RCIC STM SUPPLY HI FLOW H22-P017												E-IR-P017+	
02E51	2	A 1 1 B1,F	M519		R 471 L:0/8.0	R33	R206						G7



CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLOG	ELEV	DETAIL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			
										SE	QID	TH	HL	TEST	ANL	FO
			EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
RCIC-OPIS-7B				B080	288A				A A	086001	N	14	00	33+		24
RCIC STM SUPPLY HI FLOW			H22-P029			R	471	K9/3.9		R32	R206				E-1R-P029+	
02E51	2	A	1	1	B1,F											
						M519			F7							
RCIC-LMS-65				N007	SA1133				R	200004						24
LIMIT SWITCH RCIC-V-65						R	568	M.6/5.4								RCIC-V-65
69	3	A	2	1	B1,C											
						M519			H6							
RCIC-LMS-66									D		Y					24
LIMIT SWITCH RCIC-V-66						C	606	150 D AZ								RCIC-V-66+
	3	A	2	1	B1,C											
						M519			J4							
RCIC-MO-13				L200	SHB-0-40/D202G				A A	221001	N	14	00	35		4320
2.9HP MOTOR OPERATOR RCIC-V-13						R	552	5.5/M.6		R63	R511					RCIC-V-13+
41A	2	A	1	1	B1											
						M519			H7							
RCIC-MO-19				L200	SHB-000-5/P56				R R	221001	N	14	00	35		4320
2.0HP MOTOR OPERATOR RCIC-V-19						R	467	J.4/7.7		R21	R116					RCIC-V-19+
215	2	A	1	1	B1											
						M519			E7							
RCIC-MO-31				L200	SHB-00-15/R56				A A	221001	Y	14	00	35		4320
1HP 9.6A MOTOR OPERATOR RCIC-V-31						R	450	H.8/7.0		R21	R112					RCIC-V-31+
41A	2	A	1	1	B1											
						M519			D7							
RCIC-MO-63				L200	SMB-2-60/D215R2				A A	221001	Y	14	00	35		24
7HP 10.7A MOTOR OPER. RCIC-V-63						C	555	131 D AZ		R19	R67					RCIC-V-63+
41A	2	A	2	1	B1											
						M519			H5							
RCIC-MO-64				L200	SMB-2-80/DS2248				A A	221001	Y	14	00	35		24
5.8HP 20A MOTOR OPER. RCIC-V-64						R	556	4.6/L.9		R63	R510					RCIC-V-64+
41A	2	A	2	1	B1											
						M519			G6							
RCIC-MO-68				L200	SHB-015/DTS6F				A A	221001	N	14	00	35		4320
1.08HP MOTOR OPERATOR RCIC-V-68						C	474	J.1/7.5		C34						RCIC-V-68+
41A	2	A	1	1	B1											
						M519			E7							
RCIC-MO-69				L200	SHB-000				C A	221001						4320
2.0HP MOTOR OPERATOR RCIC-V-69						R	466	H6/6.6		R21	R112					RCIC-V-69+
215	2	A	1	1	B1											
						M519			E7							
RCIC-MO-76				L200	SHB-000-5				B R	221001	Y					24
.33HP/1.9-.95A M O FOR RCIC-V-76						C	556	120 DEG		R67						RCIC-V-76+
215	2	A	2	1	B1											
						M519			H6							
RCIC-MO-8				L200	SHB-00-7-5/D56C				A A	221001	N	14	00	35		4320
.54HP/5.5A MOTOR OPER FOR RCIC-V-8						R	515	J.0/5.0		R42	R308					RCIC-V-8+
41A	2	A	1	1	B1											
						M519			F6							
RCIC-MO-80				L200	SHB-000-5				R A	221001						4320
MOTOR OPER FOR RCIC-V-110						C	474	J.2/7.2		C34						RCIC-V-110+
215	2	A	1	1	B1											
						M519			E7							





EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*							
				S	E	QID	TH	HL	TEST	ANL	FD	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN				
REA-DPT-183	R369	IDP3D22T003PB	B B	091001	W	N	14	00			50	4320				
59	2	A	1	3	F	M545		D1	R 576	H.8/7.6	R73	R604				
REA-DPT-184	R369	115	B B	091001	N	14	00				50	4320				
59	2	A	1	3	F	M545		D1	R 526	H.1/9.4	R73	R605				
REA-LMS-1	N007	7408100	A	200015									4320			
68	3	A	1	3	B2.F	M545		J3	R 593	H.5/6.0	R73		REA-V-1+			
REA-LMS-2	N007	74080100	A	200015									4320			
68	3	A	1	3	B2.F	M545		J3	R 593	H.5/6.2			REA-V-2+			
REA-RE-19	K020	952158	D	277006									4320			
92B	2	A	4	3	F	M544		F1	R 606	H.4/6.8	R73		REA-SR-27+			
REA-SPV-1	A499	WJHT8316E35	A B	315004									4320			
58	2	A	1	3	B2.F	M545		K3	R 528	J.0/6.9	R73	R604	E-IR-71+			
REA-SPV-2	A499	WJHT8318E32	A M	315004									4320			
58	2	A	1	3	B2.F	M545		K3	R 554	H.7/8.2	R73	R604	E-IR-68+			
RFW-MO-65A	L200	SMB-4-250/326UR4	A A	221001	Y	14	00				29	4320				
41A	2	A	1	3	B1	M529		G13	R 505	H4/5.7	R41	R310	RFW-V-65A+			
RFW-MO-65B	L200	SMB-4-250/326UR4	A A	221001	Y	14	00				29	4320				
41A	2	A	1	3	B1	M529		G4	R 505	H4/6.3	R41	R310	RFW-V-65B+			
RFW-SPV-32A1	A499	WJHT831654	A B	315004	N	21	00				33+	4320				
58	2	A	1	3	B1	M529		G12	R 471	H.4/6.8	R31	R206	E-IR-62+			
RFW-SPV-32A2	A499	WJHT831654	A B	315004	N	21	00				33+	4320				
58	2	A	1	3	B1	M529		G12	R 471	H.4/6.8	R31	R206	E-IR-62+			
RFW-SPV-32B1	A499	WJHT831654	A B	315004	N	21	00				33+	4320				
58	2	A	1	3	B1	M529		G5	R 471	H.4/6.8	R31	R206	E-IR-62+			
RFW-SPV-32B2	A499	WJHT831654	A B	315004	N	21	00				33+	4320				
58	2	A	1	3	B1	M529		G5	R 471	H.4/6.8	R31	R206	E-IR-62+			



CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	BLDG ELEV	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
								S	E	QID	TH	HL	TEST ANL
				EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE	ZONE	ROOM	ACCURACY				COMPOSITE EPN
RHR-CE-1A			B135	BOM 05010794633			B	038001					4320
02	2	A	2 0 G		M521	R 540 J.9/8.5		R61					
RHR-CE-1B			B135	BOM 05010794633			B	038001					4320
02	2	A	2 0 G		M521	R 559 M.1/9.0		R63					
RHR-DPIS-12A			B080	MODEL 288			A A	086001	N	14	00	33+	4320
02E12	2	A	1 0 B1,F		M530	R 501 J.6/3.6		R42 R305					E-IR-H22/P018+
RHR-DPIS-12B			B080	288			A A	086001	N	14	00	33+	4320
02E12	2	A	1 0 B1,F		M521	R 501 H8/9.3		R41 R305					E-IR-H22/P021+
RHR-DPIS-29A			B080	288			A A	086001	N	14	00	33+	4320
02E12	2	A	2 0 G		M521	R 501 J.6/3.6		R42 R312					E-IR-P018+
RHR-DPIS-29B			B080	288			A A	086001	N	14	00	33+	4320
02E12	2	A	2 0 G		M521	R 501 H.8/7.3		R41 R305					E-IR-P021+
RHR-DPIS-9A			B080	288A			B A	086001	N	14	00	33	4320
02E12	2	A	1 0 C,E		M521	R 527 H.9/5.0		R52 R408					
RHR-DPIS-9B			B080	288A			B A	086001	N	14	00	33	4320
02E12	2	A	1 0 C,E		M521	R 526 H.8/6.1		R51 R408					
RHR-DPIS-9C			B080	288A			B A	086001	N	14	00	33	4320
02E12	2	A	1 0 C,E		M521	R 526 H.9/6.8		R51 R408					
RHR-FIS-10A			B080	288			A	140001					4320
02E12	3	A	1 3 I		M521	R 505 J.6/3.6		R42					E-IR-P018+
RHR-FIS-10B			B080	288			A	140001					4320
02E12	3	A	1 3 I		M521	R 503 H.9/9.3		R43					E-IR-P021+
RHR-FIS-10C			B080	288			A	140001					4320
02E12	3	A	1 0 I		M521	R 505 H.7/9.3		R42					E-IR-P021+
RHR-FT-13			G080	1118MAA4WCF			A	156003	W				4320
02	3	A	2 3 G		M521	R 552 H.6/5.3		R63					E-IR-P021+



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*						
			S	E	QID	IN	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	SAFETY FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
		EC	USE	A/E	DRAWING	A/E	ZONE								
RHR-FT-15A	R369	1151				A P	156005	N	14	00	33+		4320		
02	3	A	1 3	I	M521	R 503 J.6/3.6	R42					E-IR-P018+			
RHR-FT-15B	B042	555				P P	156003					4320			
02	3	A	1 3	I	M521	R 503 H8/9.3	R41					E-IR-P021+			
RHR-FT-15C	B042	555				P P	156003					4320			
02	3	A	1 0	I	M521	R 501 H.9/9.3	R41					E-IR-P021+			
RHR-LMS-111A	N007	02400X				P	200005	Y				4320			
02E12	3	A	2 0	C,E	M521	C 563 20 D AZ R19						RHR-V-111A+			
RHR-LMS-111B	N007	02400X				P	200005	Y				4320			
02E12	3	A	2 0	C,E	M521	C 563 158 D AZ R19						RHR-V-111B+			
RHR-LMS-111C	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 0	C,E	M521	C 563 325 D AZ R20						RHR-V-111C+			
RHR-LMS-112A	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 3	C,E	M521	C 512 79 D AZ R21						RHR-V-112A+			
RHR-LMS-112B	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 3	C,E	M521	C 512 265 D AZ R20						RHR-V-112B+			
RHR-LMS-113	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 3	C,E	M521	C 512 165 D AZ R22						RHR-V-113+			
RHR-LMS-41A	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 0	C,E	M521	C 563 20 D AZ R19						RHR-V-41A+			
RHR-LMS-41B	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 0	C,E	M521	C 563 58 D AZ R19						RHR-V-41B+			
RHR-LMS-41C	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 0	C,E	M521	C 563 360 D AZ R20						RHR-V-41C+			
RHR-LMS-50A	N007	1703100				P	200005	Y				4320			
02E12	3	A	2 3	C,E	M521	C 512 100 D AZ R25						RHR-V-50A+			







EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*							
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C	HOURS
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY	FUNCTION	A/E	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
RHR-MO-17A	L200	SMB-2-80/C215Y						S	A	221001	N	14	00	33		24
10.6HP 13.8A MOTOR OPER.	RHR-V-17A						R	556	4.4/L.0		R63	R510				RHR-V-17A+
41A	2	A	1	0	B1,C,E		M521		H10							
RHR-MO-17B	L200	SMB-2-80/C215Y						S	A	221001	N	14	00	33		24
10.6HP 13.8A MOTOR OPER.	RHR-V-17B						R	516	K.5/8.0		R41	R310				RHR-V-17B+
41A	2	A	1	0	B1,C,E		M521		F6							
RHR-MO-21	L200	SMB-3-80/213R3						A	A	221001	Y	14	00	35		4320
5.3HP 8.4A MOTOR OPER.	RHR-V-21						R	455	5.2/H.4		R22	R113				RHR-V-21+
41B	2	A	1	0	B1,C,E		M521		E11							
RHR-MO-23	L200	SMB-0-15/056F						A	A	221001	N	14	00	35		4320
1.08HP 4.7A MOTOR OPER.	RHR-V-23						R	552	5.4/H.6		R63	R511				RHR-V-23+
41B	2	A	1	3	B1,E		M521		J7							
RHR-MO-24A	L200	SMB-3-80/213R3						A	A	221001	Y	14	00	35		4320
5.3HP 8.3A MOTOR OPER.	RHR-V-24A						R	476	K.0/8.1		R31	R213				RHR-V-24A+
41B	2	A	1	3	B1,C,E		M521		E12							
RHR-MO-24B	L200	SMB-3-80/213R3						A	A	221001	Y	14	00	35		4320
5.3HP MOTOR OPERATOR	RHR-V-24B						R	476	M.2/8.1		R33	R214				RHR-V-24B+
41B	2	A	1	3	B1,C,E		M521		E6							
RHR-MO-27A	L200	SMB-00-7.5/L56						A	A	221001	Y	14	00	35		24
0.5HP MOTOR OPERATOR	RHR-V-27A						R	495	K.3/4.1		R32	R206				RHR-V-27A+
41A	2	A	1	0	B1,C,E		M521		E11							
RHR-MO-27B	L200	SMB-00-7.5/L56						A	A	221001	Y	14	00			24
0.5HP MOTOR OPERATOR	RHR-V-27B						R	495	K.3/4.1		R33	R206				RHR-V-27B+
41A	2	A	1	0	B1,C,E		M521		E7							
RHR-MO-3A	L200	SMB-1-40/T56						A	A	221001	Y	14	00	33		4320
2.6HP MOTOR OPERATOR	RHR-V-3A						R	562	8.5/J.9		R61	R507				RHR-V-3A+
41A	2	A	2	3	C,E		M521		J13							
RHR-MO-3B	L200	SMB-1-40/T56						A	A	221001	N	14	00	33		4320
2.6HP MOTOR OPERATOR	RHR-V-3B						R	560	8.4/H.2		R63	R505				RHR-V-3B+
41A	2	A	2	3	C,E		M521		J4							
RHR-MO-40	L200	SMB-000-2/D56AA						A	A	221001	N	14	00	35		4320
.3HP 1.9A MOTOR OPER.	RHR-V-40						R	553	8.4/H.6		R63	R505				RHR-V-40+
41B	2	A	2	0	B2		M521		G4							
RHR-MO-42A	L200	SMB-3-150/256VR3						A	A	221001	Y	14	00	35		4320
19.5HP/25.2A MTR OP FOR	RHR-V-42A						R	528	J.0/6.0		R52	R408				RHR-V-42A+
41A	2	A	1	0	B1,C,E		M521		G11							
RHR-MO-42B	L200	SMB-3-150/256VR3						A	A	221001	P	Y	14	00	35	4320
19.5HP 25.2A MOTOR OPER.	RHR-V-42B						R	528	N.0/5.8		R53	R405				RHR-V-42B+
41A	2	A	1	0	B1,C,E		M521		G7							









EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
RHR-PS-19A	S382	5N-AA3-(X10)-STT							A A	256016					24
02	2	ADS PERMISSIVE (10-240 PSIG) PUMP	A	1	C _E			R 505 J.7/3.7	B13	R42			E-1R-H22/P018+		
RHR-PS-19B	S382	5N-AA3-(X10)-STT							A A	256016	F			24	
02	2	ADS PERMISSIVE (10-240 PSIG) PUMP	A	1	C _E			R 501 L/13	B4	R41			E-1R-H22/P021+		
RHR-PS-19C	S382	5N-AA3-(X10)-STT							A A	256016	F			24	
02	2	ADS PERMISSIVE (10-240 PSIG) PUMPC	A	1	C _E			R 501 L/13	B8	R41			E-1R-H22/P021+		
RHR-PT-26A	B040	556							B P	259012				24	
02E12	2	PRESSURE TRANSMITTER RCIC LOOPA	A	2	C			R 597 J.0/9.0	K14	R42			E-1R-P018+		
RHR-PT-26B	B040	556							B P	259012				24	
02E12	2	PRESSURE TRANSMITTER RCIC LOOPB	A	2	C			R 597 N.0/8.3	K4	R41			E-1R-P021+		
RHR-TE-27A	N070	117C3485P022							T M	339022	N	01	99+	4320	
02	2	TEMPERATURE ELEMENT (PRIMARY)	A	1	I			R 565 K/8	H13	R61					
RHR-TE-27B	N070	117C3485P022							T M	339022	N	01	99+	4320	
02	2	TEMPERATURE ELEMENT (PRIMARY)	A	1	I			R 548	H5	R63					
RHR-TE-4A	N070	117C3485P022							T M	339023	N	01	99+	4320	
02	2	TEMPERATURE ELEMENT (PRIMARY)	A	1	I			R 572	J13	R71					
RHR-TE-4B	N070	117C3485P022							T M	339023	N	01	99+	4320	
02	2	TEMPERATURE ELEMENT (PRIMARY)	A	1	I			R 572	J4	R73					
RHR-TE-5A	N070	117C3485P022							T M	339022	N	01	99+	4320	
02E12	2	RHR-HX-2A SSW OUTLET TEMP	A	2	G			R 560 J3/8.5	H11	R61			RHR-HX-2A		
RHR-TE-5B	N070	117C3485P022							T M	339022	N	01	99+	4320	
02E12	2	RHR-HX-2B SSW OUTLET TEMP	A	2	G			R 560 L.0/8.3	H12	R61			RHR-HX-2B		
RHR-V-182	H090	282033							T	324006				4320	
215	2	.75" VALVE DRAIN FOR RHR-V-115	A	2	B2 _F			R 548 L.0/9.0	J6	R63			RHR-V-182+		
RHR-V-60A	H090	282033							C T	324006				4320	
215	2	.75" SOL PROCESS SAMPLING CONN 8	A	2	B2			R 548 N.0/8.3	J12	R61			RHR-V-60A+		



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*							
				S	E	QID	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN							
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE										
RHR-V-60B		M090	282033												
.75" SOL PROCESS SAMPLING		CONN B													
215	2	A	2 0 B2	M521	J5	R 548 K.0/8.3	R63							RHR-V-60B+	4320
RHR-V-75A		M090	282033												
.75" SOL PROCESS SAMPLING		CONN B H													
215	2	A	2 0 B2	M521	J12	R	R61							RHR-V-75A+	4320
RHR-V-75B		M090	282033												
.75" SOL PROCESS SAMPLING		CONN B H													
215	2	A	2 0 B2	M521	J5	R	R63							RHR-V-75B+	4320
ROA-LMS-10		N007	70050100												
	2	A	1 0 J	M545		R 542 M.5/3.9	P 200014							ROA-AD-10+	4320
ROA-LMS-11		N007	70050100												
	2	A	1 0 J	M545		R 542 H.7/8.2	P 200014							ROA-SPV-11	4320
ROA-LMS-12		N007	70050100												
LIMIT SWITCH ON ROA-AD-12															
216	2	A	1 0 J	M545		R 490 H.7/8.0	P 200014							ROA-AD-12+	4320
ROA-LMS-13		N007	70050100												
	2	A	1 0 J	M545		R 591 H.5/6.0	P 200014							ROA-AD-13+	4320
ROA-LMS-14		N007	70050100												
	2	A	1 0 J	M545		R 591 N.1/8.3	P 200014							ROA-AD-14+	4320
ROA-LMS-15		N007	70050100												
LIMIT SWITCH ON ROA-AD-15															
216	2	A	1 0 J	M545		R 563 N.0/4.3	P 200014							ROA-AD-15+	4320
ROA-LMS-17		N007	70050100												
LIMIT SWITCH ON ROA-AD-17															
216	2	A	1 0 J	M545		R 563 N.0/4.9	P 200014							ROA-AD-17+	4320
ROA-LMS-19		N007	70050100												
	2	A	1 0 J	M545		R 560 L.0/8.0	P 200014							ROA-AD-19+	4320
ROA-SPV-10		A610	H8X8320A-1												
DIV II MCC ROOM DAMPER SOL PILOT															
216	2	A	1 0 J	M545		R 522 H.6/4	C B 315002							ROA-AD-10+	4320
ROA-SPV-100		A610	WJHT8316E35F												
ROA-V-1 SOL PILOT VA															
216	2	A	1 3 B2,F	M545		R 548 H.8/5.7	B M 315004							ROA-V-1+	4320



EPN	MFG	MODEL	STATUS	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
				S	E	Q10	TM	HL TEST ANL EQ C	FREQ
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN	
216	2	EC USE SAFETY FUNCTION	A/E DRAWING	A/E ZONE					
ROA-SPV-11	A610	HBX8320A-1	C B	315002					4320
DIV 1 MCC ROOM DAMPER SOL PILOT -			R	522 H.4/8.3	R31	R212		ROA-AD-11+	
216	2	A 1 0 J	M545	D7					
ROA-SPV-12	A610	HBX8320A-1	C B	315002					4320
DC MCC ROOM DAMPER SOL PILOT -			R	471 H.4/8	R31	R212		ROA-AD-12+	
216	2	A 1 0 J	M545	C7					
ROA-SPV-13	A610	HBX8320A-1	C B	315002					4320
H2 RECOMB MCC RM (DIV I) DAMPER SO			R	575 H.4/5.7	R73	R611		ROA-AD-13+	
216	2	A 1 0 J	M545	615					
ROA-SPV-14	A610	HBX8320A-1	C B	315002					4320
H2 RECOMB MCC RM (DIV II) DAMPER S			R	572 H.8/7.8	R73	R612		ROA-AD-14+	
216	2	A 1 0 J	M545	614					
ROA-SPV-15	A610	HBX8320A-1	C B	315002					4320
SOLENOID PILOT VALVE			R	548 H.4/4.3	R63	R516		ROA-AD-15+	
216	2	A 1 0 J	M545	613					
ROA-SPV-17	A610	HBX8320A-1	C B	315002					4320
ANALYZER RM 1B DAMPER SOL PILOT LO			R	548 H.4/4.4	R63	R512		ROA-AD-17+	
216	2	A 1 0 J	M545	614					
ROA-SPV-200	A499	WJHT8316E35F	A M	315004	N	21 00	33		4320
ROA-V-2 SOL PILOT VA - -			R	528 N/8.2	R54	R404		ROA-V-2+	
216	2	A 1 3 B2,F	M545	F3					
RPS-PS-2A	S382	12N-AA4-X10TT	A A	256016	N	14 00	33+		.017
HIGH DRYWELL PRESSURE 0.2-6 PSI			R	525 4.5/7.1	R51	R404		E-IR-P004+	
02C72	2	A 1 0 A	807E178TC/	6C3					
RPS-PS-2B	S382	12N-AA4-X10TT	A A	256016	F N	14 00	33+		.017
HIGH DRYWELL PRESSURE 0.2-6 PSI			R	525 H.8/6.6	R53	R404		E-IR-P027+	
02C72	2	A 1 0 A	807E178TC/	7C3					
RPS-PS-2C	S382	12N-AA5-X10TT	A A	256016					.017
HIGH DRYWELL PRESSURE 0.2-6 PSI			R	526 N8/5.8	R53	R404		E-IR-P005+	
02C72	2	A 1 0 A	807E178TC/	6J3					
RPS-PS-2D	S382	12N-AA5-X10TT	A A	256016	N	14 00	33+		.017
HIGH DRYWELL PRESSURE 0.2-6 PSI			R	528 H.4/4.2	R52	R404		E-IR-P026+	
02C72	2	A 1 0 A	807E178TC/	7J3					
RRA-H-1	W120	SBFC	A B	213012					4320
3HP/4.7A MOTOR FOR RRA-FN-1			R	445 H.7/4.3	R22	R113		RRA-FC-1+	
67	2	A 1 3 J	M545	B14					
RRA-H-10	W120	FBFC/182T	A B	213023					4320
3HP/4.65A HOPIOR FOR RRA-FN-10			R	522 N3/3.8	R53	R410		RRA-FC-10+	
67	2	A 1 0 J	M545	E15					



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E	DRAWING	A/E	ZONE	ROOM				
RRA-H-11	W120	FBFC/182T						A B	213023					4320
3HP/4.65A MOTOR FOR RRA-FN-11						R	522 H5/8		R51	R411		RRA-FC-11+		
67	2	A	1	0	J		H545	E7						
RRA-H-12	W120	T8AH						G B	213015					4320
5HP/5.5A MOTOR FOR RRA-FN-12						R	490 H.6/7.8		R31	R212		RRA-FN-12+		
216	2	A	1	0	J		H545	C7						
RRA-H-13	W120	T8AH						G B	213015	F				4320
3HP/7A MOTOR FOR RRA-FN-13						R	585 H.3/6.1		R73	R611		RRA-FC-13+		
216	2	A	1	0	J		H545	H15						
RRA-H-14	W120	T8AH						G B	213015	F				4320
3HP/5.5A MOTOR FOR RRA-FN-14						R	585 H.7/8.0		R73	R612		RRA-FC-14+		
216	2	A	1	0	J		H545	H13						
RRA-H-15	W120	T8AH						G B	213015					4320
3HP/5.4A MOTOR FOR RRA-FN-15						R	560 H5/4.5		R63	R516		RRA-FC-15+		
216	2	A	1	0	J		H545	G14						
RRA-H-17	W120	T8AH						G B	213015					4320
3HP/5.7A MOTOR FOR RRA-FN-17						R	548 H5/4.7		R63	R512		RRA-FC-17+		
216	2	A	1	0	J		H545	G14						
RRA-H-19								P B						4320
MOTOR FPC HEAT EXCH & PHP RM FLO						R	548 L10/8.4		R63			RRA-FC-19+		
215	2	A	1	3	J		H545	G9						
RRA-H-2	W120	SBFC						A B	213012					4320
3HP/4.65A MOTOR FOR RRA-FN-2						R	445 L.0/8.3		R21	R116		RRA-FC-2+		
67	2	A	1	3	J		H545	B8						
RRA-H-20								P B						4320
MOTOR FPC HEAT EXCH & PHP RM FLO						R	548 L8/8.4		R63			RRA-FC-20+		
215	2	A	1	3	J		H545	G8						
RRA-H-3	W120	7BFC						A B	213020					4320
3HP/4.65A MOTOR FOR RRA-FN-3						R	445 H.0/8.3		R23	R115		RRA-FC-3+		
67	2	A	1	3	J		H545	B10						
RRA-H-4	W120	T8FC						A B	213025					24
10HP/14A MOTOR FOR RRA-FN-4						R	445 H.5/4.1		R23	R106		RRA-FC-4+		
67	2	A	1	0	J		H545	B12						
RRA-H-5	W120	5BFC						A B	213013					24
5HP/6.8A MOTOR FOR RRA-FN-5						R	445 K7/3.7		R22	R114		RRA-FC-5+		
67	2	A	1	0	J		H545	B13						
RRA-H-6	W120	T8FC						A B	213021					24
2HP/3A MOTOR FOR RRA-FN-6						R	445 H.7/7.7		R21	R112		RRA-FC-6+		
67	2	A	1	1	J		H545	B7						



EPN	MFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*						
			S	E	QID	IN	HL	TEST	ANL	EQ	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN			
RRA-RMS-S1	G080	CR2940						M	285002						4320
218	3	A	2	3	J		M545	R 444 H8/4.3		R22					RRA-FN-1+
RRA-RMS-S2	G080	CR2940						M	285002						4320
218	3	A	2	3	J		M545	R 444 K2/8.2		R21					RRA-FN-2+
RRA-RMS-S3	G080	CR2940						M	285002						4320
218	3	A	2	3	J		M545	R 444 L8/8.2		R23					RRA-FN-3+
RRA-RMS-S4	G080	CR2940						M	285002						24
218	3	A	2	0	J		M545	R 444 M4/4.7		R23					RRA-FN-4+
RRA-RMS-S5	G080	CR2940						M	285002						24
218	3	A	2	0	J		M545	R 444 K7/3.8		R22					RRA-FN-5+
RRA-RMS-S6	G080	CR2940						M	285002						4320
218	3	A	2	1	J		M545	R 444 H6/8		R21					RRA-FN-6+
RRC-MO-16A	L200							A	221001						4320
215	2	A	1	0	B1		M530	R 504 J.3/7.4		R43	R307				RRC-V-16A+
RRC-MO-16B	L200							R A	221001						4320
215	2	A	1	0	B1		M530	R 508 J2/7.3		R41	R305				RRC-V-16B+
RRC-MO-67B	L200	SMB-3-60						B A	221001		Y	14	00	33+	.017
02	2	A	2	0	G		M530	C 514 275 D AZ R20		R41					RRC-V-67B+
RRC-PS-18B	B069	16405359E001-R000						A A	256002		N	14	00	33+	4320
02B35	2	A	1	0	B1		M530	R 471 M.6/8.1		R33	R206				E-IR-P022+
RRC-V-19	B350	P 81560						D	361008		Y				
215	2	A	2	0	B1,I		M530	C 501 319 D AZ R35		C44					RRC-V-19+
RRC-V-20	B350	81560						D	361008						
215	2	A	2	0	B1,I		M530	R 522 J/6.7		R41					RRC-V-20+
RVCU-FI-36	B045	111BMAA4V8P						A B	156003		N	14	00	33+	24
02E31	3	A	1	0	B1,F		M523	R 526 N.8/5.0		R53					E-IR-P002+







EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*					
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN					
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE					
SGT-M-1A2	W720	TBDP				B A	213017	F						4320
25HP/61-30.5A		MOTOR FOR SGT-FN-1A2	R	576	H.9/7.6	R71	R608						SGT-FN-1A2+	
28	2	A	1	0	D,F									
						M544		G6						
SGT-M-1B1	W120	TBDP				B A	213017	F					4320	
25HP/61-30.5A		MOTOR FOR SGT-FN-1B1	R	576	J.2/7.6	R71	R607						SGT-FN-1B1+	
28	2	A	1	0	D,F									
						M544		C6						
SGT-M-1B2	W120	TBD				B A	213017	F					4320	
25HP/61-30.5A		MOTOR FOR SGT-FN-1B2	R	576	J.5/7.6	R71	R607						SGT-FN-1B2+	
28	2	A	1	0	D,F									
						M544		E6						
SGT-MC-6A	C332	SWAGLOCK				N B	215001	F					4320	
SGT-EHC-1A-2		CONTROLSYSTEM - -	R	582	H.7/5.5	R71	R608						SGT-FU-1A+	
18	3	A	1	0	D,F									
						M544		J13						
SGT-MC-6B	H349	XMA/C103	HYGROMETRIX			N B	215001	F					4320	
SGT-EHC-1B-1		CONTROLSYSTEM - -	R	572	J4/5.5	R72	R607						SGT-FU-1B+	
18	3	A	1	0	D,F									
						M544		D13						
SGT-MC-7A	C332	SWAGLOCK				N B	215001	F					4320	
SGT-EHC-1A-1		CONTROLSYSTEM - -	R	582	H.7/5.5	R72	R608						SGT-FU-1A+	
18	3	A	1	0	D,F									
						M544		H13						
SGT-MC-7B	C332	SWAGLOCK				N B	215001	F					4320	
SGT-EHC-1B-2		CONTROLSYSTEM - -	R	582	J.3/5.5	R72	R607						SGT-FU-1B+	
18	3	A	1	0	D,F									
						M544		C13						
SGT-ME-6A	H349	SWAGLOCK				B B	217001	F					4320	
SGT-FU-1A		HOIST. AFTER SGT-MS-1A	R	582	N.7/5.5	R72	R608						SGT-FU-1A+	
18	2	A	1	0	D,F									
						M544		J13						
SGT-ME-6B	H349	XMS-7AP				B B	217001	F					4320	
SGT-FU-1B		HOIST. AFTER SGT-MS-1B	R	582	J.3/5.5	R72	R607						SGT-FU-1B+	
18	2	A	1	0	D,F									
						M544		E13						
SGT-ME-7A	H349	XMS-7AP				B B	217001	F					4320	
SGT-FU-1A		HOIST. AFTER SGT-MS-1A	R	582	H.7/5.5	R72	R608						SGT-FU-1A+	
18	2	A	1	0	D,F									
						M544		H13						
SGT-ME-7B	H349	XMS-7AP				B B	217001	F					4320	
SGT-FU-1B		HOIST. AFTER SGT-MS-1B	R	582	J.3/5.5	R72	R607						SGT-FU-1B+	
18	2	A	1	0	D,F									
						M544		C13						
SGT-MO-1A	L200	SHB-00-10/P58				A A	221001	F	N	1	00		4320	
1.3HP/4.8-2.4A		MOTOR OPER SGT-V-1A	R	582	H.8/5.2	R72	R608						SGT-V-1A+	
6B	2	A	1	0	D,F									
						M544		H15						
SGT-MO-1B	L200	SHB-00-10/P58				A A	221001	F	N	1	00		4320	
1.3HP/4.8-2.4A		MOTOR OPER SGT-V-1B	R	582	J.3/5.5	R72	R607						SGT-V-1B+	
6B	2	A	1	0	D,F									
						M544		E15						





CONTRACT	LEVEL	EPN	DESCRIPTION	HFG	MODEL	STATUS	S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TM	HL	TEST	ANL	FO	C
			EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY				COMPOSITE EPH
					A/E DRAWING	A/E ZONE								
SGT-PP-EHC/1A2+				F030			A	252004						4320
HEATER CONTROL BOX						R 576 M.0/8.1								
18	1		P	1 0	D,F	E519-34A								
SGT-PP-EHC/1B1+				F030			A	252004						4320
HEATER CONTROL BOX						R 576 M.0/6.0								
18	1		P	1 0	D,F	E519-34A								
SGT-PP-EHC/1B2+				F030			A	252004						4320
HEATER CONTROL BOX						R 576 M.0/7.9								
18	1		P	1 0	D,F	F519-34A								
SGT-PS-EH1A11				B135	A900-20C0EAA-20		H	256008						4320
CONTROL OF HEATER				SGT-EHC-1A1		R 572 H.4/5.9							SGT-EHC-1A1+	
18	2		A	2 0	D,F									
SGT-PS-EH1A21				B135	A900-20C0EAA-20		H	256008						4320
CONTROL OF HEATER				SGT-EHC-1A2		R 572 H.8/6.0							SGT-EHC-1A2+	
18	2		A	2 0	D,F									
SGT-PS-EH1B11				B135	A900-20C0EAA-20		H	256008						4320
CONTROL OF HEATER				SGT-PS-EH1B11		R 572 J.5/16.0							SGT-EHC-1B1+	
18	2		A	2 0	D,F									
SGT-PS-EH1B21				B135	A900-20C0EAA-20		H	256008						4320
CONTROL OF HEATER				SGT-EHC-1B2		R 572 J.2/6.0							SGT-EHC-1B2+	
18	2		A	2 0	D,F									
SGT-RLY-1B25					A160700N800A1		H							4320
CONTROL OF HEATER				SGT-EHC-1B2		R 572 M.0/8.0							SGT-PP-EHC/1B2+	
18	3		A	1 0	D,F	18-00-0072								
SGT-RLY-1B26					A160700N800A1		H							4320
CONTROL OF HEATER				SGT-EHC-1B2		R 572 M.0/8.0							SGT-PP-EHC/1B2+	
18	3		A	1 0	D,F	18-00-0072								
SGT-RLY-EH1A15				A160	700N800A1		B	283044	F					4320
CONTROL OF HEATER				SGT-EHC-1A1		R 575 M.1/6.0							SGT-PP-EHC/1A1+	
18	3		A	1 0	D,F	18-00-0092	C6							
SGT-RLY-EH1A16				A160	700N600A1		B	283044	F					4320
CONTROL OF HEATER				SGT-EHC-1A1		R 575 M.1/6.0							SGT-PP-EHC/1A1+	
18	3		A	1 0	D,F	18-00-0092	C6							
SGT-RLY-EH1A17					700N400A1		B	283044	F					4320
CONTROL OF HEATER				SGT-EHC-1A1		R 575 M.1/6.0							SGT-PP-EHC/1A1+	
18	3		A	1 0	D,F	18-00-0092	C7							
SGT-RLY-EH1A21				A160	700N400A1		B	283044						4320
CONTROL OF HEATER				SGT-EHC-1A2		R 572 M.0/8.2							SGT-PP-EHC/1A2+	
18	3		A	1 0	D,F	18-00-0092	E6							



EPN		MFG		MODEL		STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*							
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	BLDG ELEV	DETAIL	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C	HOURS
						A/E DRAWING	A/E ZONE	ZONE	ROOM			ACCURACY				COMPOSITE EPN			
SGT-RLY-EH1A22		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.0/8.2	18-00-0092	E6										SGT-PP-EHC/1A2+
SGT-RLY-EH1A23		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 572 M.0/8.2	18-00-0092	E6										SGT-PP-EHC/1A2+
SGT-RLY-EH1A24		A160		700N600A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 574 M.0/8.2	18-00-0092	D6										SGT-PP-EHC/1A2+
SGT-RLY-EH1A25		A160		700N800A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 572 M.0/8.2	18-00-0092	C6										SGT-PP-EHC/1A2+
SGT-RLY-EH1A26		A160		700N600A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 572 M.0/8.2	18-00-0092	C6										SGT-PP-EHC/1A2+
SGT-RLY-EH1A27		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 574 M.0/8.2	18-00-0092	C6										SGT-PP-EHC/1A2+
SGT-RLY-EH1B11		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.4	18-00-0092	E6										SGT-PP-EHC/1B1+
SGT-RLY-EH1B12		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.4	18-00-0092	E6										SGT-PP-EHC/1B1+
SGT-RLY-EH1B13		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.4	18-00-0092	E6										SGT-PP-EHC/1B1+
SGT-RLY-EH1B14		A160		700N600A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.4	18-00-0092	D6										SGT-PP-EHC/1B1+
SGT-RLY-EH1B15		A160		700N800A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.4	18-00-0092	C6										SGT-PP-EHC/1B1+
SGT-RLY-EH1B16		A160		700N600A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.5	18-00-0092	C6										SGT-PP-EHC/1B1+
SGT-RLY-EH1B17		A160		700N400A1			B	283044											4320
CONTROL OF HEATER	18	3	A	1	0	D,F	R 575 M.1/5.5	18-00-0092	C6										SGT-PP-EHC/1B1+







CONTRACT	LEVEL	EPN	DESCRIPTION	MFG	MODEL	BLOG ELEV	STATUS S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
									TH	HL	TEST ANL	FO C	FREQ	AGING
			EC	USE	SAFETY FUNCTION	A/E DRAWING	DETAIL	ZONE	ROOM	ACCURACY			COMPOSITE EPN	
SGT-TE-7A1				F030	L-54040-3		B M	339001					4320	
SGT-FU-1A1	2	A	2	0	F	M544	R	577 H.8/6.4	R72	R608			SGT-FU-1A+	
SGT-TE-7B1				F030	L-54040-3		B M	339001					4320	
SGT-FU-1B1	2	A	2	0	F	M544	R	576 J.4/6.4	R72	R607			SGT-FU-1B+	
SGT-TE-8A1				F030	L-54040-2		B M	339001					4320	
SGT-FU-1A TEMP. AFTER SGT-FL-1A LO	2	A	2	0	F	M544	R	577 H.8/6.0	R72	R608			SGT-FU-1A+	
SGT-TE-8B1				F030	L-54040-2		B M	339001					4320	
SGT-FU-1B TEMP. AFTER SGT-FL-1B LO	2	A	2	0	F	M544	R	576 J.4/6.8	R72	R607			SGT-FU-1B+	
SGT-TS-6A1				K120	CSD-3(A)		B N	355006 F					4320	
SGT-CF-1A-1 TEMP. LOC-AL-	3	A	2	0	F	M544	R	572 H8/5.5	R72	R608			SGT-FU-1A+	
SGT-TS-6B1				K120	CSD-3(A)		B N	355006 F					4320	
SGT-CF-1B-1 TEMP. LOC-AL-	3	A	2	0	F	M544	R	572 J4/5.5	R72	R607			SGT-FU-1B+	
SGT-TS-7A1				K120	CSD-3(A)		B N	355006 F					4320	
SGT-CF-1A-2 TEMP. - -	3	A	2	0	F	M544	R	572 H8/5.5	R72	R608			SGT-FU-1A+	
SGT-TS-7B1				K120	CSD-3(A)		B N	355006 F					4320	
SGT-CF-1B-2 TEMP. - -	3	A	2	0	F	M544	R	572 J4/5.5	R72	R607			SGT-FU-1B+	
SGT-TS-8A1				K120	CSD-3(A)		B N	355006 F					432	
SGT-FU-1A TEMP. AFTER SGT-FL-1A LO	3	A	2	0	F	M544	R	572 H8/6.8	R71	R608			SGT-FU-1A+	
SGT-TS-8B1				K120	CSD-3(A)		B N	355006 F					4320	
SGT-FU-1B TEMP. AFTER SGT-FL-1B LO	3	A	2	0	F	M544	R	572 J4/6.8	R71	R607			SGT-FU-1B+	
SGT-TS-EH1A10				F081	18000-0		A B	355003 F					4320	
CONTROL OF HEATER SGT-EHC-1A1	2	A	2	0	D,F	E686	R	572 H.4/5.9					SGT-EHC-1A1+	
SGT-TS-EH1A11				F081	18000-0		A B	355003 F					4320	
CONTROL OF STAGE 1 OF SGT-EHC-1A1	2	A	1	0	D,F	18-00-0092	R	572 H.4/5.9					SGT-EHC-1A1+	
SGT-TS-EH1A111				F081	18000-0		A B	355003 F					4320	
CONTROL OF HEATER SGT-EHC-1A1	2	A	1	0	D,F	18-00-0092	R	572 H.4/5.9					SGT-EHC-1A1+	



CONTRACT	LEVEL	EPN	MFG	DESCRIPTION	MODEL	STATUS	***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
							S	F	Q10	TM	HL	TEST	ANL	FD	C
				EC	USE	SAFETY FUNCTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
						A/E DRAWING			A/E ZONE						
SGT-TS-EH1A112			F081		18000-0				A B	355003					4320
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		E686									
SGT-TS-EH1A113			F081		18000-0				A B	355003	F			4320	
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		C7							
SGT-TS-EH1A114			F081		18000-0				A B	355003	F			4320	
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		C6							
SGT-TS-EH1A115			F081		18000-0				A B	355003	F			4320	
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		C6							
SGT-TS-EH1A116			F081		18000-0				A B	355003	F			4320	
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		C6							
SGT-TS-EH1A117			F081		18000-0				A B	355003	F			4320	
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		C6							
SGT-TS-EH1A118			F081		18000-0				A B	355003	F			4320	
CONTROL OF HEATER			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		C6							
SGT-TS-EH1A12			F081		18000-0				A B	355003	F			4320	
CONTROL OF STAGE 1 OF			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		E6							
SGT-TS-EH1A13			F081		18000-0				A B	355003	F			4320	
CONTROL OF STAGE 1 OF			SGT-EHC-1A1					R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		E6							
SGT-TS-EH1A14			F081		18000-0				A B	355003	F			4320	
								R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		E7							
SGT-TS-EH1A15			F081		18000-0				A B	355003	F			4320	
								R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		E7							
SGT-TS-EH1A16			F081		18000-0				A B	355003	F			4320	
								R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		E7							
SGT-TS-EH1A17			F081		18000-0				A B	355003	F			4320	
								R 572 H.4/5.9						SGT-EHC-1A1+	
18	2	A	1 0	D,F		18-00-0092		E7							



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***					*ENV. (E) PARAMETERS*					
			S	E	QID	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLOG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE						
SGT-TS-EH1A18		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.4/5.9								SGT-EHC-1A1+
							18-00-0092	E7							
SGT-TS-EH1A19		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.4/5.9								SGT-EHC-1A1+
							18-00-0092	E6							
SGT-TS-EH1A21		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.8/6.0								SGT-EHC-1A2+
							18-00-0092	C7							
SGT-TS-EH1A210		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.4/5.9								SGT-EHC-1A2+
							18-00-0092	E7							
SGT-TS-EH1A211		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.8/6.0								SGT-EHC-1A2+
							18-00-0092	C7							
SGT-TS-EH1A212		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.8/6.0								SGT-EHC-1A2+
							18-00-0092	C7							
SGT-TS-EH1A213		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572								SGT-EHC-1A2+
							18-00-0092	C7							
SGT-TS-EH1A214		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.8/6.0								SGT-FU-1A+
							18-00-0092	C6							
SGT-TS-EH1A215		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.8/6.0								SGT-FU-1A+
							18-00-0092	C6							
SGT-TS-EH1A216		F081		18000-0		A B	355003	F							4320
18	2	A	1 0	D,F			R 572 H.8/6.0								SGT-FU-1A+
							18-00-0092	C6							
SGT-TS-EH1A217		F081		18000-0		A B	355003	F							4320
CONTROL OF HEATER		SGT-EHC-1A2					R 572 H.8/6.0								SGT-FU-1A+
18	2	A	1 0	D,F			18-00-0092	C6							
SGT-TS-EH1A218		F081		18000-0		A B	355003	F							4320
CONTROL OF HEATER		SGT-EHC-1A2					R 572 H.8/6.0								SGT-FU-1A+
18	2	A	1 0	D,F			18-00-0092	C6							
SGT-TS-EH1A22		F081		18000-0		A B	355003	F							4320
CONTROL OF STAGE 1 OF		SGT-EHC-1A2					R 572 H.8/6.0								SGT-FU-1A+
18	2	A	1 0	D,F			18-00-0092	E6							





EPN	MFG	MODEL	STATUS			***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*				
			S	E	QID	TH	HL	TEST	ANL	FO	C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	EC	USE	SAFETY FUNCTION	A/E	DRAWING	A/E	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
SGT-TS-EH1B115	F081	18000-0						A B	355003	F				4320
CONTROL OF HEATER SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	C6						
SGT-TS-EH1B116	F081	18000-0						A B	355003	F			4320	
CONTROL OF HEATER SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	C6						
SGT-TS-EH1B117	F081	18000-0						A B	355003	F			4320	
CONTROL OF HEATER SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	C6						
SGT-TS-EH1B118	F081	18000-0						A B	355003	F			4320	
CONTROL OF HEATER SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	C6						
SGT-TS-EH1B12	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 1 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E6						
SGT-TS-EH1B13	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 1 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E6						
SGT-TS-EH1B14	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 2 OF SGT-EHC-1B1						R	572 M.1/5.8					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E7						
SGT-TS-EH1B15	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 2 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E7						
SGT-TS-EH1B16	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 2 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E7						
SGT-TS-EH1B17	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 3 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E7						
SGT-TS-EH1B18	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 3 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E7						
SGT-TS-EH1B19	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 3 OF SGT-EHC-1B1						R	572 J.5/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	E6						
SGT-TS-EH1B21	F081	18000-0						A B	355003	F			4320	
CONTROL OF STAGE 1 OF SGT-EHC-1B2						R	572 J.2/6.0					SGT-FU-1B+		
18	2	A	1	0	D,F		18-00-0092	C7						



EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***				*ENV. (E) PARAMETERS*						
			S	E	QID	TM	HL	TEST	ANL	FO	C	FREQ	AGING	DBE	C
CONTRACT	LEVEL	DESCRIPTION	BLDG	ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN						
		EC	USE	SAFETY	FUNCTION	A/E	DRAWING	A/E	ZONE						
SGT-TS-EH1B210	F081	18000-0				A	B	355003	F						4320
CONTROL OF STAGE 1 OF SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C7						
SGT-TS-EH1B211	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C7						
SGT-TS-EH1B212	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		E686								
SGT-TS-EH1B213	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C7						
SGT-TS-EH1B214	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C6						
SGT-TS-EH1B215	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C6						
SGT-TS-EH1B217	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C6						
SGT-TS-EH1B218	F081	18000-0				A	B	355003	F						4320
CONTROL OF HEATER SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		C6						
SGT-TS-EH1B22	F081	18000-0				A	B	355003	F						4320
CONTROL OF STAGE 1 OF SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		E6						
SGT-TS-EH1B23	F081	18000-0				A	B	355003	F						4320
CONTROL OF STAGE 1 OF SGT-EHC-1B2						R	572								SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		E6						
SGT-TS-EH1B24	F081	18000-0				A	B	355003	F						4320
CONTROL OF STAGE 2 OF SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		E7						
SGT-TS-EH1B25	F081	18000-0				A	B	355003	F						4320
CONTROL OF STAGE 2 OF SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		E7						
SGT-TS-EH1B26	F081	18000-0				A	B	355003	F						4320
CONTROL OF STAGE 2 OF SGT-EHC-1B2						R	572	J.2/6.0							SGT-FU-1B+
18	2	A	1	0	D,F		18-00-0092		E6						





EPN	MFG	MODEL	STATUS S E	QID	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
					TM	HL	TEST ANL FO C	FREQ	AGING	DBE
CONTRACT	LEVEL	DESCRIPTION	BLOG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
	EC	USE	SAFETY FUNCTION	A/E DRAWING	A/E ZONE					
SGT-XE-2RH/1B1	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 576 H.0/5.5						SGT-PP-EHC/1B1+
18	2	A	1 0	D,F	18-00-0092	B6				
SGT-XE-2RH/1B2	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 576 H.0/8.1						SGT-PP-EHC/1B2+
18	2	A	1 0	D,F	18-00-0092	B6				
SGT-XE-2RHS/1A1	H349	XMS7A	B	383004						4320
CONTROL OF RELATIVE HUMIDITY				R 572 H.4/5.9						SGT-PP-EHC/1A1+
18	2	A	1 0	D,F	18-00-0092	B5				
SGT-XE-2RHS/1A2	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 572 H.8/6.0						SGT-PP-EHC/1A2+
18	2	A	1 0	D,F	18-00-0092	B5				
SGT-XE-2RHS/1B1	H349	XMS7A	B	383004						4320
CONTROL OF RELATIVE HUMIDITY				R 572 J.5/6.0						SGT-PP-EHC/1B1+
18	2	A	1 0	D,F	18-00-0092	B5				
SGT-XE-2RHS/1B2	H349	XMS7A	B	383004						4320
CONTROL OF RELATIVE HUMIDITY				R 572 J.2/6.0						SGT-PP-EHC/1B2+
18	2	A	1 0	D,F	18-00-0092	B5				
SGT-XE-3RH/1A1	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 576 H.0/6.0						SGT-PP-EHC/1A1+
18	2	A	1 0	D,F	18-00-0092	B6				
SGT-XE-3RH/1A2	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 572 H.0/8.2						SGT-PP-EHC/1A2+
18	2	A	1 0	D,F	18-00-0092	B6				
SGT-XE-3RH/1B1	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 576 H.0/5.5						SGT-PP-EHC/1B1+
18	2	A	1 0	D,F	18-00-0092	B6				
SGT-XE-3RH/1B2	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 576						SGT-PP-EHC/1B2+
18	2	A	1 0	D,F	18-00-0092	B6				
SGT-XE-3RHS/1A1	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 572 H.4/5.9						SGT-PP-EHC/1A1+
18	2	A	1 0	D,F	18-00-0092	A5				
SGT-XE-3RHS/1A2	H349	XMAC-103	B	383002						4320
CONTROL OF RELATIVE HUMIDITY				R 572 H.8/6.0						SGT-PP-EHC/1A2+
18	2	A	1 0	D,F	18-00-0092	A5				
SGT-XE-3RHS/1B1	H349	XMS7A	B	383004						4320
CONTROL OF RELATIVE HUMIDITY				R 572 J.5/6.0						SGT-PP-EHC/1B1+
18	2	A	1 0	D,F	18-00-0092	A5				







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CONTRACT	LEVEL	DESCRIPTION			MODEL	BLDG A/E	ELEV DRAWING	STATUS S E	R/O	***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*			COMPOSITE EPN
		EC	USE	SAFETY FUNCTION						ZONE	ROOM	ACCURACY	FREQ	AGING	DBE	
SRH-DET-1B		G080		368X432G001				D								4320
02C51	2	A	1 3	I		807E162		C							MS-RPV-3+	
SRH-DET-1C		G080		368X432G001				D								4320
02C51	2	A	1 3	I		807E162		C							MS-RPV-3+	
SRH-DET-1D		G080		368X432G001				D								4320
02C51	2	A	1 3	I		807E162		C							MS-RPV-3+	
SRH-EAMP-1A		G080		112C2276G001				D		106002						4320
02C51	3	A	1 3	I			R		501 L.6/3.5						E-IR-P030+	
SRH-EAMP-1B		G080		112C2276G001				D		106002						4320
02C51	3	A	1 3	I			R		501 H.4/7.7						E-IR-P031+	
SRH-EAMP-1C		G080		112C2276G001				D		106002						4320
02C51	3	A	1 3	I			R		501 L.5/3.5						E-IR-P032+	
SRH-EAMP-1D		G080						D								4320
02C51	3	A	1 3	I			R		501 H.8/8.3						E-IR-P033+	
SW-FT-7A					1151			A B		156005	N	14	00		33+	4320
FLOW TRANSMITTER							R		503 J.6/3.6		R73				E-IR-P018	
02	3	A	1 3	I		M524			611							
SW-FT-7B					R369 1151			A D		156005	N	14	00		33+	4320
FLOW TRANSMITTER							R		503 H.9/9.3		R73				E-IR-P021	
02	3	A	1 3	I		M524			610							
SW-MO-187A								N M		221001						4320
MO FOR SW-V-187A INTO FPC-HX-1A							R		548						SW-V-187A+	
41A	2	A	1 0	F		M524			B8							
SW-MO-187B								N M		221001						4320
SW-V-187B MO SW INTO FPC-HX-1B							R		548						SW-V-187B+	
41A	2	A	1 0	F		M524			B6							
SW-MO-188A								N M		221001						4320
SW-V-188A MO SW OUT OF FPC-HX-1A							R		548						SW-V-188A+	
41A	2	A	1 0	F		M524			B8							
SW-MO-188B								N M		221001						4320
SW-V-188B MO SW OUT OF FPC-HX-1B							R		548						SW-V-188B+	
41A	2	A	1 0	F		M524			B7							



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EPN	MFG	MODEL	STATUS		***SEISMIC (S) PARAMETERS***			*ENV. (E) PARAMETERS*		
			S E	QTD	TM	HL TEST	ANL FO C	FREQ	AGING DBE C	HOURS
CONTRACT	LEVEL	DESCRIPTION	BLDG ELEV	DETAIL	ZONE	ROOM	ACCURACY	COMPOSITE EPN		
	EC	USE	A/E DRAWING	A/E ZONE						
SW-V-204		M095 HV229MS-L2								4320
.5" SOLENOID TSW TO H2 O2 ANALY			R 548	D T	324004		R63			
220	2	A 1 0 F	M607/2	C15						
SW-V-206		M095 HV229MS-L2								4320
.5" SOLENOID SAMPLE TO SR-14			R 548	D A	324004		R63			
220	2	A 1 0 F	M607/2	B15						
SW-V-209		M095 HV229HQ-L2								4320
.5" SOLENOID SAMPLE TO H2 O2 ANALY			R 548	D T	324004		R63			
220	2	A 1 0 F	M607/2	B15						
SW-V-210		M095 HV229MS-L2								4320
.5" SOLENOID H2 O2 ANALY TSW DISCH			R 548	D T	324004		R63			
220	2	A 1 0 F	M607/2	A12						
SW-V-211		M095 HV229MS-L2								4320
.5" SOLENOID SR-14 DISCHARGE			R 548	D A	324004	P	R63			
220	2	A 1 0 F	M607/2	A12						
SW-V-212		M095 HV229HQ-L2								4320
.5" SOLENOID H2 O2 ANALY TSW DISCH			R 548	D T	324004		R63			
220	2	A 1 0 F	M607/2	B13						
SW-V-213		M095 HV229MS-L2								4320
.5" SOLENOID SR-13 DISCHARGE			R 548	D A	324004		R63			
220	2	A 1 0 F	M607/2	B13						
SW-V-34		M095 HV252-1								4320
SOL. OPERATE V-34 RCIC PMP RM RTN			R 452	D	361005		R21			
215	2	A 2 1 J	M524	D11						
TIP-V-1		G080 P P136B1302G002								4320
TIP EXPLOSIVE ACT ISOL SHEAR VLV			R 501	J.0/4.5	361004		R42			
02C51	2	A 1 0 B1	807E165TC/	2J1						
TIP-V-2		G080 P P136B1302G002								4320
TIP EXPLOSIVE ACT ISOL SHEAR VLV			R 501	J.0/4.5	361004		R42			
02C51	2	A 1 0 B1	807E165TC/	2J1						
TIP-V-3		G080 P P136B1302G002								4320
TIP EXPLOSIVE ACT ISOL SHEAR VLV			R 501	J.0/4.5	361004		R42			
02C51	2	A 1 0 B1	807E165TC/	2J1						
TIP-V-4		G080 P P136B1302G002								4320
TIP EXPLOSIVE ACT ISOL SHEAR VLV			R 501	J.0/4.5	361004		R42			
02C51	2	A 1 0 B1	807E165TC/	2J1						
TIP-V-5		G080 P P136B1302G002								4320
TIP EXPLOSIVE ACT ISOL SHEAR VLV			R 501	J.0/4.5	361004		R42			
02C51	2	A 1 0 B1	807E165TC/	2J1						



APPENDIX B

ENVIRONMENTAL SERVICE CONDITIONS



Appendix B contains the following information:

- Normal and Abnormal Service Conditions: the normal and abnormal temperature, pressure and humidity for harsh environment areas B.1
- Primary Containment Service Conditions Due to a LOCA/HELB in Primary Containment B.2
- Reactor Building Service Conditions Due to a LOCA/HELB in Primary Containment: the temperature, pressure, humidity and radiation service conditions B.3
- Pressure/Temperature Profiles: the accident profiles due to a LOCA/HELB in containment (Profile 1) and HELB's in the reactor building (Profiles 2 through 30) B.4
- Radiation Zone Maps: the zone maps of the Reactor Building locating the Class 1E equipment and defining the 6-month accident plus 40-year normal radiation dose. B.34



NORMAL AND ABNORMAL SERVICE CONDITIONS

<u>Area</u>	<u>Temperature</u>	<u>Pressure</u>	<u>Humidity</u>
-----Normal Service Conditions-----			
Containment	135 ⁰ F average	14.7 psia	40 - 55%
Reactor Building	70 - 90 ⁰ F	14.7 psia	40%
Steam Tunnel	125 ⁰ F	14.7 psia	40 - 50%
-----Abnormal Service Conditions-----			
Containment	150 ⁰ F maximum	16.7 psia	90%
Reactor Building	104 ⁰ F maximum	14.7 psia	90%
Steam Tunnel	140 ⁰ F maximum	14.7 psia	90 - 98%



PRIMARY CONTAINMENT SERVICE CONDITIONS DUE TO
A LOCA/HELB IN PRIMARY CONTAINMENT

Temperature/Pressure: Accident Profile 1

Relative Humidity: Profile 2

Spray: Demineralized Water

Radiation (normal + accident):

- o Dry well 7.0×10^7 rad
- o Wet well (above pool) 9×10^7 rad
- o In suppression pool: 3.7×10^6 rad



REACTOR BUILDING SERVICE CONDITIONS DUE TO
A LOCA IN PRIMARY CONTAINMENT

Temperature: Profile 4

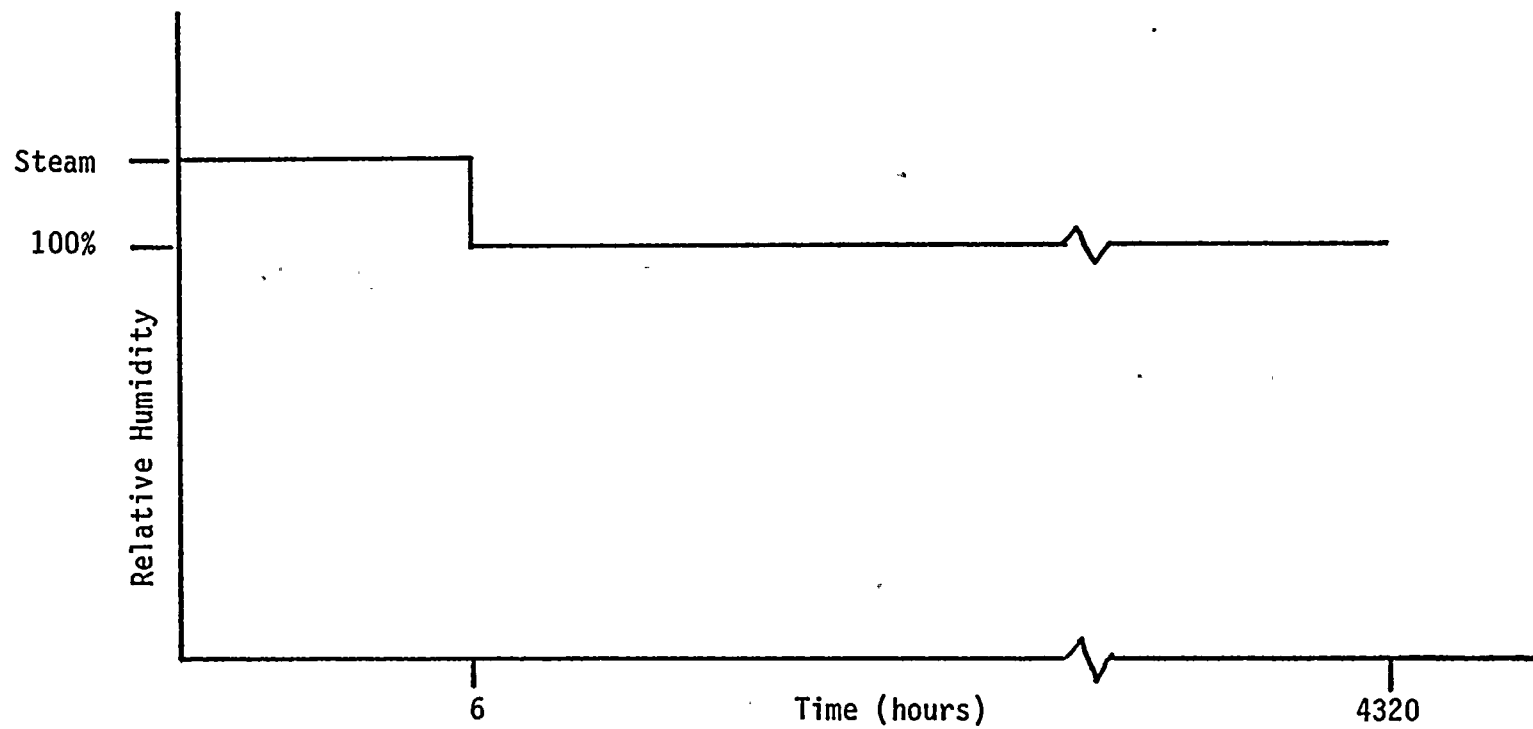
Pressure: 14.7 psia

Relative Humidity: Profile 4

Radiation: The radiation dose depends on the equipment locations. The zone maps on the following pages give the worst equipment doses. Note that these are 6-month integrated doses.

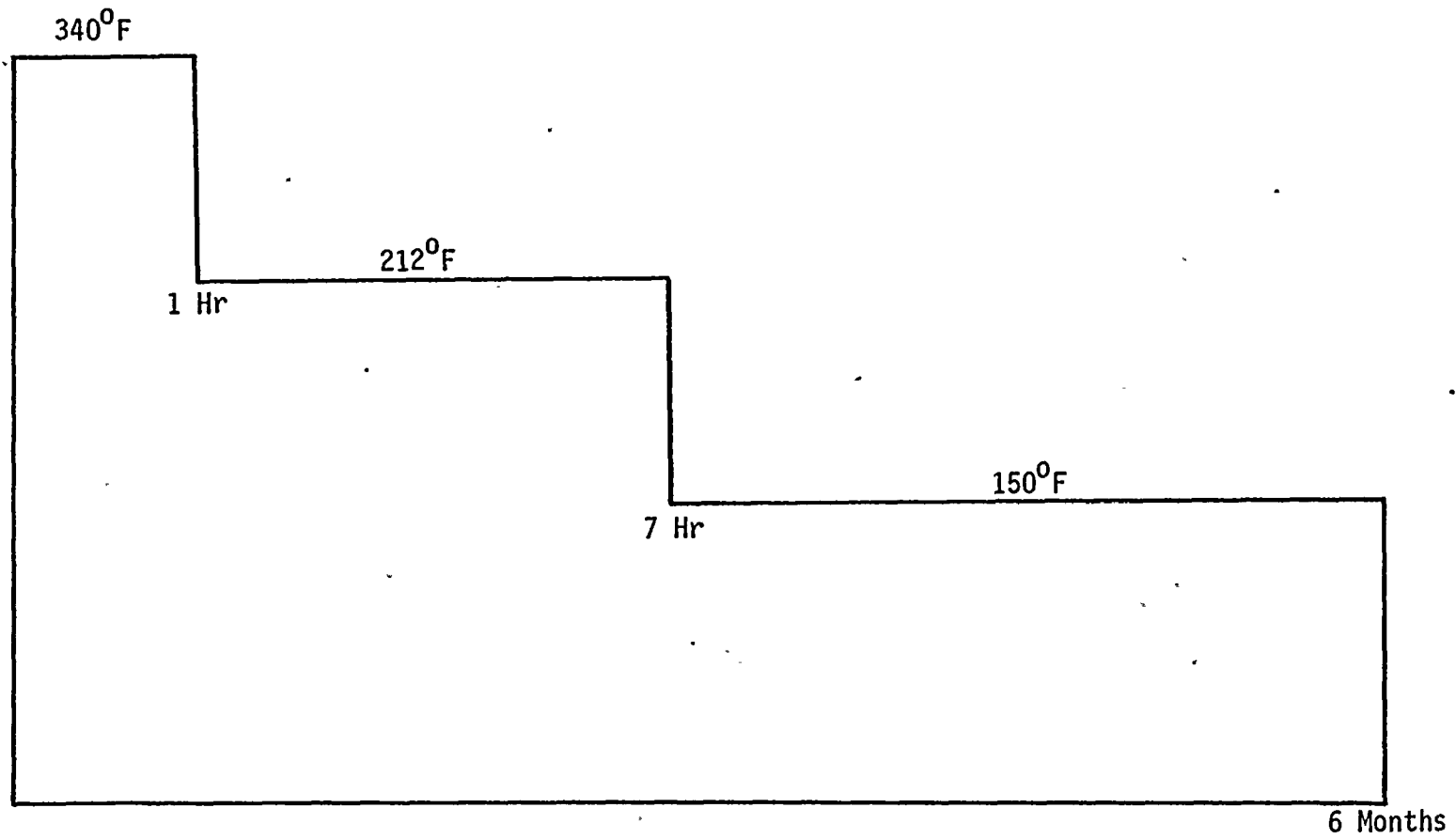


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Profile 2 - RELATIVE HUMIDITY IN PRIMARY CONTAINMENT DUE TO LOCA/HELB

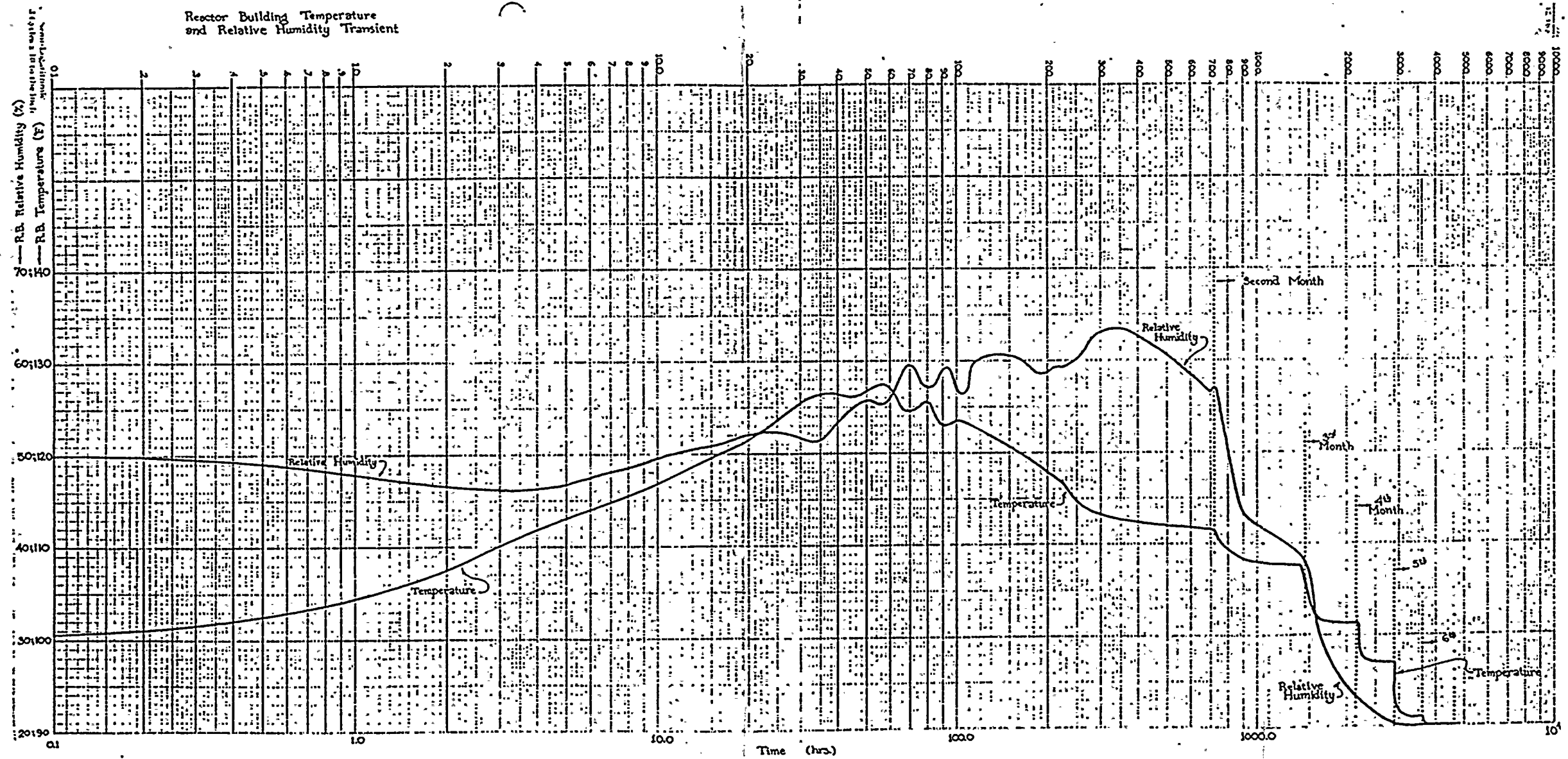


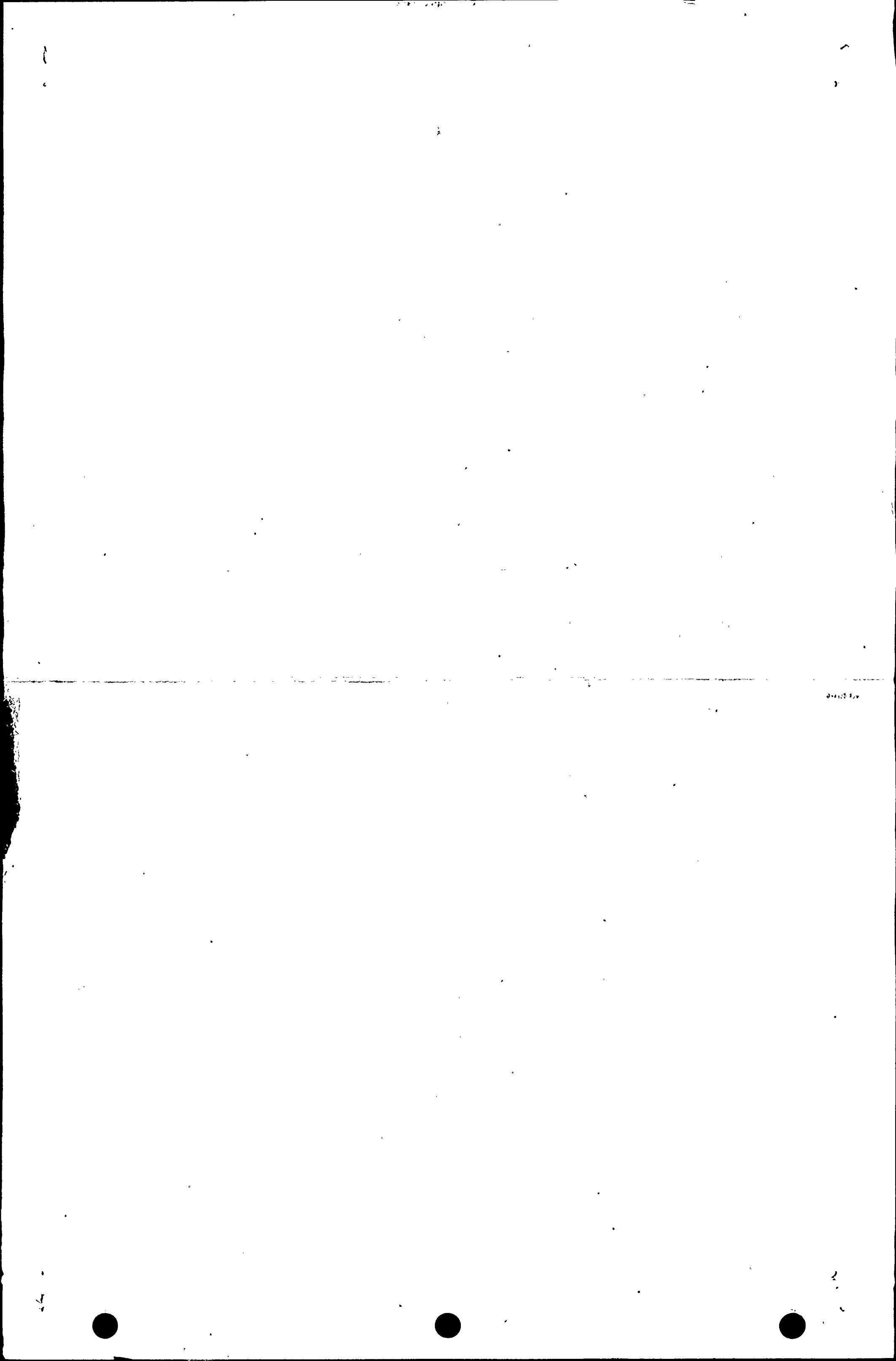


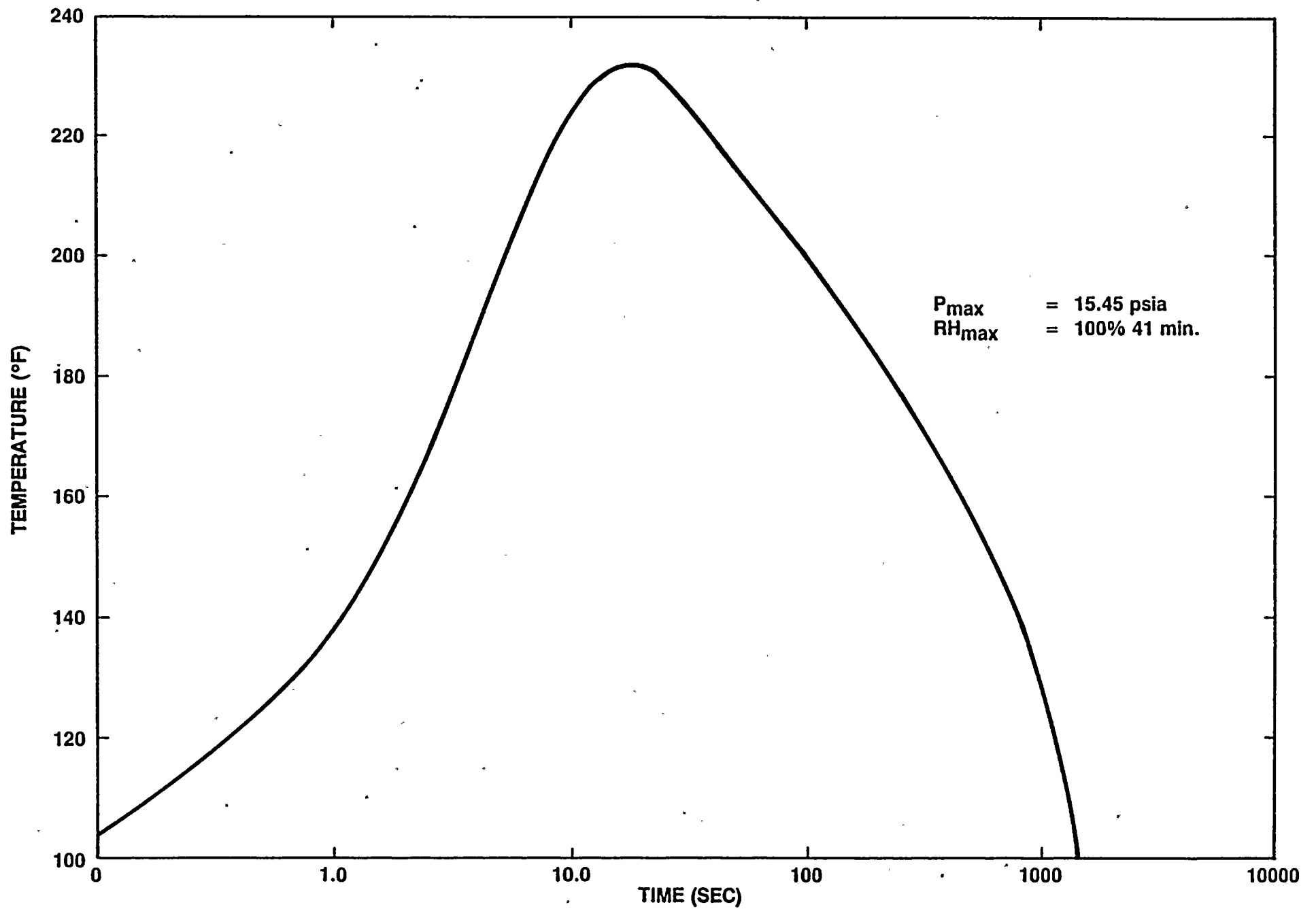
PROFILE 3. MSLB IN STEAM TUNNEL.
RESPONSE IN STEAM TUNNEL.



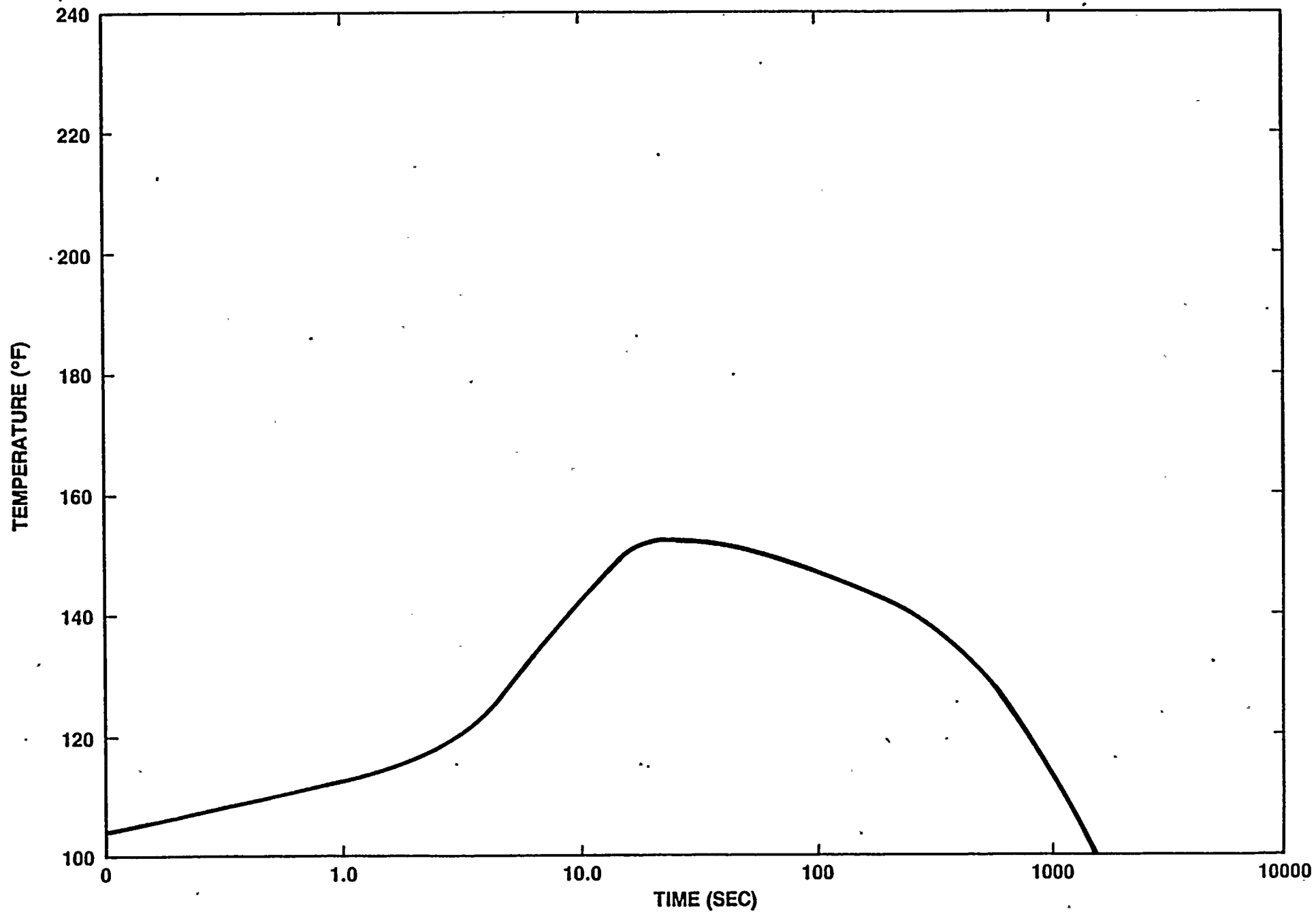
PROFILE 4 REACTOR BUILDING SERVICE
CONDITIONS DUE TO A LOCA IN PRIMARY CONTAINMENT





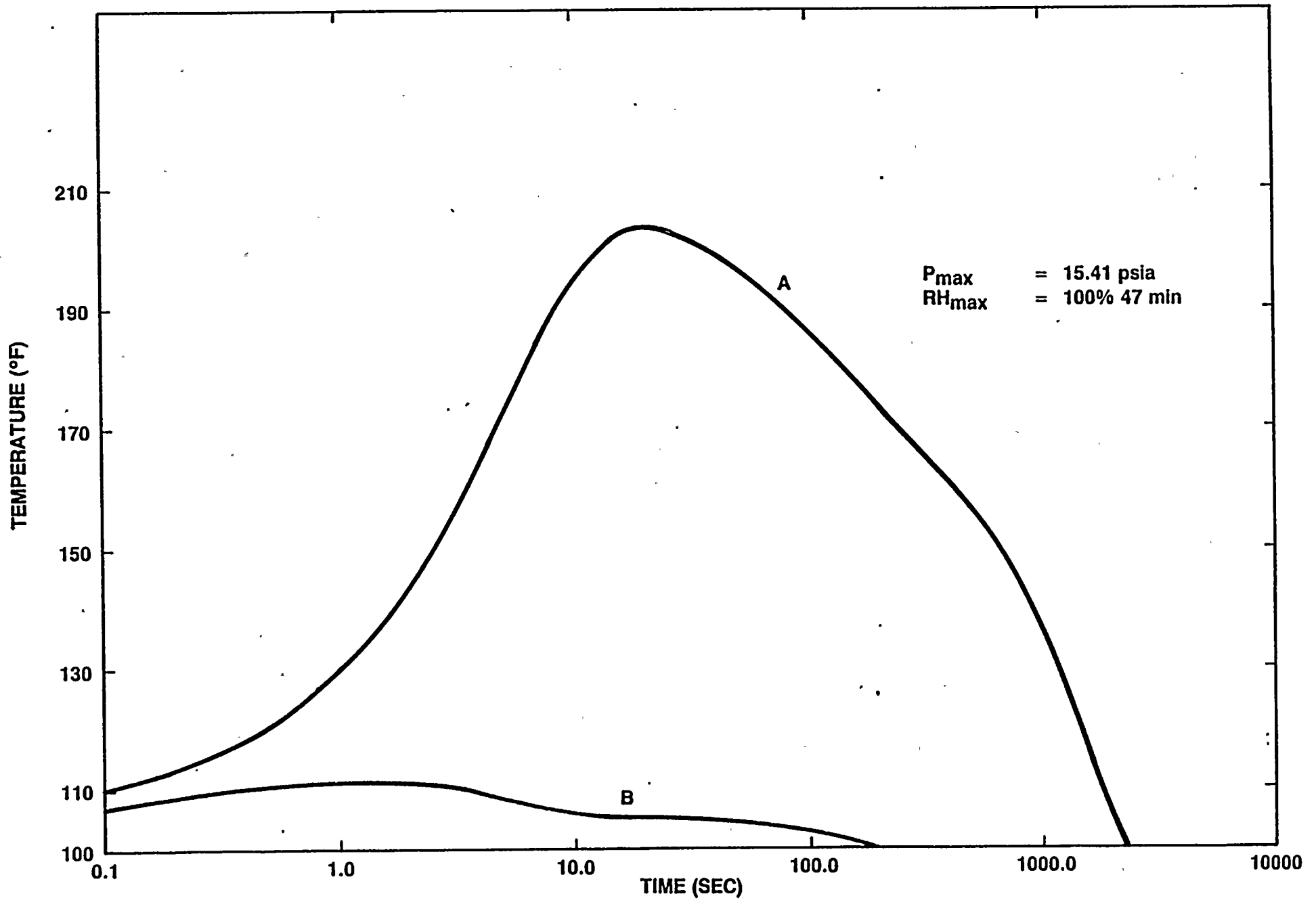


PROFILE 5. 4" RCIC LINE BREAK IN RCIC PUMP ROOM (EL 422). RESPONSE IN RCIC PUMP ROOM (EL 422).



PROFILE 6. 4" RCIC LINE BREAK IN RCIC PUMP ROOM (EL 422). RESPONSE IN ROOM ABOVE RCIC PUMP ROOM (EL 444).





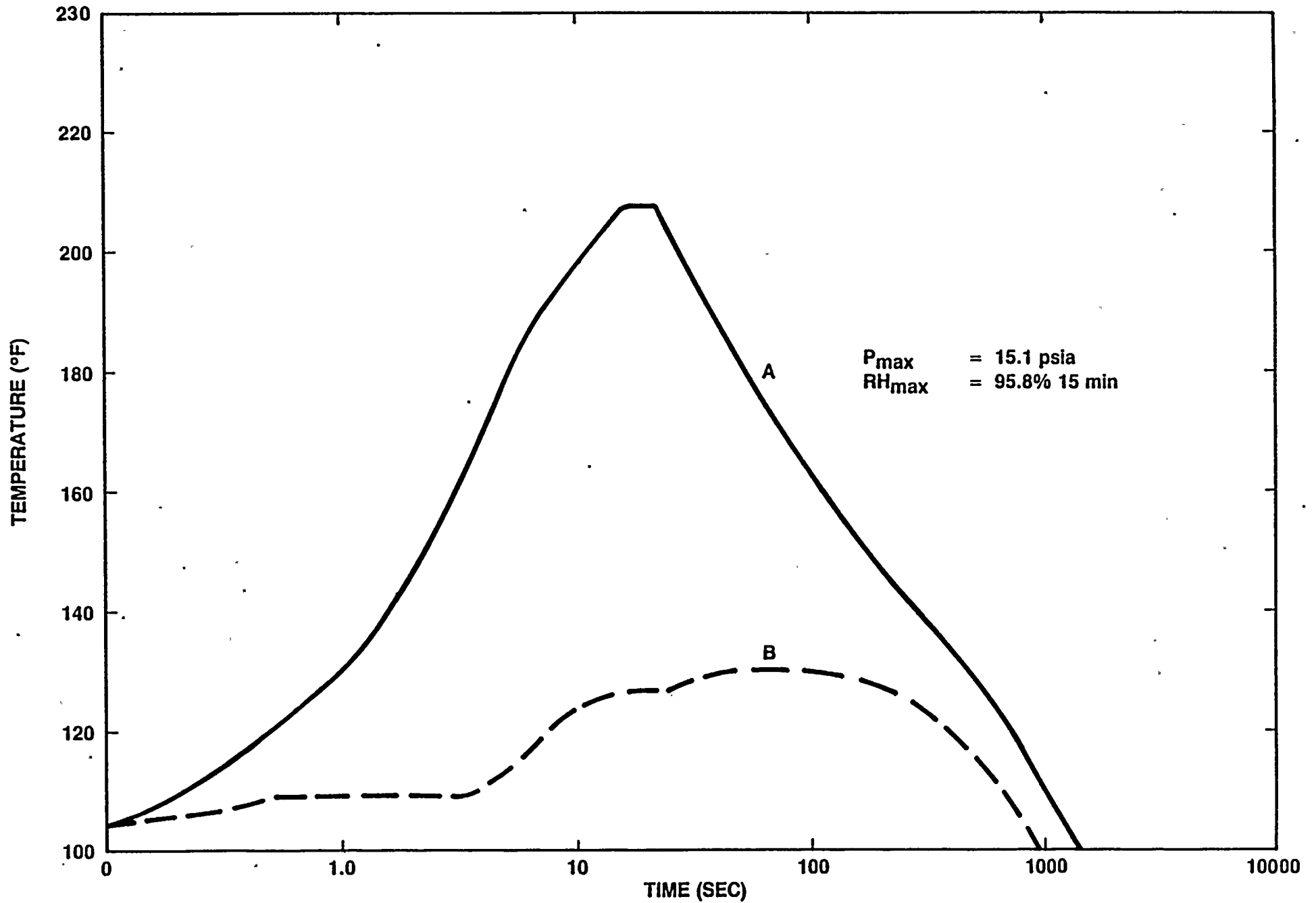
**PROFILE 7. BREAK OF 4" RCIC LINE IN ROOM ABOVE RCIC PUMP ROM (EL 444).
 RESPONSE IN ROOM ABOVE RCIC PUMP ROOM (EL 444) (A) AND RCIC
 PUMP ROOM (EL 422) (B).**

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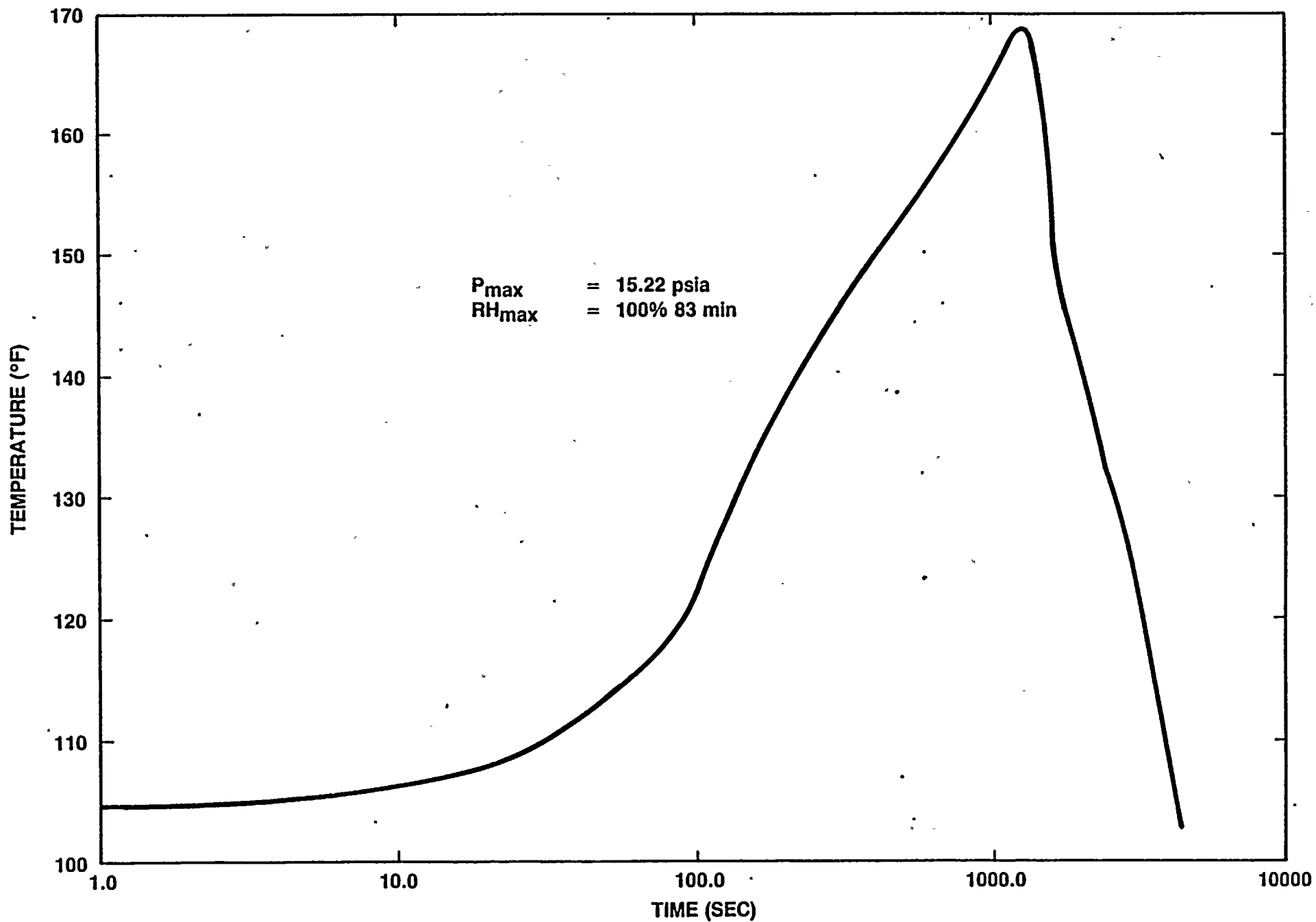
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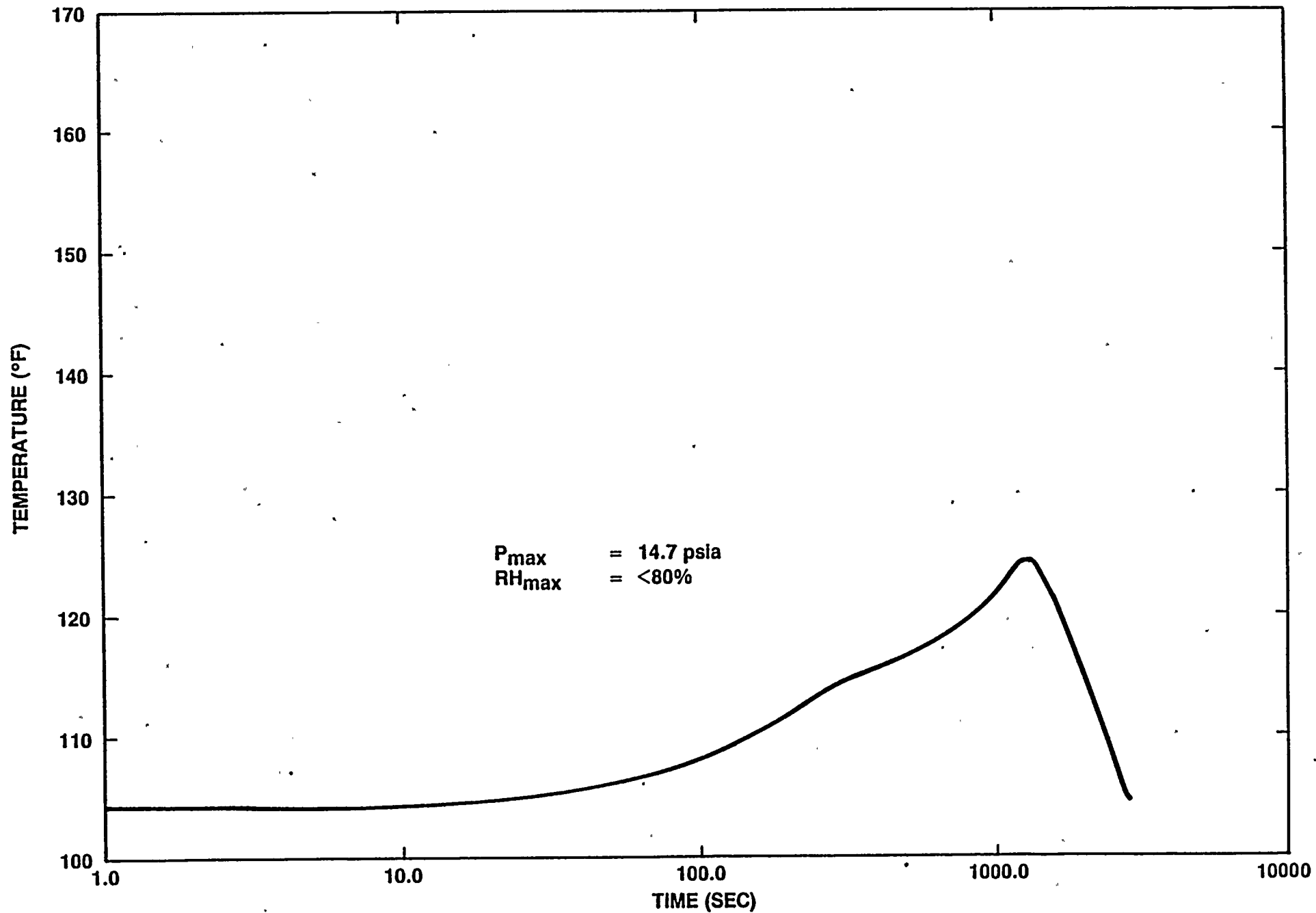
**PROFILE 8. BREAK OF 4" RCIC LINE IN ROOM ABOVE RHR PUMP 2C ROOM (EL 444).
 RESPONSE IN ROOM ABOVE RHR PUMP 2C ROOM (EL 444) (A) AND RHR
 PUMP 2C ROOM (EL 422) (B).**





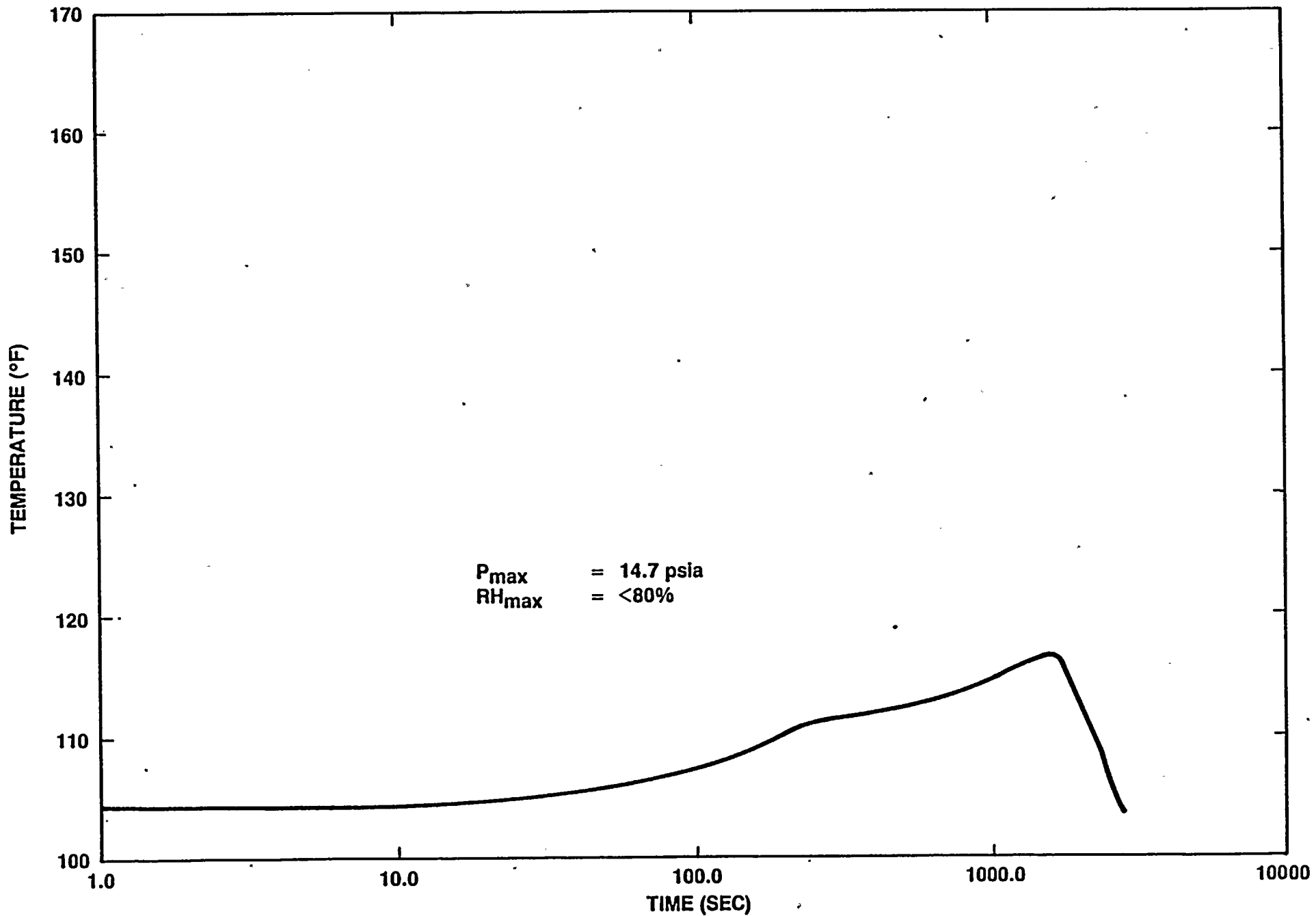
PROFILE 9. 4" AS LINE BREAK IN THE SOUTHEAST OPEN FLOOR AREA (EL 471).
RESPONSE IN ALL OPEN FLOOR AREA (EL 471).





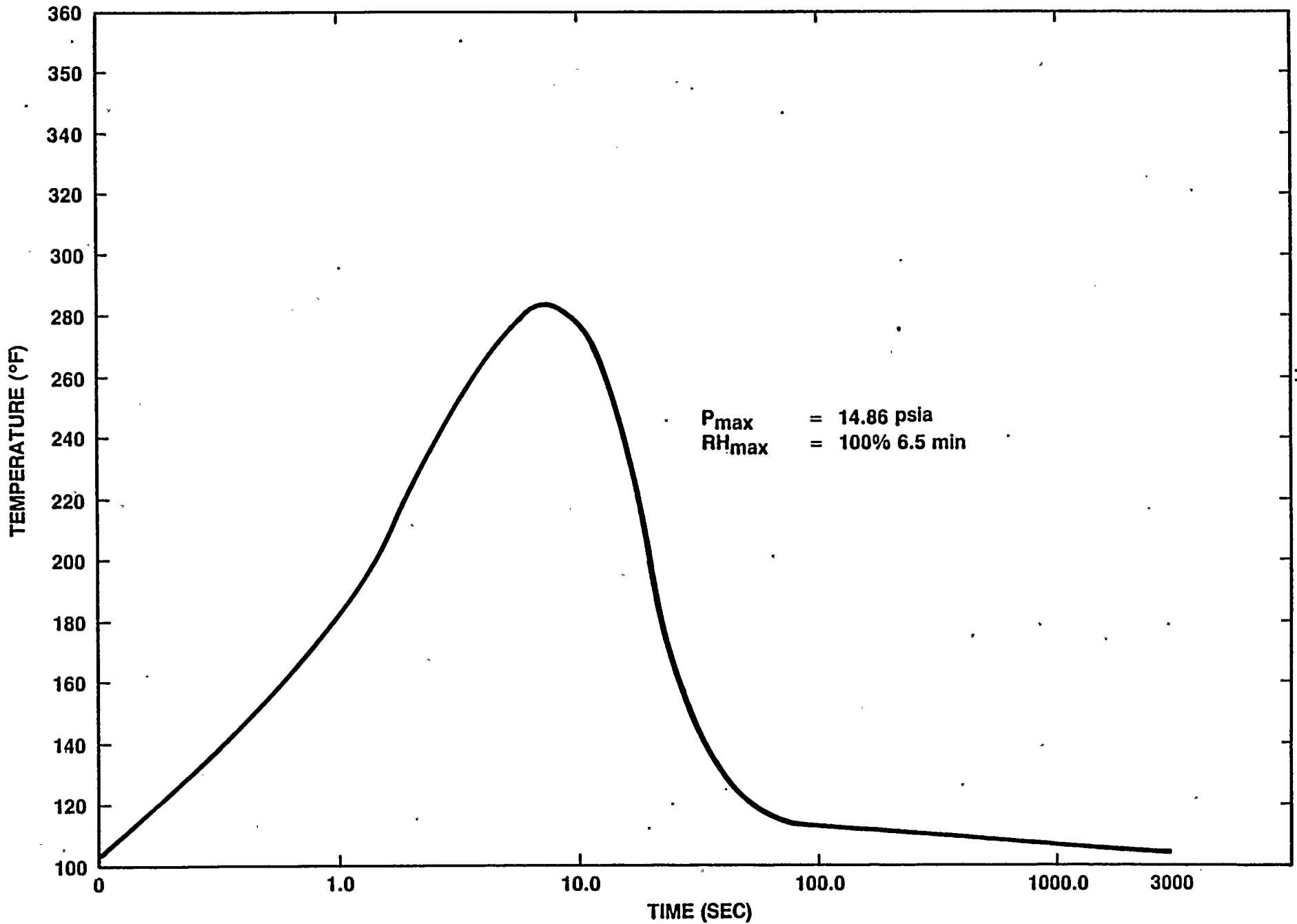
PROFILE 10. 4" AS LINE BREAK IN THE SOUTHEAST OPEN FLOOR AREA (EL 471).
RESPONSE IN ALL OPEN FLOOR AREA (EL 501).



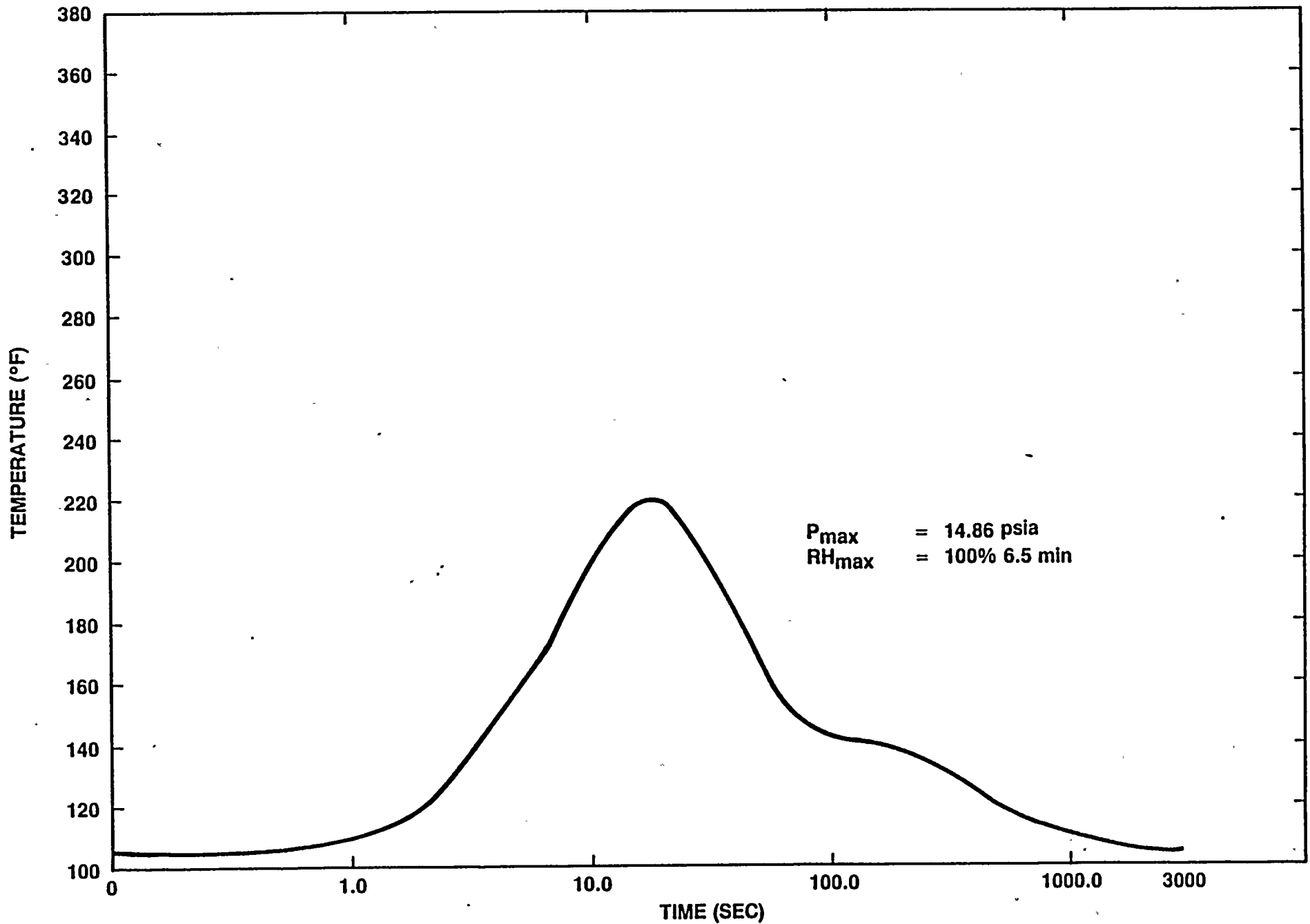


PROFILE 11. 4" AS LINE BREAK IN THE SOUTHEAST OPEN FLOOR AREA (EL 471).
RESPONSE IN ALL OPEN FLOOR AREA (EL 522).

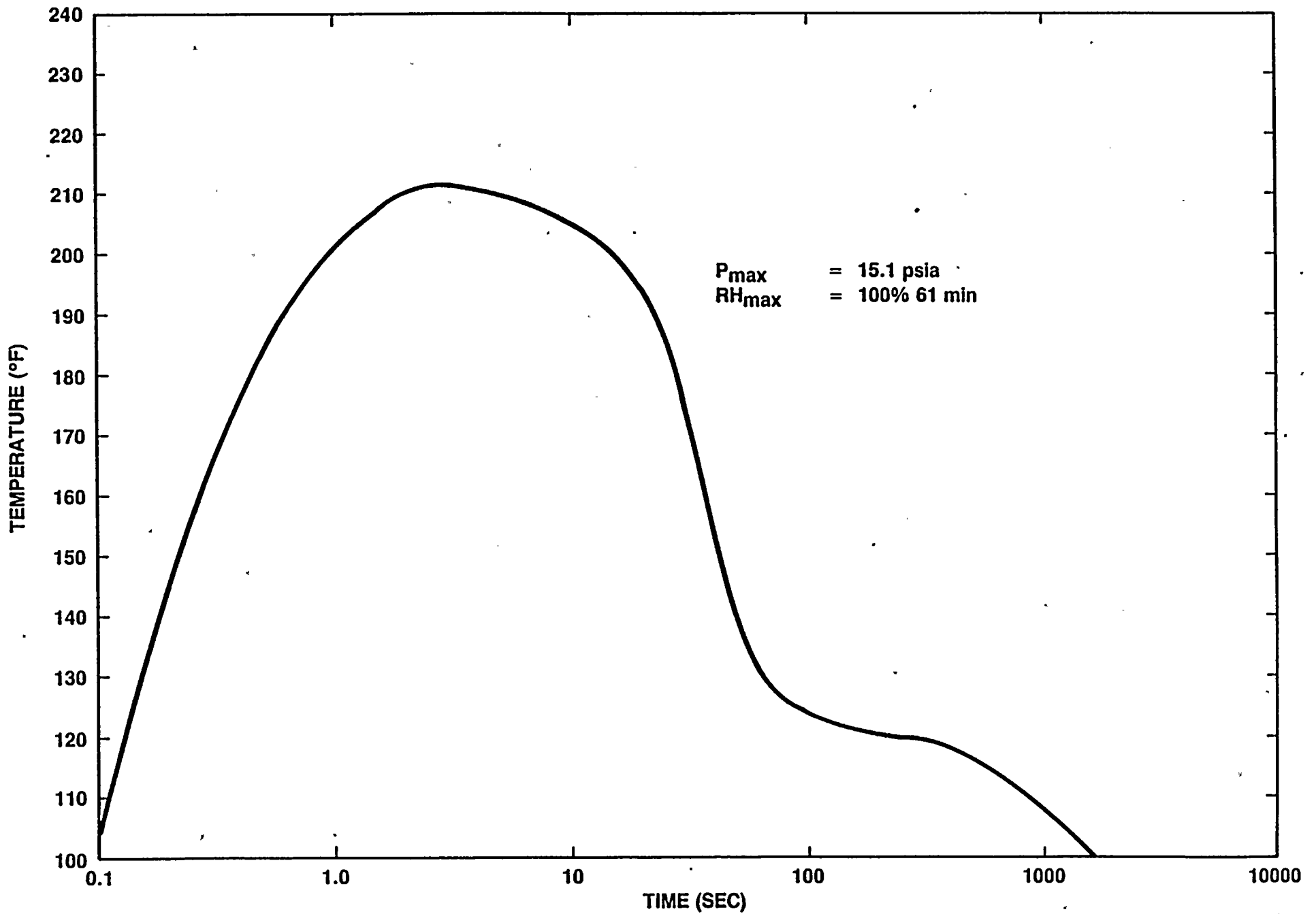




PROFILE 12. 4" RCIC LINE BREAK IN T.I.P. ROOM (EL 501). RESPONSE IN T.I.P. ROOM (EL 501).

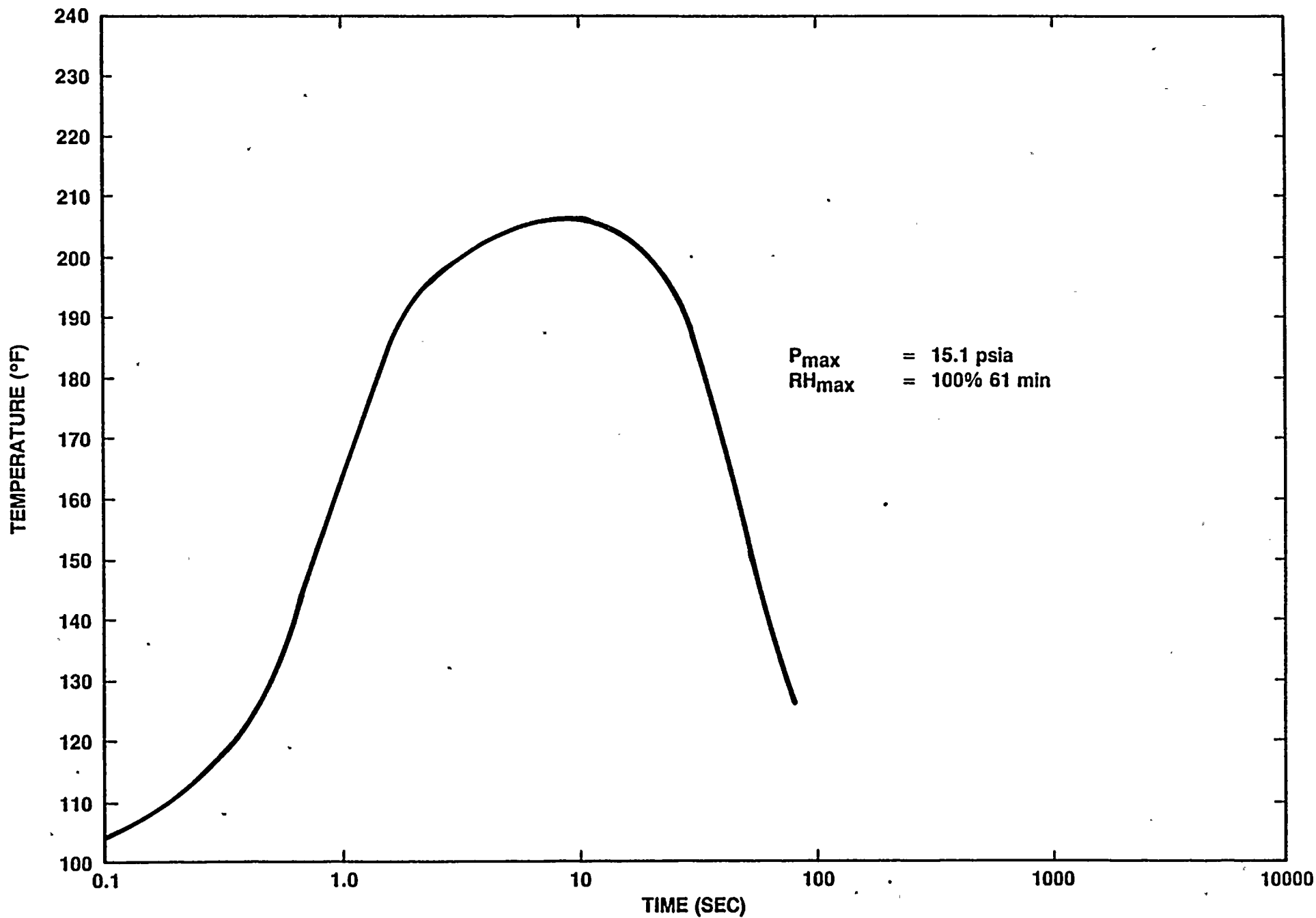


PROFILE 13. 4" RCIC LINE BREAK IN T.I.P. ROOM (EL 501). RESPONSE IN VALVE ROOM ABOVE T.I.P. ROOM (EL 510.5).



PROFILE 14. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE T.I.P. ROOM (EL 510.5).
RESPONSE IN VALVE ROOM ABOVE T.I.P. ROOM (EL 501).





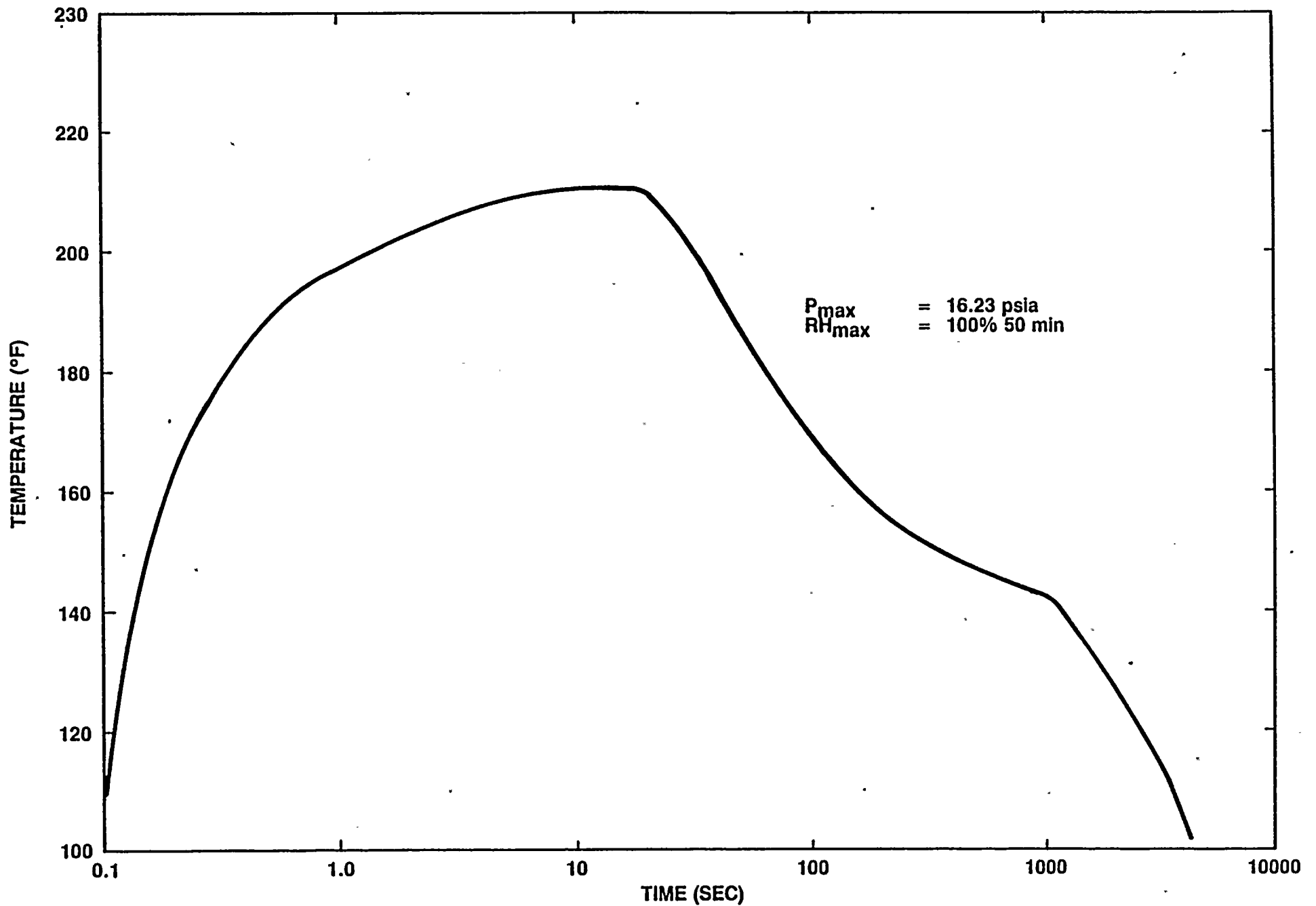
PROFILE 15. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE T.I.P. ROOM (EL 510.5).
RESPONSE IN VALVE ROOM ABOVE T.I.P. ROOM (EL 510.5).

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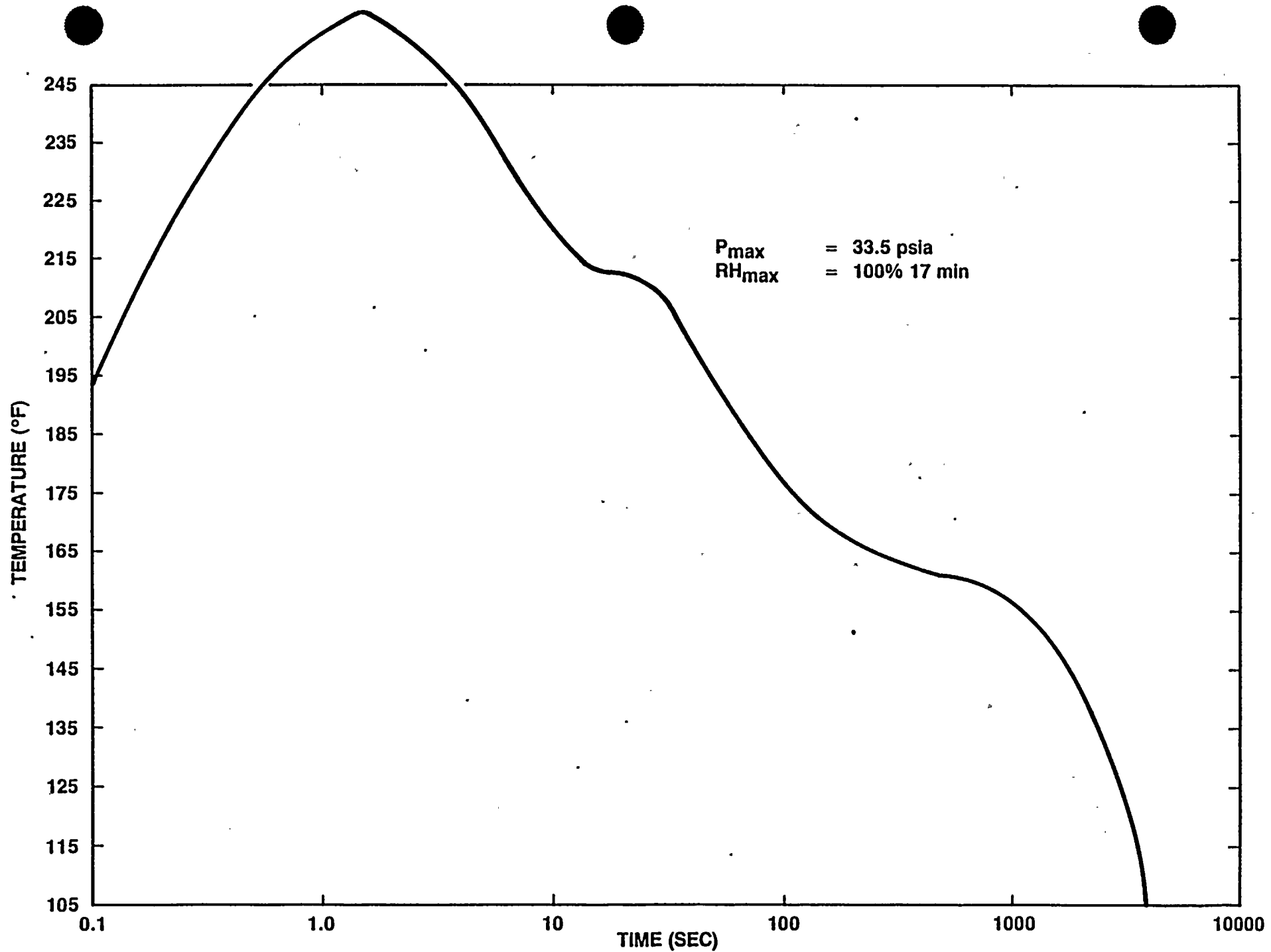
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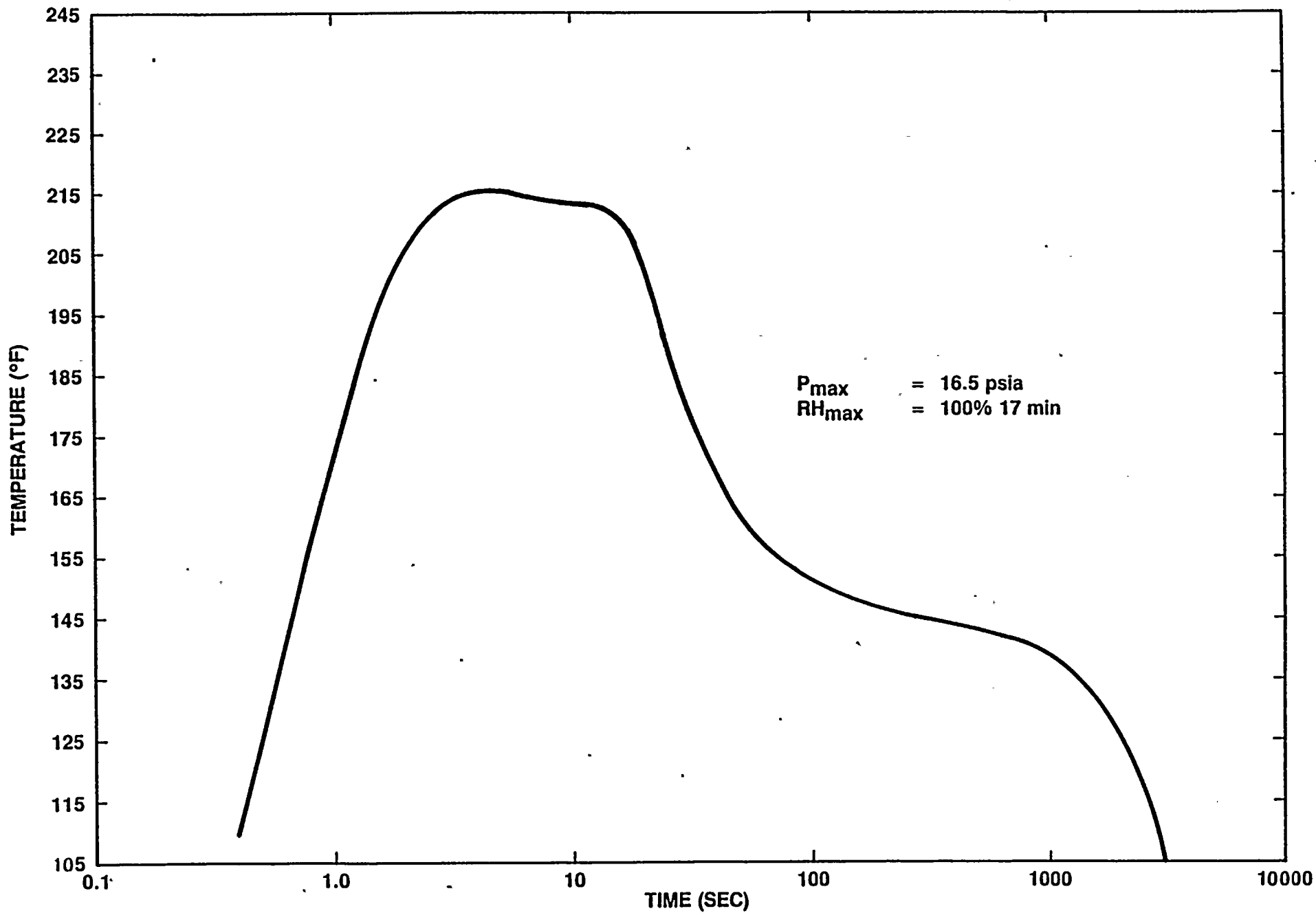
PROFILE 16. 6" RWCU LINE BREAK IN THE VALVE ROOM NORTH OF CONTAINMENT (EL 522). RESPONSE IN THE VALVE ROOM NORTH OF CONTAINMENT (EL 522).





PROFILE 17. 4" RWCU LINE BREAK IN RWCU PUMP ROOMS (EL 522). RESPONSE IN RWCU PUMP ROOMS (EL 522).





PROFILE 18. 4" RWCU LINE BREAK IN RWCU PUMP ROOMS (EL 522). RESPONSE IN VALVE ROOM SOUTH OF CONTAINMENT (EL 522).

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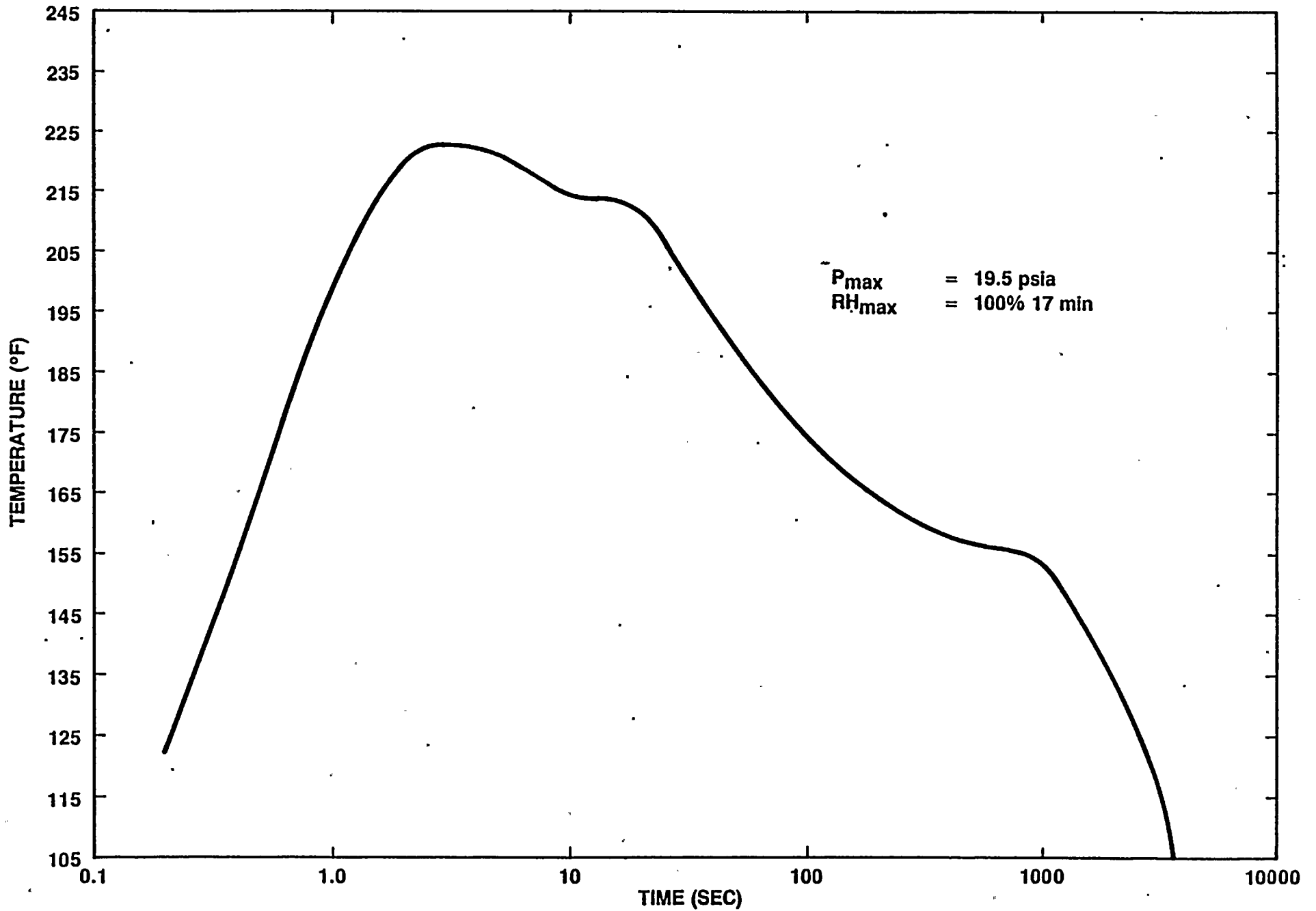
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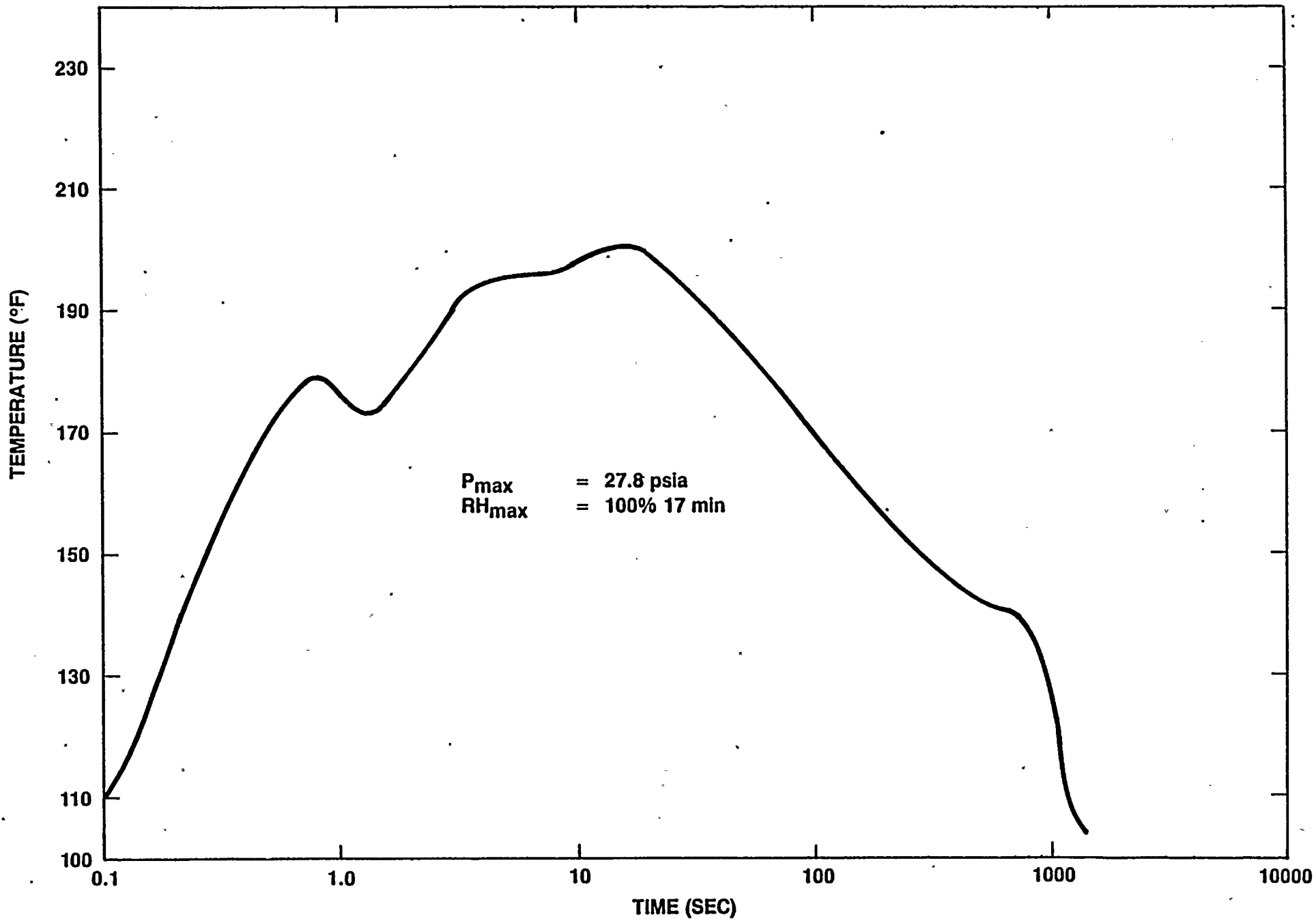
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PROFILE 19. 4" RWCU LINE BREAK IN RWCU PUMP ROOMS (EL 522). RESPONSE IN VALVE ROOM ABOVE RWCU PUMP ROOMS (EL 535).





PROFILE 20. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE RWCU PUMP ROOMS (EL 535). RESPONSE IN RWCU PUMP ROOMS (EL 522).

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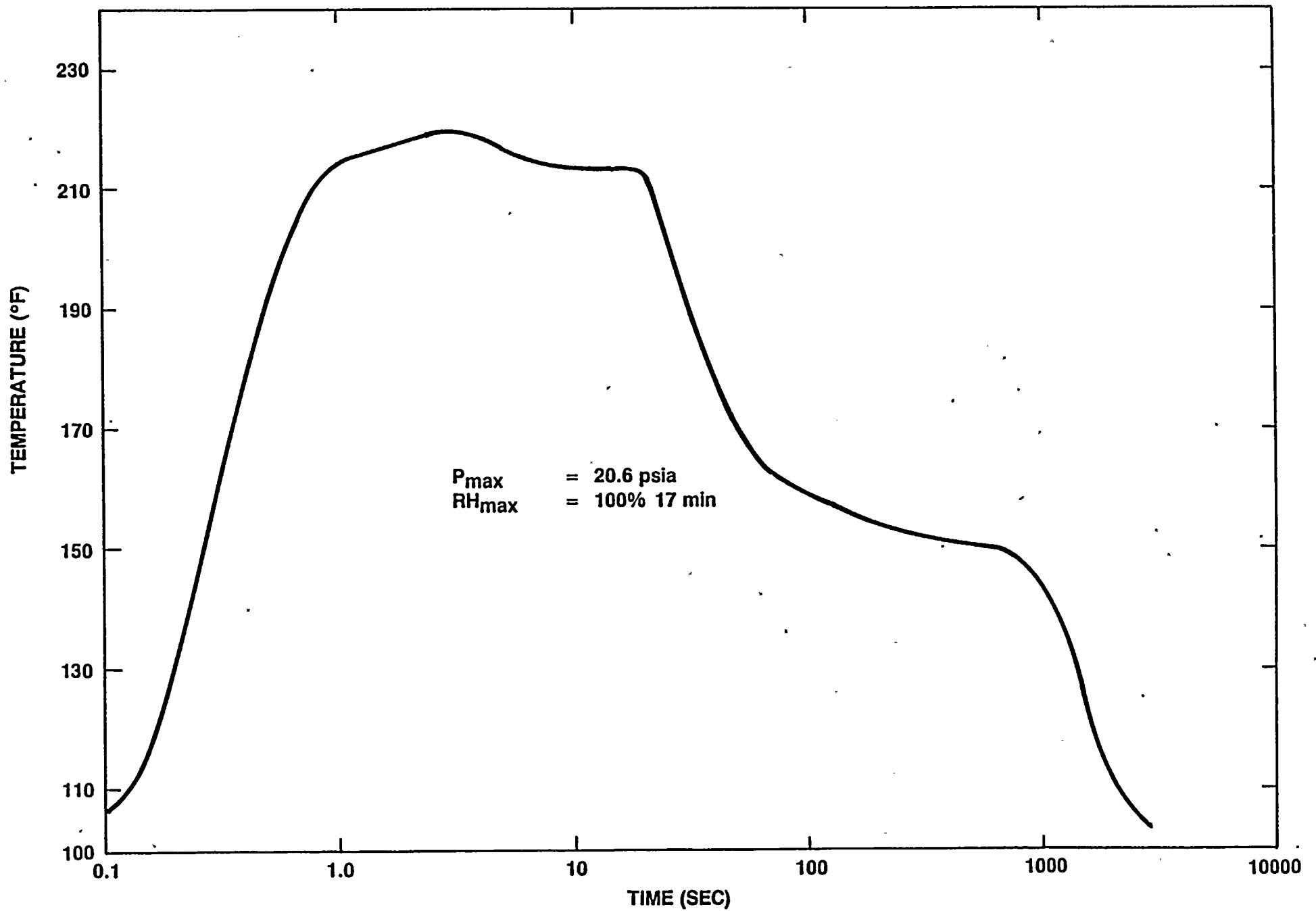
Department of Agriculture

Washington, D.C.

February 1, 1944

Dear Sir:

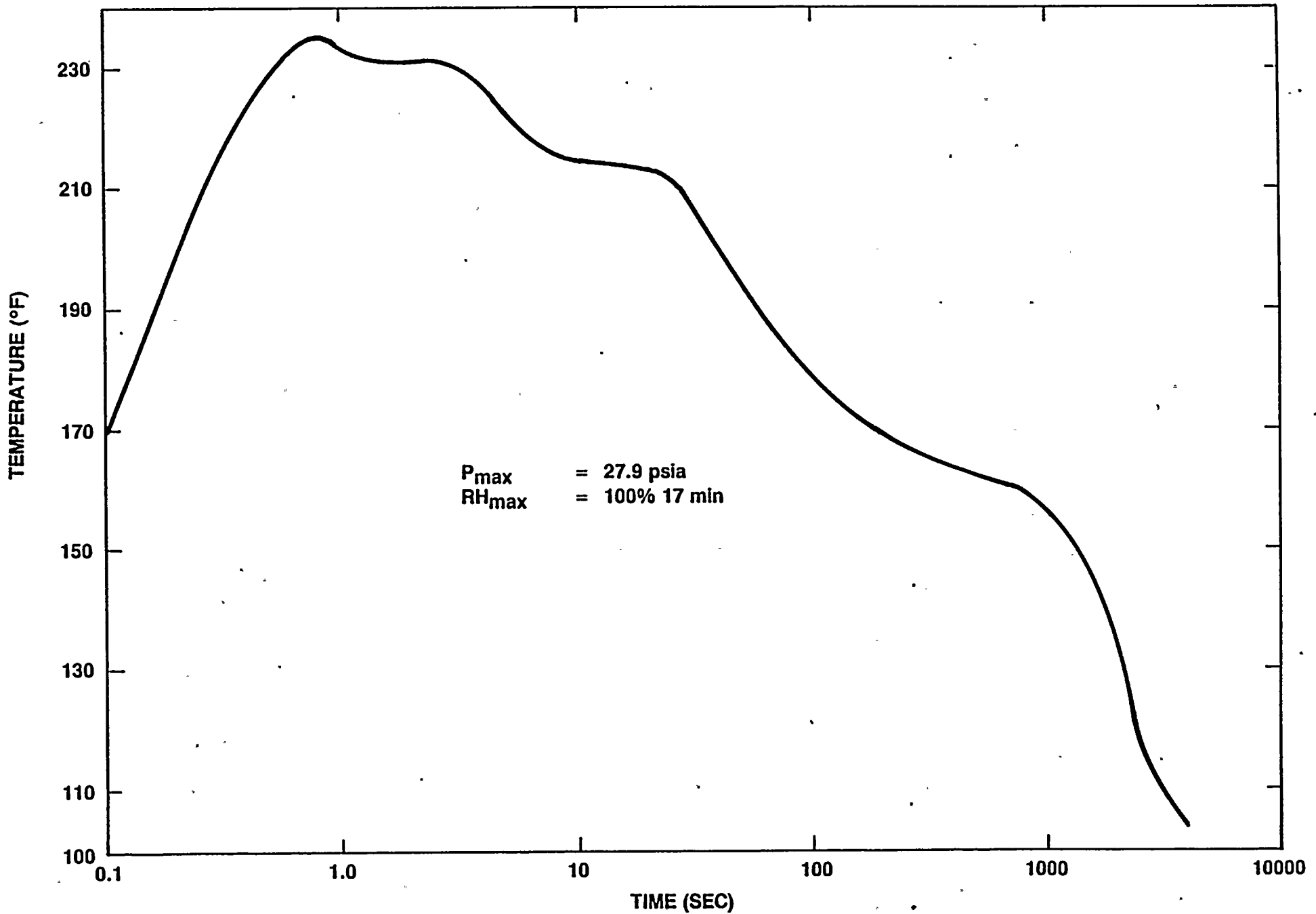




PROFILE 21. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE RWCU PUMP ROOMS (EL 535). RESPONSE IN VALVE ROOM SOUTH OF CONTAINMENT (EL 522).

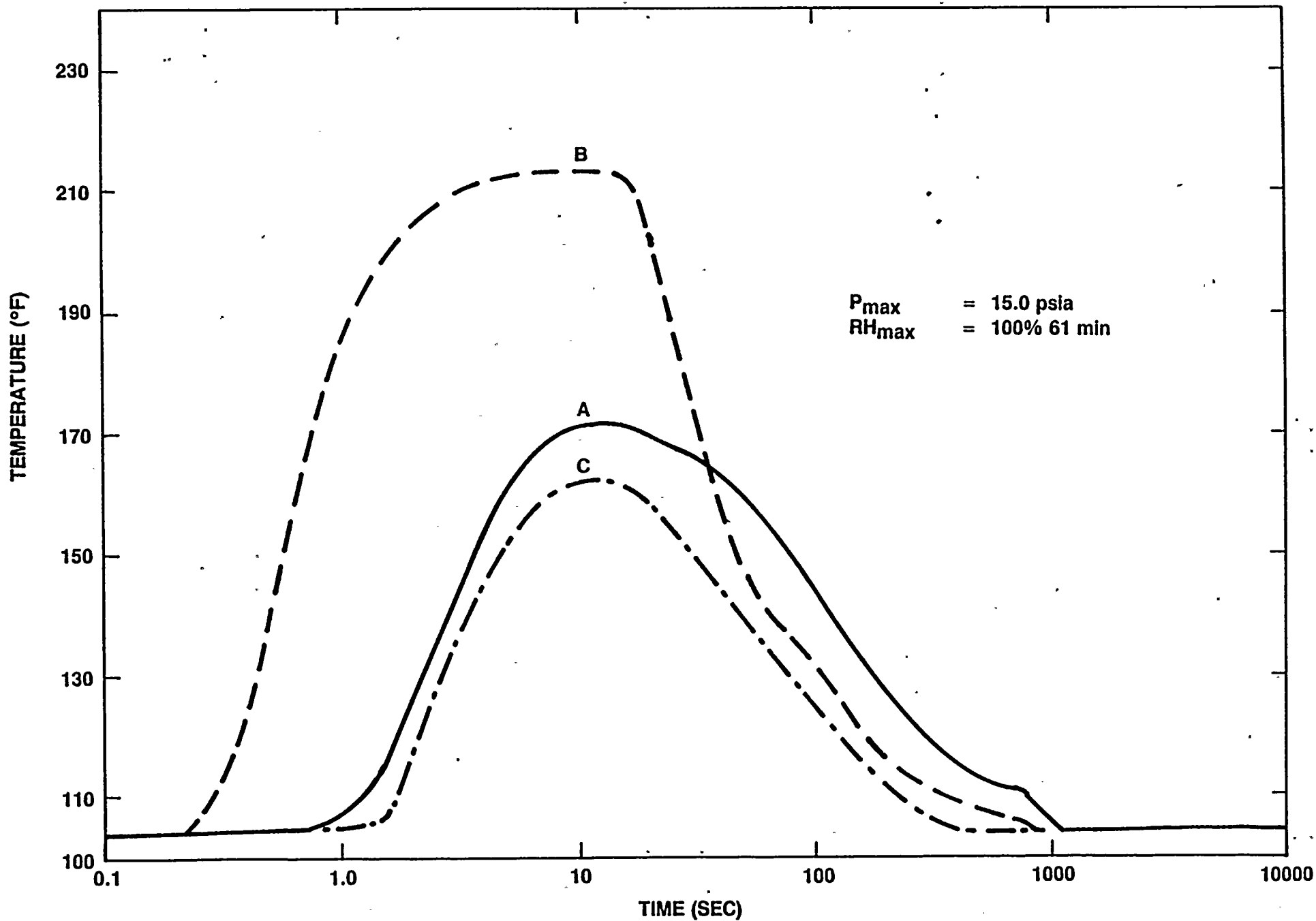
THE UNIVERSITY OF CHICAGO





PROFILE 22. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE RWCU PUMP ROOMS (EL 535). RESPONSE IN VALVE ROOM ABOVE PUMP ROOMS (EL 535).



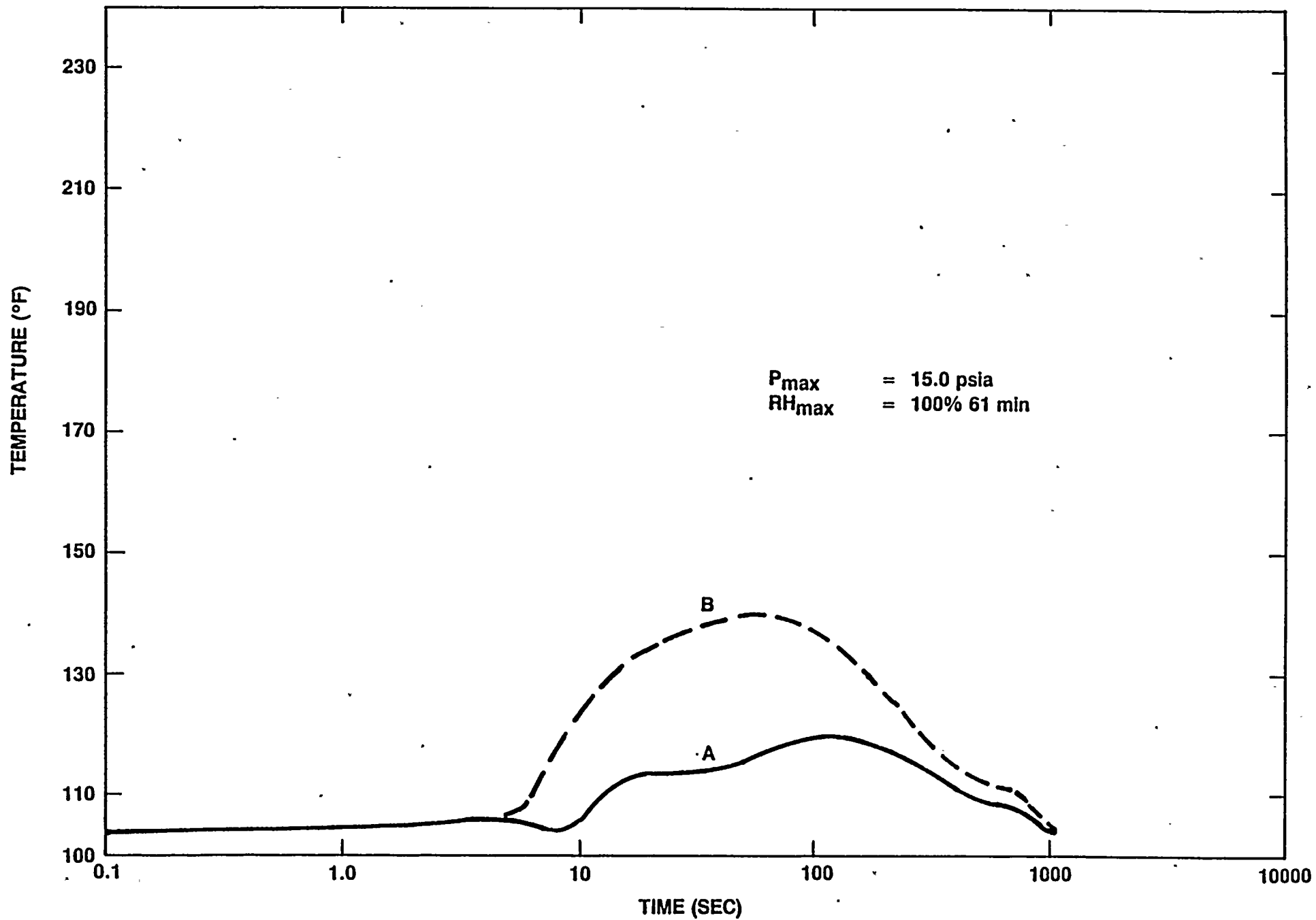


PROFILE 23. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE RWCU PUMP ROOMS (EL 535). RESPONSE IN SOUTHEAST (A), SOUTH (B), SOUTHWEST (C) AREAS (EL 522).

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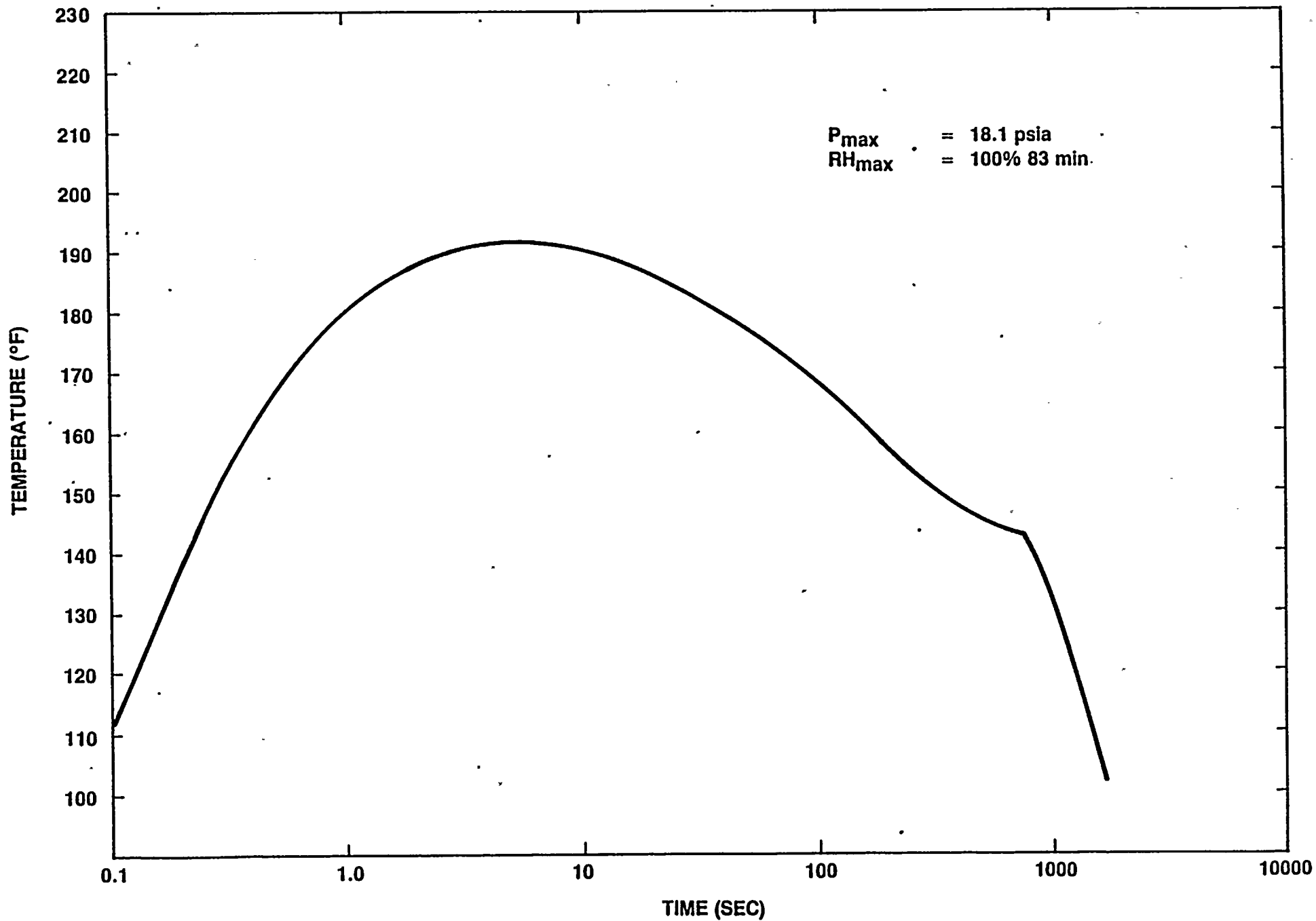
PROFILE 24. 6" RWCU LINE BREAK IN VALVE ROOM ABOVE RWCU PUMP ROOMS (EL 535). RESPONSE IN CRD EAST (A), CRD EAST WALKWAY (B) AREAS (EL 522).

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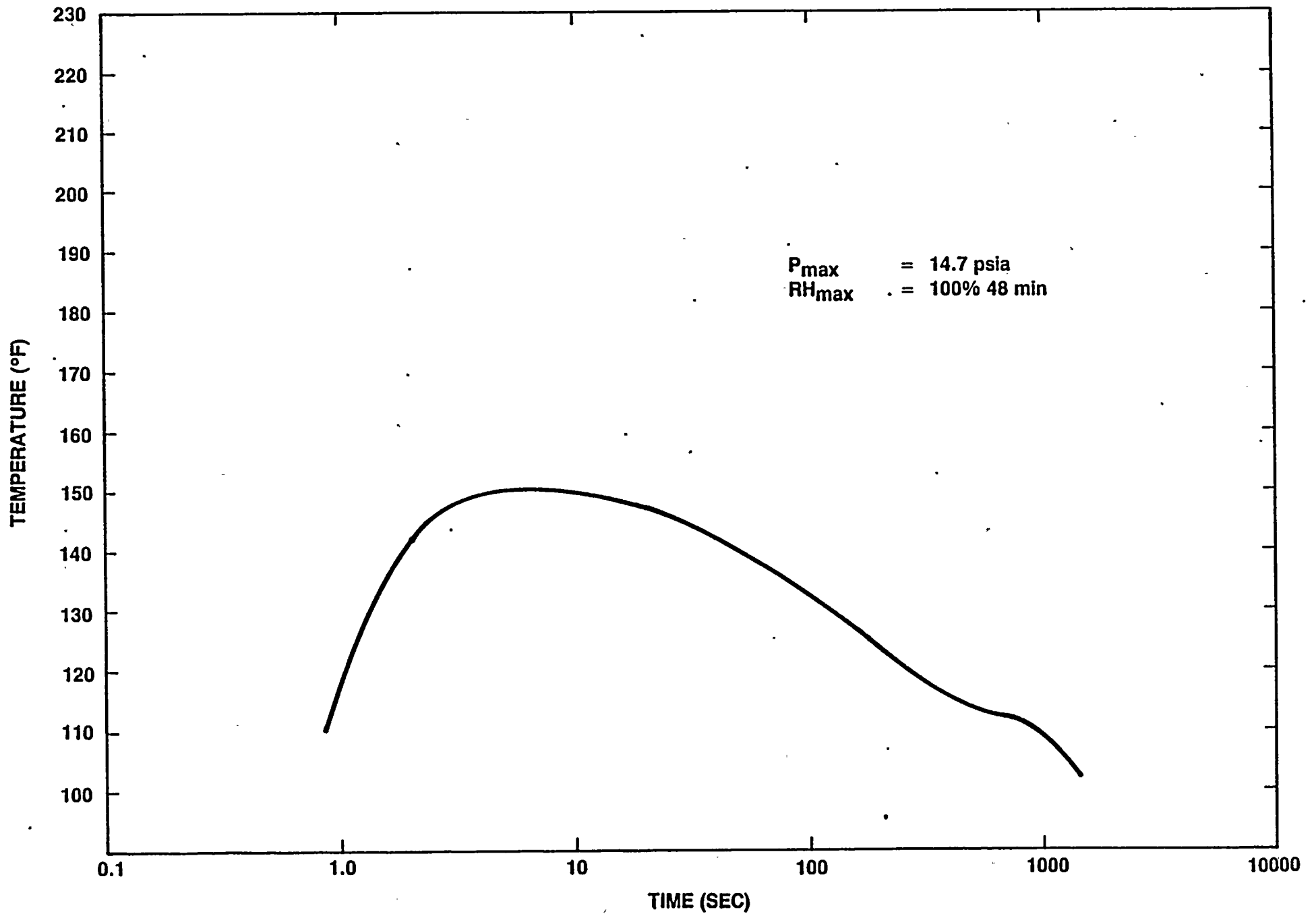




PROFILE 25. 6" RWCU LINE BREAK IN THE RWCU HEAT EXCHANGER ROOM (EL 548).
RESPONSE IN RWCU HEAT EXCHANGER ROOM (EL 548).

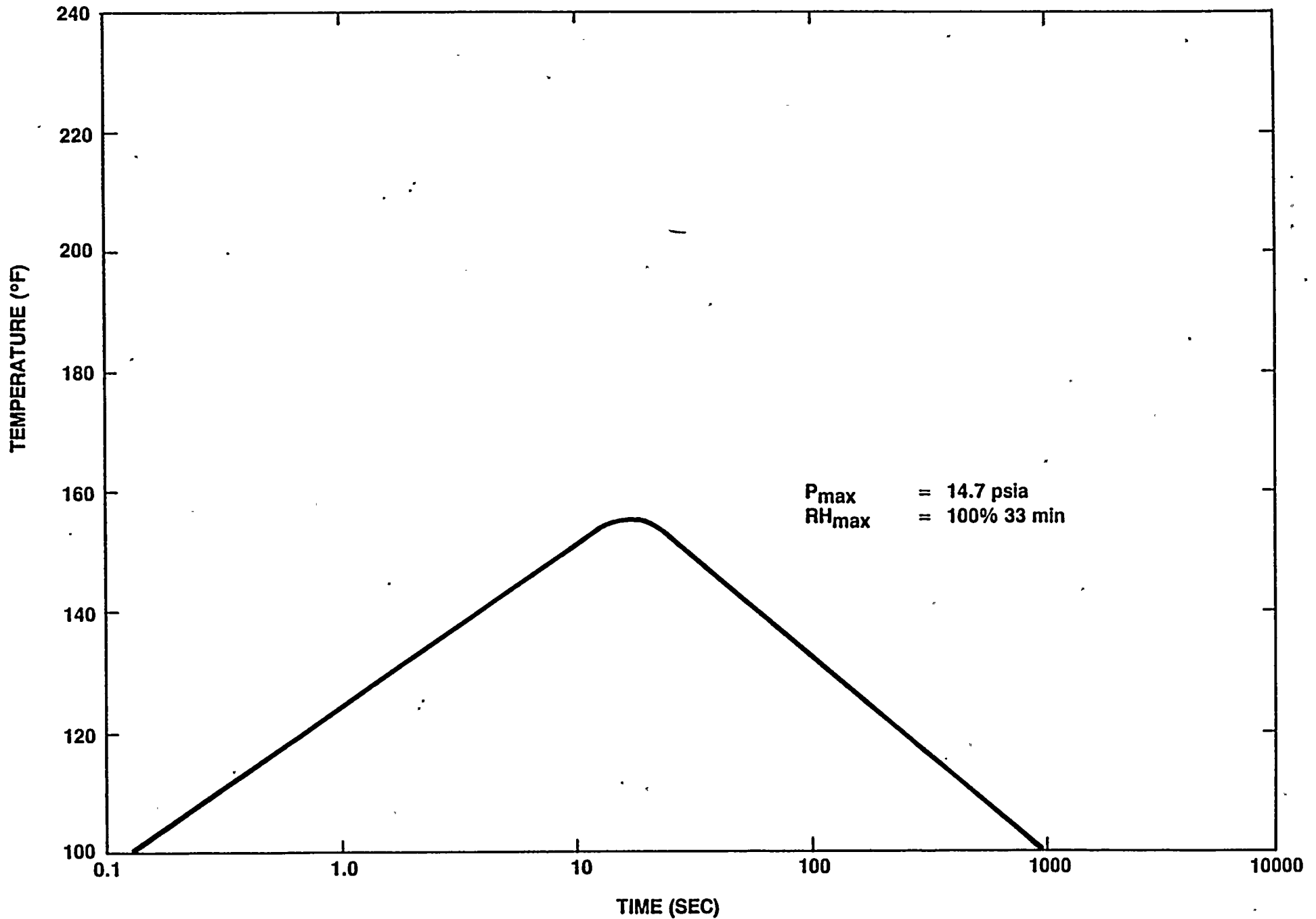
FOR OFFICE OF THE DIRECTOR OF THE FBI





PROFILE 26. 6" RWCU LINE BREAK IN THE RWCU HEAT EXCHANGER ROOM (EL 548).
RESPONSE IN NE AREA OF EL 548.





PROFILE 27. 6" RWCU LINE BREAK IN THE RWCU HEAT EXCHANGER ROOM (EL 548).
RESPONSE IN NW AREA OF EL 548.

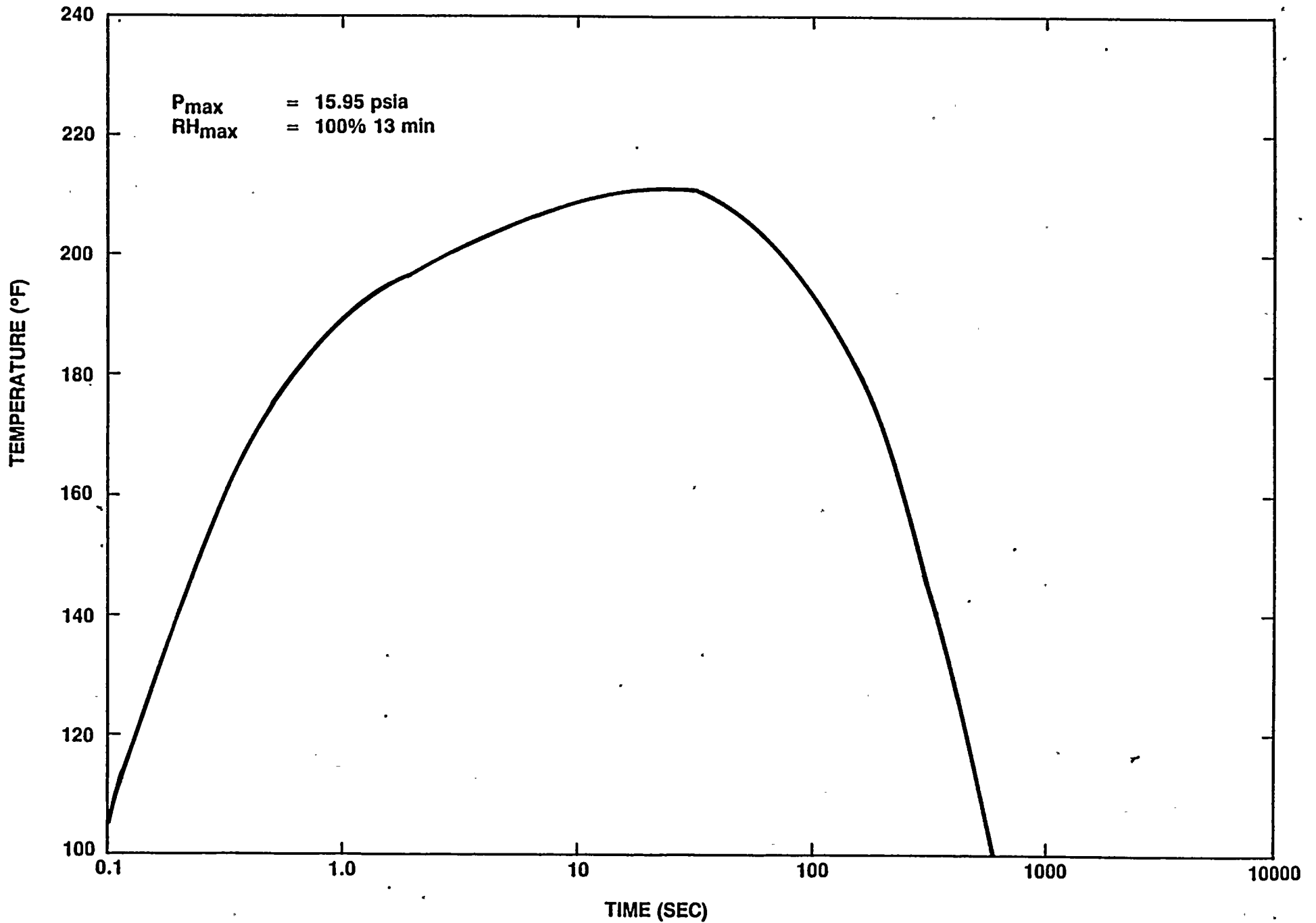
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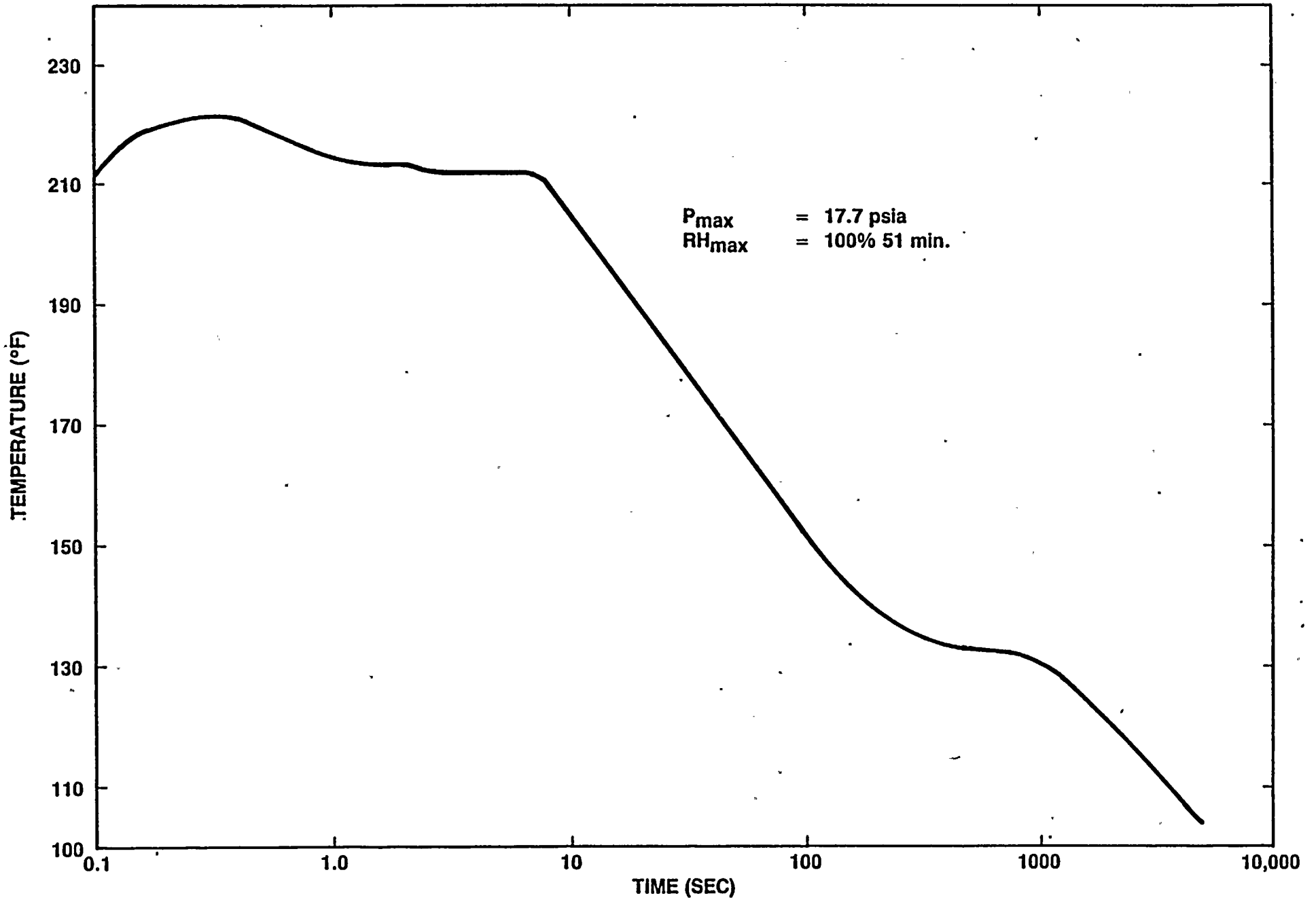


PROFILE 28. 6" RWCU LINE BREAK IN VALVE ROOM NORTH OF CONTAINMENT (EL 548).
RESPONSE IN VALVE ROOM NORTH OF CONTAINMENT (EL 548).

100-1000

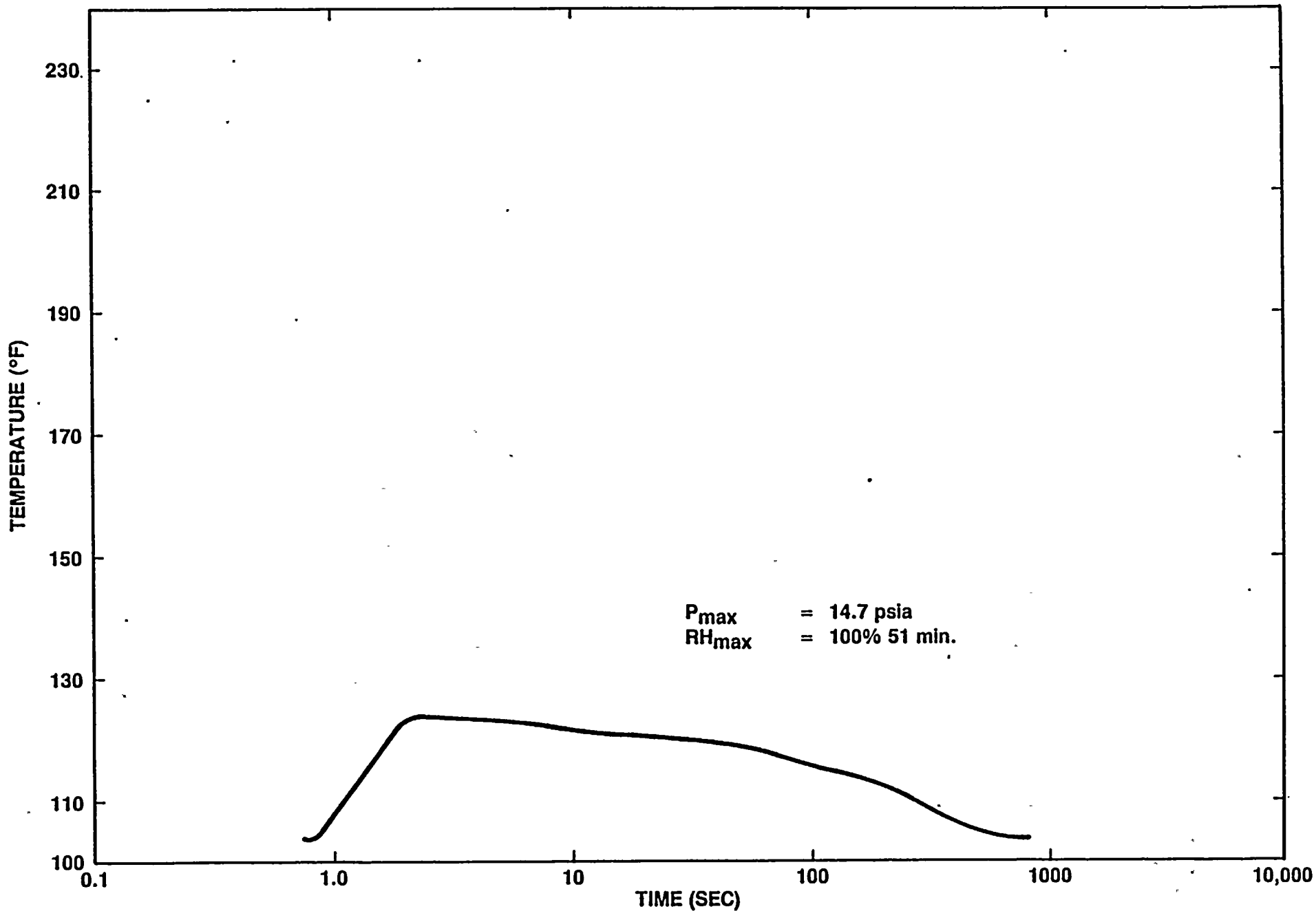
100-1000





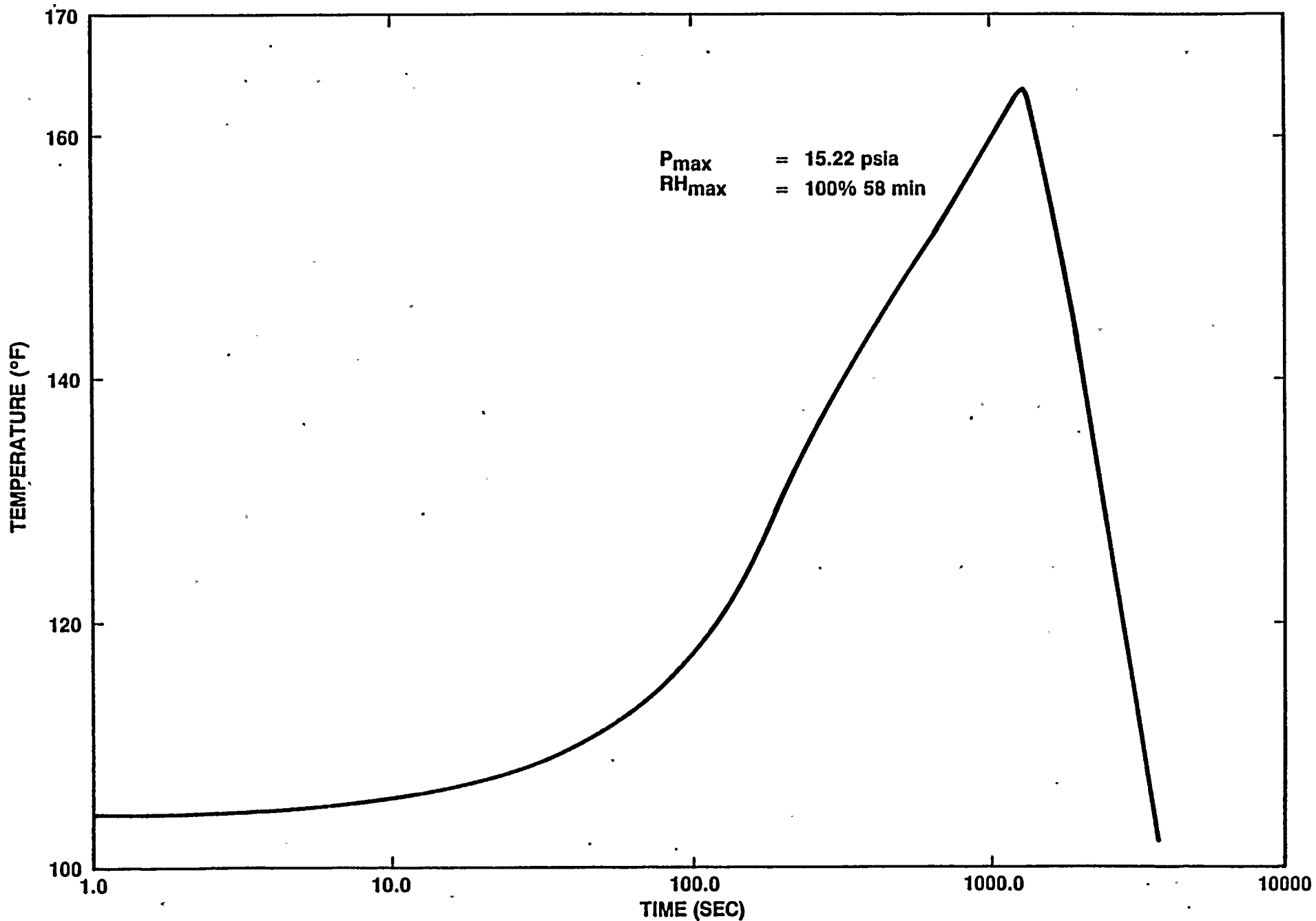
PROFILE 29. 6" RWCU LINE BREAK IN VALVE ROOM SOUTH OF CONTAINMENT (EL 548).
RESPONSE IN VALVE ROOM SOUTH OF CONTAINMENT (EL 548).





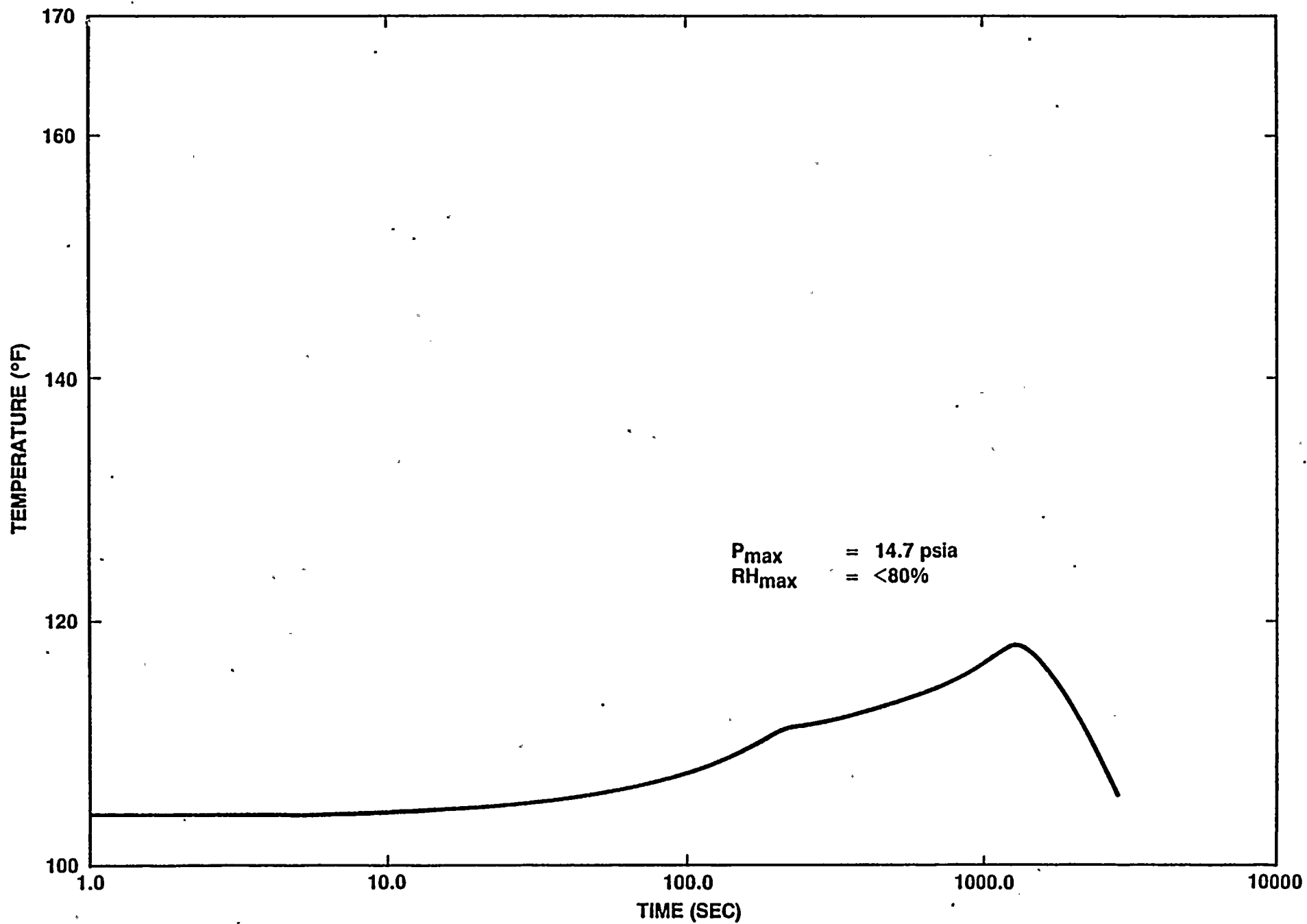
PROFILE 30. 6" RWCU LINE BREAK IN VALVE ROOM NORTH OF CONTAINMENT (EL 548).
RESPONSE IN SOUTHWEST AREA (EL 548).





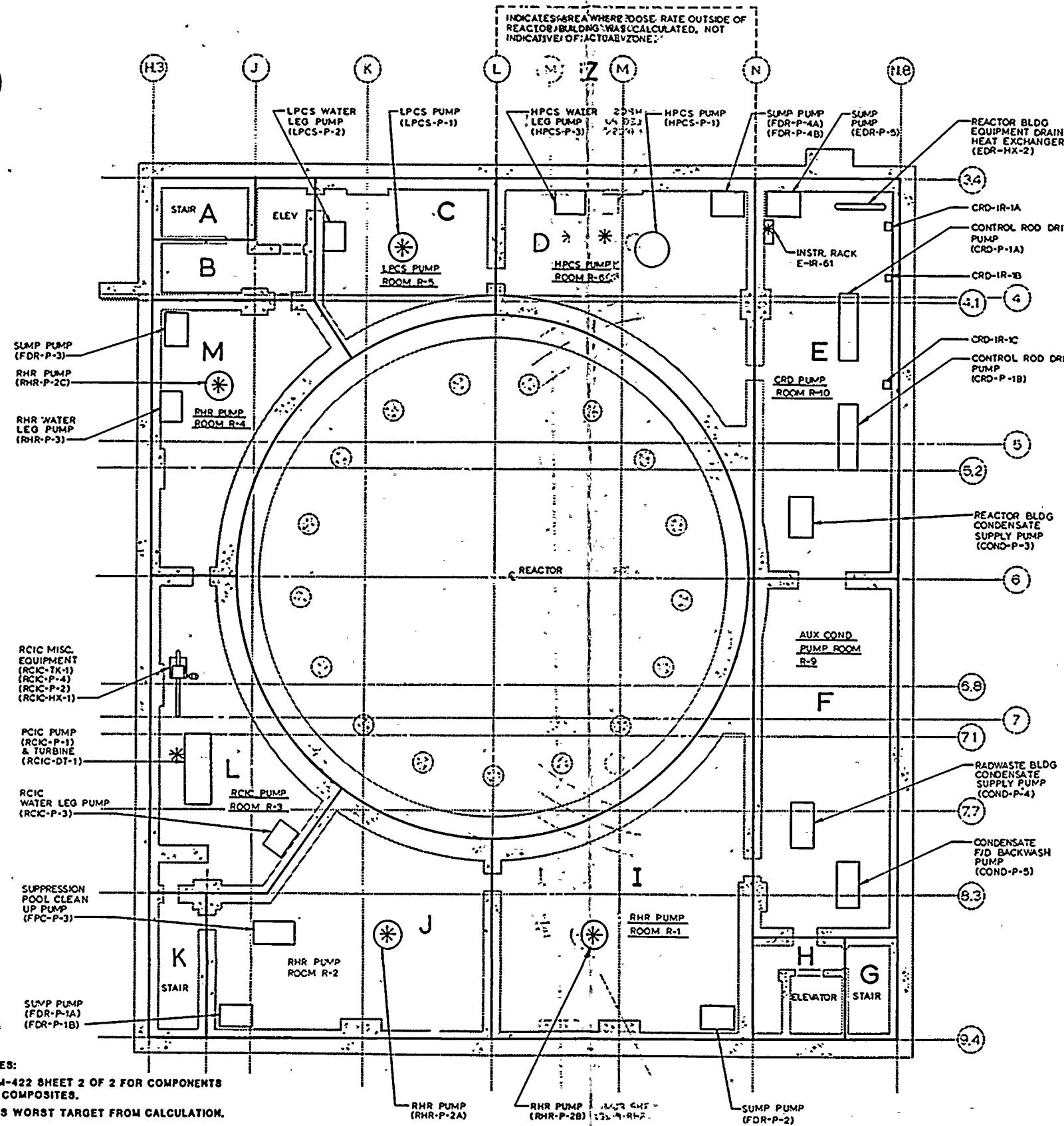
PROFILE 31. 3" AS LINE BREAK IN SOUTHEAST OPEN FLOOR AREA (EL 572). RESPONSE
IN ALL OPEN FLOOR AREA (EL 572).

1988-1989



PROFILE 32. 3" AS LINE BREAK IN SOUTHEAST OPEN FLOOR AREA (EL 572). RESPONSE
IN ALL OPEN FLOOR AREA (EL 548), (EL 605).

FIGURE
1.0



**SAFETY RELATED EQUIPMENT
-BY ZONES**

- ZONE C**
- LPCS-M-P/1
 - 1.7x10⁶ rads
 - LPCS-FCV-11+
 - LPCS-P-1+
 - LPCS-P-2+
- ZONE L**
- RCIC-MO-V/46
 - 1.2x10⁷ rads
 - RCIC-DT-1+
 - RCIC-P-3+
 - RCIC-PCV-15+
 - RCIC-V-1+
 - RCIC-V-10+
 - RCIC-V-2+
 - RCIC-V-25+
 - RCIC-V-26+
 - RCIC-V-4+
 - RCIC-V-45+
 - RCIC-V-46+
 - RCIC-V-5+
 - RCIC-V-54+
- ZONE D**
- HPCS-MO-12
 - 1.6x10⁶ rads
 - FDR-V-603+
 - HPCS-P-1+
 - HPCS-P-3+
 - HPCS-V-1+
 - HPCS-V-12+
 - FDR-LS-46
- ZONE E**
- E-IR-61+
 - 9.4x10³ rads
 - E-IR-61+
- ZONE I**
- RHR-M-P/2B
 - 2.5x10⁶ rads
 - FDR-V-602+
 - RHR-P-2B+
 - RHR-V-6B+
- ZONE M**
- RHR-M-P/2C
 - 1.9x10⁶ rads
 - FDR-LS-42
 - LD-TE-27A
 - LD-TE-27C
 - FDR-V-604+
 - RHR-P-2C+
 - RHR-P-3+
- ZONE J**
- RHR-M-P/2A
 - 2.0x10⁶ rads
 - FDR-V-601+
 - RHR-P-2A+
 - RHR-V-6A+

- GENERAL NOTES:**
- SEE DWG. M-422 SHEET 2 OF 2 FOR COMPONENTS OF LISTED COMPOSITES.
 - IDENTIFIES WORST TARGET FROM CALCULATION.
 - IDENTIFIES RECENTLY ADDED EQUIPMENT THAT HAS NOT BEEN SPATIALLY LOCATED AND HAS NOT BEEN INCLUDED IN THE RADIATION SHIELDING ANALYSIS.
 - IDENTIFIES WORST TARGET GAMMA DOSE = 6 MONTH DIRECT ACCIDENT DOSE + 6 MONTH AIRBORNE ACCIDENT DOSE + 40 YEAR NORMAL OPERATIONS DOSE
 - ALL EQUIPMENT RECEIVES APPROXIMATELY SAME DOSE.
 - EQUIPMENT PART NUMBERS FOLLOWED BY "*" ARE COMPOSITE EQUIPMENT.
 - PASSIVE MECHANICAL EQUIPMENT (E.G., GENERAL CABLE, FLX, X, FG, CHECK VALVES, RO, RD, RV, ST, T, TX, PWS, PX AND MANUALLY OPERATED VALVES) WILL BE GENERICALLY QUALIFIED.

REACTOR BUILDING EL. 422'-3"

19
5382

ZONE C

LPCS-FCV-11+
 LPCS-FCV-11
 LPCS-MO-11
 LPCS-P-1+
 LPCS-M-P/1
 LPCS-P-1
 LPCS-P-2+
 LPCS-M-P/2
 LPCS-P-2

ZONE D

FDR-V-603+
 FDR-AO-603
 HPCS-P-1+
 HPCS-M-P/1
 HPCS-P-1
 HPCS-P-3+
 HPCS-M-P/3
 HPCS-P-3
 HPCS-V-1+
 HPCS-MO-1
 HPCS-V-1
 HPCS-V-12+
 HPCS-MO-12
 HPCS-V-12

ZONE E

E-IR-61+
 EDR-SPV-19
 FDR-SPV-3

ZONE I

FDR-V-602+
 FDR-AO-602
 RHR-P-2B+
 RHR-M-P/2B
 RHR-P-2B
 RHR-V-6B+
 RHR-MO-6B
 RHR-V-6B

ZONE J

FDR-V-601+
 FDR-AO-601
 RHR-P-2A+
 RHR-M-P/2A
 RHR-P-2A
 RHR-V-6A+
 RHR-MO-6A
 RHR-V-6A

ZONE L

RCIC-DT-1+
 RCIC-DT-1
 RCIC-P-1
 RCIC-P-5
 RCIC-PI-3
 RCIC-SS-C002
 RCIC-P-3+
 RCIC-M-P/3
 RCIC-P-3
 RCIC-PCV-15+
 RCIC-PCV-15
 **RCIC-AO-15
 RCIC-V-1+
 RCIC-MO-V/1
 RCIC-V-1
 RCIC-V-10+
 RCIC-MO-V/10
 RCIC-V-10
 RCIC-V-2+
 RCIC-MO-2
 RCIC-POS-V/21
 RCIC-POS-V/22
 RCIC-V-2
 RCIC-V-25+
 RCIC-AO-25
 RCIC-POS-V/25
 RCIC-V-25
 RCIC-V-26+
 RCIC-AO-26
 RCIC-POS-V/26
 RCIC-V-26
 RCIC-V-4+
 RCIC-AO-4
 RCIC-POS-V/4
 RCIC-V-4
 RCIC-V-45+
 RCIC-MO-V/45
 RCIC-V-45
 RCIC-V-46+
 RCIC-MO-V/46
 RCIC-V-46
 RCIC-V-5+
 RCIC-AO-5
 RCIC-POS-V/5
 RCIC-V-5
 RCIC-V-54+
 RCIC-AO-54
 RCIC-POS-V/54
 RCIC-V-54

ZONE M

FDR-V-604+
 FDR-AO-604
 RHR-P-2C+
 RHR-M-P/2C
 RHR-P-2C
 RHR-P-3+
 RHR-M-P/3
 RHR-P-3

ZONE N

FDR-V-605+
 FDR-AO-605
 RHR-P-2D+
 RHR-M-P/2D
 RHR-P-2D
 RHR-P-3+
 RHR-M-P/3
 RHR-P-3

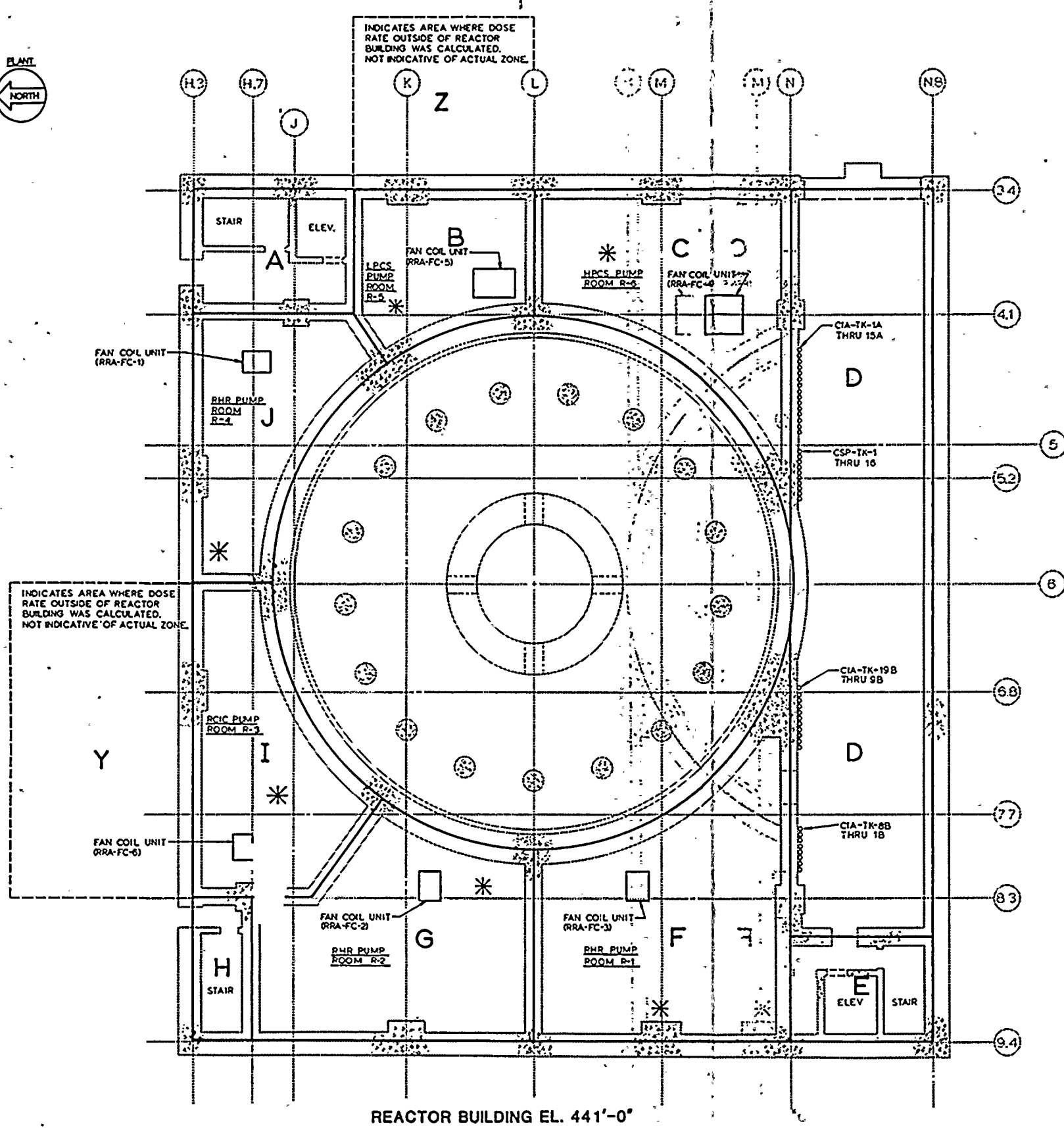
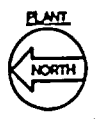


10-10-10

10-10-10

10-10-10

10-10-10



REACTOR BUILDING EL. 441'-0"

SAFETY RELATED EQUIPMENT - BY ZONES

ZONE B

- LPCS-MO-12
- 1.5×10^6 rads
- LPCS-V-1+
- LPCS-V-12+
- RRA-FC-5+
- SW-V-44+

ZONE C

- HPCS-MO-23
- 1.4×10^6 rads
- EDR-V-19+
- EDR-V-20+
- FDR-V-3+
- FDR-V-4+
- HPCS-V-10+
- HPCS-V-11+
- HPCS-V-15+
- HPCS-V-23+
- RRA-FC-4+
- SW-V-54+

ZONE D

- 8.2×10^3 rads
- CIA-SV-10A
- CIA-SV-10B
- CIA-SV-11A
- CIA-SV-11B
- CIA-SV-12A
- CIA-SV-12B
- CIA-SV-13A
- CIA-SV-13B
- CIA-SV-14A
- CIA-SV-14B
- CIA-SV-15A
- CIA-SV-15B
- CIA-SV-16B
- CIA-SV-17B
- CIA-SV-18B
- CIA-SV-19B
- CIA-SV-1A
- CIA-SV-1B
- CIA-SV-2A
- CIA-SV-2B
- CIA-SV-3A
- CIA-SV-3B
- CIA-SV-4A
- CIA-SV-4B
- CIA-SV-5A
- CIA-SV-5B

- CIA-SV-6A
- CIA-SV-6B
- CIA-SV-7A
- CIA-SV-7B
- CIA-SV-8A
- CIA-SV-8B
- CIA-SV-9A
- CIA-SV-9B
- SW-V-34
- **CIA-PRV-10A
- **CIA-PRV-10B
- **CIA-PRV-11A
- **CIA-PRV-11B
- **CIA-PRV-12A
- **CIA-PRV-12B
- **CIA-PRV-13A
- **CIA-PRV-13B
- **CIA-PRV-14A
- **CIA-PRV-14B
- **CIA-PRV-15A
- **CIA-PRV-15B
- **CIA-PRV-16B
- **CIA-PRV-17B
- **CIA-PRV-18B
- **CIA-PRV-19B
- **CIA-PRV-1A
- **CIA-PRV-1B
- **CIA-PRV-2A
- **CIA-PRV-2B
- **CIA-PRV-3A
- **CIA-PRV-3B
- **CIA-PRV-4A
- **CIA-PRV-4B
- **CIA-PRV-5A
- **CIA-PRV-5B
- **CIA-PRV-6A
- **CIA-PRV-6B
- **CIA-PRV-7A
- **CIA-PRV-7B
- **CIA-PRV-8A
- **CIA-PRV-8B
- **CIA-PRV-9A
- **CIA-PRV-9B

ZONE G

- RHR-MO-4A
- 9.9×10^5 rads
- FPC-V-153+
- FPC-V-154+
- FPC-V-156+
- RHR-FCV-64A+
- RHR-V-4A+
- RRA-FC-2+
- SW-V-24A+

- LD-TE-18A
- LD-TE-18C
- LD-TE-28B
- LD-TE-28D
- **RHR-CE-25
- **RHR-TE-31

ZONE I

- LD-TE-4B
- 4.0×10^6 rads
- RCIC-V-19+
- RCIC-V-22+
- RCIC-V-31+
- RCIC-V-59+
- RCIC-V-69+
- RRA-FC-6+

ZONE F

- RHR-MO-64B
- 1.7×10^6 rads
- RHR-FCV-64B+
- RHR-V-4B+
- RRA-FC-3+
- SW-V-24B+

ZONE J

- RHR-MO-21
- 3.1×10^6 rads
- RHR-FCV-64C+
- RHR-V-21+
- RHR-V-4C+
- RRA-FC-1+
- SW-V-24C+

ZONE K

- CMS-LT-1
- HPCS-LS-2A
- **PI-POS-EFCX/86B

- GENERAL NOTES:**
1. •,••,•••,•••• ARE IDENTIFIED IN GENERAL NOTES 2,3,4&5 ON DRAWING M-422 SHEET 1
 2. SEE DWG. M-441 SHEET 2 OF 2 FOR COMPONENTS OF LISTED COMPOSITES
 3. SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 1 FOR PASSIVE EQUIPMENT



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ZONE B

LPCS-V-1+
 LPCS-MO-1
 LPCS-V-1
 LPCS-V-12+
 LPCS-MO-12
 LPCS-V-12
 RRA-FC-5+
 RRA-CC-5
 RRA-FC-5
 RRA-FN-5
 RRA-M-FN/5
 RRA-RMS-FN/S5
 SW-V-44+
 SW-MO-44
 SW-V-44

ZONE C

EDR-V-19+
 EDR-AO-19
 EDR-POS-V19
 EDR-V-19
 EDR-V-20+
 EDR-AO-20
 EDR-POS-V20
 EDR-V-20
 FDR-V-3+
 FDR-AO-3
 FDR-POS-3
 FDR-V-3
 FDR-V-4+
 FDR-AO-4
 FDR-POS-4
 FDR-V-4
 HPCS-V-10+
 HPCS-MO-10
 HPCS-POT-8
 HPCS-V-10
 HPCS-V-11+
 HPCS-MO-11
 HPCS-POT-10
 HPCS-V-11
 HPCS-V-15+
 HPCS-MO-15
 HPCS-V-15
 HPCS-V-23+
 HPCS-MO-23
 HPCS-V-23
 RRA-FC-4+
 RRA-CC-4
 RRA-FC-4
 RRA-FN-4
 RRA-M-FN/4
 RRA-RMS-FN/S4

SW-V-54+
 SW-MO-54
 SW-V-54

ZONE F

RHR-FCV-64B+
 RHR-FCV-64B
 RHR-MO-64B
 RHR-V-4B+
 RHR-MO-4B
 RHR-V-4B
 RRA-FC-3+
 RRA-CC-3
 RRA-FC-3
 RRA-FN-3
 RRA-M-FN/3
 RRA-RMS-FN/S3
 SW-V-24B+
 SW-MO-24B
 SW-V-24B

ZONE G

FPC-V-153+
 FPC-MO-153
 FPC-V-153
 FPC-V-154+
 FPC-MO-154
 FPC-V-154
 FPC-V-156+
 FPC-MO-156
 FPC-V-156
 RHR-FCV-64A+
 RHR-FCV-64A
 RHR-MO-64A
 RHR-V-4A+
 RHR-MO-4A
 RHR-V-4A
 RRA-FC-2+
 RRA-CC-2
 RRA-FC-2
 RRA-FN-2
 RRA-M-FN/2
 RRA-RMS-FN/S2
 SW-V-24A+
 SW-MO-24A
 SW-V-24A

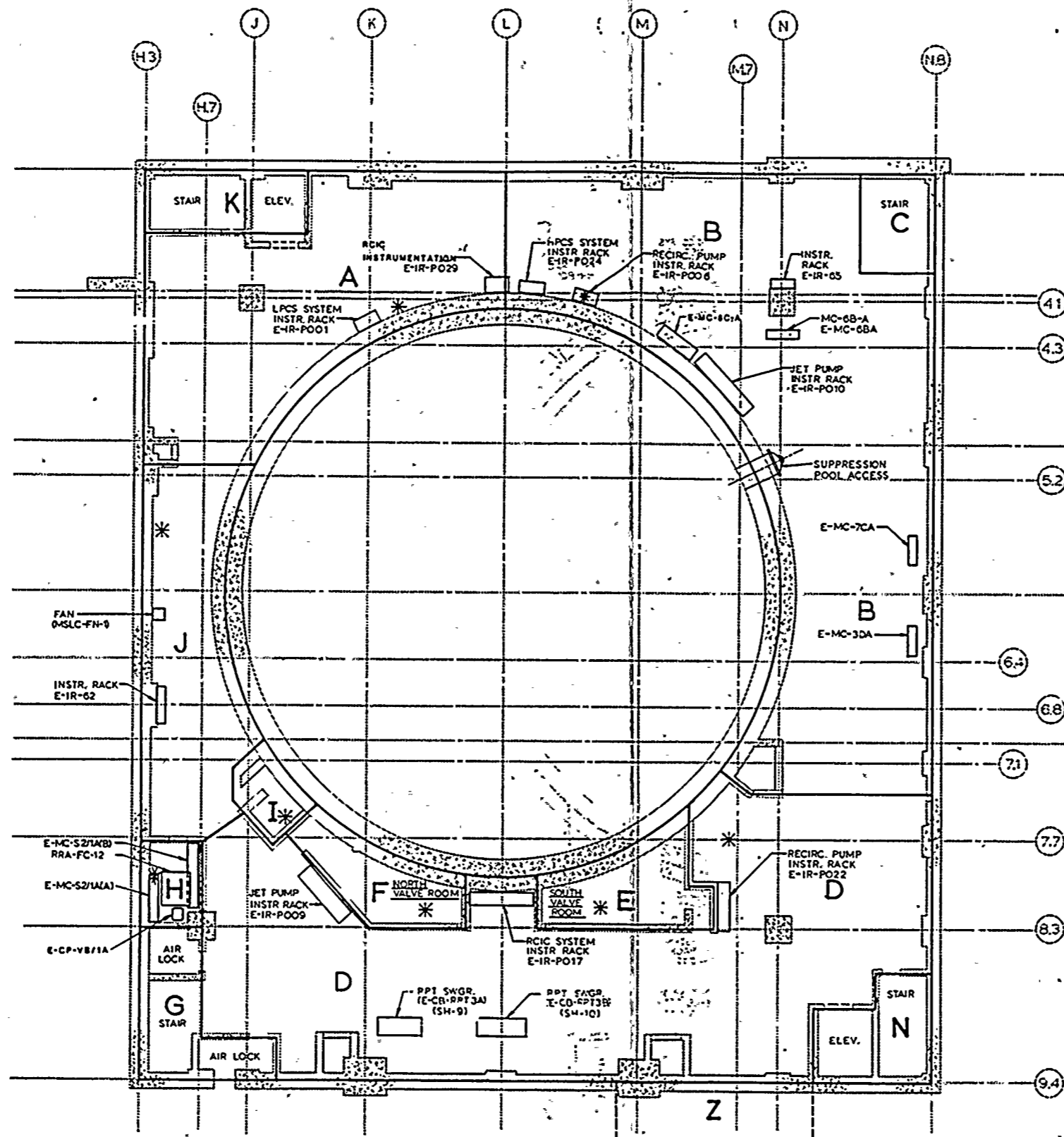
ZONE I

RCIC-V-19+
 RCIC-MO-V/19
 RCIC-V-19
 RCIC-V-22+
 RCIC-MO-V/22
 RCIC-V-22
 RCIC-V-31+
 RCIC-MO-V/31
 RCIC-V-31
 RCIC-V-59+
 RCIC-MO-V/59
 RCIC-V-59
 RCIC-V-69+
 RCIC-MO-V/69
 RCIC-V-69
 RRA-FC-6+
 RRA-CC-6
 RRA-FC-6
 RRA-FN-6
 RRA-M-FN/6
 RRA-RMS-FN/S6

ZONE J

RHR-FCV-64C+
 RHR-FCV-64C
 RHR-MO-64C
 RHR-V-21+
 RHR-MO-21
 RHR-V-21
 RHR-V-4C+
 RHR-MO-4C
 RHR-V-4C
 RRA-FC-1+
 RRA-CC-1
 RRA-FC-1
 RRA-FN-1
 RRA-M-FN/1
 RRA-RMS-FN/S1
 SW-V-24C+
 SW-MO-24C
 SW-V-24C

27
SURE



REACTOR BUILDING EL. 471'-0"

**SAFETY RELATED EQUIPMENT
- BY ZONES**

- | | | | |
|---|---|---|--|
| ZONE A | • RHR-MO-27A
• 5.0×10^5 rads | ZONE I | • RCIC-MO-V/86
• 4.8×10^6 rads |
| E-ELP-7BB+
E-IR-P001+
E-IR-P029+
RHR-V-27A+ | | ZONE E | RCIC-V-110+
RCIC-V-113+
RCIC-V-68+ |
| ZONE B | • E-IR-P006+
• 5.0×10^5 rads | ZONE J | • HSLC-H-B+
• 4.4×10^7 rads |
| CAC-FCV-3A+
CAC-FCV-4B+
CAC-V-13+
CAC-V-8+
CSP-V-10+
CSP-V-9+
E-IR-65+
E-IR-P006+
E-IR-P010+
E-IR-P024+ | | CAC-FCV-4A+
CAC-V-4+
RHR-LCV-65B+
RHR-V-11B+
RHR-V-125A+
RHR-V-125B+
RHR-V-24B+
RHR-V-26B+
RHR-V-27B+

RHR-LS-10A
RHR-LS-10B
RHR-LS-10C
RHR-LS-10D

• PI-POS-EFCX/87A
• PI-POS-EFCX/87B | CZP-V-3A+
CZP-V-3B+
CZP-V-4A+
CZP-V-4B+
CSP-V-6+
CSP-V-8+
E-IR-62+
HSLC-FN-1+
HSLC-H-A+
HSLC-H-B+
HSLC-H-C+
HSLC-H-D+
HSLC-V-1A+
HSLC-V-1B+
HSLC-V-1C+
HSLC-V-1D+ |
| ZONE D | • CSP-AO-V/3
• 7.1×10^4 rads | ZONE F | • RHR-MO-26A
• 2.2×10^6 rads |
| CAC-PP-TB/R363+
CAC-PP-TB/R364+
CSP-V-3+
CSP-V-4+
CSP-V-5+
CSP-V-7+
E-ELP-8BB+
E-IR-P009+
E-IR-P017+
E-IR-P022+
E-SH-10+
E-SH-9+
FPC-V-172+
FPC-V-173+
FPC-V-184+ | | • RHR-LCV-65A+
RHR-V-11A+
RHR-V-124A+
RHR-V-124B+
RHR-V-24A+
RHR-V-26A+

RHR-LS-11A
RHR-LS-11B
RHR-LS-11C
RHR-LS-11D | HSLC-FT-3A
HSLC-FT-3B
HSLC-FT-3C
HSLC-FT-3D |
| ZONE H | • E-MC-S2/1A+
• 6.2×10^3 rads | ZONE M | Located at elev.
480'-0" above
zone "I" |
| E-CP-VB/1A+
E-MC-S2/1A+
ROA-AD-12+
RRA-FC-12+ | | • CAC-EHO-FCV/3B
• 9.1×10^4 rads | CAC-FCV-3B+
CAC-V-17+ |
| **CAS-RLY-V453C
**CAS-RLY-V453O
**CAS-V-453 | | | |

- GENERAL NOTES:**
- ARE IDENTIFIED IN GENERAL NOTES 2,3,4&5 ON DRAWING M-422 SHEET 1
 - SEE DWG. M-471 SHEET 2 OF 2 FOR COMPONENTS OF LISTED COMPOSITES
 - SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 1 FOR PASSIVE EQUIPMENT

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231

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ZONE A

E-ELP-7BB+
E-TR-7BB
E-IR-P001+
LPCS-DPIS-6
LPCS-FIS-4
LPCS-FT-3
LPCS-PI-1
LPCS-PI-2
LPCS-PIS-1
LPCS-PS-5
LPCS-PS-9
E-IR-P029+
RCIC-DPIS-13B
RCIC-DPIS-7B
RCIC-PS-12B
RCIC-PS-22D
RCIC-PS-22D
RHR-V-27A+
RHR-MO-27A
RHR-V-27A

ZONE B

CAC-FCV-3A+
CAC-EHO-FCV/3A
CAC-FCV-3A
CAC-POS-FCV/3A
CAC-FCV-4B+
CAC-EHO-FCV/4B
CAC-FCV-4B
CAC-POS-FCV/4B
CAC-V-13+
CAC-MO-V/13
CAC-V-13
CAC-V-8+
CAC-MO-V/8
CAC-V-8
CSP-V-10+
CSP-AO-V/10
CSP-POS-10P10
CSP-POS-10P11
CSP-POS-V/10P1
CSP-POS-V/10P12
CSP-POS-V/10P13
CSP-POS-V/10P2
CSP-POS-V/10P3
CSP-POS-V/10P4
CSP-POS-V/10P9
CSP-V-10
CSP-V-9+
CSP-AO-V/9
CSP-POS-V/9
CSP-V-9
E-IR-65+

CSP-SPV-10A
CSP-SPV-10B
CSP-SPV-3
CSP-SPV-7A
CSP-SPV-7B
EDR-SPV-20
YDR-SPV-4
E-IR-P006+
RRC-FT-11A
RRC-FT-14A
RRC-FT-24A
RRC-PS-18A

E-IR-P010+
MS-DPI-5
MS-DPIS-10C
MS-DPIS-11C
MS-DPIS-8C
MS-DPIS-9C
MS-FT-33A
MS-FT-33C
MS-FT-34A
MS-FT-34C
MS-FT-34E
MS-FT-34G
MS-FT-34J
MS-FT-34L
MS-FT-34N
MS-FT-34P
MS-FT-34R
MS-FT-34V
MS-LITS-44A
RRC-FT-14C
RRC-FT-24C
**MS-FT-34T
E-IR-P024+
HPCS-DPIS-9
HPCS-FIS-6
HPCS-PT-5
HPCS-PIS-13
HPCS-PS-3
**HPCS-PT-4

ZONE D

CAC-PP-TB/R363+
CAC-RLY-80FCV1B
CAC-RLY-80FCV2B
CAC-RLY-80FCV3B
CAC-RLY-80FCV4B
**CAC-RLY-4B/CR1
**CAC-RLY-4B/CR2
CAC-PP-TB/R364+
CAC-RLY-80FCV1A
CAC-RLY-80FCV2A
CAC-RLY-80FCV3A

CAC-RLY-80FCV4A
**CAC-RLY-4A/CR1
**CAC-RLY-4A/CR2
CSP-V-3+
CSP-AO-V/3A
CSP-POS-V/3
CSP-V-3
CSP-V-4+
CSP-AO-V/4A
CSP-POS-V/4
CSP-V-4
CSP-V-5+
CSP-AO-V/5A
CSP-POS-V/5
CSP-V-5
CSP-V-7+
CSP-AO-V/7A
CSP-POS-7P10
CSP-POS-7P11
CSP-POS-7P13
CSP-POS-V/7P1
CSP-POS-V/7P2
CSP-POS-V/7P3
CSP-POS-V/7P4
CSP-POS-V/7P9
CSP-V-7
E-ELP-8BB+
E-TR-8BB
E-IR-P009+
MS-DPT-32
MS-FT-33B
MS-FT-33D
MS-FT-34B
MS-FT-34D
MS-FT-34F
MS-FT-34H
MS-FT-34M
MS-FT-34S
MS-FT-34W
MS-LITS-44B
RRC-FT-14D
RRC-FT-24D
RMCU-FT-37
E-IR-P017+
RCIC-DPIS-13A
RCIC-DPIS-7A
RCIC-FIS-2
RCIC-FT-3
RCIC-PI-1
RCIC-PI-2
RCIC-PI-4
RCIC-PI-803
RCIC-PS-12A

RCIC-PS-12C
RCIC-PS-20
RCIC-PS-21
RCIC-PS-22A
RCIC-PS-22C
RCIC-PS-6
RCIC-PS-9A
RCIC-PS-9B
RCIC-PT-4
RCIC-PT-5
RCIC-PT-7
RCIC-PT-8
E-IR-P022+
MS-DPIS-10B
MS-DPIS-11B
MS-DPIS-8B
MS-DPIS-9B
MS-FT-11B
RRC-FT-14B
RRC-FT-24B
RRC-PS-18B
E-SH-10+
RRC-CB-P1B/RPT3
E-SH-9+
RRC-CB-P1A/RPT3
FPC-V-172+
FPC-MO-172
FPC-V-172
FPC-V-173+
FPC-MO-173
FPC-V-173
FPC-V-184+
FPC-MO-184
FPC-V-184
ZONE E
CAC-FCV-4A+
CAC-EHO-FCV/4A
CAC-FCV-4A
CAC-POS-FCV/4A
CAC-V-4+
CAC-MO-V/4
CAC-V-4
RHR-LCV-65B+
RHR-LCV-65B
RHR-V-11B+
RHR-MO-11B
RHR-V-11B
RHR-V-125A+
RHR-MO-125A
RHR-V-125A
RHR-V-125B+
RHR-MO-125B
RHR-V-125B
RHR-V-24B+

ZONE F

RHR-LCV-65A+
RHR-LCV-65A
RHR-V-11A+
RHR-MO-11A
RHR-V-11A
RHR-V-124A+
RHR-MO-124A
RHR-V-124A
RHR-V-124B+
RHR-MO-124B
RHR-V-124B
RHR-V-24A+
RHR-MO-24A
RHR-V-24A
RHR-V-26A+
RHR-MO-26A
RHR-V-26A

ZONE H

E-CP-VB/1A+
CSP-RLY-10R3
CSP-RLY-10R4
CSP-RLY-7R3
CSP-RLY-7R4
CSP-RLY-V/10CR
CSP-RLY-V/10R1
CSP-RLY-V/10R2
CSP-RLY-V/10R5
CSP-RLY-V/7CR
CSP-RLY-V/7R1
CSP-RLY-V/7R2
CSP-RLY-V/7R5
CSP-RLY-V/8CR
CSP-RLY-V/8R1
CSP-RLY-V/8R2
CSP-RLY-V/8R3
CSP-RLY-V/8R4
CSP-RLY-V/8R5
E-MC-S2/1A+
E-42-S21A/1CSPA
E-42-S21A/2CSPA
E-42-S22A/3CSPA
E-42-S21A/4CSPA
E-42-TT/TV

ZONE I

RCIC-V-110+
RCIC-MO-V/80
RCIC-V-110
RCIC-V-113+
RCIC-MO-V/8A
RCIC-V-113
RCIC-V-68+
RCIC-MO-V/68
RCIC-V-68

ZONE J

CEP-V-3A+
CEP-AO-V/3A
CEP-POS-V/3A
CEP-V-3A
CEP-V-3B+
CEP-AO-V/3B
CEP-POS-V/3B
CEP-V-3B
CEP-V-4A+
CEP-AO-V/4A
CEP-POS-V/4A
CEP-V-4A
CEP-V-4B+
CEP-AO-V/4B
CEP-POS-V/4B
CEP-V-4B
CSP-V-6+
CSP-AO-V/6
CSP-POS-V/6

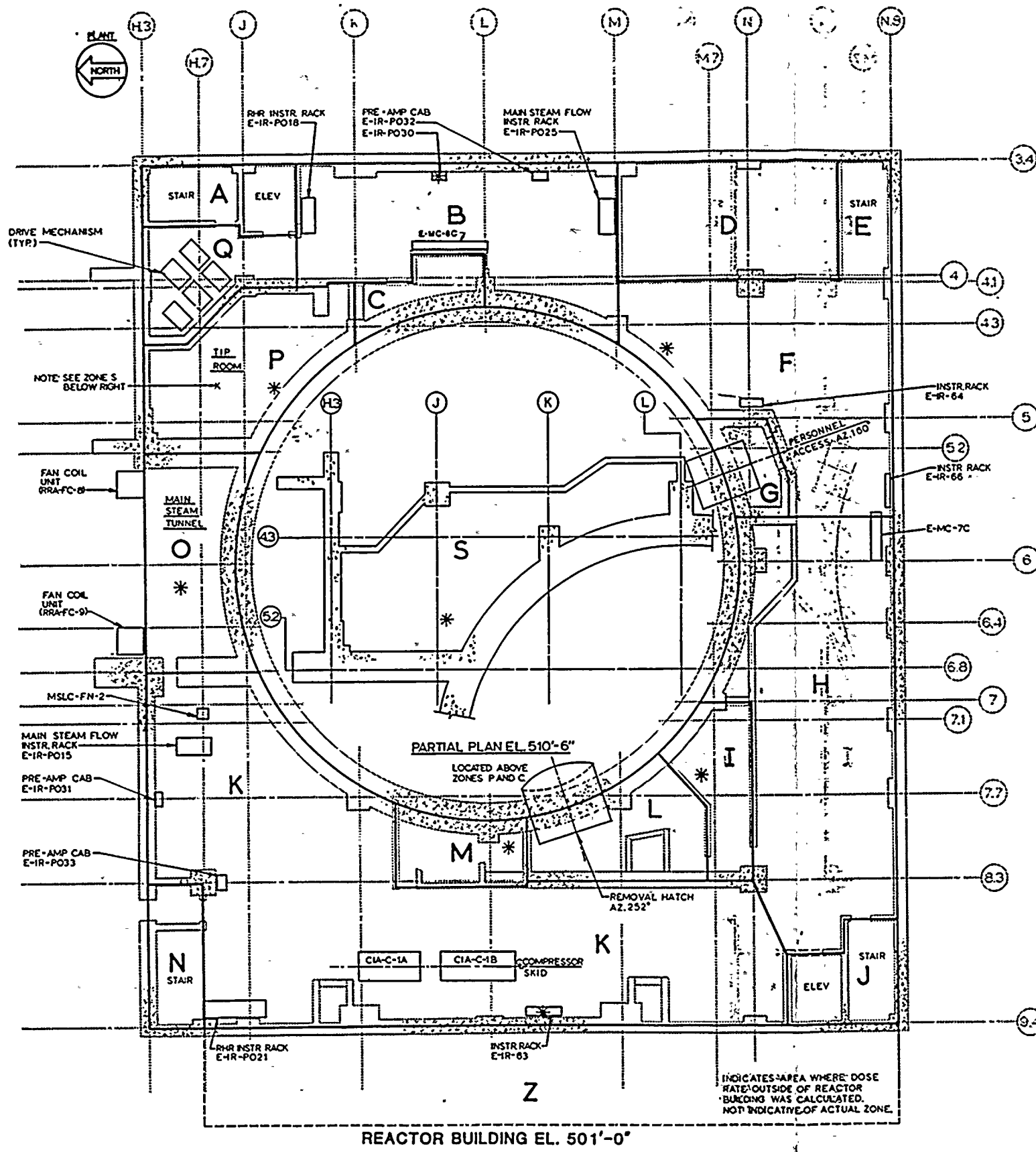
CSP-V-6
CSP-V-8+
CSP-AO-V/8
CSP-POS-8P10
CSP-POS-8P11
CSP-POS-8P13
CSP-POS-V/8P1
CSP-POS-V/8P12
CSP-POS-V/8P2
CSP-POS-V/8P3
CSP-POS-V/8P4
CSP-POS-V/8P9
CSP-V-8
E-IR-62+
CEP-SPV-3A
CEP-SPV-3B
CSP-SPV-8A
CSP-SPV-8B
FPC-DPIC-1
FPC-SPV-1
RCIC-SPV-25
RCIC-SPV-4
RCIC-SPV-54
RFW-SPV-32A1
RFW-SPV-32A2
RFW-SPV-32B1
RFW-SPV-32B2
RFW-SPV-32B1
RFW-SPV-32B2
**FPC-DPIS-11
**FPC-DPIS-12
MSLC-FN-1+
MSLC-FN-1
MSLC-M-FN/1
MSLC-H-A+
MSLC-H-A
MSLC-TE-10A
MSLC-H-B+
MSLC-H-B
MSLC-TE-10B
MSLC-H-C+
MSLC-H-C
MSLC-TE-10C
MSLC-H-D+
MSLC-H-D
MSLC-TE-10D
MSLC-V-1A+
MSLC-MO-1A
MSLC-V-1A
MSLC-V-1B+
MSLC-MO-1B
MSLC-V-1B
MSLC-V-1C+
MSLC-MO-1C
MSLC-V-1C
MSLC-V-1D+
MSLC-MO-1D
MSLC-V-1D

ZONE M

CAC-FCV-3B+
CAC-EHO-FCV/3B
CAC-FCV-3B
CAC-POS-FCV/3B
CAC-V-17+
CAC-MO-V/17
CAC-V-17

200
S. 10
L. 10
P. 10

2.4
8/1/72



**SAFETY RELATED EQUIPMENT
- BY ZONES**

ZONE B	<ul style="list-style-type: none"> E-IR-P030+ 4.6x10⁵ rads 	<ul style="list-style-type: none"> **PI-POS-EFCX44BK **PI-POS-EFCX44BL **PI-POS-EFCX44BM 	<ul style="list-style-type: none"> **PI-POS-EFCX/75C **PI-POS-EFCX/75D **PI-POS-EFCX/75E **PI-POS-EFCX/75F **PI-POS-EFCX44AA 	<ul style="list-style-type: none"> RFW-V-32B+ RFW-V-65A+ RFW-V-65B+ 	<ul style="list-style-type: none"> RJC-V-5+ RCIC-V-8+ RHR-V-53A+ RNCU-V-40+
	<ul style="list-style-type: none"> E-IR-P018+ E-IR-P025+ E-IR-P030+ E-IR-P032+ 				
	<ul style="list-style-type: none"> **PI-POS-EFCX/38A **PI-POS-EFCX/38B **PI-POS-EFCX/38C **PI-POS-EFCX/38D **PI-POS-EFCX/38E **PI-POS-EFCX/38F **PI-POS-EFCX/39A **PI-POS-EFCX/40C **PI-POS-EFCX/40D **PI-POS-EFCX/40E **PI-POS-EFCX/40F **PI-POS-EFCX/42A **PI-POS-EFCX/42B **PI-POS-EFCX/42F **PI-POS-EFCX/61B **PI-POS-EFCX/61C **PI-POS-EFCX/70A **PI-POS-EFCX/70B **PI-POS-EFCX/70C **PI-POS-EFCX/70D **PI-POS-EFCX/70E **PI-POS-EFCX/70F **RHR-PI-2A 	<ul style="list-style-type: none"> CSP-AO-V/1 1.5x10⁶ rads 	<ul style="list-style-type: none"> **PI-POS-EFCX44AB **PI-POS-EFCX44AC **PI-POS-EFCX44AD **PI-POS-EFCX44AE **PI-POS-EFCX44AF **PI-POS-EFCX44AG **PI-POS-EFCX44AH **PI-POS-EFCX44AJ **PI-POS-EFCX44AK **PI-POS-EFCX44AL **PI-POS-EFCX44AM **RHR-PI-2B **RHR-PI-2C 	<ul style="list-style-type: none"> LD-TE-29A LD-TE-29B LD-TE-29C LD-TE-29D LD-TE-31A LD-TE-31B LD-TE-31C LD-TE-31D MS-RE-3A MS-RE-3B MS-RE-3C MS-RE-3D **PI-POS-EFCX/18A **PI-POS-EFCX/18B **PI-POS-EFCX/18C **PI-POS-EFCX/18D 	
	<ul style="list-style-type: none"> **PI-POS-EFCX/39B **PI-POS-EFCX/39D **PI-POS-EFCX/39E **PI-POS-EFCX/41C **PI-POS-EFCX/41D **PI-POS-EFCX/41E **PI-POS-EFCX/41F **PI-POS-EFCX/62B **PI-POS-EFCX/62C **PI-POS-EFCX/62D **PI-POS-EFCX/69A **PI-POS-EFCX/69B **PI-POS-EFCX/69E **PI-POS-EFCX/69F **PI-POS-EFCX/71A **PI-POS-EFCX/71B **PI-POS-EFCX/71C **PI-POS-EFCX/71D **PI-POS-EFCX/71E **PI-POS-EFCX/71F **PI-POS-EFCX/74A **PI-POS-EFCX/74E **PI-POS-EFCX/74F **PI-POS-EFCX/75A **PI-POS-EFCX/75B 	<ul style="list-style-type: none"> CSP-V-1+ CSP-V-2+ RHR-V-8+ RHR-PS-18 	<ul style="list-style-type: none"> E-IR-63+ 7.9x10⁴ rads 	<ul style="list-style-type: none"> RHR-V-16B+ RHR-V-17B+ RHR-V-53B+ 	
ZONE I	<ul style="list-style-type: none"> CSP-AO-V/1 1.5x10⁶ rads 				
	<ul style="list-style-type: none"> E-IR-63+ 7.9x10⁴ rads 				
ZONE K	<ul style="list-style-type: none"> E-IR-63+ 7.9x10⁴ rads 				
	<ul style="list-style-type: none"> E-IR-63+ E-IR-P015+ E-IR-P021+ E-IR-P031+ E-IR-P033+ MSLC-FN-2+ RRC-V-16B+ RRC-V-20+ 				
ZONE M	<ul style="list-style-type: none"> RHR-MO-53B 1.0x10⁶ rads 				
	<ul style="list-style-type: none"> RHR-V-16B+ RHR-V-17B+ RHR-V-53B+ 				
ZONE P	<ul style="list-style-type: none"> TIP-V-1 1.1x10⁶ rads 				
	<ul style="list-style-type: none"> TIP-V-1 TIP-V-2 TIP-V-3 TIP-V-4 TIP-V-5 **TIP-SV-1 **TIP-SV-2 **TIP-SV-3 **TIP-SV-4 **TIP-SV-5 				
ZONE O	<ul style="list-style-type: none"> MS-POS-V/28D 4.2x10⁶ rads 				
	<ul style="list-style-type: none"> MS-V-19+ MS-V-20+ MS-V-28A+ MS-V-28B+ MS-V-28C+ MS-V-28D+ MS-V-67A+ MS-V-67B+ MS-V-67C+ MS-V-67D+ MSLC-V-10+ MSLC-V-2A+ MSLC-V-2B+ MSLC-V-2C+ MSLC-V-2D+ MSLC-V-3A+ MSLC-V-3B+ MSLC-V-3C+ MSLC-V-3D+ MSLC-V-4+ MSLC-V-5+ MSLC-V-9+ RFW-V-32A+ 				
ZONE Q	<ul style="list-style-type: none"> **TIP-SV-6 Dose Not Calculated 				
	<ul style="list-style-type: none"> **TIP-SV-6 				
ZONE S	<ul style="list-style-type: none"> Located at elev. 510' 6" above zones "P" and "C" RCIC-MO-V/8 2.6x10⁶ rads 				
	<ul style="list-style-type: none"> RCC-V-104+ RCC-V-21+ 				

- GENERAL NOTES:**
- ARE IDENTIFIED IN GENERAL NOTES 2,3,4&5 ON DRAWING M-422 SHEET 1
 - SEE DWG. M-501 SHEET 2 OF 2 FOR COMPONENTS OF LISTED COMPOSITES
 - SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 1 FOR PASSIVE EQUIPMENT

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2

RADIATION ZONE MAP
REACTOR BLDG EL. 501'-0"

FIGURE
6.4

380
54.

ZONE B

E-IR-P018+
 RCIC-PS-32A
 RCIC-PS-33A
 RHR-CIST-30A
 RHR-DPIS-12A
 RHR-DPIS-29A
 RHR-FIS-10A
 RHR-FT-15A
 RHR-FT-7A
 RHR-PIS-22A
 RHR-PS-16A
 RHR-PS-19A
 RHR-PT-26A
 E-IR-P025+
 MS-DPIS-10D
 MS-DPIS-11D
 MS-DPIS-8D
 MS-DPIS-9D
 E-IR-P030+
 IRM-EAMP-2A
 IRM-EAMP-2E
 **SRM-EAMP-1A
 E-IR-P032+
 IRM-EAMP-2C
 IRM-EAMP-2G
 **SRM-EAMP-1C

ZONE F

E-IR-64+
 CAC-FT-4B
 CSP-DPIS-V/5
 CSP-DPIS-V/6
 CSP-SPV-4
 CSP-SPV-5
 CSP-SPV-9
 E-IR-66+
 CAC-FT-3A
 CAC-FT-4A
 CMS-PT-3
 CSP-SPV-1
 RHR-SPV-41A
 RRC-V-16A+
 RRC-MO-16A
 RRC-POS-16A
 **RRC-V-16A

ZONE I

CSP-V-1+
 CSP-AO-V/1
 CSP-POS-V/1
 CSP-V-1
 CSP-V-2+
 CSP-AO-V/2

CSP-POS-V/2
 CSP-V-2
 RHR-V-8+
 RHR-MO-8
 RHR-V-8

ZONE K

E-IR-63+
 CAC-FT-3B
 CEP-SPV-4A
 CEP-SPV-4B
 CMS-PT-4
 CSP-DPIS-V/4
 CSP-SPV-2
 CSP-SPV-6
 RCIC-SPV-26
 RCIC-SPV-5
 RHR-SPV-41C
 **RHR-SPV-50B
 E-IR-P015+
 MS-DPIS-10A
 MS-DPIS-11A
 MS-DPIS-8A
 MS-DPIS-9A

E-IR-P021+
 RCIC-PS-32B
 RCIC-PS-33B
 RHR-CIST-30B
 RHR-DPIS-12B
 RHR-DPIS-29B
 RHR-FIS-10B
 RHR-FIS-10C
 RHR-FT-15B
 RHR-FT-15C
 RHR-FT-7B
 RHR-PIS-22B
 RHR-PIS-22C
 RHR-PS-16B
 RHR-PS-16C
 RHR-PS-19B
 RHR-PS-19C
 RHR-PT-26B
 RHR-PT-28
 **RHR-CI-6

E-IR-P031+
 IRM-EAMP-2B
 IRM-EAMP-2F
 **SRM-EAMP-1B
 E-IR-P033+
 IRM-EAMP-2D
 IRM-EAMP-2H
 **SRM-EAMP-1D
 MSLC-FN-2+
 MSLC-FN-2
 MSLC-M-FN/2

RRC-V-16B+
 RRC-MO-16B
 RRC-POS-16B
 RRC-V-16B
 RRC-V-20+
 RRC-POS-20+
 RRC-V-20+
 RRC-V-20+

ZONE M

RHR-V-16B+
 RHR-MO-16B+
 RHR-V-16B-V-1
 RHR-V-17B+
 RHR-MO-17B+
 RHR-V-17B-V-1
 RHR-V-53B+
 RHR-MO-53B+
 RHR-V-53B-V-1

ZONE O

MS-V-19+
 MS-MO-V/19H
 MS-V-19-V-1
 MS-V-20+
 MS-MO-V/20H
 MS-V-20-V-1
 MS-V-28A+
 MS-AO-28A
 MS-POS-V/28A
 MS-SPV-28A1
 MS-SPV-28A2
 MS-SPV-28A3
 MS-V-28A
 MS-V-28B+
 MS-AO-28B
 MS-POS-V/28B
 MS-SPV-28B1
 MS-SPV-28B2
 MS-SPV-28B3
 MS-V-28B
 MS-V-28C+
 MS-AO-28C
 MS-POS-V/28C
 MS-SPV-28C1
 MS-SPV-28C2
 MS-SPV-28C3
 MS-V-28C
 MS-V-28D+
 MS-AO-28D
 MS-POS-V/28D
 MS-SPV-28D1
 MS-SPV-28D2
 MS-SPV-28D3
 MS-V-28D

MS-V-67A+
 MS-MO-V/67A
 MS-V-67A
 MS-V-67B+
 MS-MO-V/67B
 MS-V-67B
 MS-V-67C+
 MS-MO-V/67C
 MS-V-67C

MS-V-67D+
 MS-MO-V/67D
 MS-V-67D
 MSLC-V-10+
 MSLC-MO-10
 MSLC-V-10
 MSLC-V-2A+
 MSLC-MO-2A
 MSLC-V-2A
 MSLC-V-2B+
 MSLC-MO-2B
 MSLC-V-2B

MSLC-V-2C+
 MSLC-MO-2C
 MSLC-V-2C
 MSLC-V-2D+
 MSLC-MO-2D
 MSLC-V-2D

MSLC-V-3A+
 MSLC-MO-3A
 MSLC-V-3A
 MSLC-V-3B+
 MSLC-MO-3B
 MSLC-V-3B
 MSLC-V-3C+
 MSLC-MO-3C
 MSLC-V-3C
 MSLC-V-3D+
 MSLC-MO-3D
 MSLC-V-3D
 MSLC-V-4+
 MSLC-MO-4
 MSLC-V-4

MSLC-V-5+
 MSLC-MO-5
 MSLC-V-5
 MSLC-V-9+
 MSLC-MO-9
 MSLC-V-9

RFW-V-32A+
 RFW-POS-V/32A
 RFW-V-32A
 **RFW-AO-V/32A
 RFW-V-32B+
 RFW-POS-V/32B
 RFW-V-32B
 **RFW-AO-V/32B

RFW-V-65A+
 RFW-MO-65A
 RFW-V-65A
 RFW-V-65B+
 RFW-MO-65B
 RFW-V-65B

ZONE S

RCC-V-104+
 RCC-MO-104
 RCC-V-104
 RCC-V-21+
 RCC-MO-21
 RCC-V-21
 RCC-V-5+
 RCC-MO-5
 RCC-V-5
 RCIC-V-8+
 RCIC-MO-V/8
 RCIC-V-8
 RHR-V-53A+
 RHR-MO-53A
 RHR-V-53A
 RNCU-V-40+
 RNCU-MO-40
 RNCU-V-40

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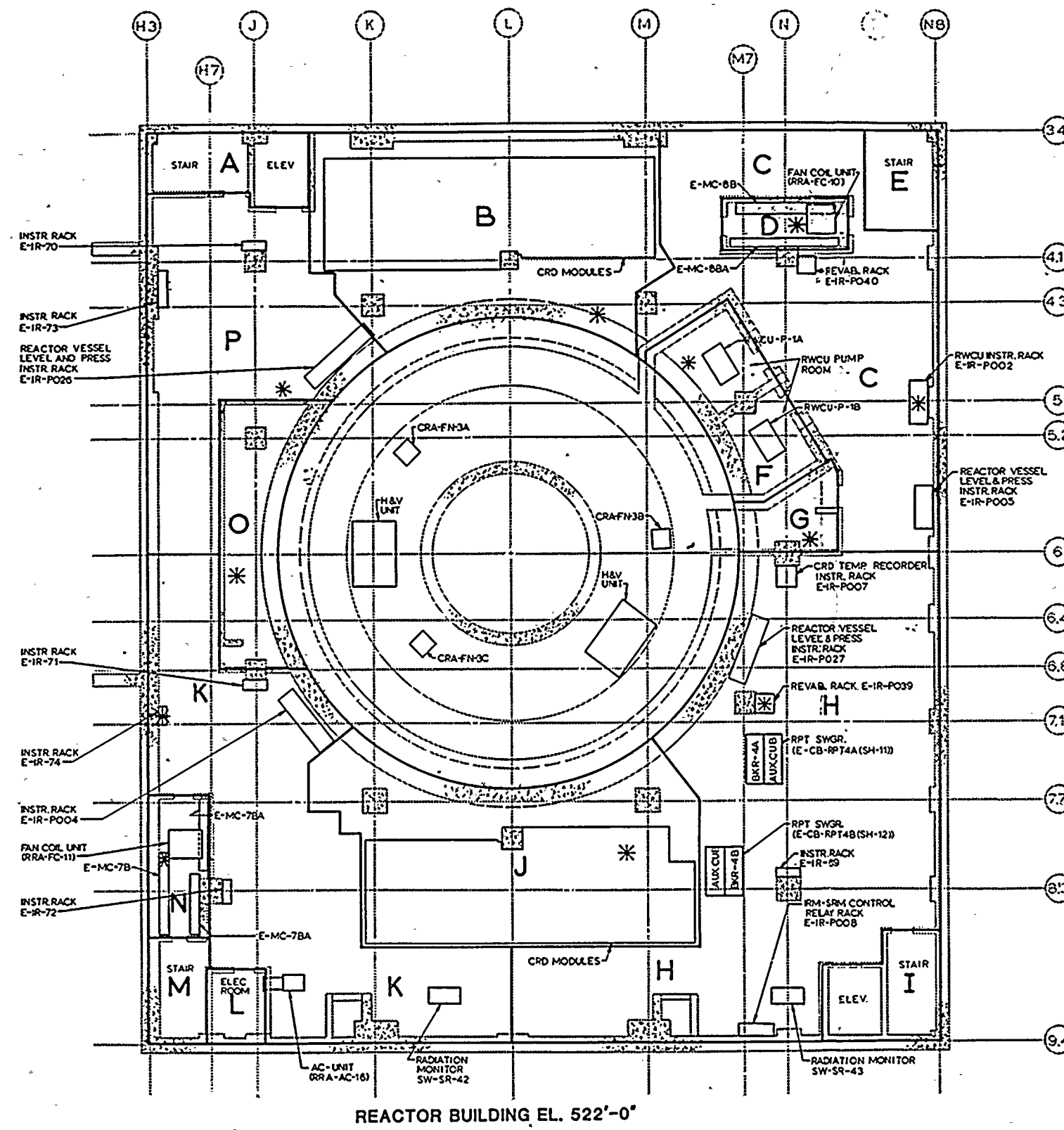
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APR 19 1964
FBI - MEMPHIS

APR 19 1964

SAFETY RELATED EQUIPMENT
- BY ZONES



REACTOR BUILDING EL. 522'-0"

GENERAL NOTES:

1. *, **, ●, ○ ARE IDENTIFIED IN GENERAL NOTES 2, 3, 4 & 5 ON DRAWING M-422 SHEET 1
2. SEE DWG. M-522 SHEETS 2 & 3 OF 4 FOR COMPONENTS OF LISTED COMPOSITES
3. SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 1 FOR PASSIVE EQUIPMENT

ZONE B	ZONE F	ZONE C	ZONE G	ZONE H	ZONE D	ZONE J	ZONE K	ZONE O	ZONE P	ZONE N		
<ul style="list-style-type: none"> • LPCS-MO-5 • 6.4×10^5 rads 	<ul style="list-style-type: none"> • LD-TE-2A • 8.4×10^5 rads 	<ul style="list-style-type: none"> • E-IR-P002+ • 5.8×10^5 rads 	<ul style="list-style-type: none"> • RHR-MO-42B • 1.3×10^6 rads 	<ul style="list-style-type: none"> • E-IR-P039+ • 8.3×10^5 rads 	<ul style="list-style-type: none"> • RRA-M-FN/10 • 2.3×10^4 rads 	<ul style="list-style-type: none"> • CRD-HCU(92 Total)* • 1.0×10^5 rads 	<ul style="list-style-type: none"> • E-IR-74+ • 2.0×10^4 rads 	<ul style="list-style-type: none"> • RHR-MO-42C • 1.7×10^6 rads 	<ul style="list-style-type: none"> • CRD-V-10+ • 5.3×10^4 rads 	<ul style="list-style-type: none"> • E-MC-7B+ • 6.7×10^3 rads 		
<ul style="list-style-type: none"> CRD-HCU(93 Total) LPCS-V-5+ 	<ul style="list-style-type: none"> RWCU-V-4+ 	<ul style="list-style-type: none"> CRD-FCV-2A+ CRD-FCV-2B+ CRD-IR-1+ CRD-IR-2+ CRD-IR-3+ CRD-V-3+ E-IR-P002+ E-IR-P005+ 	<ul style="list-style-type: none"> CRD-HCU(92 Total) 	<ul style="list-style-type: none"> CIA-V-30B+ E-IR-69+ E-IR-P008+ E-IR-P027+ E-IR-P039+ E-SH-11+ E-SH-12+ HPCS-V-4+ S-SR-43+ SW-V-75B+ 	<ul style="list-style-type: none"> CRD-RV-80 CRD-RV-81 **HY-POS-V/33A **HY-POS-V/33B **HY-POS-V/34A **HY-POS-V/34B **HY-POS-V/35A **HY-POS-V/35B **HY-POS-V/36A **HY-POS-V/36B **HY-V-33A **HY-V-33B **HY-V-34A **HY-V-34B **HY-V-35A **HY-V-35B **HY-V-36A **HY-V-36B 	<ul style="list-style-type: none"> CRD-HCU(92 Total)* 	<ul style="list-style-type: none"> CIA-V-20+ E-IR-71+ E-IR-74+ E-IR-P004+ FPC-FCV-1+ ROA-AD-11+ S-SR-42+ SW-V-75A+ 	<ul style="list-style-type: none"> CRD-LS-13A CRD-LS-13B CRD-LS-13C CRD-LS-13D CRD-LS-13E CRD-LS-13F CRD-RV-12 PI-SV-256 PI-SV-257 PI-SV-259 	<ul style="list-style-type: none"> **PI-POS-V/251 **PI-POS-V/253 **PI-POS-V/262 **PI-POS-V/263 **PI-POS-V/264 **PI-POS-V/266 **PI-POS-V/267 **PI-POS-V/72P **PI-SV-262 **PI-SV-263 **PI-SV-264 **PI-SV-266 **PI-SV-267 **SLC-FT-1 	<ul style="list-style-type: none"> CRD-LS-13A CRD-LS-13B **MSLC-PT-11 **MSLC-PT-12 **MSLC-PT-13 	<ul style="list-style-type: none"> **PI-POS-V/251 **PI-POS-V/253 **PI-POS-V/262 **PI-POS-V/263 **PI-POS-V/264 **PI-POS-V/266 **PI-POS-V/267 **PI-SV-262 **PI-SV-263 **PI-SV-264 **PI-SV-266 **PI-SV-267 **SLC-FT-1 	<ul style="list-style-type: none"> **MSLC-PT-12A **MSLC-PT-12B **MSLC-PT-12C **MSLC-PT-12D **PI-POS-EPCX/29D **PI-POS-EPCX/29F **PI-POS-EPCX/73A **PI-POS-EPCX/73C **PI-POS-V/256 **PI-POS-V/257 **PI-POS-V/259 **PI-POS-V/268 **PI-POS-V/73E **PI-SV-268
<ul style="list-style-type: none"> **CIA-SV-39A **CHS-RE-27A 	<ul style="list-style-type: none"> LD-TE-1A LD-TE-1B LD-TE-1C LD-TE-1D LD-TE-2A LD-TE-2B LD-TE-2C LD-TE-2D LD-TE-3A LD-TE-3B LD-TE-3C LD-TE-3D 	<ul style="list-style-type: none"> CRD-TMP RECORDER INSTR RACK E-IR-P007 REACTOR VESSEL LEVEL & PRESS INSTR RACK E-IR-P027 REACTOR VESSEL LEVEL & PRESS INSTR RACK E-IR-P005 RPT SWGR (E-CB-RPT4A(SH-11)) RPT SWGR (E-CB-RPT4B(SH-12)) INSTR RACK E-IR-69 RM-SRM CONTROL RELAY RACK E-IR-P008 	<ul style="list-style-type: none"> CHS-RE-27B HY-POS-V/17B HY-POS-V/18B HY-POS-V/19B HY-POS-V/20B HY-V-17B HY-V-18B HY-V-19B HY-V-20B 	<ul style="list-style-type: none"> RHR-DPIS-9A RHR-DPIS-9C 	<ul style="list-style-type: none"> E-MC-88B+ E-MC-88A+ ROA-AD-10+ RRA-FC-10+ 	<ul style="list-style-type: none"> CHS-ME-1 CHS-ME-2 CHS-ME-3 CHS-ME-4 PI-SV-250 PI-SV-251 PI-SV-253 RHR-DPIS-9B **PI-POS-EPCX/72A **PI-POS-EPCX/72B **PI-POS-V/250 	<ul style="list-style-type: none"> CHS-ME-5 CRD-LS-13C CRD-LS-13D CRD-LS-13E CRD-LS-13F CRD-RV-12 PI-SV-256 PI-SV-257 PI-SV-259 **MSLC-PT-10A **MSLC-PT-10B **MSLC-PT-10C **MSLC-PT-10D 					

2000
1000
500

1000

500

1000
500

ZONE P (CON'T)

E-IR-P026+ (CONT)

MS-PS-39V

MS-PS-45A

MS-PS-45B

MS-PS-48A

MS-PS-48C

MS-PT-51A

RPS-PS-2D

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COMPONENT EQUIPMENT LIST FOR COMPOSITE
EQUIPMENT SHOWN ON FIGURE 6.5

FIGURE
6.5b

2005

9

ZONE B

CRD-HCU-3031
 CRD-HCU-3035
 CRD-HCU-3039
 CRD-HCU-3043
 CRD-HCU-3047
 CRD-HCU-3051
 CRD-HCU-3055
 CRD-HCU-3059
 CRD-HCU-3403
 CRD-HCU-3407
 CRD-HCU-3411
 CRD-HCU-3415
 CRD-HCU-3419
 CRD-HCU-3423
 CRD-HCU-3427
 CRD-HCU-3431
 CRD-HCU-3435
 CRD-HCU-3439
 CRD-HCU-3443
 CRD-HCU-3447
 CRD-HCU-3451
 CRD-HCU-3455
 CRD-HCU-3459
 CRD-HCU-3803
 CRD-HCU-3807
 CRD-HCU-3811
 CRD-HCU-3815
 CRD-HCU-3819
 CRD-HCU-3823
 CRD-HCU-3827
 CRD-HCU-3831
 CRD-HCU-3835
 CRD-HCU-3839
 CRD-HCU-3843
 CRD-HCU-3847
 CRD-HCU-3851
 CRD-HCU-3855
 CRD-HCU-3859
 CRD-HCU-4203
 CRD-HCU-4207
 CRD-HCU-4211
 CRD-HCU-4215
 CRD-HCU-4219
 CRD-HCU-4223
 CRD-HCU-4227
 CRD-HCU-4231
 CRD-HCU-4235
 CRD-HCU-4239
 CRD-HCU-4243
 CRD-HCU-4247
 CRD-HCU-4251
 CRD-HCU-4255
 CRD-HCU-4259
 CRD-HCU-4607

CRD-HCU-4611
 CRD-HCU-4615
 CRD-HCU-4619
 CRD-HCU-4623
 CRD-HCU-4627
 CRD-HCU-4631
 CRD-HCU-4635
 CRD-HCU-4639
 CRD-HCU-4643
 CRD-HCU-4647
 CRD-HCU-4651
 CRD-HCU-4655
 CRD-HCU-5011
 CRD-HCU-5015
 CRD-HCU-5019
 CRD-HCU-5023
 CRD-HCU-5027
 CRD-HCU-5031
 CRD-HCU-5035
 CRD-HCU-5039
 CRD-HCU-5043
 CRD-HCU-5047
 CRD-HCU-5051
 CRD-HCU-5415
 CRD-HCU-5419
 CRD-HCU-5423
 CRD-HCU-5427
 CRD-HCU-5431
 CRD-HCU-5435
 CRD-HCU-5439
 CRD-HCU-5443
 CRD-HCU-5447
 CRD-HCU-5819
 CRD-HCU-5823
 CRD-HCU-5827
 CRD-HCU-5831
 CRD-HCU-5835
 CRD-HCU-5839
 CRD-HCU-5843

ZONE J

CRD-HCU-0219
 CRD-HCU-0223
 CRD-HCU-0227
 CRD-HCU-0231
 CRD-HCU-0235
 CRD-HCU-0239
 CRD-HCU-0243
 CRD-HCU-0615
 CRD-HCU-0619
 CRD-HCU-0623
 CRD-HCU-0627
 CRD-HCU-0631

CRD-HCU-0635
 CRD-HCU-0639
 CRD-HCU-0643
 CRD-HCU-0647
 CRD-HCU-1011
 CRD-HCU-1015
 CRD-HCU-1019
 CRD-HCU-1023
 CRD-HCU-1027
 CRD-HCU-1031
 CRD-HCU-1035
 CRD-HCU-1039
 CRD-HCU-1043
 CRD-HCU-1047
 CRD-HCU-1051
 CRD-HCU-1407
 CRD-HCU-1411
 CRD-HCU-1415
 CRD-HCU-1419
 CRD-HCU-1423
 CRD-HCU-1427
 CRD-HCU-1431
 CRD-HCU-1435
 CRD-HCU-1439
 CRD-HCU-1443
 CRD-HCU-1447
 CRD-HCU-1451
 CRD-HCU-1455
 CRD-HCU-1803
 CRD-HCU-1807
 CRD-HCU-1811
 CRD-HCU-1815
 CRD-HCU-1819
 CRD-HCU-1823
 CRD-HCU-1827
 CRD-HCU-1831
 CRD-HCU-1835
 CRD-HCU-1839
 CRD-HCU-1843
 CRD-HCU-1847
 CRD-HCU-1851
 CRD-HCU-1855
 CRD-HCU-1859
 CRD-HCU-2203
 CRD-HCU-2207
 CRD-HCU-2211
 CRD-HCU-2215
 CRD-HCU-2219
 CRD-HCU-2223
 CRD-HCU-2227
 CRD-HCU-2231
 CRD-HCU-2235
 CRD-HCU-2239
 CRD-HCU-2243
 CRD-HCU-2247

CRD-HCU-2251
 CRD-HCU-2255
 CRD-HCU-2259
 CRD-HCU-2603
 CRD-HCU-2607
 CRD-HCU-2611
 CRD-HCU-2615
 CRD-HCU-2619
 CRD-HCU-2623
 CRD-HCU-2627
 CRD-HCU-2631
 CRD-HCU-2635
 CRD-HCU-2639
 CRD-HCU-2643
 CRD-HCU-2647
 CRD-HCU-2651
 CRD-HCU-2655
 CRD-HCU-2659
 CRD-HCU-3003
 CRD-HCU-3007
 CRD-HCU-3011
 CRD-HCU-3015
 CRD-HCU-3019
 CRD-HCU-3023
 CRD-HCU-3027

**CRD-HCU
GENERIC COMPONENT
LIST**

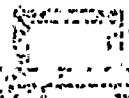
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 CRD-POS-126xxxx
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 CRD-PS-130/xxxx
 CRD-RD-132/xxxx
 CRD-SPV-117xxxx
 CRD-SPV-118xxxx
 CRD-SV-120/xxxx
 CRD-SV-121/xxxx
 CRD-SV-122/xxxx
 CRD-SV-123/xxxx
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 CRD-V-105/xxxx
 CRD-V-107/xxxx
 CRD-V-111/xxxx
 CRD-V-112/xxxx
 CRD-V-113/xxxx
 CRD-V-114/xxxx
 CRD-V-115/xxxx
 CRD-V-116/xxxx
 CRD-V-126/xxxx
 CRD-V-127/xxxx
 CRD-V-137/xxxx
 CRD-V-138/xxxx

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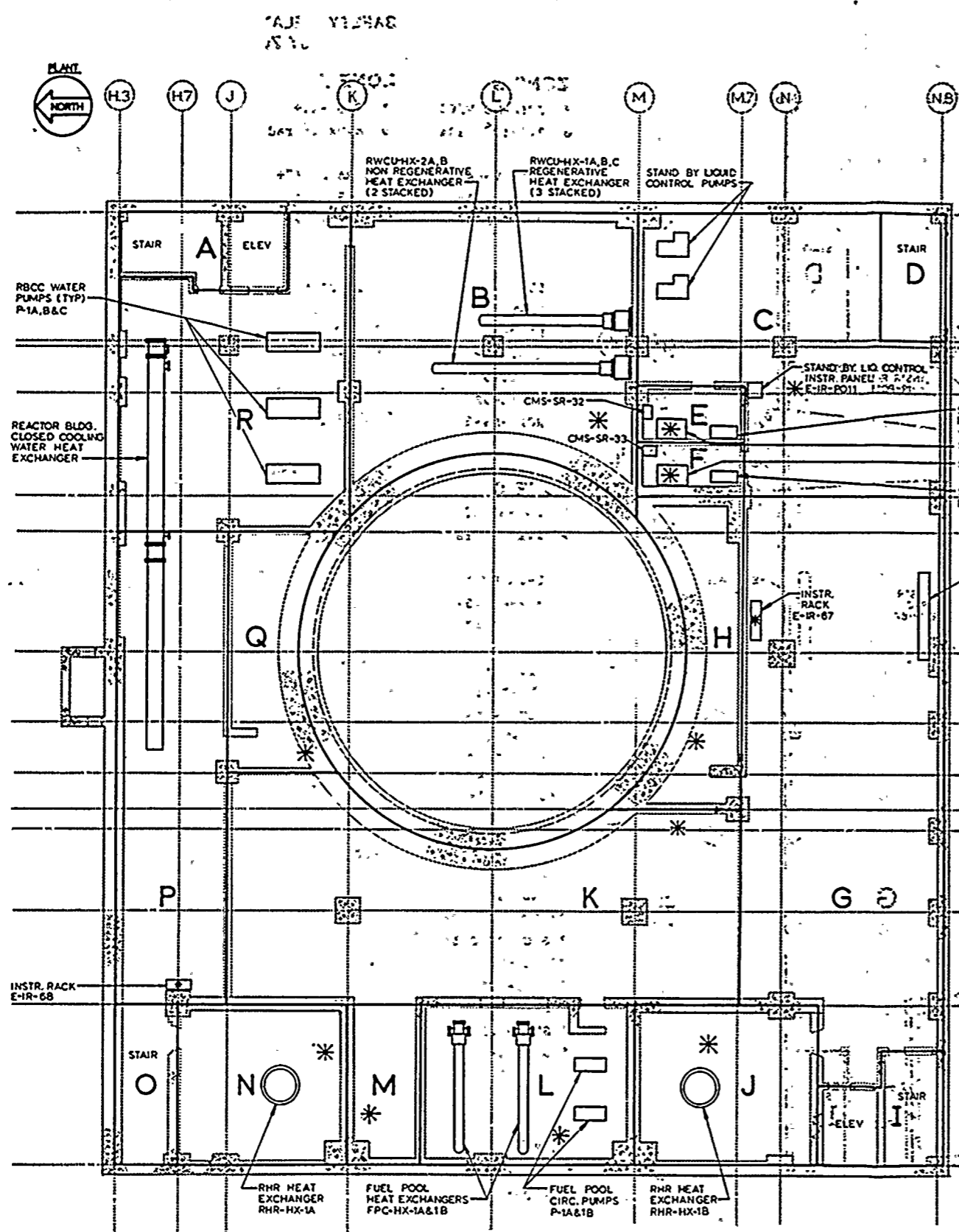
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USA

NOV 1954

NOV 1954

NOV 1954

NOV 1954



REACTOR BUILDING EL. 548'-0"

SAFETY RELATED EQUIPMENT - BY ZONES

- | | | | | |
|---|--|--|--|---|
| <p>ZONE B</p> <ul style="list-style-type: none"> • RCIC-MO-V/64 • 3.4×10^6 rads <p>ZONE C</p> <ul style="list-style-type: none"> • ROA-AD-15 • 1.1×10^4 rads <p>ZONE E</p> <ul style="list-style-type: none"> • S-SR-20+ • 9.0×10^3 rads | <p>ZONE F</p> <ul style="list-style-type: none"> • S-SR-21+ • 8.0×10^3 rads <p>ZONE G</p> <ul style="list-style-type: none"> • E-IR-67+ • 1.2×10^4 rads <p>ZONE H</p> <ul style="list-style-type: none"> • CAC-EHO-FCV/2B • 1.6×10^6 rads | <p>ZONE J</p> <ul style="list-style-type: none"> • RHR-MO-49 • 3.1×10^6 rads <p>ZONE K</p> <ul style="list-style-type: none"> • CAC-EHO-FCV/2A • 1.0×10^5 rads <p>ZONE L</p> <ul style="list-style-type: none"> • RHR-MO-134B • 1.5×10^5 rads | <p>ZONE M</p> <ul style="list-style-type: none"> • RHR-MO-134A • 4.4×10^4 rads <p>ZONE N</p> <ul style="list-style-type: none"> • RHR-MO-3A • 2.1×10^6 rads <p>ZONE P</p> <ul style="list-style-type: none"> • E-IR-68+ • 8.5×10^4 rads | <p>ZONE Q</p> <ul style="list-style-type: none"> • CAC-MO-V/15 • 1.0×10^6 rads |
|---|--|--|--|---|

- GENERAL NOTES:**
1. ●, ●●, ●●● ARE IDENTIFIED IN GENERAL NOTES 2, 3, 4 & 5 ON DRAWING M-422 SHEET 1
 2. SEE DWG. M-548 SHEET 2 OF 2 FOR COMPONENTS OF LISTED COMPOSITES
 3. SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 1 FOR PASSIVE EQUIPMENT

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ZONE B	RRA-CC-15	RCIC-HO-V/13	RRA-AD-19	RCIC-HO-V/175	CEP-V-1B		
RCIC-V-64+	RRA-FC-15	RCIC-V-13	RRA-AD/19	RCIC-V-175	CEP-V-2A+		
RCIC-HO-V/64	RRA-FN-15	RCIC-V-19B+	RRA-POS-AD/19	RRA-V-134A+	CEP-AO-V/2A		
RCIC-V-64	RRA-M-FN/15	**RCIC-POS-V/19B+		RRA-MO-134A	CEP-POS-V/2A		
RHR-V-16A+	S-SR-13+	**RCIC-V-19B		RHR-V-134A	CEP-V-2A		
RHR-MO-16A	CHS-AY-1				CEP-V-2B+		
RHR-V-16A	S-SR-20+	ZONE I			CEP-AO-V/2B		
RHR-V-17A+	CHS-RE-12/1A	FPC-P-1A+			CEP-POS-V/2B		
RHR-MO-17A	**CHS-M-P/A	RHR-V-23+			CEP-V-2B		
RHR-V-17A	**CHS-P-A	RHR-MO-23					
	**CHS-RE-12/3A	RHR-V-23					
ZONE C	ZONE F	ZONE J	ZONE N	ZONE O	ZONE P	ZONE Q	ZONE R
E-IR-P011+	RRA-FC-17+	RHR-HX-1B+	RHR-HX-1A+	E-IR-68+1	E-IR-68+1	E-IR-68+1	E-IR-68+1
SLC-FIC-4	RRA-CC-17	RHR-LT-8B	RHR-LT-8A	CAC-FT-1B	CAC-FT-1B	CAC-FT-1B	CAC-FT-1B
SLC-LT-1	RRA-FC-17	RHR-V-115+	RHR-V-115	CAC-PT-2B	CAC-PT-2B	CAC-PT-2B	CAC-PT-2B
SLC-RMS-V/S3	RRA-FN-17	RHR-MO-94	RHR-MO-94	CEP-SPV-2A	CEP-SPV-2A	CEP-SPV-2A	CEP-SPV-2A
**SLC-RLY-K1	RRA-M-FN/17	RHR-V-115	RHR-V-115	CEP-SPV-2B	CEP-SPV-2B	CEP-SPV-2B	CEP-SPV-2B
ROA-AD-15+	S-SR-14+	RHR-V-116+	RHR-V-116	CIA-PROG-1B	CIA-PROG-1B	CIA-PROG-1B	CIA-PROG-1B
ROA-AD-15	CHS-AY-2	RHR-MO-93	RHR-MO-93	CIA-RLY-21B	CIA-RLY-21B	CIA-RLY-21B	CIA-RLY-21B
ROA-AO-AD/15	S-SR-21+	RHR-V-116	RHR-V-116	CIA-TDS-1B	CIA-TDS-1B	CIA-TDS-1B	CIA-TDS-1B
ROA-POS-AD/15	CHS-RE-12/1B	RHR-V-3B+	RHR-V-3B	CHS-PT-2	CHS-PT-2	CHS-PT-2	CHS-PT-2
ROA-SPV-15	**CHS-M-P/B	RHR-MO-3B	RHR-MO-3B	CHS-PT-2R	CHS-PT-2R	CHS-PT-2R	CHS-PT-2R
ROA-AD-17+	**CHS-P-B	RHR-V-3B	RHR-V-3B	CHS-PT-6	CHS-PT-6	CHS-PT-6	CHS-PT-6
ROA-AD-17	**CHS-RE-12/3B	RHR-V-40+	RHR-V-40	CHS-PT-6R	CHS-PT-6R	CHS-PT-6R	CHS-PT-6R
ROA-AD-17		RHR-MO-40	RHR-MO-40	REA-RLY-V/CR2	REA-RLY-V/CR2	REA-RLY-V/CR2	REA-RLY-V/CR2
ROA-AO-AD/17		RHR-V-40	RHR-V-40	REA-SPV-2	REA-SPV-2	REA-SPV-2	REA-SPV-2
ROA-POS-AD/17		RHR-V-48B+	RHR-V-48B				
ROA-SPV-17		RHR-MO-48B	RHR-MO-48B				
SLC-P-1A+	ZONE G	RHR-V-49+	RHR-V-49	ZONE Q	ZONE R	ZONE S	ZONE T
SLC-M-P/1A	E-IR-67+	RHR-MO-49	RHR-MO-49	CAC-FCV-1B+	CAC-FCV-1B+	CAC-FCV-1B+	CAC-FCV-1B+
SLC-P-1A	CAC-FT-1A	RHR-V-49	RHR-V-49	CAC-EHO-FCV/1B	CAC-EHO-FCV/1B	CAC-EHO-FCV/1B	CAC-EHO-FCV/1B
SLC-P-1B+	CAC-FT-2A	RHR-MO-49	RHR-MO-49	CAC-FCV-1B	CAC-FCV-1B	CAC-FCV-1B	CAC-FCV-1B
SLC-M-P/1B	CEP-SPV-1A	RHR-V-49	RHR-V-49	CAC-POS-FCV/1B	CAC-POS-FCV/1B	CAC-POS-FCV/1B	CAC-POS-FCV/1B
SLC-P-1B	CEP-SPV-1B	RHR-V-68B+	RHR-V-68B	CAC-V-15%	CAC-V-15%	CAC-V-15%	CAC-V-15%
SLC-TK-1+	CIA-PROG-1A	RHR-MO-68B	RHR-MO-68B	CHS-MO-V/15	CHS-MO-V/15	CHS-MO-V/15	CHS-MO-V/15
SLC-EHC-2	CIA-PS-21A	RHR-V-68B	RHR-V-68B	CHS-V-1A+	CHS-V-1A+	CHS-V-1A+	CHS-V-1A+
SLC-EHC-3	CIA-PS-22A	RHR-V-89+	RHR-V-89	CEP-AO-V/1A	CEP-AO-V/1A	CEP-AO-V/1A	CEP-AO-V/1A
SLC-TE-6	CIA-PT-21A	RHR-AO-89	RHR-AO-89	CEP-POS-V/1A	CEP-POS-V/1A	CEP-POS-V/1A	CEP-POS-V/1A
SLC-TIC-EHC/2	CIA-RLY-21A	RHR-POS-V/89	RHR-POS-V/89	CEP-V-1A	CEP-V-1A	CEP-V-1A	CEP-V-1A
SLC-TS-3	CIA-TDS-1A	RHR-V-89	RHR-V-89	CEP-V-1B+	CEP-V-1B+	CEP-V-1B+	CEP-V-1B+
SLC-V-1A+	CHS-PT-1			CEP-AO-V/1B	CEP-AO-V/1B	CEP-AO-V/1B	CEP-AO-V/1B
SLC-MO-1A	CHS-PT-5			CEP-POS-V/1B	CEP-POS-V/1B	CEP-POS-V/1B	CEP-POS-V/1B
SLC-V-1A	RCIC-SPV-65	ZONE K	ZONE M				
SLC-V-1B+	ROA-RLY-V/CR1A	CAC-FCV-2A+	FPC-V-175+				
SLC-V-1B	**RHR-SPV-50A	CAC-EHO-FCV/2A					
SLC-V-31+		CAC-FCV-2A					
**SLC-POS-V/31		CAC-POS-FCV/2A					
SLC-V-4A+	ZONE H	CAC-V-2+					
SLC-V-4A	CAC-FCV-2B+	CAC-MO-V/2					
SLC-V-4B+	CAC-EHO-FCV/2B	CAC-V-2					
SLC-V-4B	CAC-FCV-2B	REA-AD-8+					
	CAC-POS-FCV/2B	**REA-AD-8					
ZONE E	CAC-V-11+	**REA-M-AD/8					
RRA-FC-15+	CAC-MO-V/11	**REA-POS-AD/8					
	**CAC-V-11	ROA-AD-19+					
	RCIC-V-13+						

WASHINGTON PUBLIC POWER SUPPLY SYSTEM COMPONENT EQUIPMENT LIST FOR COMPOSITE EQUIPMENT SHOWN ON FIGURE 6.6

NUCLEAR PROJECT NO. 2

FIGURE 6.6a



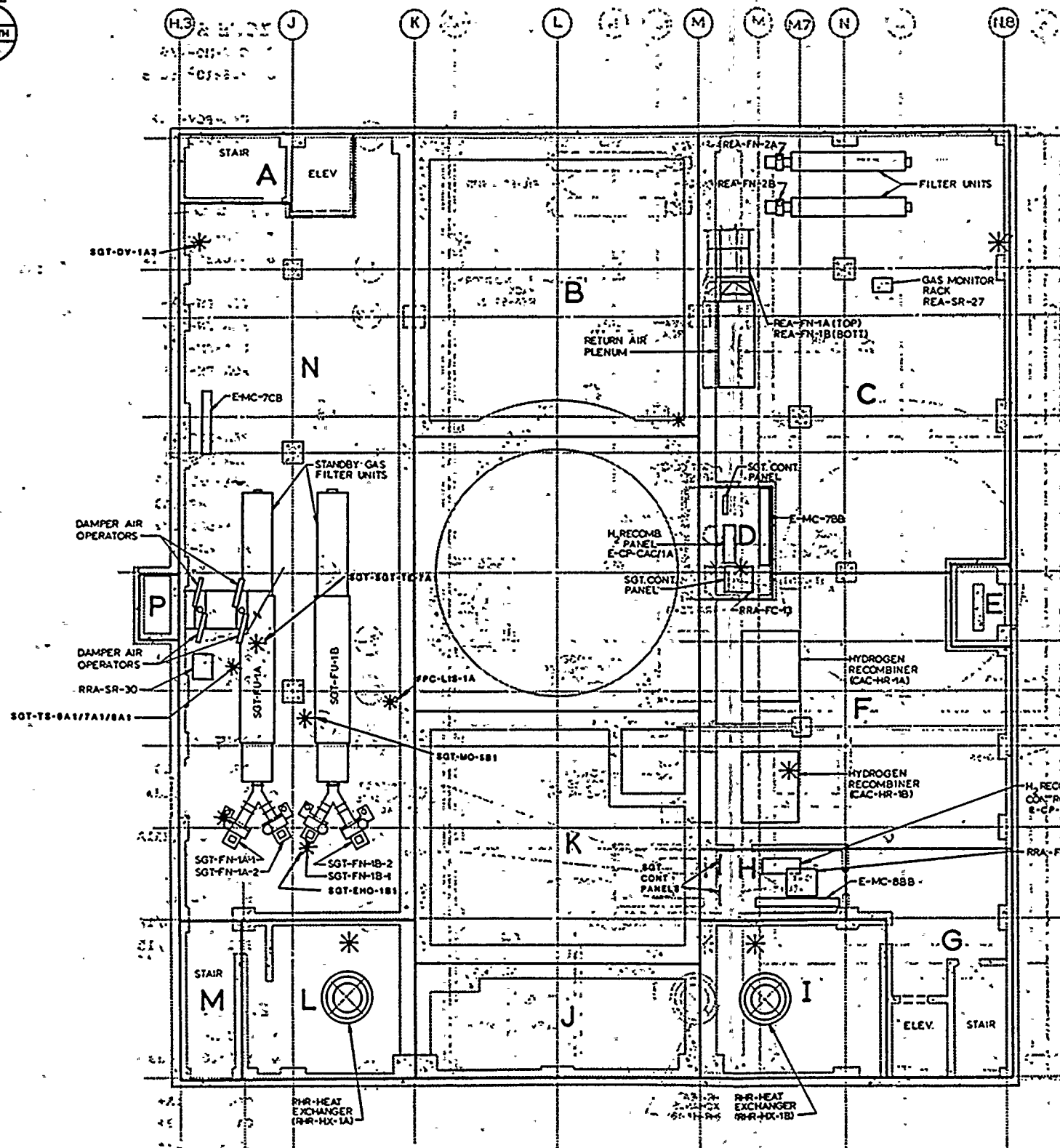
SECRET
NO FORN DISSEM

SECRET
NO FORN DISSEM

MEMORANDUM FOR THE DIRECTOR, CIA
SUBJECT: [Illegible]

[The following text is extremely faint and largely illegible due to the quality of the scan. It appears to be a memorandum or report with several paragraphs of text.]

SECRET
NO FORN DISSEM



REACTOR BUILDING EL. 572'-0"

GENERAL NOTES:

1. ●, ●●, ●●●, ●●●● ARE IDENTIFIED IN GENERAL NOTES 2, 3, 4 & 5 ON DRAWING M-422 SHEET 1
2. SEE DWG. M-572 SHEETS 2 & 3 OF 3 FOR COMPONENTS OF LISTED COMPOSITES
3. SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 2 FOR PASSIVE EQUIPMENT

SAFETY RELATED EQUIPMENT - BY ZONES

- ZONE B**
- CAC-MO-V/6
 - 7.6×10^5 rads

- CAC-FCV-1A+
- CAC-V-6+

- ZONE C**
- ROA-FN-1A
 - 3.0×10^4 rads

- REA-FN-1A+
- REA-FN-1B+
- ROA-FN-1A+
- ROA-FN-1B+

- REA-DPS-1A
- REA-DPS-1B
- REA-DPT-1A2
- REA-DPT-1A3
- REA-DPT-1B2
- REA-RE-9A
- REA-RE-9B
- REA-RE-9C
- REA-RE-9D
- ROA-DPS-11A+
- ROA-DPS-11B+
- REA-RE-19+

- ZONE D**
- RRA-M-FN/13
 - 5.7×10^4 rads

- E-CP-CAC/HR1A+
- E-MC-7BB+
- ROA-AD-13+
- RRA-FC-13+
- SGT-PP-EHC/1A1+
- SGT-PP-EHC/1B1+

- ZONE F**
- CAC-M-1B
 - 1.0×10^6 rads

- CAC-EHC-1A+
- CAC-EHC-1B+
- CAC-FCV-5A+
- CAC-FCV-5B+
- CAC-FCV-6A+
- CAC-FCV-6B+
- CAC-HR-1A+
- CAC-HR-1B+

- CAC-TCV-4A+
- CAC-TCV-4B+
- CAC-V-1A+
- CAC-V-1B+
- CAC-V-2A+
- CAC-V-2B+
- CAC-V-3A+
- CAC-V-3B+
- RCIC-V-66+
- ROA-V-1+
- ROA-V-2+

- FPC-LIS-1B
- FPC-LIS-2B
- FPC-LIS-3B1
- FPC-LIS-3B2
- REA-DPT-1B3

- ZONE H**
- SGT-PP-EHC/1B2+
 - 9.1×10^3 rads

- E-CP-CAC/HR1B+
- E-MC-8BB+
- ROA-AD-14+
- RRA-FC-14+
- SGT-PP-EHC/1A2+
- SGT-PP-EHC/1B2+

- ZONE I**
- RHR-MO-47B
 - 1.1×10^6 rads

- RHR-PCV-51B+
- RHR-V-47B+
- RHR-V-52B+
- RHR-V-73B+
- RHR-V-74B+
- RHR-V-87B+

- REA-DPT-1B4
- **RHR-POT-608B
- **RHR-POT-609B
- **RHR-TE-4B

- ZONE J**
- **FPC-FT-17
 - Dose Not Calculated
 - **FPC-FT-17

- ZONE K**
- Dose Not Calculated
 - **FPC-LS-4
 - **FPC-LS-5
 - **FPC-TE-6
 - **FPC-TE-7
 - **FPC-TE-8

- ZONE L**
- RHR-MO-47A
 - 1.2×10^6 rads

- RHR-PCV-51A+
- RHR-V-47A+
- RHR-V-52A+
- RHR-V-73A+
- RHR-V-74A+
- RHR-V-87A+

- ZONE N**
- SGT-TE-7A1
 - 4.4×10^7 rads

- REA-V-1+
- REA-V-2+
- SGT-DV-1A1+
- SGT-DV-1A2+
- SGT-DV-1A3+
- SGT-DV-1B1+
- SGT-DV-1B2+
- SGT-DV-1B3+
- SGT-FN-1A1+
- SGT-FN-1A2+
- SGT-FN-1B1+
- SGT-FN-1B2+
- SGT-FU-1A+
- SGT-FU-1B+
- SGT-PP-ESH/1A+
- SGT-PP-ESH/1B+
- SGT-PP-ESH/2A+
- SGT-PP-ESH/2B+
- SGT-V-1A+
- SGT-V-1B+
- SGT-V-2A+
- SGT-V-2B+
- SGT-V-3A1+
- SGT-V-3A2+

- SGT-V-3B1+
- SGT-V-3B2+
- SGT-V-4A1+
- SGT-V-4A2+
- SGT-V-4B1+
- SGT-V-4B2+
- SGT-V-5A1+
- SGT-V-5A2+
- SGT-V-5B1+
- SGT-V-5B2+
- REA-DPT-1A1
- REA-DPT-1B1

- SUBZONE N1**
- SGT-DV-1A3+
 - 6.8×10^4 rads

- SUBZONE N2**
- FPC-LIS-1A
 - 9.7×10^5 rads

- FPC-LIS-1A
- FPC-LIS-2A
- FPC-LIS-3A1
- FPC-LIS-3A2

- SUBZONE N3**
- SGT-EHO-FN/1B1
 - 3.0×10^5 rads

- SUBZONE N4**
- SGT-MO-5B1
 - 1.1×10^6 rads

- SUBZONE N5**
- SGT-TS-6A1/7A1/8A1
 - 4.5×10^6 rads

- SUBZONE N6**
- SGT-TE-7A1
 - 4.4×10^7 rads

SPECIAL INVESTIGATION FILE FOR SUBJECT

1979
FIGURE

SPECIAL INVESTIGATION FILE FOR SUBJECT

NO.	NAME	ADDRESS	PHONE	DATE
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50



ZONE B

LPCS-V-5+
LPCS-MO-5
LPCS-V-5

ZONE C

CRD-FCV-2A+
CRD-AO-2A
CRD-FCV-2A
CRD-M/A-9A
CRD-FCV-2B+
CRD-AO-2B
CRD-FCV-2B
**CRD-M/A-9B
CRD-IR-1+
CRD-DPIS-2
CRD-DPT-11
CRD-DPT-8
CRD-IR-2+
CRD-PT-5
CRD-IR-3+
CRD-E/P-001
CRD-PT-52
CRD-SPV-110A
CRD-SPV-110B
CRD-SPV-9
CRD-V-3+
CRD-MO-3
CRD-V-3
Z-IR-P002+
RWCU-FT-36
RWCU-FT-41
**RWCU-DPIS-25
**RWCU-FT-15
Z-IR-P005+
MS-LIS-24C
MS-LIS-31B
MS-LITS-26C
MS-PS-20C
MS-PS-23C
MS-PS-47B
MS-PS-47D
RPS-PS-2C

ZONE D

E-MC-8B+
CIA-42-C1A
CIA-42-V/30B
CRA-42-AD1B1
CRA-42-AD2B
CRA-42-FN/1C1
CRA-42-FN/1C2
CRA-42-FN/2B1
CRA-42-FN/2B2

CRA-42-FN/3B
CRA-42-FN/3C
CRA-42-FN/4B
CRA-42-FN/5B
CRA-42-FN/5D
CRA-RLY-FN/4BCR
E-42-8B/10BSP
E-42-8B/10CFUT
E-42-8B/2ASPAR
E-42-ELP/8BB
E-CB-MC8BA
E-CB-MC8BB
MSLC-42-FN/2
MSLC-42-V/10
MSLC-42-V/4
MSLC-42-V/5
MSLC-42-V/9
MSLC-RLY-80/V10
MSLC-RLY-80/V4
MSLC-RLY-80/V5
MSLC-RLY-80/V9
RHR-42-P/3
RRA-42-FN/1
RRA-42-FN/10
RRA-42-FN/3
RRA-42-FN/6
SGT-42-ZSH/1B
SGT-42-ZSH/2B
SLC-42-HA
SLC-42-HB
SLC-42-P/1B
SLC-42-V/1B
**CRA-42-FN/1B1
**CRA-42-FN/1B2
**E-CT-8BA
**E-CT-8BB
**E-RLY-50G/8BA
**E-RLY-50G/8BB
**MSLC-RLY-80/FN2

E-MC-8BA+

FPC-42-V/153
FPC-42-V/173
FPC-42-V/175
FPC-42-V/181B
FPC-42-V/184
MS-42-V/16
RCC-42-V/104
RCC-42-V/129
RCIC-42-V/63
RCIC-42-V/76
RHR-42-FCV/64B
RHR-42-FCV/64C
RHR-42-V/11B
RHR-42-V/123A
RHR-42-V/123B

RHR-42-V/125A
RHR-42-V/125B
RHR-42-V/134B
RHR-42-V/16B
RHR-42-V/17B
RHR-42-V/21
RHR-42-V/24B
RHR-42-V/26B
RHR-42-V/27B
RHR-42-V/42B
RHR-42-V/42C
RHR-42-V/4B
RHR-42-V/4C
RHR-42-V/6B
RHR-42-V/9
RRA-42-FN/20
RRC-42-V/16A
RWCU-42-V/1
SW-42-V/187B
SW-42-V/24B
SW-42-V/24C
**E-42-ELP/8BA
**RCC-42-V/40
**SW-42-V/75B

ROA-AD-10+

ROA-AD-10
ROA-AO-AD/10
ROA-POS-AD/10
ROA-SPV-10
RRA-FC-10+
RRA-CC-10
RRA-FC-10
RRA-FN-10
RRA-M-FN/10

ZONE F

RWCU-V-4+
RWCU-MO-4
RWCU-V-4

ZONE G

RHR-V-42B+
RHR-MO-42B
RHR-V-42B

ZONE H

CIA-V-30B+
CIA-MO-30B
CIA-V-30B

Z-IR-69+

FPC-PI-6BG
FPC-PS-6B
FPC-PS-9B
FPC-RMS-P1B
RHR-I/P-1B
RHR-I/P-3B
RHR-SPV-51B
RHR-SPV-65B
ROA-RLY-V/CR200
**FPC-PT-16
**FPC-PI-9BG
**RHR-SPV-41B
**RHR-SPV-89

Z-IR-P008+

Z-IR-P027+
MS-LIS-24B
MS-LIS-36D
MS-LIS-37B
MS-LIS-37D
MS-LIS-38B
MS-LITS-26B
MS-LT-27
MS-PI-4D
MS-PS-20B
MS-PS-23B
MS-PS-45C
MS-PS-45D
MS-PS-48B
MS-PS-48D
MS-PT-51B
RPS-PS-2B

Z-IR-P039+

Z-SH-11+
RRC-CB-P1A/RPT4

E-SH-12+

RRC-CB-P1B/RPT4
HPCS-V-4+
HPCS-MO-4
HPCS-V-4

S-SR-43+

SW-RE-5
SW-RT-2
SW-V-75B+
SW-MO-75B
SW-V-75B

ZONE K

CIA-V-20+
CIA-MO-20
CIA-V-20

Z-IR-71+

CIA-PS-39A
FPC-PI-6AG
FPC-PS-6A
FPC-PS-9A
FPC-RMS-P1A
RCIC-SPV-66
REA-RLY-V/CR1
REA-SPV-1
RHR-I/P-1A
RHR-I/P-3A
RHR-SPV-51A
RHR-SPV-65A
**FPC-PI-9AG

Z-IR-74+

CIA-PS-39B
MSLC-PI-2
MSLC-PS-20
MSLC-PS-24
MSLC-PS-25
MSLC-PS-60
MSLC-PT-23
MSLC-RLY-CR/
MSLC-RLY-CR/3
MSLC-RLY-CR/4
MSLC-RLY-CR/5
MSLC-TD-TK/2

Z-IR-P004+

MS-LIS-24A
MS-LIS-31A
MS-LIS-31C
MS-LITS-26A
MS-PS-20A
MS-PS-23A
MS-PS-47A
MS-PS-47C
RPS-PS-2A
RPS-PS-4
**MS-LIS-31D

FPC-FCV-1+

FPC-FCV-1
S-SR-42+
SW-RE-4
SW-RT-1
ROA-AD-11+
ROA-AO-AD/11
ROA-POS-AD/11
ROA-SPV-11
SW-V-75A+

SW-MO-75A
SW-V-75A

ZONE N**Z-MC-7B+**

CIA-42-C1A
CIA-42-V/20
CIA-42-V/30A
CRA-42-AD1A1
CRA-42-AD2A
CRA-42-FN/1A1
CRA-42-FN/1A2
CRA-42-FN/2A1
CRA-42-FN/2A2
CRA-42-FN/3A
CRA-42-FN/4A
CRA-42-FN/5A
CRA-42-FN/5C
CRA-RLY-FN1A280
CRA-RLY-FN2A180
CRA-RLY-FN2A280
CRA-RLY-FN/4ACR
E-42-ELP/7BB
E-CB-MC7BA
E-CB-MC7BB
E-RLY-ARSTD2A1
LPCS-42-P/2
RCIC-42-P/3
RRA-42-FN/11
RRA-42-FN/12
RRA-42-FN/2
RRA-42-FN/5
SGT-42-ZSH/1A
SGT-42-ZSH/2A
SLC-42-P/1A
SLC-42-V/1A
SW-42-V/24A
SW-42-V/44
SW-RLY-V/44
**E-CT-7BA
**E-CT-7BB
**E-RLY-50G/7BA
**RWCU-42-V/40

E-MC-7BA+

FPC-42-V/154
FPC-42-V/156
FPC-42-V/172
FPC-42-V/181A
LPCS-42-FCV/11
LPCS-42-V/1
LPCS-42-V/12
LPCS-42-V/5
LPCS-RLY-FV1180
LPCS-RLY-80/V1
LPCS-RLY-80/V12
LPCS-RLY-80/V5
MS-42-V/67A
MS-42-V/67B

MS-42-V/67C

MS-42-V/67D
MSLC-42-ZHC/A
MSLC-42-ZHC/B
MSLC-42-ZHC/C
MSLC-42-ZHC/D
MSLC-42-FN/1
MSLC-42-V/1A
MSLC-42-V/1B
MSLC-42-V/1C
MSLC-42-V/1D
MSLC-42-V/2A
MSLC-42-V/2B
MSLC-42-V/2C
MSLC-42-V/2D
MSLC-42-V/3A
MSLC-42-V/3B
MSLC-42-V/3C
MSLC-42-V/3D
MSLC-RLY-80/V1A
MSLC-RLY-80/V1B
MSLC-RLY-80/V1C
MSLC-RLY-80/V1D
MSLC-RLY-80/V2A
MSLC-RLY-80/V2B
MSLC-RLY-80/V2C
MSLC-RLY-80/V2D
MSLC-RLY-80/V3A
MSLC-RLY-80/V3B
MSLC-RLY-80/V3C
MSLC-RLY-80/V3D
MSLC-RLY-H/A/80
MSLC-RLY-H/B/80
MSLC-RLY-H/C/80
MSLC-RLY-H/D/80
RCC-42-V/21
RCC-42-V/5
RHR-42-FCV/64A
RHR-42-V/11A
RHR-42-V/124A
RHR-42-V/124B
RHR-42-V/134A
RHR-42-V/24A
RHR-42-V/26A
RHR-42-V/27A
RHR-42-V/42A
RHR-42-V/4A
RHR-42-V/53A
RHR-42-V/53B
RHR-42-V/6A
RRC-42-V/16B
SW-42-V/187A
SW-42-V/75A
**MSLC-RLY-80/FN1

RRA-FC-11+

RRA-CC-11
RRA-FC-11
RRA-FN-11
RRA-M-FN/11

ZONE O

RHR-V-42A+
RHR-MO-42A
RHR-V-42A
RHR-V-42C+
RHR-MO-42C
RHR-V-42C

ZONE P

CIA-V-30A+
CIA-MO-30A
CIA-V-30A
CRD-V-10+
CRD-V-10
CRD-V-11+
CRD-V-11
E-IR-70+
E-IR-73+

MSLC-PI-1
MSLC-PS-70A
MSLC-PS-70B
MSLC-PS-70C
MSLC-PS-70D
MSLC-PS-7A
MSLC-PS-7B
MSLC-PS-7C
MSLC-PS-7D
MSLC-PS-8A
MSLC-PS-8B
MSLC-PS-8C
MSLC-PS-8D
MSLC-PT-6A
MSLC-PT-6B
MSLC-PT-6C
MSLC-PT-6D
MSLC-RLY-CR/10
MSLC-RLY-CR/11
MSLC-RLY-CR/12
MSLC-RLY-CR/13
MSLC-RLY-CR/1A
MSLC-RLY-CR/1B
MSLC-RLY-CR/1C
MSLC-RLY-CR/1D
MSLC-RLY-CR/5A1
MSLC-RLY-CR/5A2
MSLC-RLY-CR/5B1
MSLC-RLY-CR/5B2

MSLC-RLY-CR/5C1
MSLC-RLY-CR/5C2
MSLC-RLY-CR/5D1
MSLC-RLY-CR/5D2
MSLC-RLY-CR/6A1
MSLC-RLY-CR/6A2
MSLC-RLY-CR/6B1
MSLC-RLY-CR/6B2
MSLC-RLY-CR/6C1
MSLC-RLY-CR/6C2
MSLC-RLY-CR/6D1
MSLC-RLY-CR/6D2
MSLC-RLY-CR/8
MSLC-RLY-CR/9
MSLC-TD-TK/2A
MSLC-TD-TK/2B
MSLC-TD-TK/2C
MSLC-TD-TK/2D
MSLC-TD-TK/3A
MSLC-TD-TK/3B
MSLC-TD-TK/3C
MSLC-TD-TK/3D
MSLC-TD-TK/4A
MSLC-TD-TK/4B
MSLC-TD-TK/4C
MSLC-TD-TK/4D

E-IR-P026+

MS-LIS-24D
MS-LIS-36A
MS-LIS-36B
MS-LIS-36C
MS-LIS-37A
MS-LIS-37C
MS-LIS-38A
MS-LITS-26D
MS-PI-4A
MS-PS-20D
MS-PS-23D
MS-PS-39A
MS-PS-39B
MS-PS-39C
MS-PS-39D
MS-PS-39E
MS-PS-39F
MS-PS-39G
MS-PS-39H
MS-PS-39J
MS-PS-39K
MS-PS-39L
MS-PS-39M
MS-PS-39N
MS-PS-39P
MS-PS-39S
MS-PS-39U



1953. 1. 100

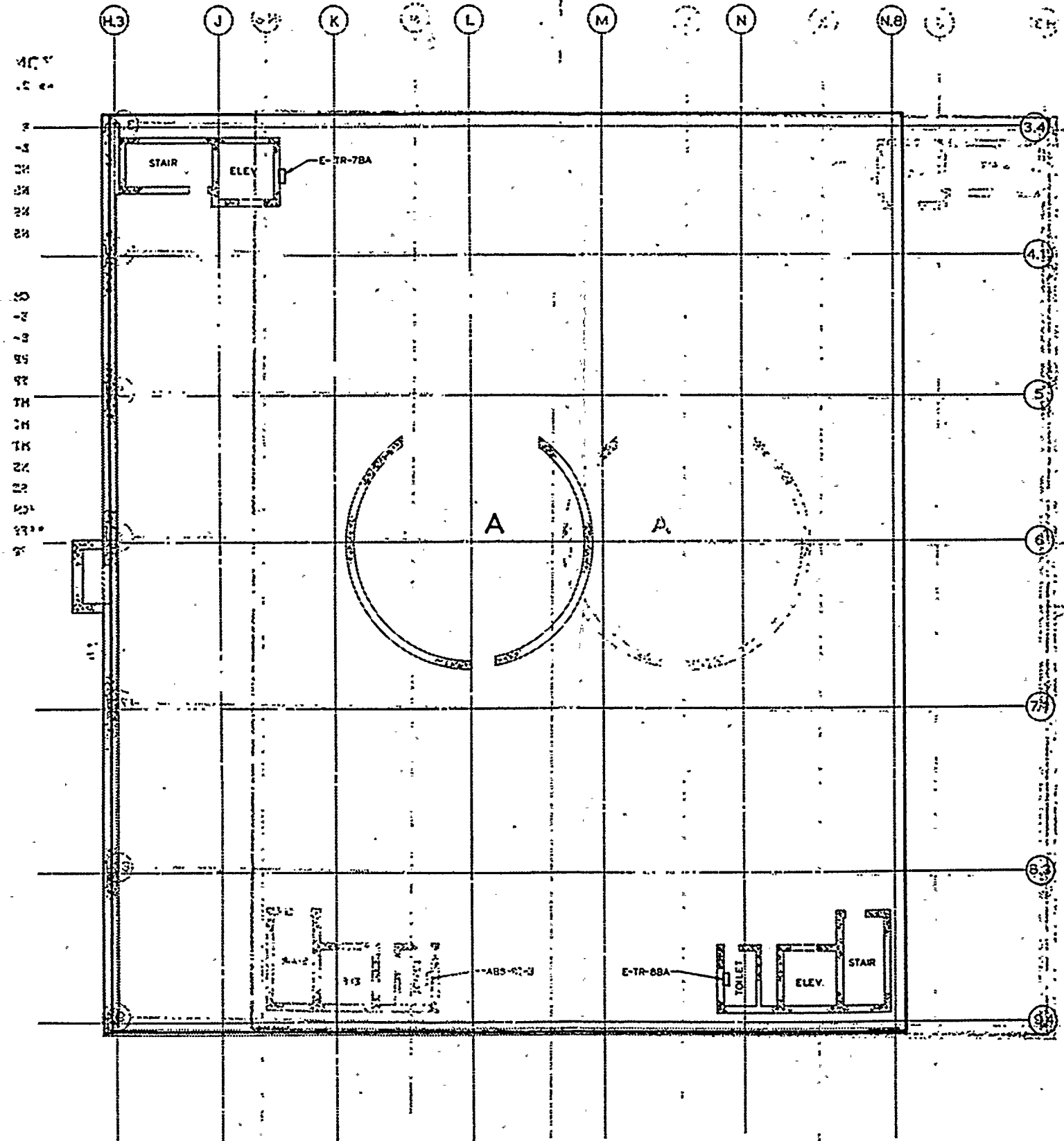
1953. 1. 100

1953. 1. 100

1953. 1. 100

1953. 1. 100

1953. 1. 100



**SAFETY RELATED EQUIPMENT
- BY ZONES**

- ZONE A**
●● 2.4x10⁴ rads
- E-ELP-7BA+
 - E-ELP-8BA+
 - NSSE-CRA-3+
 - NSSE-EQ-1A+
 - NSSE-EQ-1B+
 - NSSE-EQ-22+

 - CHS-RE-27D
 - E-TR-7BA
 - E-TR-8BA
 - FPC-TE-7
 - FPC-TE-8
 - HT-CRA-2
 - HT-CRA-9A
 - HT-CRA-9B
 - NSSE-EQ-8
 - REA-RE-19
 - **CHS-RE-27C
 - **FPC-FIC-21
 - **FPC-LT-21

GENERAL NOTES:

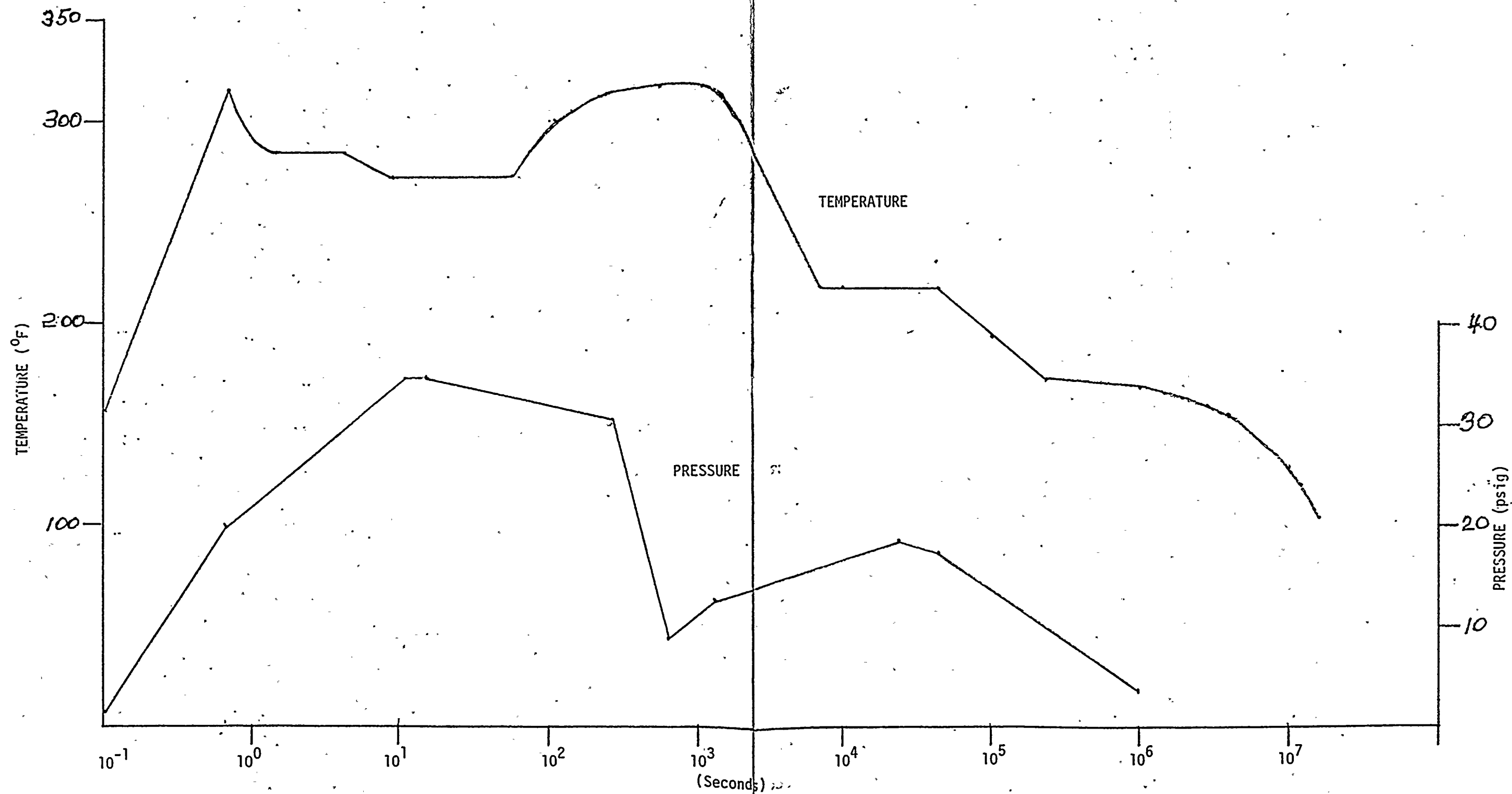
1. ●●●●●● ARE IDENTIFIED IN GENERAL NOTES 2,3,4&5 ON DRAWING M-422 SHEET 1
2. SEE GENERAL NOTE 7 ON DRAWING M-422 SHEET 1 FOR PASSIVE EQUIPMENT

REACTOR BUILDING EL. 606'-10 1/2"

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT NO. 2

RADIATION ZONE MAP
REACTOR BLDG EL. 606'-10 1/2"

FIGURE
6.8



PROFILE 1. LOCA/HELBI IN PRIMARY CONTAINMENT
 RESPONSE IN PRIMARY CONTAINMENT

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
5708 SOUTH CAMPUS DRIVE
CHICAGO, ILLINOIS 60637
TEL: 773-936-3700
FAX: 773-936-3701
WWW: WWW.CHEM.UCHICAGO.EDU

NO.	DESCRIPTION	UNIT	AMOUNT	DATE	REMARKS
001-01-01
001-01-02
001-01-03
001-01-04
001-01-05
001-01-06
001-01-07
001-01-08
001-01-09
001-01-10
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UNIT 4A PROJECT 205

EXPLANATION

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**WNP-2
NUREG 0588 ENVIRONMENTAL
EQUIPMENT QUALIFICATION
REPORT**

Volume 3

September 1982

Washington Public Power Supply System
Richland, Washington 99352

WNP-2

JUSTIFICATION FOR INTERIM
OPERATION REPORT

AUGUST 1982

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10/10/10



1.0 INTRODUCTION

To obtain an operating license for Washington Public Power Supply System (Supply System) Nuclear Project Number 2 (WNP-2), the Supply System is required to provide documentation that establishes the qualification of all safety-related electrical equipment. NUREG-0588, Category II, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," is to be used as the basis for determining the adequacy of the safety-related equipment's documentation.

The Equipment Qualification Program for WNP-2 is in process, and many components have been shown qualified by existing documentation; yet it is unlikely that all safety-related electrical equipment will be fully documented prior to full power operation. The NRC Staff's proposed final rule 10CFR50.49, "Environmental Qualification of Safety-Related Electric Equipment for Nuclear Power Plants," states in paragraph (i) that "the applicant for an operating license shall perform an analysis to ensure that the plant can be safely operated pending completion of environmental qualification." Therefore, an analysis was performed and this Justification for Interim Operation (JIO) provides the results and the basis for the safe operation of WNP-2 until the Equipment Qualification Program can be completed.

The JIO analysis establishes that, upon documentation of the qualification of a minimum set of safety-related electrical equipment, WNP-2 can be safely operated pending completion of the Environmental Qualification Program. This minimum set of safety-related electrical equipment consists of the equipment located in a harsh environment that is required to accomplish the following six safety functions for accidents potentially causing the harsh environment.

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1. Emergency Reactor Shutdown
2. Primary Containment Isolation
3. Reactor Core Cooling
4. Containment Integrity
5. Core Residual Heat Removal
6. Prevention of Significant Release of Radioactive Material to the Environment

Accomplishing these six safety functions will ensure the safe shutdown of WNP-2. Safe shutdown includes accident mitigation as well as achieving and maintaining cold shutdown.

The equipment in a single path that accomplishes the required safety functions was selected as the minimum set requiring documentation of qualification prior to full power operation of WNP-2. The redundant safety-related electrical equipment required for defense in depth, diversity of function, and electrical separation will be documented prior to the completion of the first refueling outage.

The JIO analysis for WNP-2 was accomplished in five steps.

Step 1 identified line breaks from the FSAR Chapter 15 accidents that potentially cause a harsh environment inside the primary containment or reactor building. These line breaks include three Loss-of-Coolant Accidents (LOCAs) and four High Energy Line Breaks (HELBs). Break locations for LOCAs were not necessary for this analysis since the effect inside the primary containment is not dependent on the break location. Break locations for the HELBs, and the equipment which could be exposed to the harsh environment, were determined (Section 4.2.1). Essentially all of the reactor building, with the exception of Class 1E motor control center rooms, is in a harsh environment due to some postulated break location.

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Step 2, determined the environmental conditions associated with the accidents in Step 1. These environmental conditions, the basis for the qualification program, were used to determine the qualification status of the safety-related electrical equipment in Step 5.

In Step 3, a Safety Sequence Analysis (SSA) was performed for each of the seven types of accidents identified in Step 1. The SSA identified the safety systems, and their associated equipment, required to achieve each safety function. The analysis was performed for equipment located inside the reactor building and primary containment potentially exposed to a harsh environment. Each SSA identified all credible and redundant paths to accomplish each safety function, and described the system actions, inputs, and interlocks. The SSA is discussed in Section 4.2.2.

In Step 4, a Failure Modes and Effects Analysis (FMEA) was performed on the safety-related electrical equipment not required to function for safe shutdown. This analysis identified the safety-related electrical equipment that could fail in a manner detrimental to the safe shutdown of the plant. Since this equipment must not fail in a manner detrimental to plant safety, documentation of its capability to withstand the potentially harsh environment will be provided (Section 4.2.3). The equipment whose failure is not detrimental to plant safety is identified in Table D and need not be qualified for any accident environment.

In Step 5, the single-path minimum set of safety-related electrical equipment required to accomplish the six safety functions was identified. This set of equipment, which includes equipment identified in Step 3, and the equipment identified in Step 4 requiring qualification, will have complete qualification documentation provided prior to full

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power operation. This will ensure one fully qualified path to safe shutdown for all the accidents identified in Step 1. The selection of this single-path minimum equipment is discussed in Section 4.2.4, and the equipment to be documented as qualified prior to full power operation is included in Table B. The balance of the safety-related electrical equipment identified in Step 3 and Step 4 is included in Table C and will be documented as qualified prior to the completion of the first refueling outage. Table A identifies the equipment that has already been shown to be qualified.

2.0 RESULTS/CONCLUSIONS

Documenting the environmental qualification of the minimum set of safety-related electrical equipment identified by this analysis will ensure the capability of safely mitigating the accidents that potentially cause harsh environments at WNP-2. The analysis performed to document this conclusion, as required by the NRC's proposed final rule 10CFR50.49, "Environmental Qualification of Safety-Related Electric Equipment for Nuclear Power Plants", will ensure that the plant can be safely operated pending completion of environmental qualification.

The FSAR Chapter 15 accidents that potentially cause a harsh environment in the primary containment or reactor building are identified in Table 2.1. The areas of the plant, by zone, affected by each break are identified in Table 2.2. The methodology for determining the accidents and areas affected is discussed in Section 4.2.1.

Safety Sequence Diagrams (SSDs) were prepared for each accident. They identify the systems required to accomplish the necessary safety functions for each accident, and are included as Figures 2.1 through 2.8. Table 2.3 identifies the auxiliary support systems necessary for the safety systems identified on the SSDs.

Tables A, B, C, and D are equipment lists resulting from the JIO analysis. Table A identifies the safety-related electrical equipment, in the systems shown on the SSDs, that have documentation establishing qualification. Table B identifies the equipment to be documented as qualified prior to full power operation. Table C identifies the remainder of the safety-related electrical equipment in the systems on the SSDs that will be documented as qualified prior to the end of the first refueling outage. Table D identifies the equipment

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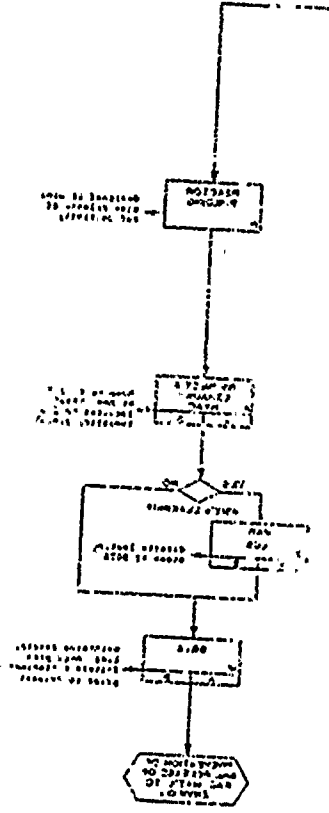
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whose failure, as determined by the Failure Modes and Effects Analysis, is not detrimental to accomplishing the required safety functions. This equipment need not be qualified for any accident environment, but will be shown qualified for its normal service environment.

Tables A, B, and C include the following information:

1. Equipment Part Number (EPN) - The system abbreviations are defined in Table F.
2. Radiation Zone (Rad Zone); example R572H
R = reactor building
(C = primary containment)
572 = elevation
H = radiation zone on elevation 572 (Reference Appendix B)
3. Accident Use Codes (Definitions in Table E)
4. Accident Information (Legend on first page of each Table)
Accident(s) the equipment is exposed to (Exp To)
Accident(s) the equipment is required to operate for or must not fail for (Reqd For)
Accident(s) the equipment will be qualified for (Qual To)

Table D includes information 1, 2, and 3 above plus a Reason Code (defined on the first two pages of Table D) for excluding that equipment from qualification.



8.5

Diagram 1

for Cooling System

42

ACCIDENT DEFINITION

There are four breaks considered, all on the RCIC turbine steam supply line (4"). The Leak Detection System provides the capability of detecting the break, and initiates the closing of the appropriate valves to isolate the break. The plant can proceed to normal shutdown or continue operation.

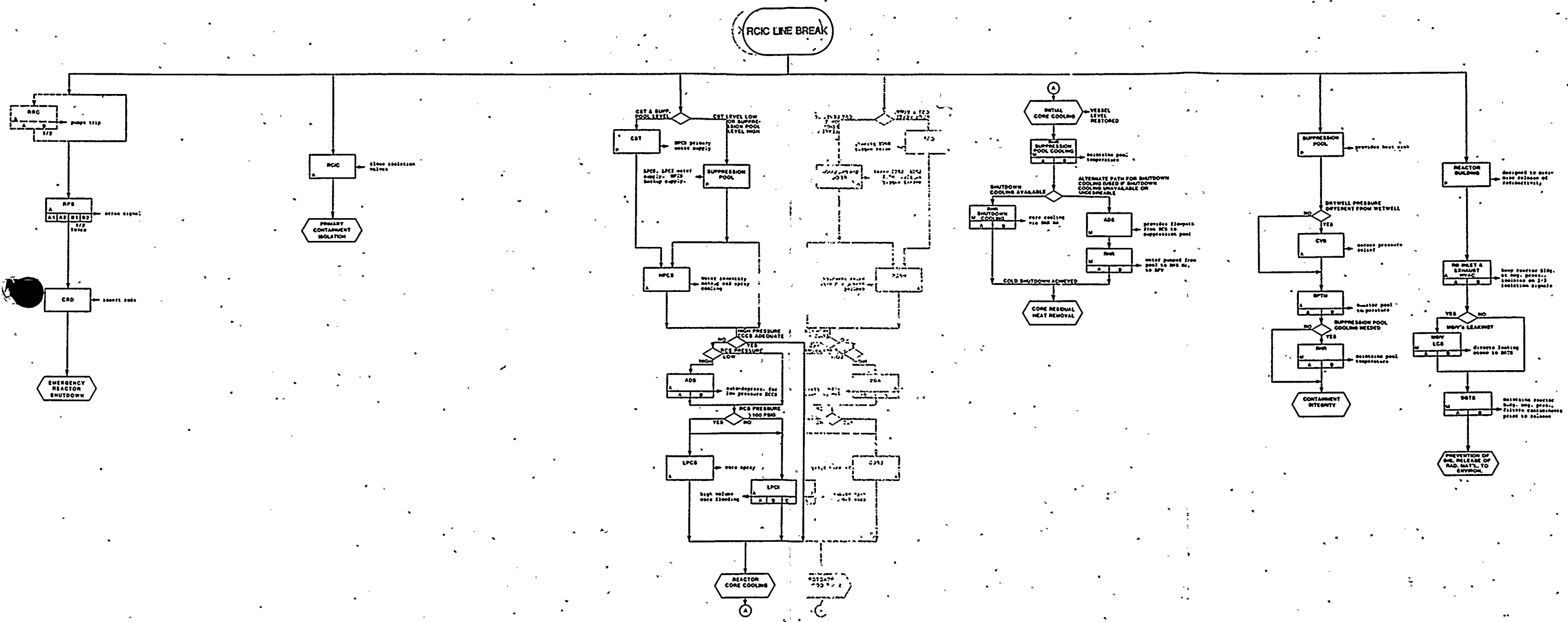
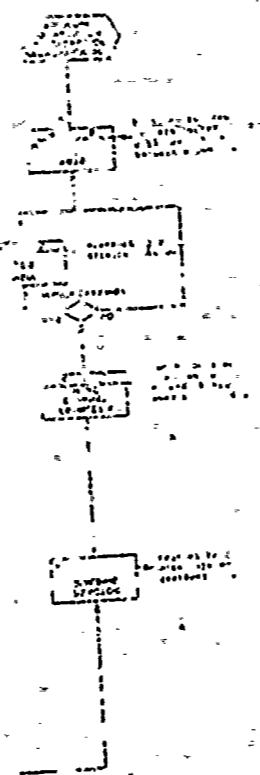


Figure 2.1:
Safety Sequence Diagram
Reactor Core Isolation Cooling System
Line Break



ACCIDENT DEFINITION

Seven RWCU line breaks are considered in the analysis (see Table 2.1). Isolation is initiated by the Leak Detection system on RWCU area high temperature, delta temperature, or delta flow. The plant can proceed to normal shutdown or continue operation.

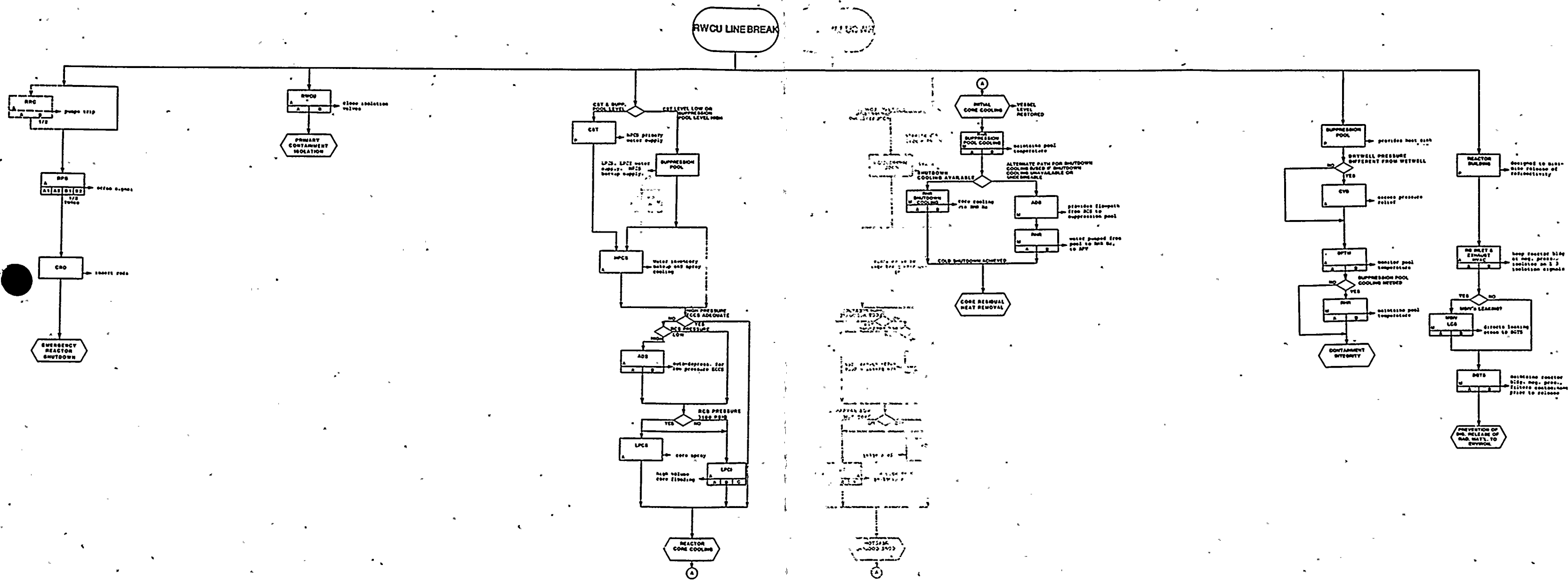


Figure 2.2
 Safety Sequence Diagram
 Reactor Water Cleanup System Line Break

1958

1958

1958

1958

1958

1958

ACCIDENT DEFINITION

Two breaks are considered for this event, occurring on 3" and 4" auxiliary steam supply lines to the reactor building heating system. Mitigation of this accident will require operator action, in response to a low-pressure alarm, to isolate the break and proceed to cold shutdown.

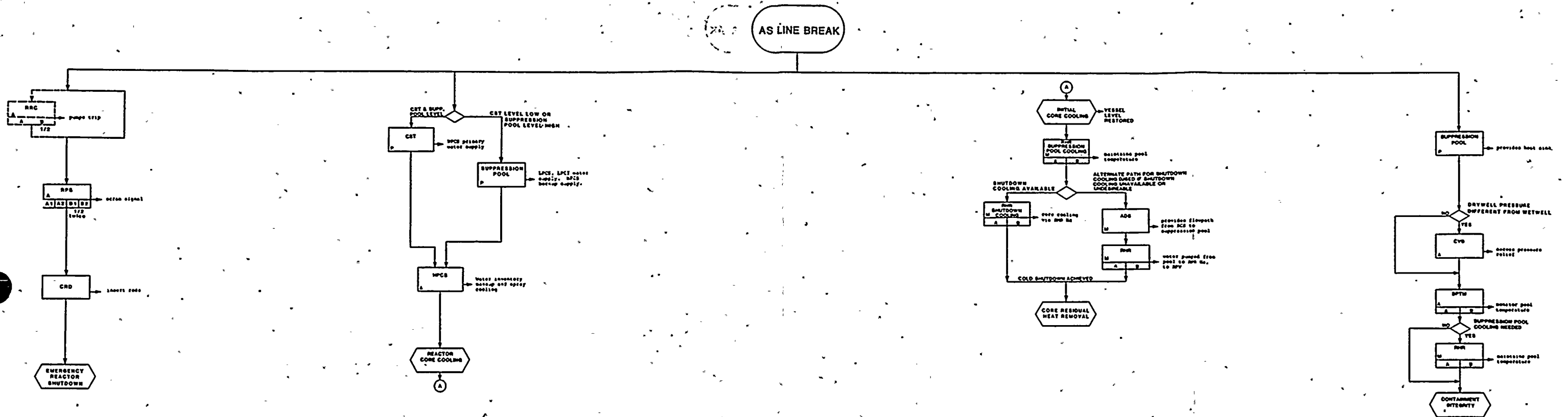


Figure 2.3
Safety Sequence Diagram
Auxiliary Steam System Line Break

500

1940
1941
1942
1943
1944

ACCIDENT DEFINITION

This event consists of a break in a main steam line (26") inside the steam tunnel. The break is isolated by MSIV closure upon receipt of a high steam line flow signal, after which the plant proceeds to cold shutdown.

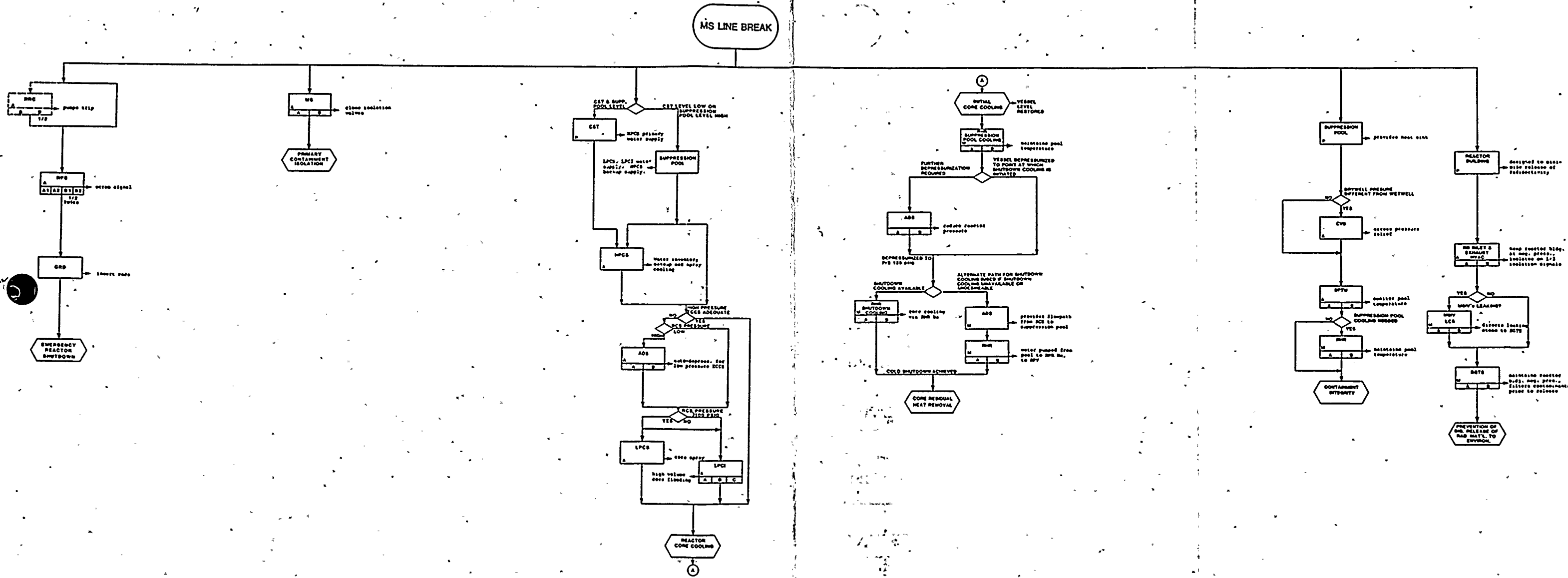
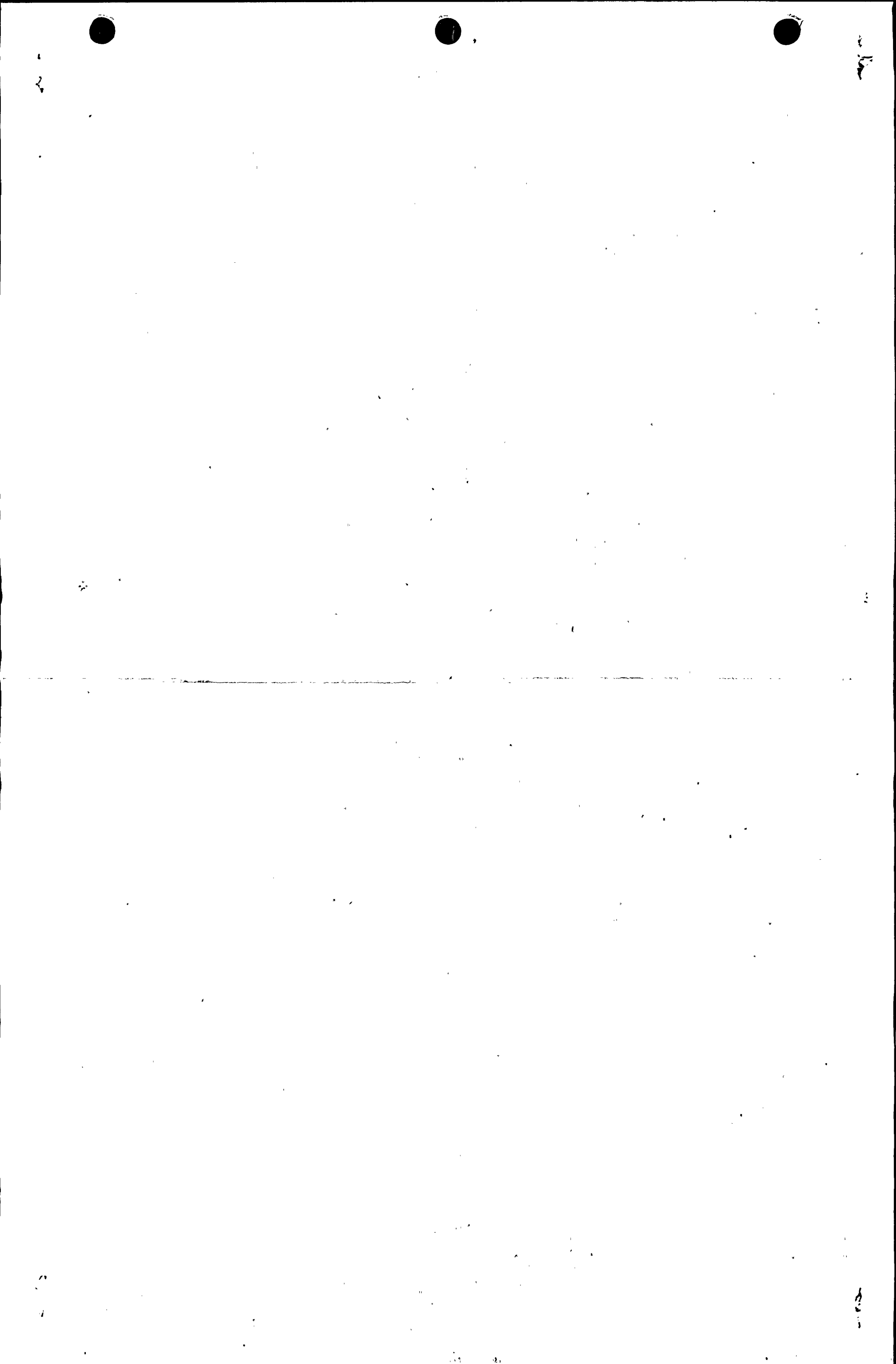


Figure 2.4
Safety Sequence Diagram
Main Steam Line Break



ACCIDENT DEFINITION

This event consists of a break in a reactor feedwater line (24") inside the steam tunnel. The break is isolated by inboard and outboard feedwater line check valves, after which the plant proceeds to cold shutdown.

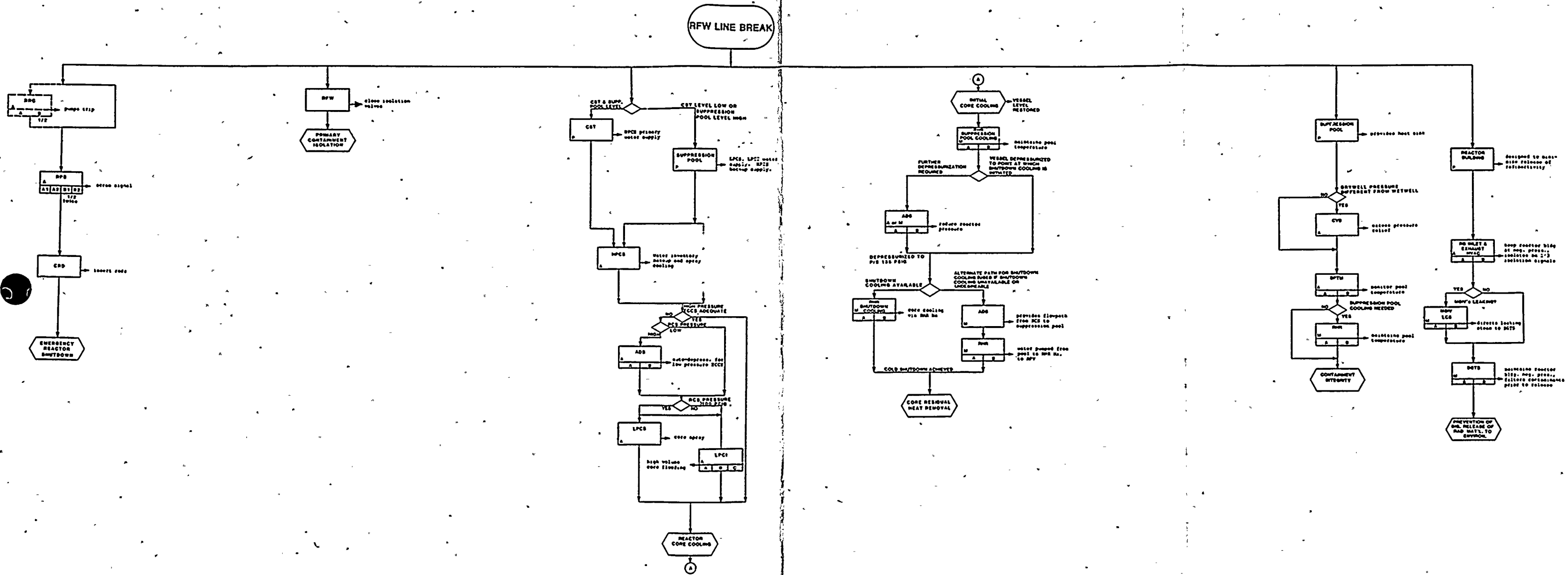


Figure 2.5
 Safety Sequence Diagram
 Reactor Feedwater System Line Break

ACCIDENT DEFINITION

This event consists of a break in a recirculation pump suction line (24") in the drywell between the reactor vessel and motor-operated valve RRC-V-23, and is therefore considered non-isolable. The main parameter transients which characterize the event are low reactor level and pressure, and high drywell pressure. The plant proceeds to cold shutdown.

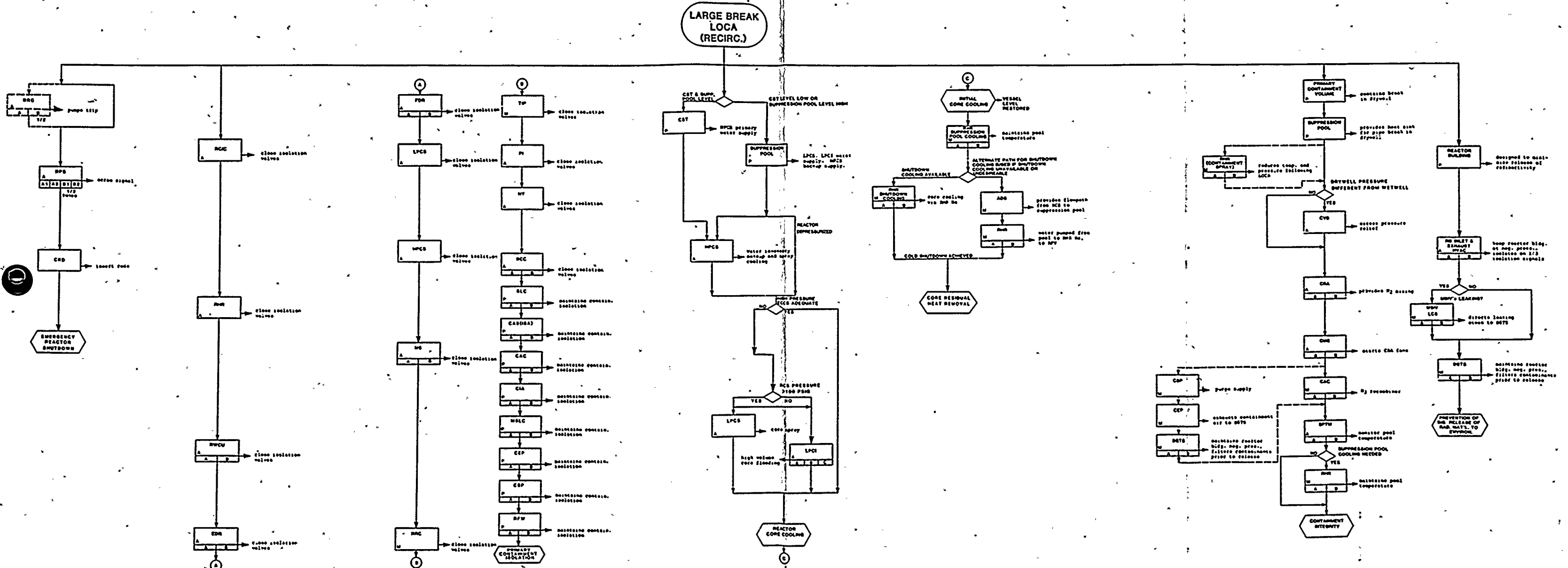


Figure 2.6
Safety Sequence Diagram
Large Break LOCA
(Reactor Recirculation System)



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ACCIDENT DEFINITION

This event consists of a break in a main steam line (26") between the reactor vessel and the flow limiter. Since the break is inside of the inboard containment isolation valve, radiation and temperature elements in the main steam tunnel and routing area will not be the primary factors responding, but rather RPV level and pressure, and high drywell pressure. The plant proceeds to cold shutdown.

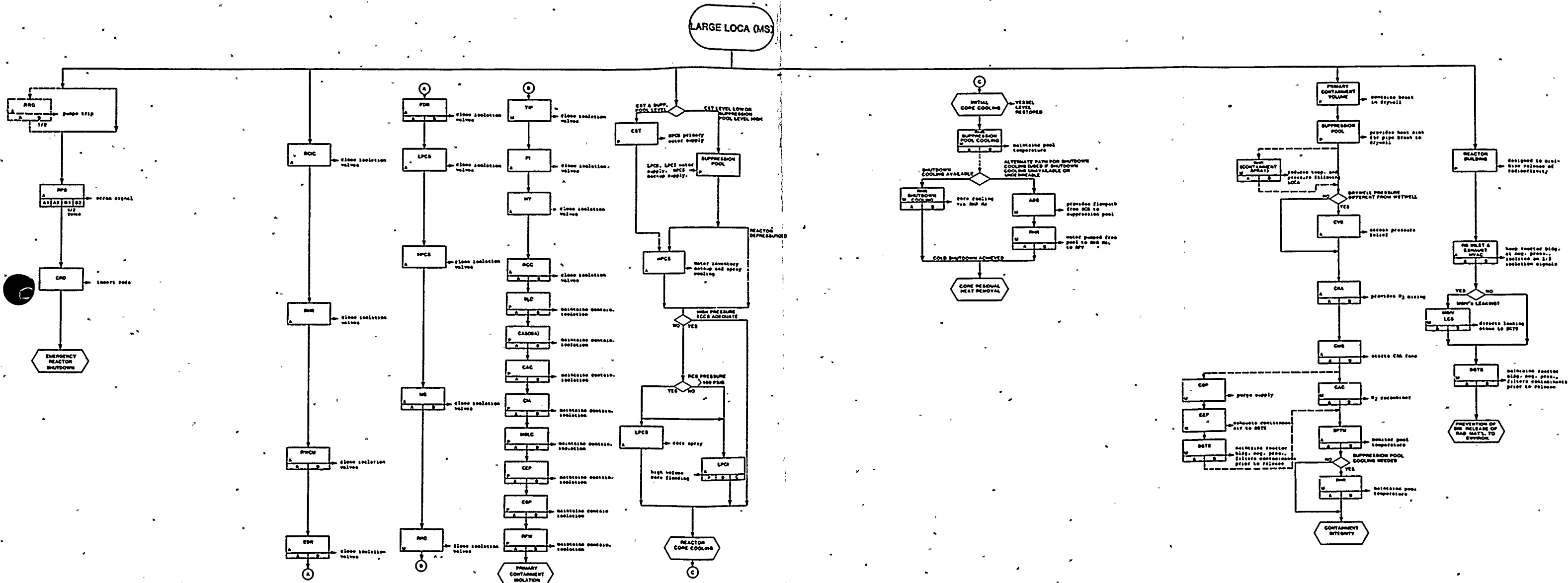


Figure 2.7
Safety Sequence Diagram
Large Break LOCA (Main Steam)

ACCIDENT DEFINITION

A Small Break LOCA is defined as any break in the reactor coolant system whose leakage is greater than the capacity of the normal reactor coolant makeup system(s). No specific break is considered here, but rather the general effects of all non-isolable small break LOCAs. The plant proceeds to cold shutdown.

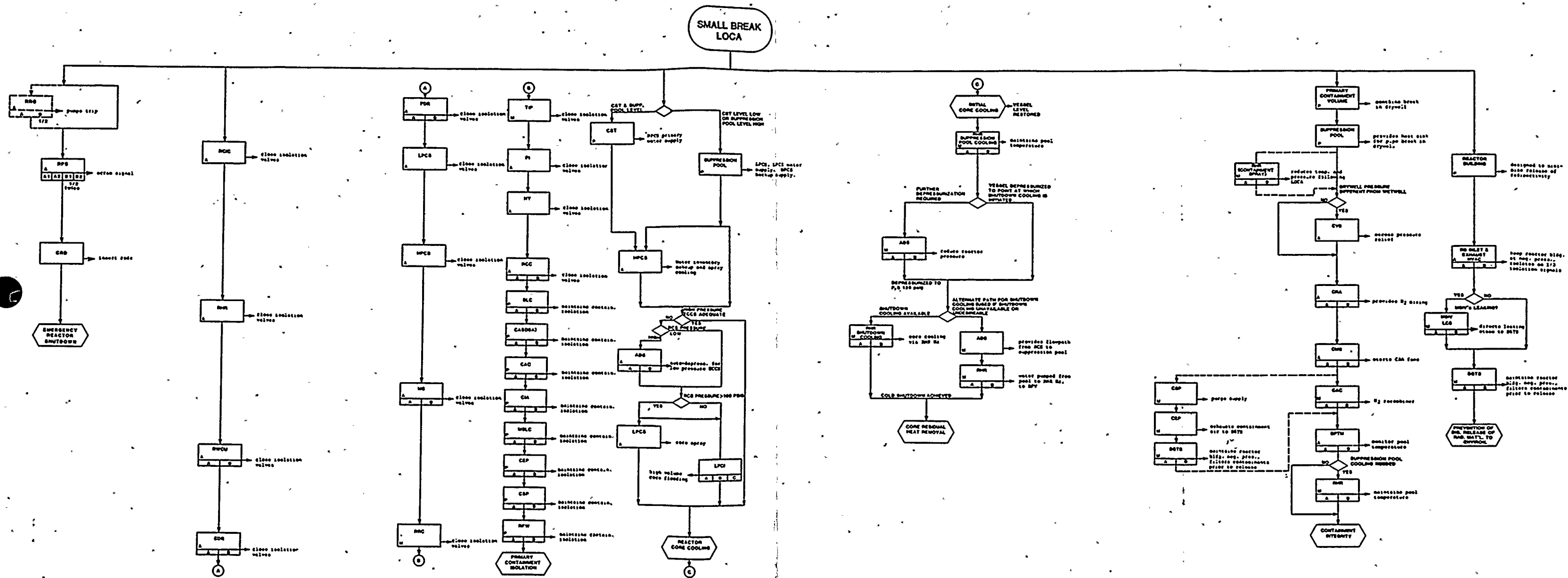


Figure 2.8
Safety Sequence Diagram
Small Break LOCA

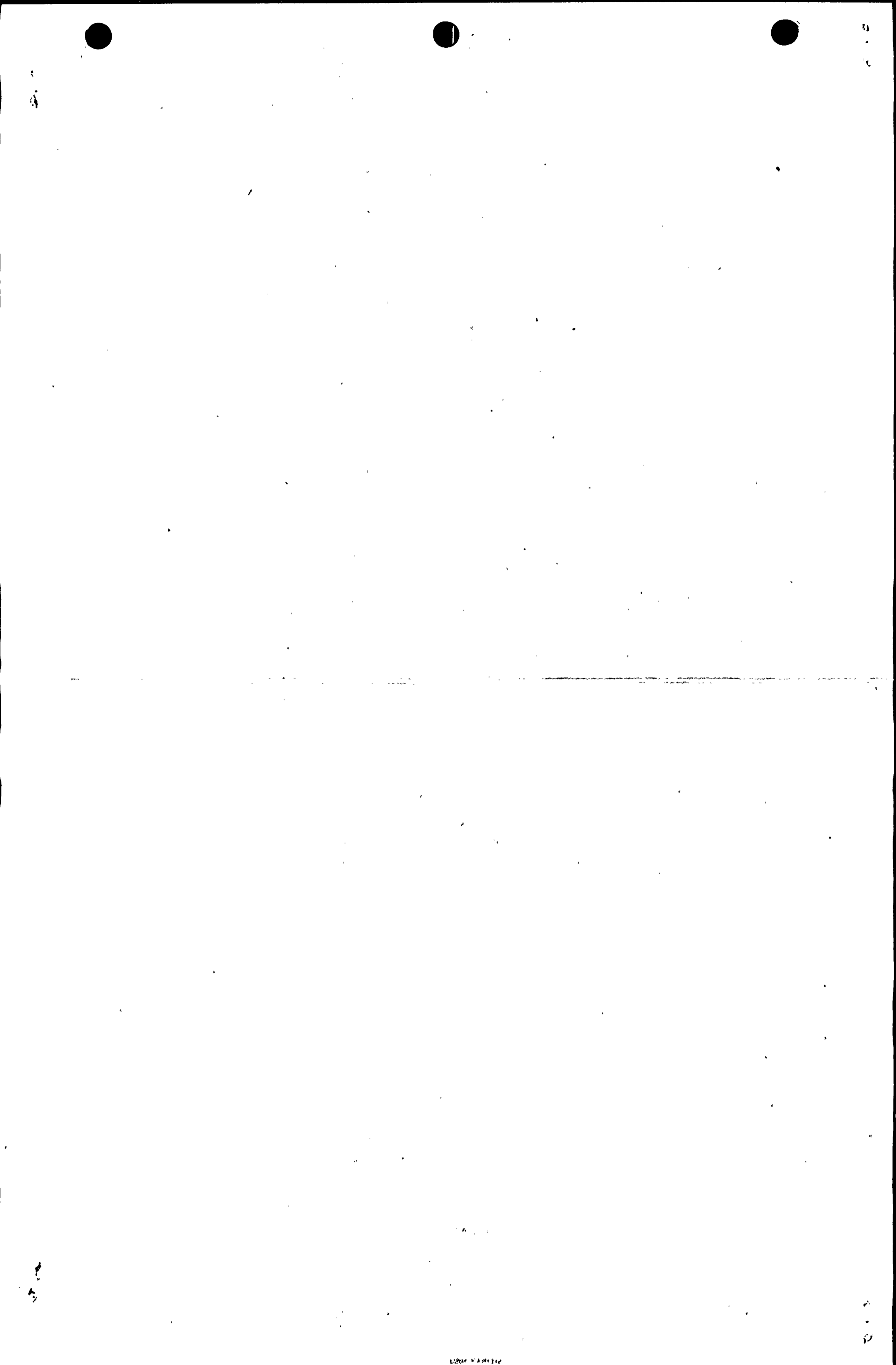


TABLE 2.2
ACCIDENT BREAK LOCATIONS AND AFFECTED AREAS

<u>Acci- dent Codes</u>	<u>Accident Type/Location</u>	<u>Location(s) Affected**</u>	<u>Profile</u>
A	HELB - 4" RCIC (13) - 4 RCIC Pump Room	422L, 444I	5, 6
B	HELB - 4" RCIC (13) - 4 Room Above RCIC Room	422L, 444I	7
C	HELB - 4" RCIC (13) - 4 Room Above RHR-2C	422M, 444J	8
D	HELB - 4" AS (11) - Southeast Open Floor Area	471A, B, D, J, 501Q, B, F, H, K, 522B, C, H, J, K, P	9, 10, 11
E	HELB - 4" RCIC (13) - 4 TIP Room	501P, 510S	12, 13
F	HELB - 6" RWCU (2) - 4 Room Above TIP Room	501P, 510S	14, 15
G	HELB - 6" RWCU (2) - 4 Valve Room "N" of Cont.	5220	6
H	HELB - 4" RWCU (1) - 4 RWCU Pump Rooms	522F, G	17, 18, 19
I	HELB - 6" RWCU (1) - 4 Valve Room Above RWCU Pumps	522F, G 522C, B	20, 21, 22, 23, 24
J	HELB - 6" RWCU (1) - 4 RWCU HX Room	548B, R 548P	25, 26, 27
K	HELB - 6" RWCU (2) - 4 Valve Room "N" of Cont.	548Q	28
L	HELB - 6" RWCU (1) - 4 Valve Room "S" of Cont.	548H	29, 30
M	HELB - 3" AS (11) - 2 Southeast Floor Area E1. 572'	527C, B, N, F, G, 548C, G, K, P, R, M	31, 32

TABLE 2.1
ACCIDENTS ANALYZED

1. Primary Containment Loss-of-Coolant Accidents
 - o Reactor Recirculation Line (RRC) Break (Large break)
Accident Code P
 - o Small Main Steam Line (2" or less) Break
Accident Code R
 - o Main Steam Line Break (26")
Accident Code Q
2. Reactor Building - High Energy Line Breaks
 - o Reactor Water Clean-up (RWCU) Line Breaks
Accident Codes F, G, H, I, J, K, L
 - o Reactor Core Isolation Cooling (RCIC) Steam Line Break
Accident Codes A, B, C, E
 - o Auxiliary Steam System Pipe Break
Accident Codes D, M
 - o Main Steam Tunnel (either steam or feedwater line) Pipe
Break
Accident Codes N, O

TABLE 2.2 (Continued)
ACCIDENT BREAK LOCATIONS AND AFFECTED AREAS

<u>Acci- dent Codes</u>	<u>Accident Type/Location</u>	<u>Location(s) Affected**</u>	<u>Profile</u>
N	HELB - 26" MS	5010	3
O	HELB - 24" RFW	5010	3
P	LOCA - 24" RRC	Containment	1, 2
Q	LOCA - 26" MS	Containment	1, 2
R	LOCA - Small Steam Line	Containment	1, 2
*	LOCA (P,Q,R) - Primary Containment	Reactor Building (except Class 1E motor control center rooms)	4

**The definition of the Location(s) Affected column is in Table E.

TABLE 2.3
AUXILIARY SUPPORT SYSTEMS LIST

<u>Safety System</u>	<u>Auxiliary Systems</u>	<u>Notes</u>
(Abbreviations defined in Table F)		
SLC	E	
CRD	None	
RRC	E	
RWCU	E	
RCC	E	
HY	E	
EDR	None	
FDR	None	
PI	None	
TIP	E	
LPCS	E, RRA, SW	
RCIC	E	
HPCS	RRA	
RHR	E, RRA, SW	
MS	E, CIA	(a)
SGTS	E	(b)
CRA	E	
CAC	E, RRA, SW	
SPTM	E	
CMS	E, RRA, SW	
CVB	None	
CSP	E	
CEP	E	
MSLC	E	
REA	None	
ROA	None	
RPS	None	
RFW	None	
CIA	E	
CAS	None	

NOTES:

- (a) RHR interlocked with ADS valves.
 (b) REA Differential Pressure Transmitter signal is used to control reactor building pressure.

3.0 Scope of Analysis

3.0 SCOPE OF ANALYSIS

To justify interim operation, this analysis identified a minimum complement of safety-related electrical and instrumentation and control equipment in the harsh environment at WNP-2 required for safe shutdown and accident mitigation.

The scope of analysis is defined by:

3.1 Accidents Creating a Harsh Environment

The accidents considered in this analysis are those that potentially cause harsh environments that may adversely affect the functioning and/or integrity of safety-related electrical equipment. These accidents are Loss-of-Coolant Accidents (LOCAs) inside primary containment, and High Energy Line Breaks (HELBs) inside the reactor building (see Section 4.2.1).

3.2 Post-Accident Environmental Conditions

The temperature, pressure, and radiation environments in which the equipment will be required to function are defined for:

- a. LOCAs inside the primary containment
- b. HELBs inside the reactor building
- c. The reactor building environment caused by LOCAs inside the primary containment

These considerations define the boundary within which the analysis was performed.

3.3 Safety-Related Electrical Equipment

The safety-related electrical equipment located in the harsh environment includes the equipment required for accident mitigation, safe shutdown, and long-term cooling.

3.4 Assumptions

The following were assumed during the performance of the Safety Sequence Analysis:

- A. For shutdown analysis, no credit was taken for non-safety-related electrical equipment.
- B. A design basis earthquake (DBE) can occur, but not simultaneously with the design basis accident (DBA).
- C. Only one accident at a time is postulated to occur.
- D. Containment radioactive leakage within design limits will occur.
- E. Accidents occurring inside the reactor building have no effect upon environmental conditions inside the primary containment.



4.0 METHOD

4.1 Approach

The approach used to justify interim operation was designed to identify all equipment essential to achieve and maintain safe shutdown following an accident. Extensive accident analyses provided the basis for selecting an optimum shutdown path to accomplish the six safety functions and identified a minimum set of equipment which must be qualified prior to full power operation.

The safety-related electrical equipment in the primary containment and reactor building, as identified on the WNP-2 Class 1 Electrical equipment list, was used as a basis for equipment selection. This list includes all electrical equipment essential to emergency reactor shutdown, accident mitigation, long-term core cooling, post-accident sampling and monitoring, and the prevention of the uncontrolled release of radioactive material to the environment.

Accident definition narrowed the list of equipment considered to that potentially exposed to a harsh environment; that is, equipment inside the primary containment and reactor building. A Safety Sequence Analysis (SSA) and Failure Modes and Effects Analysis (FMEA) further reduced the list to those components required for LOCA and/or HELB mitigation. The final reduction, Selection of Minimum Required Equipment, was completed in several steps. The first step consisted of checking the status of the equipment qualification effort at WNP-2 to identify those remaining components without qualification documentation. Finally, the results of the SSA were reviewed to determine the single shutdown path that requires the minimum number of additional equipment to have qualification documentation prior to operation.

4.2 Detailed Procedure

4.2.1 Accident Definition

The primary containment and most areas of the reactor building will be exposed to a harsh environment following a postulated LOCA/HELB. This task identified the line breaks potentially causing a harsh environment and the associated environmental conditions.

A total of 18 line breaks in six systems were identified and categorized into seven events, including three LOCAs and four HELBs. The areas of the reactor building affected by each break were identified and tabulated. The environmental conditions associated with each break were also defined, including the calculated post-accident radiation, temperature, pressure, and humidity levels expected.

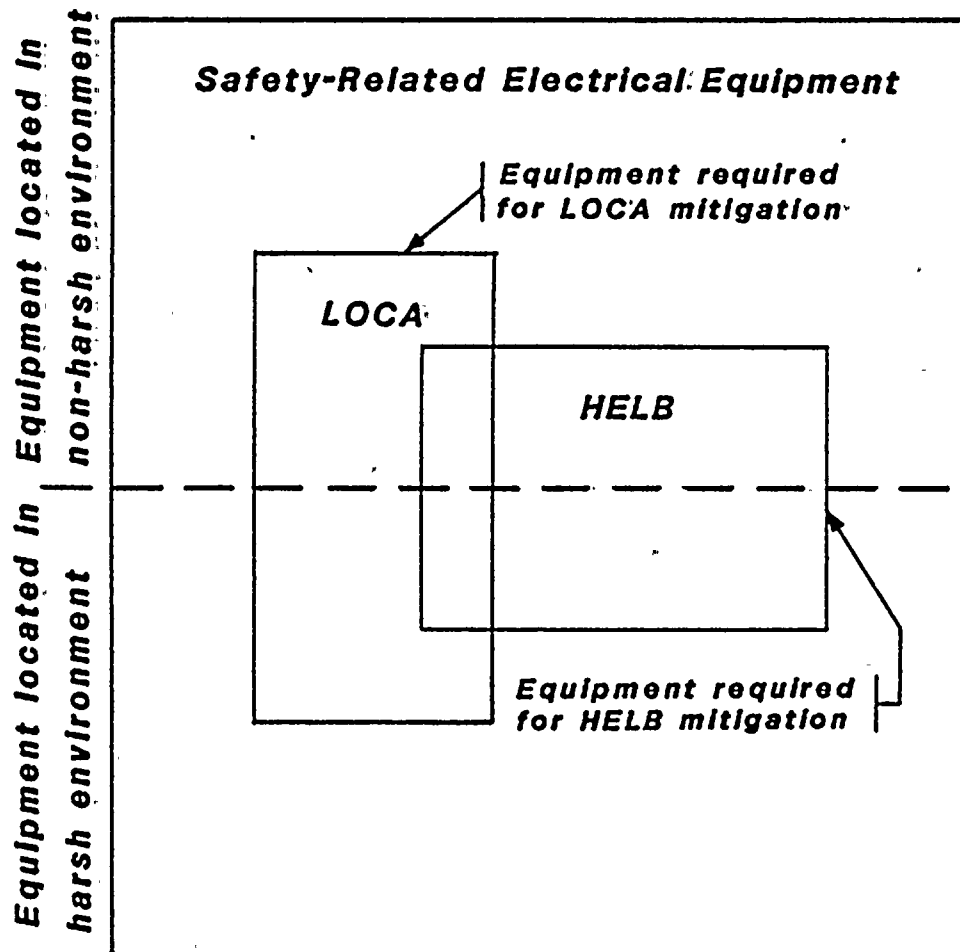
The seven postulated accident types are included in Table 2.1, and the areas of the plant affected by each postulated break location are identified in Table 2.2.

4.2.2 Safety Sequence Analysis

A Safety Sequence Analysis was performed to identify equipment required for safe shutdown following any of the accidents considered (see Table 2.1). The combined results of this analysis and the FMEA (see Section 4.2.3) reduce the set of equipment requiring qualification documentation prior to full power operation to that equipment essential for the mitigation of the postulated accidents, as shown in Figure 4.1. During the first stage of this analysis, Safety Function Path Diagrams (SFPDs) were developed for each of the six safety functions (see Section 1.0). Next, Safety System Auxiliary Diagrams (SSADs) were developed for

Figure 4.1

**Safety-Related Electrical
Equipment Exposed to a Harsh Environment**



each safety system. These diagrams identified any auxiliary support system associated with each safety system. The final stage involved assembling the appropriate portions of each SFPD into Safety Sequence Diagrams (SSDs) for each accident.

4.2.2.1 Safety Function Path Diagrams

Based on a review of the plant design, and the accident descriptions in Chapter 15 of the FSAR, systems were selected that could achieve, or help to achieve, a given safety function. System descriptions, flow diagrams, and logic diagrams were then reviewed to determine system operation, and to identify major components and their role in the completion of the safety function. When all the design paths that achieve the safety function were identified, a Safety Function Path Diagram was developed.

This diagram: 1) flowcharts all possible methods of achieving the safety function, 2) depicts each required safety system's response to the accident, and 3) shows chronological and functional relationships, initiating input variables, and required operator actions. The entire duration of the accident is represented, including the activities necessary to achieve cold shutdown. A sample SFPD is provided as Figure 4.2.

Safety Function Equipment Lists were developed upon completion of each diagram. The basis for the list is the WNP-2 Class 1 Electrical equipment list. For each auxiliary system on

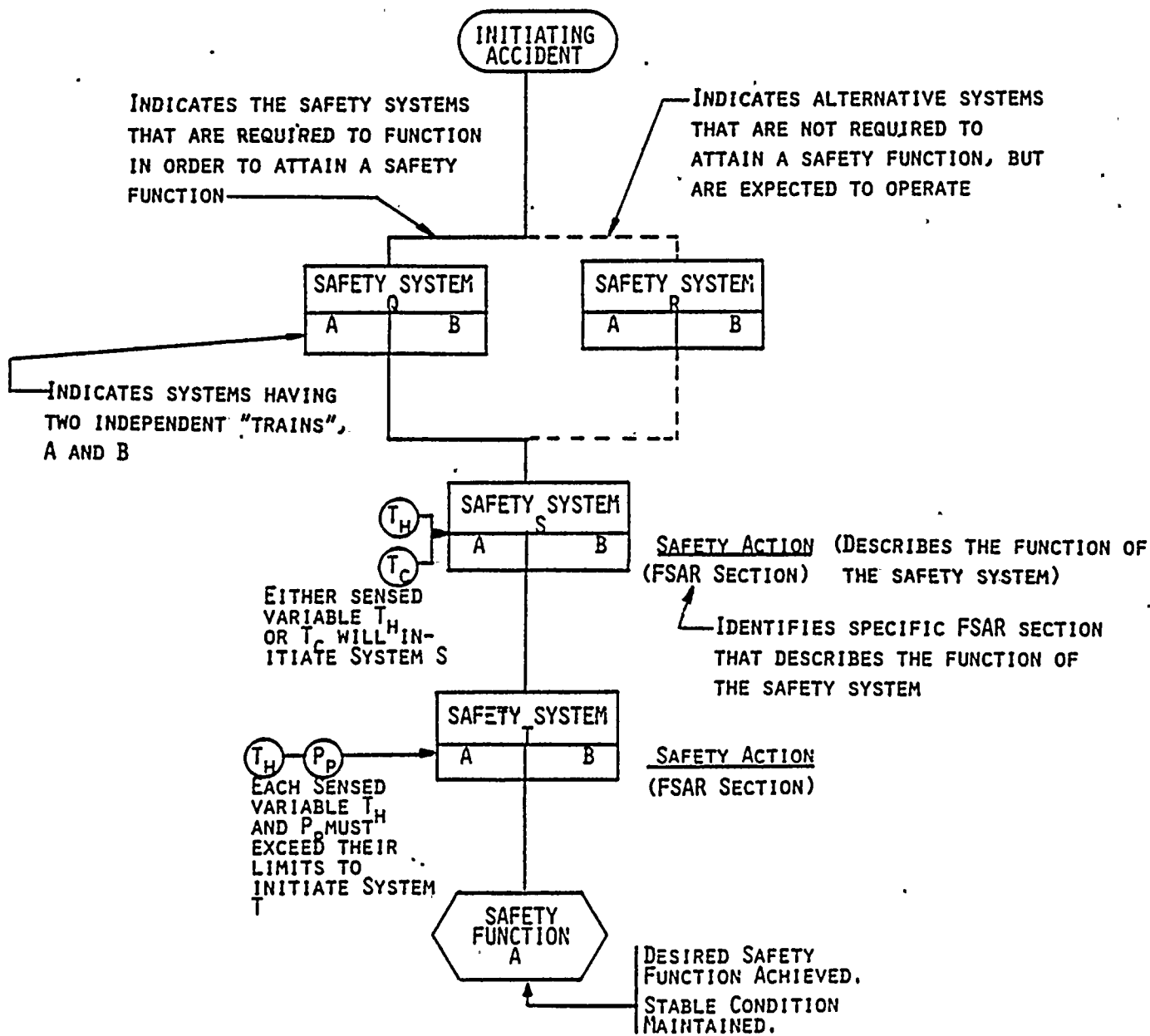


Figure 4.2
Sample Safety Function Path Diagram

the SSAD, the corresponding set of equipment from the master list is included in the Safety Function Equipment List. This assures that all equipment required to support the operation of the safety system and completion of the safety function is considered.

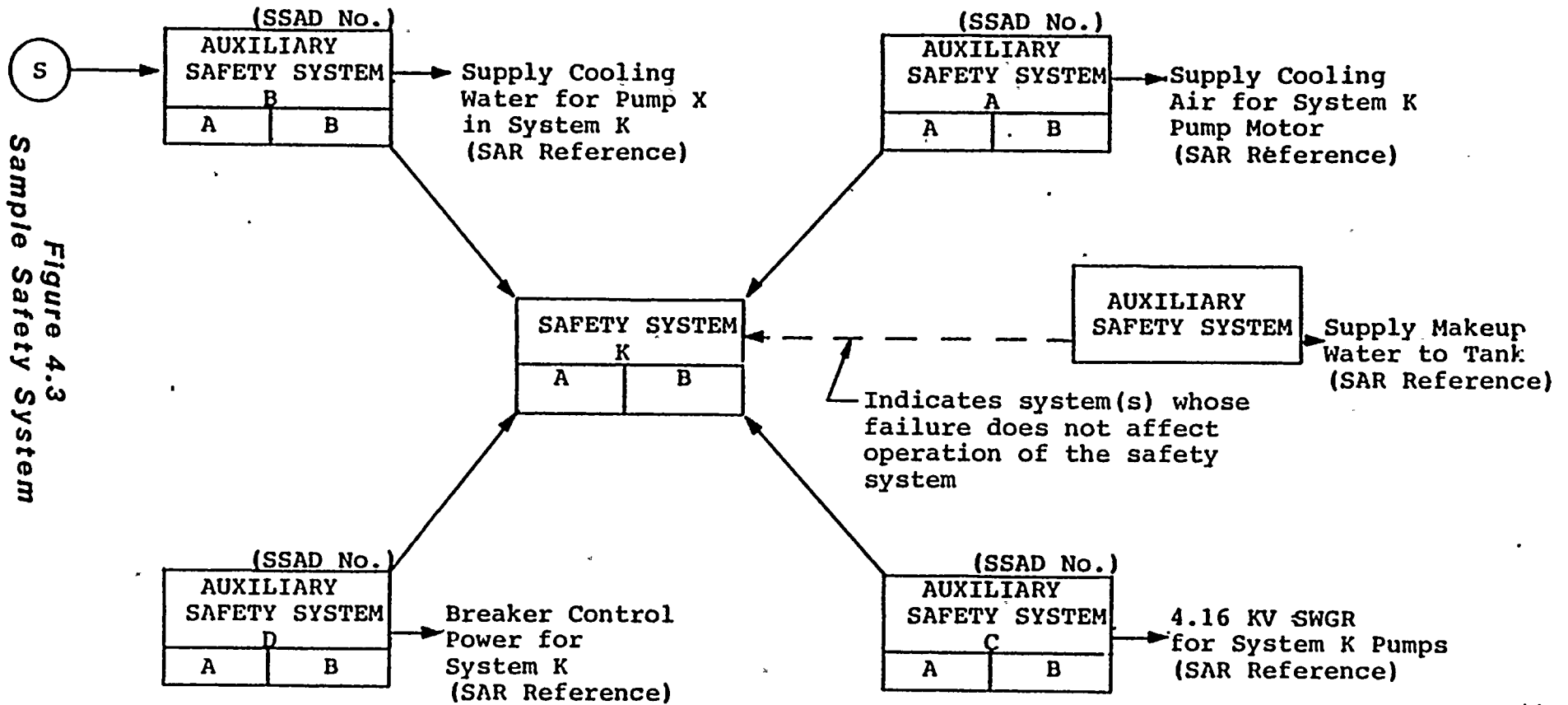
4.2.2.2 Safety System Auxiliary Diagrams

Safety System Auxiliary Diagrams were developed for each system identified on a Safety Function Path Diagram. The purpose of these diagrams is to identify all auxiliary systems that are necessary to support a given safety system and the specific equipment in those auxiliary systems that are required to operate.

Prior to diagram development, the references documenting the operation of the chosen safety system (P&IDs, FCDs, FSAR sections) were reviewed and all auxiliary systems which support the safety system identified. A block diagram was subsequently developed that presented the safety system support requirements. It included the support systems, the presence of redundant trains, outputs of the support systems, initiating signals and trip conditions, and any operator actions. A sample SSAD is provided as Figure 4.3.

After completion of the diagram, an Auxiliary Equipment List was prepared for the safety system. The basis for this list is the WNP-2 Class 1 Electrical Equipment List. For each

Figure 4.3
Sample Safety System
Auxiliary Diagram



SYSTEM DESCRIPTION

auxiliary system on the SSAD, the corresponding set of equipment from this master list is included in the Auxiliary Equipment List. This assures that all equipment required to support the operation of the safety system and completion of the safety function is considered.

4.2.2.3 Safety Sequence Diagrams

Safety Sequence Diagrams were developed for each of the accidents postulated (see Section 4.2.1). First, an accident description was developed for each accident that includes a discussion of the plant's post-accident stable condition. After defining the plant initial conditions, the portions of each generic SFPD applicable to the accident were assembled to form the Safety Sequence Diagram. Each path was modified to reflect accident-specific parameters, actions, and inputs. The final SSD is a flowchart representation of the plant's response to the postulated accident via the operation of essential safety systems. A sample SSD is provided as Figure 4.4.

4.2.3 Failure Modes and Effects Analysis

A Failure Modes and Effects Analysis (FMEA) investigated the propagation of the consequences of a single component failure on its composite equipment, its system, and the safety function for which the system is required. Performed in conjunction with the SSA tasks, this analysis helped define the minimum set of equipment essential to safety system operation, thereby assuring safety function completion (see Figure 4.1). The FMEA was performed for each of the components on the Safety Function Equipment Lists and

Accident Description

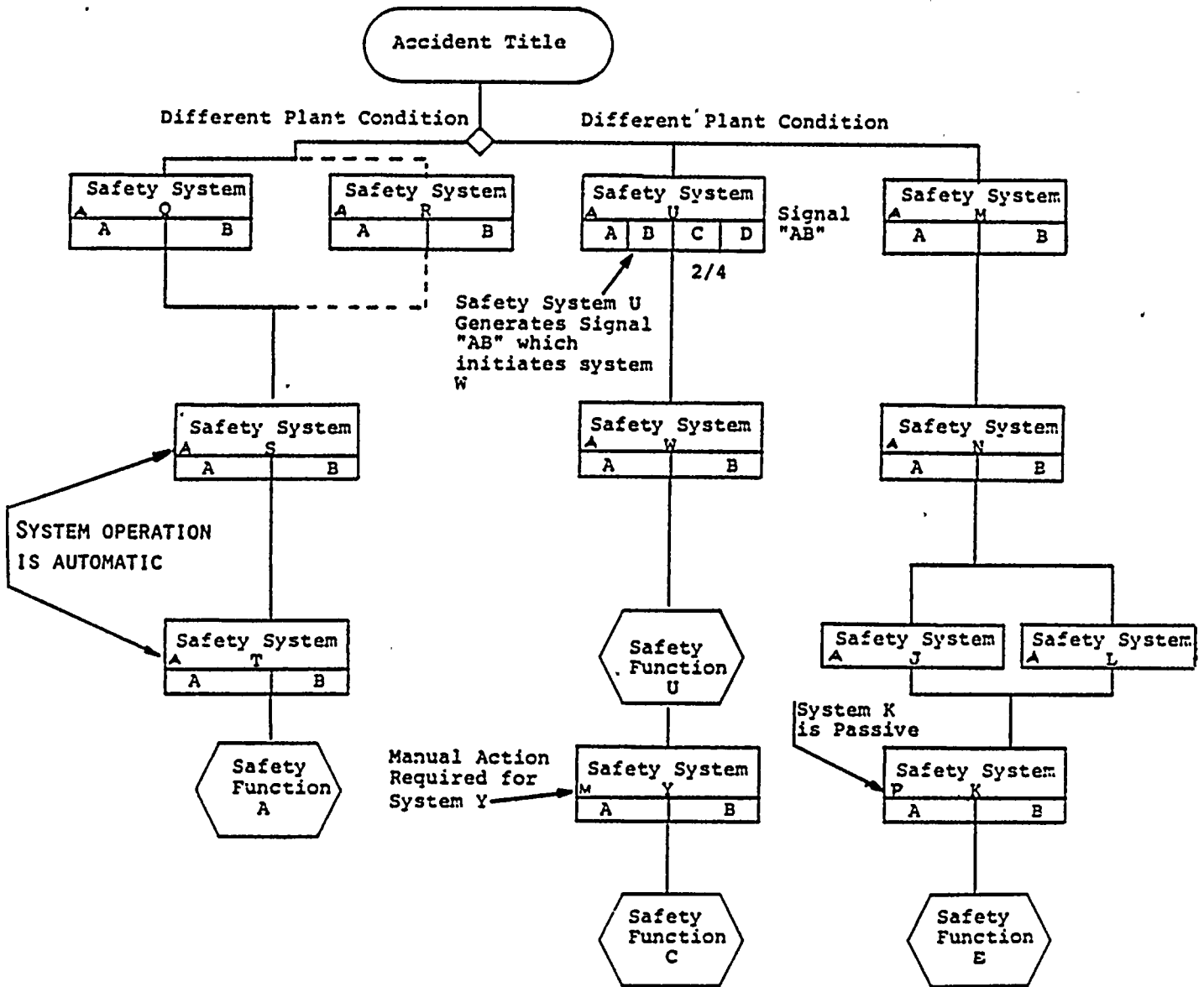


Figure 4.4
Sample Safety Sequence Diagram

the Auxiliary Equipment Lists that was not required to function to achieve the six safety functions (i.e., those components with accident use codes 2 or 3). Failure modes were then postulated for all this equipment.

Failure modes were postulated conservatively, without consideration of the scenario resulting in the failure. The effect of each credible failure on the equipment, its system, its safety system (for auxiliary equipment), and the safety function was assessed. Based on this assessment, the failure of some equipment was determined not to be detrimental to plant safety or accident mitigation and, therefore, need not be qualified for any accident environment. Equipment which can fail in a manner detrimental to plant safety must be qualified. When the effects of the failure did not concur with the initial accident use code, changes to the use code were initiated. An example of the FMEA for three of the components considered is included in Figure 4.5. A description of the failure effect which justifies the exclusion from qualification is included in Table D for the equipment that need not be qualified.

4.2.4 Selection of Minimum Required Equipment

Based on the SSA results and the present status of equipment qualification documentation, the minimum set of equipment requiring qualification documentation prior to full power operation was selected. All of the components on the Auxiliary Equipment (Section 4.2.2.2) and Safety Function Equipment Lists (Section 4.2.2.1), as modified by the FMEA, were considered.

FMEA OF EQUIPMENT

SFPD Sample

SSAD Sample

EQUIPMENT PART NO.	INITIAL USE CODE	WORST CASE FAILURE MODE	EFFECTS ON LOCAL & ASSOCIATED SYSTEMS (INCLUDING COMPENSATING FEATURES)	FINAL USE CODE
RRC-MO-23A	2	Motor Operator fails to operate valve	No effect - valve position is irrelevant, it has no post-accident function	3
FDR-LMS-3	2	Limit Switch fails in false position	Provides operator with false indication of containment isolation - must operate	1
SGT-RLY-ESH1A11	3	Hot-short or open	No effect - relay controls heaters that are not required for safety function. Does not detrimentally effect SGT function if heaters are on or off.	3

Sample Failure Modes and Effects Analysis
Figure 4.5

The first step in defining the minimum set of equipment requiring qualification documentation prior to full power operation consists of checking the current status of the essential equipment as identified during the SSA and FMEA. Elimination of items already documented as qualified resulted in a reduced set of essential components (see Figure 4.6). Qualified equipment is included in Table A.

The reduced set of safety-related electrical equipment was then evaluated to determine the minimum set of equipment to be shown qualified prior to full power operation. The SSDs were reviewed and a single path to accomplish each safety function was chosen. The path with the least number of components yet to be documented as qualified was chosen where possible. Train A components were chosen where appropriate in order to assure most items were powered from the same division of electrical power. The equipment required to assure the operation of each safety system in the chosen path represents the minimum set of required equipment to be provided with qualification documentation prior to full power operation at WNP-2 (see Figure 4.7). Table B identifies the equipment that will have qualification documentation prior to full power operation. Table C identifies the remaining safety-related electrical equipment to have qualification documentation prior to the end of the first refueling outage.

Figure 4.6

Unqualified Safety-Related Electrical Equipment Exposed to a Harsh Environment

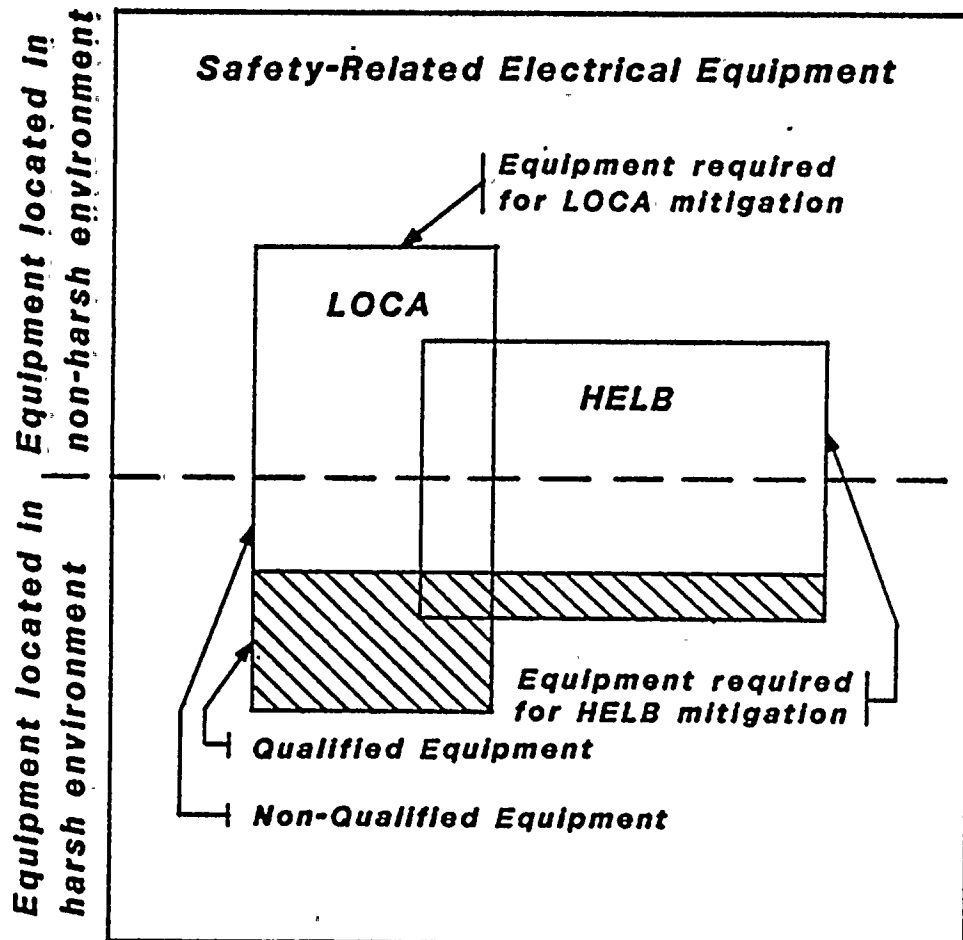


Figure 4.7

**Safety-Related Electrical Equipment
to Have Qualification Documentation
Prior to Full Power Operation or First Refueling.**

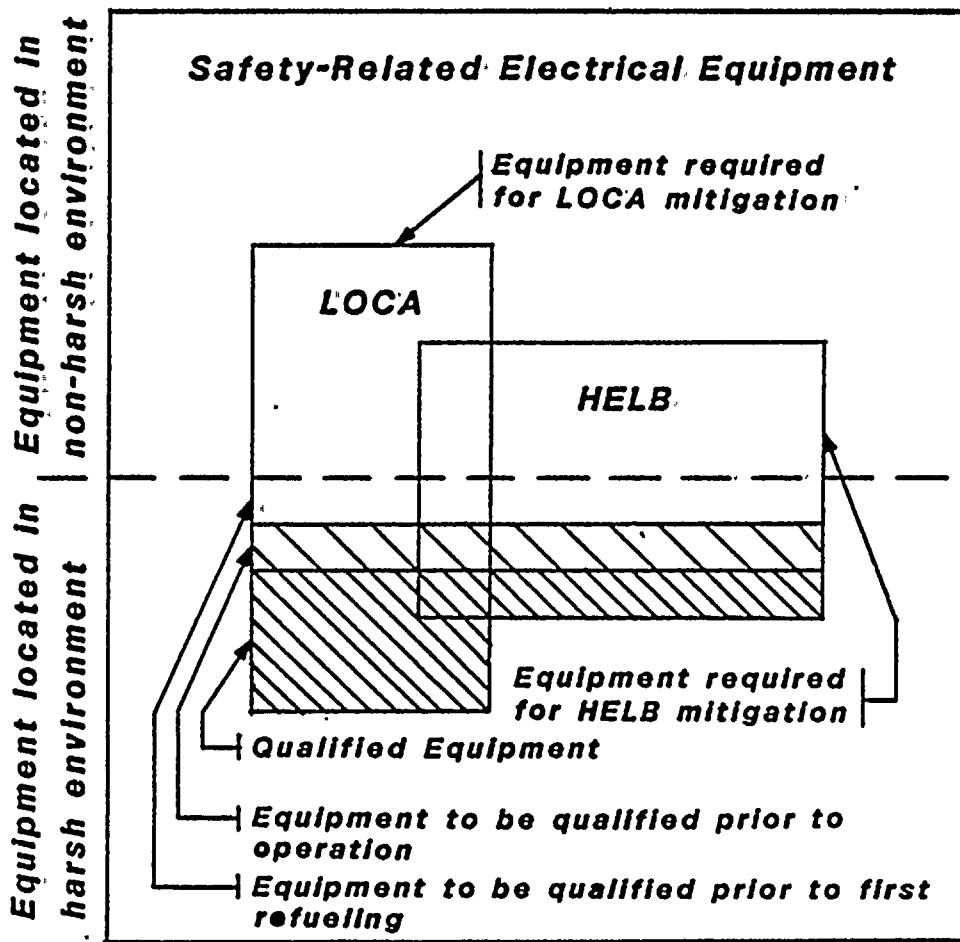


TABLE A
QUALIFIED EQUIPMENT

ACCIDENT	A = HELB - RCIC	G = HELB - RWCU	M = HELB - AS
LEGEND:	B = HELB - RCIC	H = HELB - RWCU	N = HELB - MS
	C = HELB - RCIC	I = HELB - RWCU	O = HELB - RFW
	D = HELB - AS	J = HELB - RWCU	P = LOCA - RRC
	E = HELB - RCIC	K = HELB - RWCU	Q = LOCA - MSL
	F = HELB - RWCU	L = HELB - RWCU	R = LOCA - SMALL

*: This component should be qualified to the conditions inside the reactor building due to LOCA breaks inside the primary containment.

- | | | |
|------------------------|-------------------------------|----------------|
| 1: P, Q, R | 2: N, O, P, Q, R | 3: A through R |
| 4: F through L | 5: A, B, C, E through L, N, O | |
| 6: A, B, C, E, P, Q, R | | |
| 7: N, P, Q, R | 8: O, P, Q, R | |

NOTE: For definition of table headings, see Table E.

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAC-42-EHC1A	R572D	1	None	3	*	
CAC-42-EHC1B	R572H	1	None	3	*	
CAC-42-FDR1A	R572D	1	None	3	*	
CAC-42-FDR1B	R572H	1	None	3	*	
CAC-42-FN/1A	R572D	1	None	3	*	
CAC-42-FN/1B	R572H	1	None	3	*	
CAC-EHC-1A	R572F	1	M	1	*	
CAC-EHC-1B	R572F	1	M	1	*	
CAC-FIC-FCV/67A	R572D	1	None	1	*	
CAC-FIC-FCV/67B	R572H	1	None	1	*	
CAC-FS-6A	R572D	1	None	1	*	
CAC-FS-6B	R572H	1	M	1	*	
CAC-FT-1A	R548G	1	LM	1	*	
CAC-FT-1B	R548P	1	JM	1	*	
CAC-FT-2A	R548G	1	LM	1	*	
CAC-FT-2B	R548P	1	JM	1	*	
CAC-FT-3A	R501F	1	D	1	*	
CAC-FT-3B	R501K	1	D	1	*	
CAC-FT-4A	R501F	1	D	1	*	
CAC-FT-4B	R501F	1	D	1	*	
CAC-FT-6A	R572F	1	M	1	*	
CAC-FT-6B	R572F	1	M	1	*	
CAC-FT-7A	R572F	1	M	1	*	
CAC-FT-7B	R572F	1	M	1	*	
CAC-LS-1A	R572D	1	None	1	*	
CAC-LS-1B	R572H	1	None	1	*	
CAC-LT-1A	R572F	1	M	1	*	
CAC-LT-1B	R572F	1	M	1	*	
CAC-MO-V/11	R548H	1	L	1	*	
CAC-MO-V/13	R471B	1	D	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAC-MO-V/15	R548Q	1	K	1	*	
CAC-MO-V/17	R480M	1	None	1	*	
CAC-MO-V/2	R548K	1	LM	1	*	
CAC-MO-V/4	R471E	1	None	1	*	
CAC-MO-V/6	R572B	1	M	1	*	
CAC-MO-V/8	R471B	1	D	1	*	
CAC-PS-68A	R572D	1	None	1	*	
CAC-PS-68B	R572H	1	None	1	*	
CAC-PT-68A	R572F	1	M	1	*	
CAC-PT-68B	R572F	1	M	1	*	
CAC-R/I-4A	R572D	1	None	1	*	
CAC-R/I-4B	R572H	1	None	1	*	
CAC-TDS-1A	R572D	1	None	1	*	
CAC-TDS-1B	R572H	1	None	1	*	
CAC-TIC-TCV/4A	R572D	1	None	1	*	
CAC-TIC-TCV/4B	R572H	1	None	1	*	
CAC-TS-1A	R572D	1	None	1	*	
CAC-TS-1B	R572H	1	None	1	*	
CAC-TS-2A	R572D	1	None	1	*	
CAC-TS-2B	R572H	1	None	1	*	
CAC-TS-3A	R572D	1	None	1	*	
CAC-TS-3B	R572H	1	None	1	*	
CAC-TS-5A	R572D	1	None	1	*	
CAC-TS-5B	R572H	1	None	1	*	
CAC-TS-6A	R572D	1	None	1	*	
CAC-TS-6B	R572H	1	None	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CEP-POS-V/1A	R548Q	1	K	1	*	
CEP-POS-V/1B	R548Q	1	K	1	*	
CEP-POS-V/2A	R548Q	1	K	1	*	
CEP-POS-V/2B	R548Q	1	K	1	*	
CEP-POS-V/3A	R471J	1	D	1	*	
CEP-POS-V/3B	R471J	1	D	1	*	
CEP-POS-V/4A	R471J	1	D	1	*	
CEP-POS-V/4B	R471J	1	D	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CIA-42-C1A	R522N	2	None	3	*	
CIA-42-C1B	R522D	2	None	3	*	
CIA-42-V/20	R522N	1	None	3	*	
CIA-42-V/30A	R522N	1	None	3	*	
CIA-42-V/30B	R522D	1	None	3	*	
CIA-MO-20	R522K	1	D	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CMS-LT-2	R441F	1	None	3	*	
CMS-PT-1	R548G	1	LM	1	*	
CMS-PT-2	R548P	1	JM	1	*	
CMS-PT-2R	R548P	2	JM	1	*	
CMS-PT-3	R501F	1	D	1	*	
CMS-PT-4	R501K	1	D	1	*	
CMS-PT-5	R548G	1	LM	1	*	
CMS-PT-6	R548P	1	JM	1	*	
CMS-PT-6R	R548P	2	JM	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN.	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CRA-42-AD1A1	R522N	2	None	3	*	
CRA-42-AD1B1	R522D	2	None	3	*	
CRA-42-AD2A	R522N	2	None	3	*	
CRA-42-AD2B	R522D	2	None	3	*	
CRA-42-FN/1A1	R522N	2	None	3	*	
CRA-42-FN/1A2	R522N	2	None	3	*	
CRA-42-FN/1B1	R522D	2	None	3	*	
CRA-42-FN/1B2	R522D	2	None	3	*	
CRA-42-FN/1C1	R522D	2	None	3	*	
CRA-42-FN/1C2	R522D	2	None	3	*	
CRA-42-FN/2A1	R522N	2	None	3	*	
CRA-42-FN/2A2	R522N	2	None	3	*	
CRA-42-FN/2B1	R522D	2	None	3	*	
CRA-42-FN/2B2	R522D	2	None	3	*	
CRA-42-FN/3A	R522N	1	None	3	*	
CRA-42-FN/3B	R522D	1	None	3	*	
CRA-42-FN/3C	R522D	1	None	3	*	
CRA-42-FN/4A	R522N	1	None	3	*	
CRA-42-FN/4B	R522D	1	None	3	*	
CRA-42-FN/5A	R522N	1	None	3	*	
CRA-42-FN/5B	R522D	1	None	3	*	
CRA-42-FN/5C	R522N	1	None	3	*	
CRA-42-FN/5D	R522D	1	None	3	*	
CRA-RLY-FN/4ACR	R522N	2	None	1	*	
CRA-RLY-FN/4BCR	R522D	2	None	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CSP-POS-V/1	R501I	1	None	1	*	
CSP-POS-V/2	R501I	1	None	1	*	
CSP-POS-V/3	R471D	1	D	1	*	
CSP-POS-V/4	R471D	1	D	1	*	
CSP-POS-V/5	R471D	1	D	1	*	
CSP-POS-V/9	R471B	1	D	1	*	
CSP-RLY-V/10CR	R471H	1	None	1	*	
CSP-RLY-V/10R1	R471H	1	None	1	*	
CSP-RLY-V/10R2	R471H	1	None	1	*	
CSP-RLY-V/10R5	R471H	1	None	1	*	
CSP-RLY-V/7CR	R471H	1	None	1	*	
CSP-RLY-V/7R1	R471H	1	None	1	*	
CSP-RLY-V/7R2	R471H	1	None	1	*	
CSP-RLY-V/7R5	R471H	1	None	1	*	
CSP-RLY-V/8CR	R471H	1	None	1	*	
CSP-RLY-V/8R1	R471H	1	None	1	*	
CSP-RLY-V/8R2	R471H	1	None	1	*	
CSP-RLY-V/8R3	R471H	1	None	1	*	
CSP-RLY-V/8R4	R471H	1	None	1	*	
CSP-RLY-V/8R5	R471H	1	None	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
E-42-ELP/7BA	R572D	2	None	3	*	
E-42-ELP/7BB	R522N	2	None	3	*	
E-42-ELP/8BA	R522D	2	None	3	*	
E-42-ELP/8BB	R522D	2	None	3	*	
E-42-OBLGT/CP	R572D	2	None	3	*	
E-42-TT/TV	R471H	2	None	3	*	
E-CB-MC7BA	R522N	2	None	3	*	
E-CB-MC7BB	R522N	2	None	3	*	
E-CB-MC8BA	R522D	2	None	3	*	
E-CB-MC8BB	R522D	2	None	3	*	
E-CT-7BA	R522N	2	None	3	*	
E-CT-7BB	R522N	2	None	3	*	
E-CT-8BA	R522D	2	None	3	*	
E-CT-8BB	R522D	2	None	3	*	
E-RLY-50G/7BA	R522N	2	None	3	*	
E-RLY-50G/7BB	R522N	2	None	3	*	
E-RLY-50G/8BA	R522D	2	None	3	*	
E-RLY-50G/8BB	R522D	2	None	3	*	
E-TR-7BA	R606A	2	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
EDR-SPV-19	R422E	1	None	1	*	
EDR-SPV-20	R471B	1	D	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
FDR-SPV-3	R422E	1	None	1	*	
FDR-SPV-4	R471B	1	D	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
FPC-42-P/1A	R572D	2	None	3	*	
FPC-42-P/1B	R572H	2	None	3	*	
FPC-42-V/153	R522D	2	None	3	*	
FPC-42-V/154	R522N	2	None	3	*	
FPC-42-V/156	R522N	2	None	3	*	
FPC-42-V/172	R522N	2	None	3	*	
FPC-42-V/173	R522D	2	None	3	*	
FPC-42-V/175	R522D	2	None	3	*	
FPC-42-V/181A	R522N	2	None	3	*	
FPC-42-V/181B	R522D	2	None	3	*	
FPC-42-V/184	R522D	2	None	3	*	
FPC-MO-153	R441G	1	None	3	*	
FPC-MO-154	R441G	1	None	3	*	
FPC-MO-156	R441G	1	None	3	*	
FPC-RLY-P/CR1A	R572D	2	None	3	*	
FPC-RLY-P/CR1B	R572H	2	None	3	*	
FPC-TD-P/TKP1A	R572D	2	None	3	*	
FPC-TD-P/TKP1B	R572H	2	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
HPCS-M-P/3	R422D	1	None	3	*	
HPCS-MO-1	R422D	1	None	3	*	
HPCS-MO-10	R441C	1	None	3	*	
HPCS-MO-11	R441C	1	None	3	*	
HPCS-MO-12	R422D	1	None	3	*	
HPCS-MO-15	R441C	1	None	3	*	
HPCS-MO-23	R441C	1	None	3	*	
HPCS-MO-4	R522H	1	D	3	D*	
HPCS-PIS-13	R471B	1	D	3	D*	
HPCS-PS-12	R471B	1	D	3	D*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
LD-TE-18A	R441G	1	None	5	*	
LD-TE-18B	R441F	1	None	5	*	
LD-TE-18C	R441G	1	None	5	*	
LD-TE-18D	R441F	1	None	5	*	
LD-TE-27A	R422I	1	None	5	*	
LD-TE-27B	R422J	1	None	5	*	
LD-TE-27C	R422I	1	None	5	*	
LD-TE-27D	R422J	1	None	5	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
LPCS-42-FCV/11	R522N	1	None	3	*	
LPCS-42-P/2	R522N	1	None	3	*	
LPCS-42-V/1	R522N	1	None	3	*	
LPCS-42-V/12	R522N	2	None	3	*	
LPCS-42-V/5	R522N	1	None	3	*	
LPCS-MO-1	R441B	1	None	3	*	
LPCS-MO-11	R422C	1	None	3	*	
LPCS-MO-12	R441B	1	None	3	*	
LPCS-MO-5	R522B	1	DI	3	DI*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-42-V/16	R522D	1	None	3	*	
MS-42-V/67A	R522N	1	None	3	*	
MS-42-V/67B	R522N	1	None	3	*	
MS-42-V/67C	R522N	1	None	3	*	
MS-42-V/67D	R522N	1	None	3	*	
MS-DPIS-10D	R501B	1	D	7	*	
MS-DPIS-11A	R501K	1	D	7	*	
MS-DPIS-11B	R471D	1	D	7	*	
MS-DPIS-11C	R471B	1	D	7	*	
MS-DPIS-11D	R501B	1	D	7	*	
MS-DPIS-8A	R501K	1	D	7	*	
MS-DPIS-8B	R471D	1	D	7	*	
MS-DPIS-8C	R471B	1	D	7	*	
MS-DPIS-8D	R501B	1	D	7	*	
MS-DPIS-9A	R501K	1	D	7	*	
MS-DPIS-9B	R471D	1	D	7	*	
MS-DPIS-9C	R471B	1	D	7	*	
MS-DPIS-9D	R501B	1	D	7	*	
MS-MO-V/16	C504	1	PQR	2	PQR	
MS-MO-V/19	R501O	1	NO	2	NO*	
MS-MO-V/67A	R501O	1	NO	2	NO*	
MS-MO-V/67B	R501O	1	NO	2	NO*	
MS-MO-V/67C	R501O	1	NO	2	NO*	
MS-MO-V/67D	R501O	1	NO	2	NO*	
MS-PS-20A	R522K	1	D	3	D*	
MS-PS-20B	R522H	1	D	3	D*	
MS-PS-20C	R522C	1	DI	3	DI*	
MS-PS-20D	R522P	1	D	3	D*	
MS-PS-23A	R522K	1	D	3	D*	
MS-PS-23B	R522H	1	D	3	D*	
MS-PS-23C	R522C	1	DI	3	DI*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MSLC-42-EHC/A	R522N	2	None	3	*	
MSLC-42-EHC/B	R522N	2	None	3	*	
MSLC-42-EHC/C	R522N	2	None	3	*	
MSLC-42-EHC/D	R522N	2	None	3	*	
MSLC-42-FN/1	R522N	2	None	3	*	
MSLC-42-FN/2	R522D	2	None	3	*	
MSLC-42-V/10	R522D	1	None	3	*	
MSLC-42-V/1A	R522N	2	None	3	*	
MSLC-42-V/1B	R522N	2	None	3	*	
MSLC-42-V/1C	R522N	2	None	3	*	
MSLC-42-V/1D	R522N	2	None	3	*	
MSLC-42-V/2A	R522N	1	None	3	*	
MSLC-42-V/2B	R522N	1	None	3	*	
MSLC-42-V/2C	R522N	1	None	3	*	
MSLC-42-V/2D	R522N	1	None	3	*	
MSLC-42-V/3A	R522N	1	None	3	*	
MSLC-42-V/3B	R522N	1	None	3	*	
MSLC-42-V/3C	R522N	1	None	3	*	
MSLC-42-V/3D	R522N	1	None	3	*	
MSLC-42-V/4	R522D	1	None	3	*	
MSLC-42-V/5	R522D	1	None	3	*	
MSLC-42-V/9	R522D	1	None	3	*	
MSLC-MO-10	R501O	1	NO	3	NO*	
MSLC-MO-2A	R501O	1	NO	3	NO*	
MSLC-MO-2B	R501O	1	NO	3	NO*	
MSLC-MO-2C	R501O	1	NO	3	NO*	
MSLC-MO-2D	R501O	1	NO	3	NO*	
MSLC-MO-3A	R501O	1	NO	3	NO*	
MSLC-MO-3B	R501O	1	NO	3	NO*	
MSLC-MO-3C	R501O	1	NO	3	NO*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MSLC-MO-3D	R501O	1	NO	3	NO*	
MSLC-MO-4	R501O	1	NO	3	NO*	
MSLC-MO-5	R501O	1	NO	3	NO*	
MSLC-MO-9	R501O	1	NO	3	NO*	
MSLC-PS-20	R522K	1	D	3	D*	
MSLC-PS-24	R522K	1	D	3	D*	
MSLC-PS-25	R522K	1	D	3	D*	
MSLC-PS-60	R522K	1	D	3	D*	
MSLC-PS-70A	R522P	1	D	3	D*	
MSLC-PS-70B	R522P	1	D	3	D*	
MSLC-PS-70C	R522P	1	D	3	D*	
MSLC-PS-70D	R522P	1	D	3	D*	
MSLC-PS-7A	R522P	1	D	3	D*	
MSLC-PS-7B	R522P	1	D	3	D*	
MSLC-PS-7C	R522P	1	D	3	D*	
MSLC-PS-7D	R522P	1	D	3	D*	
MSLC-PS-8A	R522P	1	D	3	D*	
MSLC-PS-8B	R522P	1	D	3	D*	
MSLC-PS-8C	R522P	1	D	3	D*	
MSLC-PS-8D	R522P	1	D	3	D*	
MSLC-PT-23	R522K	1	D	3	D*	
MSLC-PT-6A	R522P	1	D	3	D*	
MSLC-PT-6B	R522P	1	D	3	D*	
MSLC-PT-6C	R522P	1	D	3	D*	
MSLC-PT-6D	R522P	1	D	3	D*	
MSLC-RLY-80/FN1	R522N	1	None	3	*	
MSLC-RLY-80/FN2	R522D	1	None	3	*	
MSLC-RLY-80/V10	R522D	1	None	3	*	
MSLC-RLY-80/V1A	R522N	1	None	3	*	
MSLC-RLY-80/V1B	R522N	1	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MSLC-RLY-80/V1C	R522N	1	None	3	*	
MSLC-RLY-80/V1D	R522N	1	None	3	*	
MSLC-RLY-80/V2A	R522N	1	None	3	*	
MSLC-RLY-80/V2B	R522N	1	None	3	*	
MSLC-RLY-80/V2C	R522N	1	None	3	*	
MSLC-RLY-80/V2D	R522N	1	None	3	*	
MSLC-RLY-80/V3A	R522N	1	None	3	*	
MSLC-RLY-80/V3B	R522N	1	None	3	*	
MSLC-RLY-80/V3C	R522N	1	None	3	*	
MSLC-RLY-80/V3D	R522N	1	None	3	*	
MSLC-RLY-80/V4	R522D	1	None	3	*	
MSLC-RLY-80/V5	R522D	1	None	3	*	
MSLC-RLY-80/V9	R522D	1	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
PI-SV-250	R522H	1	D	1	*	
PI-SV-251	R522H	1	D	1	*	
PI-SV-253	R522H	1	D	1	*	
PI-SV-256	R522P	1	D	1	*	
PI-SV-257	R522P	1	D	1	*	
PI-SV-259	R522P	1	D	1	*	
PI-SV-262	R522H	2	D	1	*	
PI-SV-263	R522H	2	D	1	*	
PI-SV-264	R522H	2	D	1	*	
PI-SV-265	R471D	2	D	1	*	
PI-SV-266	R522H	2	D	1	*	
PI-SV-267	R522H	2	D	1	*	
PI-SV-268	R522P	2	D	1	*	
PI-SV-269	R471A	2	D	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RCC-42-V/104	R522D	1	None	3	*	
RCC-42-V/129	R522D	1	None	3	*	
RCC-42-V/130	R572D	1	None	3	*	
RCC-42-V/131	R572H	1	None	3	*	
RCC-42-V/21	R522N	1	None	3	*	
RCC-42-V/40	R522D	1	None	3	*	
RCC-42-V/5	R522N	1	None	3	*	
RCC-MO-129	R548L	1	None	1	*	
RCC-MO-130	R548L	1	None	1	*	
RCC-MO-131	R548L	1	None	1	*	
RCC-MO-21	R510S	1	EF	1	*	
RCC-MO-5	R510S	1	EF	1	*	
RCC-MO-40	C517	1	PQR	1	PQR	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RCIC-42-P/2	R471H	2	None	3	*	
RCIC-42-P/3	R522N	2	None	3	*	
RCIC-42-P/4	R471H	2	None	3	*	
RCIC-42-V/13	R471H	2	None	3	*	
RCIC-42-V/19	R471H	2	None	3	*	
RCIC-42-V/22	R471H	2	None	3	*	
RCIC-42-V/45	R471H	2	None	3	*	
RCIC-42-V/59	R471H	2	None	3	*	
RCIC-42-V/63	R522D	2	None	3	*	
RCIC-42-V/64	R471H	2	None	3	*	
RCIC-42-V/69	R471H	2	None	3	*	
RCIC-42-V/76	R522D	2	None	3	*	
RCIC-MO-V/13	R548H	1	L	6	*	
RCIC-MO-V/31	R441I	1	AB	6	AB*	
RCIC-MO-V/63	C556	2	PQR	6	PQR	
RCIC-MO-V/64	R548B	2	J	6	*	
RCIC-MO-V/68	R471I	1	None	6	*	
RCIC-MO-V/8	R510S	1	EF	6	E*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
REA-POS-V/1	R572N	1	M	1	*	
REA-POS-V/2	R572N	1	M	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RFW-SPV-32A1	R471J	2	D	8	*	
RFW-SPV-32A2	R471J	2	D	8	*	
RFW-SPV-32B1	R471J	2	D	8	*	
RFW-SPV-32B2	R471J	2	D	8	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-42-FCV/64A	R522N	1	None	3	*	
RHR-42-FCV/64B	R522D	1	None	3	*	
RHR-42-FCV/64C	R522D	1	None	3	*	
RHR-42-P/3	R522D	2	None	3	*	
RHR-42-V/115	R572H	1	None	3	*	
RHR-42-V/116	R572H	1	None	3	*	
RHR-42-V/11A	R522N	1	None	3	*	
RHR-42-V/11B	R522D	1	None	3	*	
RHR-42-V/123A	R522D	2	None	3	*	
RHR-42-V/123B	R522D	2	None	3	*	
RHR-42-V/124A	R522N	2	None	3	*	
RHR-42-V/124B	R522N	2	None	3	*	
RHR-42-V/125A	R522D	2	None	3	*	
RHR-42-V/125B	R522D	2	None	3	*	
RHR-42-V/134A	R522N	1	None	3	*	
RHR-42-V/134B	R522D	1	None	3	*	
RHR-42-V/16A	R572D	1	None	3	*	
RHR-42-V/16B	R522D	1	None	3	*	
RHR-42-V/17A	R572D	1	None	3	*	
RHR-42-V/17B	R522D	1	None	3	*	
RHR-42-V/21	R522D	1	None	3	*	
RHR-42-V/23	R471H	1	None	3	*	
RHR-42-V/24A	R522N	1	None	3	*	
RHR-42-V/24B	R522D	1	None	3	*	
RHR-42-V/26A	R522N	1	None	3	*	
RHR-42-V/26B	R522D	1	None	3	*	
RHR-42-V/27A	R522N	1	None	3	*	
RHR-42-V/27B	R522D	1	None	3	*	
RHR-42-V/3A	R572D	1	None	3	*	
RHR-42-V/3B	R572H	1	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-42-V/42A	R522N	1	None	3	*	
RHR-42-V/42B	R522D	1	None	3	*	
RHR-42-V/42C	R522D	1	None	3	*	
RHR-42-V/47A	R572D	1	None	3	*	
RHR-42-V/47B	R572H	1	None	3	*	
RHR-42-V/48A	R572D	1	None	3	*	
RHR-42-V/48B	R572H	1	None	3	*	
RHR-42-V/49	R572H	2	None	3	*	
RHR-42-V/4A	R522N	1	None	3	*	
RHR-42-V/4B	R522D	1	None	3	*	
RHR-42-V/4C	R522D	1	None	3	*	
RHR-42-V/52A	R572D	1	None	3	*	
RHR-42-V/52B	R572H	1	None	3	*	
RHR-42-V/53A	R522N	1	None	3	*	
RHR-42-V/53B	R522N	1	None	3	*	
RHR-42-V/68A	R572D	2	None	3	*	
RHR-42-V/68B	R572H	2	None	3	*	
RHR-42-V/6A	R522N	1	None	3	*	
RHR-42-V/6B	R522D	1	None	3	*	
RHR-42-V/73A	R572D	1	None	3	*	
RHR-42-V/73B	R572H	1	None	3	*	
RHR-42-V/74A	R572D	1	None	3	*	
RHR-42-V/74B	R572H	1	None	3	*	
RHR-42-V/8	R471H	1	None	3	*	
RHR-42-V/87A	R572D	1	None	3	*	
RHR-42-V/87B	R572H	1	None	3	*	
RHR-42-V/9	R522D	1	None	3	*	
RHR-DPIS-9B	R522H	1	D	3	D*	
RHR-DPIS-9C	R522O	1	G	3	G*	
RHR-FT-15A	R501B	1	D	3	D*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-M-P/3	R422M	1	C	3	C*	
RHR-MO-11A	R471F	1	None	3	*	
RHR-MO-11B	R471E	1	None	3	*	
RHR-MO-124A	R471F	1	None	3	*	
RHR-MO-124B	R471F	1	None	3	*	
RHR-MO-125A	R471E	1	None	3	*	
RHR-MO-125B	R471E	1	None	3	*	
RHR-MO-134A	R548M	1	M	3	M*	
RHR-MO-134B	R548L	1	None	3	*	
RHR-MO-16A	R548B	1	J	1	*	
RHR-MO-16B	R501M	1	None	1	*	
RHR-MO-17A	R548B	1	J	1	*	
RHR-MO-17B	R501M	1	None	1	*	
RHR-MO-21	R441J	1	C	3	C*	
RHR-MO-23	R548H	1	L	1	*	
RHR-MO-24A	R471F	1	None	1	*	
RHR-MO-24B	R471E	1	None	1	*	
RHR-MO-27A	R471A	1	D	3	D*	
RHR-MO-27B	R471E	1	None	3	*	
RHR-MO-3A	R548N	1	None	3	*	
RHR-MO-3B	R548J	1	None	3	*	
RHR-MO-40	R548J	2	None	3	*	
RHR-MO-42A	R522O	1	G	3	G*	
RHR-MO-42B	R522G	1	HI	3	HI*	
RHR-MO-42C	R522O	1	G	3	G*	
RHR-MO-47A	R572L	1	None	3	*	
RHR-MO-47B	R572I	1	None	3	*	
RHR-MO-48A	R548N	1	None	3	*	
RHR-MO-48B	R548J	1	None	3	*	
RHR-MO-49	R548J	2	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-MO-4A	R441G	1	None	3	*	
RHR-MO-4B	R441F	1	None	3	*	
RHR-MO-4C	R441J	1	C	3	C*	
RHR-MO-52A	R572L	1	None	3	*	
RHR-MO-52B	R572I	1	None	3	*	
RHR-MO-53A	R510S	1	EF	3	EF*	
RHR-MO-53B	R501M	1	None	3	*	
RHR-MO-64A	R441G	1	None	3	*	
RHR-MO-64B	R441F	1	None	3	*	
RHR-MO-64C	R441J	1	C	3	C*	
RHR-MO-68A	R548N	1	None	3	*	
RHR-MO-68B	R548J	1	None	3	*	
RHR-MO-6A	R422J	1	None	3	*	
RHR-MO-6B	R422I	1	None	3	*	
RHR-MO-73A	R572L	1	None	3	*	
RHR-MO-73B	R572I	1	None	3	*	
RHR-MO-74A	R572L	1	None	3	*	
RHR-MO-74B	R572I	1	None	3	*	
RHR-MO-8	R501I	1	None	3	*	
RHR-MO-87A	R572L	1	None	3	*	
RHR-MO-87B	R572I	1	None	3	*	
RHR-MO-93	R548J	1	None	3	*	
RHR-MO-94	R548J	1	None	3	*	
RHR-MO-99A	C501	1	PQR	1	PQR	
RHR-MO-99B	C501	1	PQR	1	PQR	
RHR-PS-19A	R501B	1	D	3	D*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
ROA-POS-AD/10	R522D	1	None	1	*	
ROA-POS-AD/12	R471H	1	None	1	*	
ROA-POS-AD/13	R572D	1	None	1	*	
ROA-POS-AD/14	R572H	1	None	1	*	
ROA-SPV-10	R522D	1	None	1	*	
ROA-SPV-12	R471H	1	None	1	*	
ROA-SPV-13	R572D	1	None	1	*	
ROA-SPV-14	R572H	1	None	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RPS-PS-2A	R522K	1	D	1	*	
RPS-PS-2B	R522H	1	D	1	*	
RPS-PS-2C	R522C	1	DI	1	*	
RPS-PS-2D	R522P	1	D	1	*	
RPS-PS-4	R522K	1	D	1	*	

TABLE A
QUALIFIED EQUIPMENT

EPN.	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RRA-42-FN/1	R522D	1	None	3	*	
RRA-42-FN/10	R522D	1	None	3	*	
RRA-42-FN/11	R522N	1	None	3	*	
RRA-42-FN/12	R522N	1	None	3	*	
RRA-42-FN/13	R572D	1	None	3	*	
RRA-42-FN/14	R572H	1	None	3	*	
RRA-42-FN/15	R572D	1	None	3	*	
RRA-42-FN/17	R572H	1	None	3	*	
RRA-42-FN/19	R572D	1	None	3	*	
RRA-42-FN/2	R522N	1	None	3	*	
RRA-42-FN/20	R522D	1	None	3	*	
RRA-42-FN/3	R522D	1	None	3	*	
RRA-42-FN/5	R522N	1	None	3	*	
RRA-42-FN/6	R522D	2	None	3	*	
RRA-M-FN/1	R441J	1	C	3	C*	
RRA-M-FN/10	R522D	1	None	3	*	
RRA-M-FN/11	R522N	1	None	3	*	
RRA-M-FN/12	R471H	1	None	3	*	
RRA-M-FN/13	R572D	1	None	3	*	
RRA-M-FN/14	R572H	1	None	3	*	
RRA-M-FN/15	R548E	1	None	1	*	
RRA-M-FN/17	R548F	1	None	1	*	
RRA-M-FN/19	R548L	1	None	3	*	
RRA-M-FN/2	R441G	1	None	3	*	
RRA-M-FN/20	R548L	1	None	3	*	
RRA-M-FN/3	R441F	1	None	3	*	
RRA-M-FN/4	R441C	1	None	3	*	
RRA-M-FN/5	R441B	1	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RRC-42-V/16A	R522D	2	None	3	*	
RRC-42-V/16B	R522N	2	None	3	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RWCU-42-V/1	R522D	1	None	3	*	
RWCU-42-V/4	R471H	1	None	3	*	
RWCU-42-V/40	R522N	1	None	3	*	
RWCU-MO-1	C540	1	PQR	1,4	PQR	
RWCU-MO-4	R522F	1	HI	1,4	HI*	
RWCU-MO-40	R510S	1	EF	1,4	F*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-42-EHC/1A1	R572D	1	None	3	*	
SGT-42-EHC/1A2	R572H	1	None	3	*	
SGT-42-EHC/1B1	R572D	1	None	3	*	
SGT-42-EHC/1B2	R572H	1	None	3	*	
SGT-42-ESH/1A	R522N	2	None	5	*	
SGT-42-ESH/1B	R522D	2	None	5	*	
SGT-42-ESH/2A	R522N	2	None	5	*	
SGT-42-ESH/2B	R522D	2	None	5	*	
SGT-42-FN/1A1	R572D	1	None	3	*	
SGT-42-FN/1A2	R572H	1	None	3	*	
SGT-42-FN/1B1	R572D	1	None	3	*	
SGT-42-FN/1B2	R572H	1	None	3	*	
SGT-42-V/1A	R572D	1	None	3	*	
SGT-42-V/1B	R572H	1	None	3	*	
SGT-42-V/3A1	R572D	1	None	3	*	
SGT-42-V/3A2	R572H	1	None	3	*	
SGT-42-V/3B1	R572D	1	None	3	*	
SGT-42-V/3B2	R572H	1	None	3	*	
SGT-42-V/4A1	R572D	1	None	3	*	
SGT-42-V/4A2	R572H	1	None	3	*	
SGT-42-V/4B1	R572D	1	None	3	*	
SGT-42-V/4B2	R572H	1	None	3	*	
SGT-42-V/5A1	R572D	1	None	3	*	
SGT-42-V/5A2	R572H	1	None	3	*	
SGT-42-V/5B1	R572D	1	None	3	*	
SGT-42-V/5B2	R572H	1	None	3	*	
SGT-CNTR-H/1A11	R572D	1	None	5	*	
SGT-CNTR-H/1A12	R572D	1	None	5	*	
SGT-CNTR-H/1A13	R572D	1	None	5	*	
SGT-CNTR-H/1A21	R572H	1	None	5	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-CNTR-H/1A22	R572H	1	None	5	*	
SGT-CNTR-H/1A23	R572H	1	None	5	*	
SGT-CNTR-H/1B11	R572D	1	None	5	*	
SGT-CNTR-H/1B12	R572D	1	None	5	*	
SGT-CNTR-H/1B13	R572D	1	None	5	*	
SGT-CNTR-H/1B21	R572H	1	None	5	*	
SGT-CNTR-H/1B22	R572H	1	None	5	*	
SGT-CNTR-H/1B23	R572H	1	None	5	*	
SGT-EHC-1A1	R572N	1	M	5	*	
SGT-EHC-1A2	R572N	1	M	5	*	
SGT-EHC-1B1	R572N	1	M	5	*	
SGT-EHC-1B2	R572N	1	M	5	*	
SGT-MO-1A	R572N	1	M	5	*	
SGT-MO-3A1	R572N	1	M	5	*	
SGT-MO-3A2	R572N	1	M	5	*	
SGT-MO-4A1	R572N	1	M	5	*	
SGT-MO-4A2	R572N	1	M	5	*	
SGT-MO-5A1	R572N	1	M	5	*	
SGT-MO-5A2	R572N	1	M	5	*	
SGT-RLY-1A1TR1C	R572D	1	None	5	*	
SGT-RLY-1A1TR2C	R572D	1	None	5	*	
SGT-RLY-1A2TR1C	R572H	1	None	5	*	
SGT-RLY-1A2TR2C	R572H	1	None	5	*	
SGT-RLY-1B1TR1C	R572D	1	None	5	*	
SGT-RLY-1B1TR2C	R572D	1	None	5	*	
SGT-RLY-1B2TR1C	R572H	1	None	5	*	
SGT-RLY-1B2TR2C	R572H	1	None	5	*	
SGT-RLY-EH1A15	R572D	1	None	5	*	
SGT-RLY-EH1A16	R572D	1	None	5	*	
SGT-RLY-EH1A17	R572D	1	None	5	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-RLY-EH1A21	R572H	1	None	5	*	
SGT-RLY-EH1A22	R572H	1	None	5	*	
SGT-RLY-EH1A23	R572H	1	None	5	*	
SGT-RLY-EH1A24	R572H	1	None	5	*	
SGT-RLY-EH1A25	R572H	1	None	5	*	
SGT-RLY-EH1A26	R572H	1	None	5	*	
SGT-RLY-EH1A27	R572H	1	None	5	*	
SGT-RLY-EH1B11	R572D	1	None	5	*	
SGT-RLY-EH1B12	R572D	1	None	5	*	
SGT-RLY-EH1B13	R572D	1	None	5	*	
SGT-RLY-EH1B14	R572D	1	None	5	*	
SGT-RLY-EH1B15	R572D	1	None	5	*	
SGT-RLY-EH1B16	R572D	1	None	5	*	
SGT-RLY-EH1B17	R572D	1	None	5	*	
SGT-RLY-EH1B21	R572H	1	None	5	*	
SGT-RLY-EH1B22	R572H	1	None	5	*	
SGT-RLY-EH1B23	R572H	1	None	5	*	
SGT-RLY-EH1B24	R572H	1	None	5	*	
SGT-RLY-EH1B25	R572H	1	None	5	*	
SGT-RLY-EH1B26	R572H	1	None	5	*	
SGT-RMS-EH1A15	R572D	2	None	5	*	
SGT-RMS-EH1A16	R572D	2	None	5	*	
SGT-RMS-EH1A1T1	R572D	2	None	5	*	
SGT-RMS-EH1A1T2	R572D	2	None	5	*	
SGT-RMS-EH1A1T3	R572D	2	None	5	*	
SGT-RMS-EH1A25	R572H	2	None	5	*	
SGT-RMS-EH1A26	R572H	2	None	5	*	
SGT-RMS-EH1A2T1	R572H	2	None	5	*	
SGT-RMS-EH1A2T2	R572H	2	None	5	*	
SGT-RMS-EH1A2T3	R572H	2	None	5	*	



TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-RMS-EH1B15	R572D	2	None	5	*	
SGT-RMS-EH1B16	R572D	2	None	5	*	
SGT-RMS-EH1B1T1	R572D	2	None	5	*	
SGT-RMS-EH1B1T2	R572D	2	None	5	*	
SGT-RMS-EH1B1T3	R572D	2	None	5	*	
SGT-RMS-EH1B25	R572H	2	None	5	*	
SGT-RMS-EH1B26	R572H	2	None	5	*	
SGT-RMS-EH1B2T1	R572H	2	None	5	*	
SGT-RMS-EH1B2T2	R572H	2	None	5	*	
SGT-RMS-EH1B2T3	R572H	2	None	5	*	
SGT-SPV-2A	R572N	1	M	5	*	
SGT-SPV-F1	R572N	2	M	5	*	
SGT-SPV-F2	R572N	2	M	5	*	
SGT-SPV-F3	R572N	2	M	5	*	
SGT-XE-1RH/1A1	R572D	1	None	5	*	
SGT-XE-1RH/1A2	R572D	1	None	5	*	
SGT-XE-1RH/1B1	R572D	1	None	5	*	
SGT-XE-1RH/1B2	R572D	1	None	5	*	
SGT-XE-1RHS/1A1	R572D	1	None	5	*	
SGT-XE-1RHS/1A2	R572D	1	None	5	*	
SGT-XE-1RHS/1B1	R572D	1	None	5	*	
SGT-XE-1RHS/1B2	R572D	1	None	5	*	
SGT-XE-2RH/1A1	R572D	1	None	5	*	
SGT-XE-2RH/1A2	R572H	1	None	5	*	
SGT-XE-2RH/1B1	R572D	1	None	5	*	
SGT-XE-2RH/1B2	R572H	1	None	5	*	
SGT-XE-2RHS/1A1	R572D	1	None	5	*	
SGT-XE-2RHS/1A2	R572H	1	None	5	*	
SGT-XE-2RHS/1B1	R572D	1	None	5	*	
SGT-XE-2RHS/1B2	R572H	1	None	5	*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-XE-3RH/1A1	R572D	1	None	5	*	
SGT-XE-3RH/1A2	R572H	1	None	5	*	
SGT-XE-3RH/1B1	R572D	1	None	5	*	
SGT-XE-3RH/1B2	R572H	1	None	5	*	
SGT-XE-3RHS/1A1	R572D	1	None	5	*	
SGT-XE-3RHS/1A2	R572H	1	None	5	*	
SGT-XE-3RHS/1B1	R572D	1	None	5	*	
SGT-XE-3RHS/1B2	R572H	1	None	5	*	

APPENDIX A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SLC-42-HA	R522D	2	None	3	*	
SLC-42-HB	R522D	2	None	3	*	
SLC-42-P/1A	R522N	1	None	3	*	
SLC-42-P/1B	R522D	1	None	3	*	
SLC-42-V/1A	R522N	1	None	3	*	
SLC-42-V/1B	R522D	1	None	3	*	
SLC-V-4A	R548C	2	M	3	M*	
SLC-V-4B	R548C	2	M	3	M*	

TABLE A
QUALIFIED EQUIPMENT

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SW-42-V/187A	R522N	1	None	3	*	
SW-42-V/187B	R522D	1	None	3	*	
SW-42-V/188A	R572D	1	None	3	*	
SW-42-V/188B	R572H	1	None	3	*	
SW-42-V/24A	R522N	1	None	3	*	
SW-42-V/24B	R522D	1	None	3	*	
SW-42-V/24C	R522D	1	None	3	*	
SW-42-V/44	R522N	1	None	3	*	
SW-42-V/75A	R522N	1	None	3	*	
SW-42-V/75B	R522D	1	None	3	*	
SW-MO-24A	R441G	1	None	3	*	
SW-MO-24B	R441F	1	None	3	*	
SW-MO-24C	R441J	1	C	3	C*	
SW-MO-44	R441B	1	None	3	*	
SW-MO-54	R441C	1	None	3	*	
SW-RLY-V/44	R522N	1	None	3	*	

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

ACCIDENT	A = HELB - RCIC	G = HELB - RWCU	M = HELB - AS
LEGEND:	B = HELB - RCIC	H = HELB - RWCU	N = HELB - MS
	C = HELB - RCIC	I = HELB - RWCU	O = HELB - RFW
	D = HELB - AS	J = HELB - RWCU	P = LOCA - RRC
	E = HELB - RCIC	K = HELB - RWCU	Q = LOCA - MSL
	F = HELB - RWCU	L = HELB - RWCU	R = LOCA - SMALL

*: This component should be qualified to the conditions inside the reactor building due to LOCA breaks inside the primary containment.

- | | | |
|------------------------|-------------------------------|----------------|
| 1: P, Q, R | 2: N, O, P, Q, R | 3: A through R |
| 4: F through L | 5: A, B, C, E through L, N, O | |
| 6: A, B, C, E, P, Q, R | | |
| 7: N, P, Q, R | 8: O, P, Q, R | 9: A, B, C, E |
| 10: N | 11: N, O | |

NOTE (1) For definition of table headings, see Table E.

NOTE (2) This item is necessary for a passive integrity function only. Environmental qualification for operability is not required.

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAC-CNTR-1A	R572F	1	M	1	*	Corrective action under evaluation
CAC-E/S-1A24	R572F	1	M	1	*	Qualified
CAC-E/S-1A43	R572F	1	M	1	*	" " "
CAC-EHO-FCV/1A	R572B	1	M	1	*	Retest (program underway)
CAC-EHO-FCV/2A	R548K	1	LM	1	*	" " " "
CAC-EHO-FCV/3A	R471B	1	D	1	*	" " " "
CAC-EHO-FCV/4A	R471E	1	None	1	*	" " " "
CAC-EHO-FCV/5A	R572F	1	M	1	*	" " " "
CAC-EHO-FCV/6A	R572F	1	M	1	*	" " " "
CAC-EHO-TCV/4A	R572F	1	M	1	*	" " " "
CAC-EHO-V/1A	R572F	1	M	1	*	" " " "
CAC-EHO-V/2A	R572F	1	M	1	*	" " " "
CAC-EHO-V/3A	R572F	1	M	1	*	" " " "
CAC-FT-5A	R572F	2	M	1	*	NOTE (2)
CAC-POS-FCV/1A	R572B	1	M	1	*	Retest (program underway)
CAC-POS-FCV/2A	R548K	1	LM	1	*	" " " "
CAC-POS-FCV/3A	R471B	1	D	1	*	" " " "
CAC-POS-FCV/4A	R471E	1	None	1	*	" " " "
CAC-POS-FCV/5A	R572F	1	M	1	*	" " " "
CAC-POS-FCV/6A	R572F	1	M	1	*	" " " "
CAC-POS-TCV/4A	R572F	1	M	1	*	" " " "
CAC-POS-V/1A	R572F	1	M	1	*	" " " "
CAC-POS-V/2A	R572F	1	M	1	*	" " " "
CAC-POS-V/3A	R572F	1	M	1	*	" " " "
CAC-RLY-4A/CR1	R471D	1	D	1	*	Retest
CAC-RLY-4A/CR2	R471D	1	D	1	*	Retest
CAC-RLY-80FCV1A	R471D	1	D	1	*	New item evaluation underway
CAC-RLY-80FCV2A	R471D	1	D	1	*	Retest
CAC-RLY-80FCV3A	R471D	1	D	1	*	New item evaluation underway
CAC-RLY-80FCV4A	R471D	1	D	1	*	Retest

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAC-RLY-CR3A	R572F	1	M	1	*	Retest
CAC-RLY-CR4AV14	R572F	1	M	1	*	New items evaluation underway
CAC-RLY-CR5A	R572F	1	M	1	*	" " " "
CAC-RLY-CR6A	R572F	1	M	1	*	" " " "
CAC-RLY-MR1A	R572F	1	M	1	*	" " " "
CAC-RLY-MR2A	R572F	1	M	1	*	" " " "
CAC-RLY-TDE2A	R572F	1	M	1	*	" " " "
CAC-TE-1A	R572F	1	M	1	*	Qualified
CAC-TE-2A	R572F	1	M	1	*	" " "
CAC-TE-3A	R572F	1	M	1	*	" " "
CAC-TE-4A	R572F	1	M	1	*	" " "
CAC-TE-5A	R572F	1	M	1	*	" " "
CAC-TE-6A	R572F	1	M	1	*	" " "
CAC-TT-4A	R572F	1	M	1	*	Replace

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAS-RLY-V453C	R471D	1	D	1	*	To be relocated
CAS-RLY-V4530	R471D	1	D	1	*	" " "
CAS-V-453	R471D	2	D	1	*	Retest

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CIA-MO-30A	R522P	1	D	3	D*	Qualified
CIA-MO-30B	R522H	1	D	3	D*	" " "
CIA-PROG-1A	R548G	1	LM	3	LM*	Retest
CIA-PROG-1B	R548P	1	JM	3	JM*	" "
CIA-PS-21A	R548G	1	LM	3	LM*	Qualified
CIA-PS-21B	R548P	1	JM	3	JM*	" " "
CIA-PS-22A	R548G	2	LM	3	LM*	NOTE (2)
CIA-PS-22B	R548P	2	JM	3	JM*	NOTE (2)
CIA-PS-39A	R522K	2	D	3	D*	NOTE (2)
CIA-PS-39B	R522K	2	D	3	D*	NOTE (2)
CIA-PT-21A	R548G	1	LM	3	LM*	Qualified
CIA-PT-21B	R548P	1	JM	3	JM*	" " "
CIA-RLY-21A	R548G	1	LM	3	LM*	Evaluation underway
CIA-RLY-21B	R548P	1	JM	3	JM*	" " " "
CIA-SPV-1A	R441D	1	None	3	*	Retest
CIA-SPV-1B	R441D	1	None	3	*	" "
CIA-SPV-10A	R441D	1	None	3	*	" "
CIA-SPV-10B	R441D	1	None	3	*	" "
CIA-SPV-11A	R441D	1	None	3	*	" "
CIA-SPV-11B	R441D	1	None	3	*	" "
CIA-SPV-12A	R441D	1	None	3	*	" "
CIA-SPV-12B	R441D	1	None	3	*	" "
CIA-SPV-13A	R441D	1	None	3	*	" "
CIA-SPV-13B	R441D	1	None	3	*	" "
CIA-SPV-14A	R441D	1	None	3	*	" "
CIA-SPV-14B	R441D	1	None	3	*	" "
CIA-SPV-15A	R441D	1	None	3	*	" "
CIA-SPV-15B	R441D	1	None	3	*	" "
CIA-SPV-16B	R441D	1	None	3	*	" "
CIA-SPV-17B	R441D	1	None	3	*	" "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CIA-SPV-18B	R441D	1	None	3	*	Retest.
CIA-SPV-19B	R441D	1	None	3	*	" "
CIA-SPV-2A	R441D	1	None	3	*	" "
CIA-SPV-2B	R441D	1	None	3	*	" "
CIA-SPV-3A	R441D	1	None	3	*	" "
CIA-SPV-3B	R441D	1	None	3	*	" "
CIA-SPV-4A	R441D	1	None	3	*	" "
CIA-SPV-4B	R441D	1	None	3	*	" "
CIA-SPV-5A	R441D	1	None	3	*	" "
CIA-SPV-5B	R441D	1	None	3	*	" "
CIA-SPV-6A	R441D	1	None	3	*	" "
CIA-SPV-6B	R441D	1	None	3	*	" "
CIA-SPV-7A	R441D	1	None	3	*	" "
CIA-SPV-7B	R441D	1	None	3	*	" "
CIA-SPV-8A	R441D	1	None	3	*	" "
CIA-SPV-8B	R441D	1	None	3	*	" "
CIA-SPV-9A	R441D	1	None	3	*	" "
CIA-SPV-9B	R441D	1	None	3	*	" "
CIA-TDS-1A	R548G	1	LM	3	LM*	New item evaluation underway
CIA-TDS-1B	R548P	1	JM	3	JM*	" " " " "
CIA-V-39A	R522B	1	DI	3	DI*	Retest
CIA-V-39B	R522H	1	DI	3	DI*	" "
CIA-V-106	R471D	1	D	1	*	New item evaluation underway

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CMS-AY-1	R548E	1	None	1	*	Qualified
CMS-AY-2	R548F	1	None	1	*	" " "
CMS-LT-1	R441J	1	C	3	C*	Evaluation underway
CMS-LT-2R	R441F	2	None	3	*	NOTE (2)
CMS-M-P/A	R548F	1	None	1	*	Awaiting manufacturer test data
CMS-M-P/B	R548F	1	None	1	*	" " " "
CMS-ME-1	R522H	1	D	1	*	New item evaluation underway
CMS-ME-2	R522H	1	D	1	*	" " "
CMS-ME-3	R522H	1	D	1	*	" " "
CMS-ME-4	R522H	1	D	1	*	" " "
CMS-ME-5	R522P	1	D	1	*	" " "
CMS-MT-1	R548H	1	L	1	*	" " "
CMS-MT-2	R548H	1	L	1	*	" " "
CMS-MT-3	R548H	1	L	1	*	" " "
CMS-MT-4	R548H	1	L	1	*	" " "
CMS-MT-5	R548H	1	L	1	*	" " "
CMS-PT-7	R548G	1	LM	1	*	Replace
CMS-PT-8	R548P	1	JM	1	*	" "
CMS-RE-12/1A	R548F	1	None	1	*	Awaiting manufacturer test data
CMS-RE-12/1B	R548F	1	None	1	*	" " " "
CMS-RE-12/3A	R548F	1	None	1	*	" " " "
CMS-RE-12/3B	R548F	1	None	1	*	" " " "
CMS-RE-27A	R522B	1	DI	1	*	" " " "
CMS-RE-27B	R522J	1	D	1	*	" " " "
CMS-RE-27C	R606A	1	None	1	*	" " " "
CMS-RE-27D	R606A	1	None	1	*	" " " "
CMS-TE-1	C517	1	PQR	1	PQR	Evaluation underway
CMS-TE-10	C512	1	PQR	1	PQR	" " "
CMS-TE-11	C520	1	PQR	1	PQR	" " "
CMS-TE-12	C520	1	PQR	1	PQR	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CMS-TE-13	C549	1	PQR	1	PQR	Evaluation underway
CMS-TE-14	C544	1	PQR	1	PQR	" " "
CMS-TE-2	C517	1	PQR	1	PQR	" " "
CMS-TE-21	C515	1	PQR	1	PQR	" " "
CMS-TE-22	C515	1	PQR	1	PQR	" " "
CMS-TE-23	C515	1	PQR	1	PQR	" " "
CMS-TE-27	C560	1	PQR	1	PQR	" " "
CMS-TE-28	C560	1	PQR	1	PQR	" " "
CMS-TE-29	C560	1	PQR	1	PQR	" " "
CMS-TE-3	C517	1	PQR	1	PQR	" " "
CMS-TE-30	C560	1	PQR	1	PQR	" " "
CMS-TE-31	C560	1	PQR	1	PQR	" " "
CMS-TE-4	C517	1	PQR	1	PQR	" " "
CMS-TE-41	C451	1	PQR	1	PQR	" " "
CMS-TE-42	C492	1	PQR	1	PQR	" " "
CMS-TE-43	C451	1	PQR	1	PQR	" " "
CMS-TE-44	C492	1	PQR	1	PQR	" " "
CMS-TE-5	C504	1	PQR	1	PQR	" " "
CMS-TE-6	C504	1	PQR	1	PQR	" " "
CMS-TE-7	C504	1	PQR	1	PQR	" " "
CMS-TE-8	C560	1	PQR	1	PQR	" " "
CMS-TE-9	C547	1	PQR	1	PQR	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CRA-M-FN/3A	C548	1	PQR	1	PQR	Evaluation underway
CRA-M-FN/4A	C572	1	PQR	1	PQR	" " "
CRA-M-FN/5A	C564	1	PQR	1	PQR	" " "
CRA-M-FN/5C	C564	1	PQR	1	PQR	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CRD-LS-129/xxxx	R522J	1	D	3	D*	Qualified
CRD-LS-129/xxxx	R522B	1	DI	3	DI*	" " "
CRD-LS-13A	R522K	1	D	3	D*	" " "
CRD-LS-13B	R522K	1	D	3	D*	" " "
CRD-LS-13C	R522P	1	D	3	D*	" " "
CRD-LS-13D	R522P	1	D	3	D*	" " "
CRD-LS-13E	R522P	1	D	3	D*	" " "
CRD-LS-13F	R522P	1	D	3	D*	" " "
CRD-POS-126xxxx	R522J	1	D	3	D*	" " "
CRD-POS-126xxxx	R522B	1	DI	3	DI*	" " "
CRD-POS-127xxxx	R522J	1	D	3	D*	" " "
CRD-POS-127xxxx	R522B	1	DI	3	DI*	" " "
CRD-PS-130/xxxx	R522J	1	D	3	D*	" " "
CRD-PS-130/xxxx	R522B	1	DI	3	DI*	" " "
CRD-PT-52	R522C	2	DI	3	DI*	NOTE (2)
CRD-SPV-110A	R522C	2	DI	3	DI*	NOTE (2) Qualified
CRD-SPV-110B	R522C	2	DI	3	DI*	NOTE (2) Qualified
CRD-SPV-117xxxx	R522J	1	D	3	D*	Qualified
CRD-SPV-117xxxx	R522B	1	DI	3	DI*	" " "
CRD-SPV-118xxxx	R522J	1	D	3	D*	" " "
CRD-SPV-118xxxx	R522B	1	DI	3	DI*	" " "
CRD-SPV-9	R522C	2	DI	3	DI*	New item evaluation underway
CRD-SV-120/xxxx	R522J	2	D	3	D*	Qualified
CRD-SV-120/xxxx	R522B	2	DI	3	DI*	" " "
CRD-SV-121/xxxx	R522J	2	D	3	D*	" " "
CRD-SV-121/xxxx	R522B	2	DI	3	DI*	" " "
CRD-SV-122/xxxx	R522J	2	D	3	D*	" " "
CRD-SV-122/xxxx	R522B	2	DI	3	DI*	" " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CRD-SV-123/xxxx	R522J	2	D	3	D*	Qualified
CRD-SV-123/xxxx	R522B	2	DI	3	DI*	" " "

NOTE:

CRD items with the X's in their EPN's are typical of 92 items in zone 522J and 93 items in zone 522B.

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
EDR-POS-V19	R441C	1	None	1	*	Replace
EDR-POS-V20	R441C	1	None	1	*	" " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
FDR-POS-3	R441C	2	None	1	*	Replace
FDR-POS-4	R441C	2	None	1	*	" " "
FDR-LS-41	R422J	1	None	3	*	New item--evaluation underway
FDR-LS-46	R422D	1	None	3	*	" " " " "



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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
HPCS-DPIS-9	R471B	1	D	3	D*	Qualified
HPCS-FIS-6	R471B	1	D	3	D*	" " "
HPCS-FT-5	R471B	1	D	3	D*	Replace
HPCS-LS-2A	R441J	1	C	3	C*	Qualified
HPCS-LS-2B	R441F	1	None	3	*	" " "
HPCS-M-P/1	R422D	1	None	3	*	" " "
HPCS-POS-V/5	C549	1	PQR	3	PQR	Replace
HPCS-POT-10	R441C	1	None	3	*	New item evaluation underway
HPCS-POT-8	R441C	1	None	3	*	" " " " "
HPCS-PS-3	R471B	2	D	3	D*	NOTE (2) Qualified
HPCS-PT-4	R471B	1	D	3	D*	Replace

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
HY-POS-V/17A	R522J	1	D	1	*	New item evaluation underway
HY-POS-V/17B	R522J	1	D	1	*	" " " " "
HY-POS-V/18A	R522J	1	D	1	*	" " " " "
HY-POS-V/18B	R522J	1	D	1	*	" " " " "
HY-POS-V/19A	R522J	1	D	1	*	" " " " "
HY-POS-V/19B	R522J	1	D	1	*	" " " " "
HY-POS-V/20A	R522J	1	D	1	*	" " " " "
HY-POS-V/20B	R522J	1	D	1	*	" " " " "
HY-POS-V/33A	R522C	1	DI	1	*	" " " " "
HY-POS-V/33B	R522C	1	DI	1	*	" " " " "
HY-POS-V/34A	R522C	1	DI	1	*	" " " " "
HY-POS-V/34B	R522C	1	DI	1	*	" " " " "
HY-POS-V/35A	R522C	1	DI	1	*	" " " " "
HY-POS-V/35B	R522C	1	DI	1	*	" " " " "
HY-POS-V/36A	R522C	1	DI	1	*	" " " " "
HY-POS-V/36B	R522C	1	DI	1	*	" " " " "
HY-V-17A	R522J	1	D	1	*	" " " " "
HY-V-17B	R522J	1	D	1	*	" " " " "
HY-V-18A	R522J	1	D	1	*	" " " " "
HY-V-18B	R522J	1	D	1	*	" " " " "
HY-V-19A	R522J	1	D	1	*	" " " " "
HY-V-19B	R522J	1	D	1	*	" " " " "
HY-V-20A	R522J	1	D	1	*	" " " " "
HY-V-20B	R522J	1	D	1	*	" " " " "
HY-V-33A	R522C	1	DI	1	*	" " " " "
HY-V-33B	R522C	1	DI	1	*	" " " " "
HY-V-34A	R522C	1	DI	1	*	" " " " "
HY-V-34B	R522C	1	DI	1	*	" " " " "
HY-V-35A	R522C	1	DI	1	*	" " " " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
HY-V-35B	R522C	10	DI	1	*	New item evaluation underway
HY-V-36A	R522C	10	DI	1	*	" " " " "
HY-V-36B	R522C	10	DI	1	*	" " " " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS.
			Exp To	Reqd For	Qual To	
LD-TE-1A	R522F	1	HI	4	HI*	Evaluation underway
LD-TE-1B	R522F	1	HI	4	HI*	" " " "
LD-TE-1C	R522F	1	HI	4	HI*	" " " "
LD-TE-1D	R522F	1	HI	4	HI*	" " " "
LD-TE-1E	R548B	1	J	4	J*	" " " "
LD-TE-1F	R548B	1	J	4	J*	" " " "
LD-TE-24A	R441I	1	AB	9	AB*	" " " "
LD-TE-24B	R422L	1	AB	9	AB*	" " " "
LD-TE-25A	R422L	1	AB	9	AB*	" " " "
LD-TE-25B	R422L	1	AB	9	AB*	" " " "
LD-TE-26A	R441I	1	AB	9	AB*	" " " "
LD-TE-26B	R441I	1	AB	9	AB*	" " " "
LD-TE-28A	R441F	1	None	5	*	" " " "
LD-TE-28B	R441G	1	None	5	*	" " " "
LD-TE-28C	R441F	1	None	5	*	" " " "
LD-TE-28D	R441G	1	None	5	*	" " " "
LD-TE-29A	R501O	1	NO	11	NO*	" " " "
LD-TE-29B	R501O	1	NO	11	NO*	" " " "
LD-TE-29C	R501O	1	NO	11	NO*	" " " "
LD-TE-29D	R501O	1	NO	11	NO*	" " " "
LD-TE-2A	R522F	1	HI	4	HI*	" " " "
LD-TE-2B	R522F	1	HI	4	HI*	" " " "
LD-TE-2C	R522F	1	HI	4	HI*	" " " "
LD-TE-2D	R522F	1	HI	4	HI*	" " " "
LD-TE-2E	R548B	1	J	4	J*	" " " "
LD-TE-2F	R548B	1	J	4	J*	" " " "
LD-TE-30A	R522O	1	G	11	*	" " " "
LD-TE-30B	R522O	1	G	11	*	" " " "
LD-TE-30C	R522O	1	G	11	*	" " " "
LD-TE-30D	R522O	1	G	11	*	" " " "

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
LD-TE-31A	R501O	1	NO	11	NO*	Evaluation underway
LD-TE-31B	R501O	1	NO	11	NO*	" " " "
LD-TE-31C	R501O	1	NO	11	NO*	" " " "
LD-TE-31D	R501O	1	NO	11	NO*	" " " "
LD-TE-3A	R522F	1	HI	4	HI*	" " " "
LD-TE-3B	R522F	1	HI	4	HI*	" " " "
LD-TE-3C	R522F	1	HI	4	HI*	" " " "
LD-TE-3D	R522F	1	HI	4	HI*	" " " "
LD-TE-3E	R548B	1	J	4	J*	" " " "
LD-TE-3F	R548B	1	J	4	J*	" " " "
LD-TE-4A	R441I	1	AB	9	AB*	" " " "
LD-TE-4B	R441I	1	AB	9	AB*	" " " "
LD-TE-5A	R422L	1	AB	9	AB*	" " " "
LD-TE-5B	R422L	1	AB	9	AB*	" " " "
LD-TE-6A	R441I	1	AB	9	AB*	" " " "
LD-TE-6B	R441I	1	AB	9	AB*	" " " "

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EPN	RAD ZONE	USE. CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-DPIS-10A	R501K	1	D	7	*	Qualified
MS-DPIS-10B	R471D	1	D	7	*	" " "
MS-DPIS-10C	R471B	1	D	7	*	" " "
MS-DPT-32	R471D	2	D	1	*	NOTE (2) Qualified
MS-FT-33A	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-33B	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-33C	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-33D	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34A	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34B	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34C	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34D	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34E	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34F	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34G	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34H	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34J	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34K	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34L	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34M	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34N	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34P	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34R	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34S	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34T	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34U	R471D	2	D	1	*	NOTE (2) " " "
MS-FT-34V	R471B	2	D	1	*	NOTE (2) " " "
MS-FT-34W	R471D	2	D	1	*	NOTE (2) " " "
MS-LIS-24A	R522K	1	D	3	D*	Qualified
MS-LIS-24B	R522H	1	D	3	D*	" " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-LIS-24C	R522C	1	DI	3	DI*	Qualified
MS-LIS-24D	R522P	1	D	3	D*	" " "
MS-LIS-31A	R522K	1	D	3	D*	" " "
MS-LIS-31B	R522C	1	DI	3	DI*	" " "
MS-LIS-31C	R522K	1	D	3	D*	" " "
MS-LIS-31D	R522K	1	D	3	D*	" " "
MS-LIS-36A	R522P	1	D	3	D*	" " "
MS-LIS-36B	R522P	1	D	3	D*	" " "
MS-LIS-36C	R522P	1	D	3	D*	" " "
MS-LIS-36D	R522H	1	D	3	D*	" " "
MS-LIS-37A	R522P	1	D	3	D*	" " "
MS-LIS-37B	R522H	1	D	3	D*	" " "
MS-LIS-37C	R522P	1	D	3	D*	" " "
MS-LIS-37D	R522H	1	D	3	D*	" " "
MS-LIS-38A	R522P	1	D	3	D*	" " "
MS-LIS-38B	R522H	1	D	3	D*	" " "
MS-LITS-26A	R522K	1	D	3	D*	Corrective action under evaluation
MS-LITS-26B	R522H	1	D	3	D*	" " " " "
MS-LITS-26C	R522C	1	DI	3	DI*	" " " " "
MS-LITS-26D	R522P	1	D	3	D*	" " " " "
MS-LITS-44A	R471B	1	D	3	D*	" " " " "
MS-LITS-44B	R471D	1	D	3	D*	" " " " "
MS-LT-27	R522H	2	D	1	*	Replace
MS-POE-V/1A	C547	1	PQR	3	PQR	" " "
MS-POE-V/1B	C547	1	PQR	3	PQR	" " "
MS-POE-V/1C	C547	1	PQR	3	PQR	" " "
MS-POE-V/1D	C547	1	PQR	3	PQR	" " "
MS-POE-V/2A	C547	1	PQR	3	PQR	" " "
MS-POE-V/2B	C547	1	PQR	3	PQR	" " "
MS-POE-V/2C	C547	1	PQR	3	PQR	" " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-POE-V/2D	C547	1	PQR	3	PQR	Being purchased as qualified
MS-POE-V/3A	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/3B	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/3C	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/3D	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/4A	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/4B	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/4C	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/4D	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/5B	C547	1	PQR	3	PQR	" " " " "
MS-POE-V/5C	C547	1	PQR	3	PQR	" " " " "
MS-POS-V/22A	C513	1	PQR	2	PQR	Replace
MS-POS-V/22B	C513	1	PQR	2	PQR	" " "
MS-POS-V/22C	C513	1	PQR	2	PQR	" " "
MS-POS-V/22D	C513	1	PQR	2	PQR	" " "
MS-POS-V/28A	R5010	1	NO	2	NO*	" " "
MS-POS-V/28B	R5010	1	NO	2	NO*	" " "
MS-POS-V/28C	R5010	1	NO	2	NO*	" " "
MS-POS-V/28D	R5010	1	NO	2	NO*	" " "
MS-POT-V/1A	C	1	PQR	3	PQR	Being purchased as qualified
MS-POT-V/1B	C	1	PQR	3	PQR	" " " " "
MS-POT-V/1C	C	1	PQR	3	PQR	" " " " "
MS-POT-V/1D	C	1	PQR	3	PQR	" " " " "
MS-POT-V/2A	C	1	PQR	3	PQR	" " " " "
MS-POT-V/2B	C	1	PQR	3	PQR	" " " " "
MS-POT-V/2C	C	1	PQR	3	PQR	" " " " "
MS-POT-V/2D	C	1	PQR	3	PQR	" " " " "
MS-POT-V/3A	C	1	PQR	3	PQR	" " " " "
MS-POT-V/3B	C	1	PQR	3	PQR	" " " " "
MS-POT-V/3C	C	1	PQR	3	PQR	" " " " "



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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-POT-V/3D	C	1	PQR	3	PQR	Being purchased as qualified
MS-POT-V/4A	C	1	PQR	3	PQR	" " " " "
MS-POT-V/4B	C	1	PQR	3	PQR	" " " " "
MS-POT-V/4C	C	1	PQR	3	PQR	" " " " "
MS-POT-V/4D	C	1	PQR	3	PQR	" " " " "
MS-POT-V/5B	C	1	PQR	3	PQR	" " " " "
MS-POT-V/5C	C	1	PQR	3	PQR	" " " " "
MS-PS-23D	R522P	1	D	3	D*	Qualified
MS-PS-45A	R522P	1	D	3	D*	" " "
MS-PS-45B	R522P	1	D	3	D*	" " "
MS-PS-45C	R522H	1	D	3	D*	" " "
MS-PS-45D	R522H	1	D	3	D*	" " "
MS-PS-47A	R522K	1	D	3	D*	" " "
MS-PS-47B	R522C	1	DI	3	DI*	" " "
MS-PS-47C	R522K	1	D	3	D*	" " "
MS-PS-47D	R522C	1	DI	3	DI*	" " "
MS-PS-48A	R522P	1	D	3	D*	" " "
MS-PS-48B	R522H	1	D	3	D*	" " "
MS-PS-48C	R522P	1	D	3	D*	" " "
MS-PS-48D	R522H	1	D	3	D*	" " "
MS-PT-51A	R522P	1	D	3	D*	Replace
MS-PT-51B	R522H	1	D	3	D*	" " "
MS-RE-3A	R5010	1	NO	10	N*	Corrective action under evaluation
MS-RE-3B	R5010	1	NO	10	N*	" " " " " "
MS-RE-3C	R5010	1	NO	10	N*	" " " " " "
MS-RE-3D	R5010	1	NO	10	N*	" " " " " "
MS-SPV-22A2	C513	1	PQR	2	PQR	Replace
MS-SPV-22A3	C513	1	PQR	2	PQR	" " "
MS-SPV-22B2	C513	1	PQR	2	PQR	" " "
MS-SPV-22B3	C513	1	PQR	2	PQR	" " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-SPV-22C2	C513	1	PQR	2	PQR	Replace
MS-SPV-22C3	C513	1	PQR	2	PQR	" " "
MS-SPV-22D2	C513	1	PQR	2	PQR	" " "
MS-SPV-22D3	C513	1	PQR	2	PQR	" " "
MS-SPV-28A2	R5010	1	NO	2	NO*	" " "
MS-SPV-28A3	R5010	1	NO	2	NO*	" " "
MS-SPV-28B2	R5010	1	NO	2	NO*	" " "
MS-SPV-28B3	R5010	1	NO	2	NO*	" " "
MS-SPV-28C2	R5010	1	NO	2	NO*	" " "
MS-SPV-28C3	R5010	1	NO	2	NO*	" " "
MS-SPV-28D2	R5010	1	NO	2	NO*	" " "
MS-SPV-28D3	R5010	1	NO	2	NO*	" " "
MS-SPV-3DA	C547	1	PQR	3	PQR	New items evaluation underway
MS-SPV-3DB	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4AA	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4AB	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4BA	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4BB	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4CA	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4CB	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4DA	C547	1	PQR	3	PQR	" " " " "
MS-SPV-4DB	C547	1	PQR	3	PQR	" " " " "
MS-SPV-5BA	C547	1	PQR	3	PQR	" " " " "
MS-SPV-5BB	C547	1	PQR	3	PQR	" " " " "
MS-SPV-5CA	C547	1	PQR	3	PQR	" " " " "
MS-SPV-5CB	C547	1	PQR	3	PQR	" " " " "
MS-TE-4A	C	1	PQR	3	PQR	Evaluation currently underway
MS-TE-4B	C	1	PQR	3	PQR	" " " " "
MS-TE-4C	C	1	PQR	3	PQR	" " " " "
MS-TE-4D	C	1	PQR	3	PQR	" " " " "

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MS-TE-4E	C	1	PQR	3	PQR	Evaluation currently underway
MS-TE-4F	C	1	PQR	3	PQR	" " " " "
MS-TE-4G	C	1	PQR	3	PQR	" " " " "
MS-TE-4H	C	1	PQR	3	PQR	" " " " "
MS-TE-4J	C	1	PQR	3	PQR	" " " " "
MS-TE-4K	C	1	PQR	3	PQR	" " " " "
MS-TE-4L	C	1	PQR	3	PQR	" " " " "
MS-TE-4M	C	1	PQR	3	PQR	" " " " "
MS-TE-4N	C	1	PQR	3	PQR	" " " " "
MS-TE-4P	C	1	PQR	3	PQR	" " " " "
MS-TE-4R	C	1	PQR	3	PQR	" " " " "
MS-TE-4S	C	1	PQR	3	PQR	" " " " "
MS-TE-4U	C	1	PQR	3	PQR	" " " " "
MS-TE-4V	C	1	PQR	3	PQR	" " " " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MSLC-M-FN/2	R501K	1	D	3	D*	Qualified
MSLC-PT-10A	R522P	1	D	3	D*	Replace
MSLC-PT-10B	R522P	1	D	3	D*	" " "
MSLC-PT-10C	R522P	1	D	3	D*	" " "
MSLC-PT-10D	R522P	1	D	3	D*	" " "
MSLC-PT-11	R522K	1	D	3	D*	" " "
MSLC-PT-12A	R522P	1	D	3	D*	" " "
MSLC-PT-12B	R522P	1	D	3	D*	" " "
MSLC-PT-12C	R522P	1	D	3	D*	" " "
MSLC-PT-12D	R522P	1	D	3	D*	" " "
MSLC-PT-13	R522K	1	D	3	D*	" " "
MSLC-RLY-CR/1	R522K	1	D	3	D*	Retest
MSLC-RLY-CR/3	R522K	1	D	3	D*	" " "
MSLC-RLY-CR/4	R522K	1	D	3	D*	" " "
MSLC-RLY-CR/5	R522K	1	D	3	D*	" " "
MSLC-TD-TK/2	R522K	1	D	3	D*	New item evaluation underway

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RCC-MO-104	R510S	1	EF	1	*	Being purchased as qualified

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RCIC-DPIS-13A	R471D	1	D	9	*	Qualified
RCIC-DPIS-13B	R471A	1	D	9	*	" " "
RCIC-DPIS-7A	R471D	1	D	9	*	" " "
RCIC-DPIS-7B	R471A	1	D	9	*	" " "
RCIC-FT-3	R471D	1	D	9	*	New item--evaluation underway
RCIC-MO-V/19	R441I	1	AB	6	AB*	" " " " "
RCIC-MO-V/69	R441I	1	AB	6	AB*	Qualified
RCIC-MO-V/76	C556	2	PQR	6	PQR	Being evaluated
RCIC-MO-V/80	R471I	1	None	6	*	Qualified
RCIC-MO-V/86	R471I	1	None	6	*	" " "
RCIC-POS-V/65	R548H	1	L	6	*	Being purchased as qualified
RCIC-POS-V/66	C606	1	PQR	3	PQR	New item evaluation underway
RCIC-PS-22A	R471D	1	D	9	*	Qualified
RCIC-PS-22B	R471A	1	D	9	*	" " "
RCIC-PS-22C	R471D	1	D	9	*	" " "
RCIC-PS-22D	R471A	1	D	9	*	" " "
RCIC-SPV-19B	R548H	2	L	6	*	New item evaluation underway
RCIC-SPV-65	R548G	2	LM	6	*	Qualified
RCIC-SPV-66	R522K	2	D	6	*	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
REA-DPT-1A1	R572N	1	M	3	M*	Qualified
REA-DPT-1A2	R572C	1	M	3	M*	" " "
REA-DPT-1A3	R572C	1	M	3	M*	" " "
REA-DPT-1A4	R572L	1	None	3	*	" " "
REA-DPT-1B1	R572N	1	M	3	M*	" " "
REA-DPT-1B2	R572C	1	M	3	M*	" " "
REA-DPT-1B3	R572F	1	M	3	M*	" " "
REA-DPT-1B4	R572I	1	None	3	*	" " "
REA-RE-19	R606A	1	M	3	M*	Evaluation underway
REA-RE-9A	R572C	1	M	3	M*	" " " "
REA-RE-9B	R572C	1	M	3	M*	" " " "
REA-RE-9C	R572C	1	M	3	M*	" " " "
REA-RE-9D	R572C	1	M	3	M*	" " " "
REA-SPV-1	R522K	1	M	1	*	Qualified
REA-SPV-2	R548P	1	M	1	*	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RFW-MO-65A	R5010	1	NO	8	O*	Qualified
RFW-MO-65B	R5010	1	NO	8	O*	" " "
RFW-POS-V/10A	C512	1	PQR	8	PQR	Replace
RFW-POS-V/10B	C512	1	PQR	8	PQR	" " "
RFW-POS-V/32A	R5010	1	NO	8	O*	" " "
RFW-POS-V/32B	R5010	1	NO	8	O*	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-CE-1A	R522K	2	D	3	D*	NOTE (2) Qualified
RHR-DPIS-12A	R501B	1	D	3	D*	Qualified
RHR-DPIS-12B	R501K	1	D	3	D*	" " "
RHR-DPIS-29A	R501B	2	D	3	D*	NOTE (2) Qualified
RHR-DPIS-9A	R522O	1	G	3	G*	Qualified
RHR-FIS-10A	R501B	1	D	3	D*	" " "
RHR-FT-7A	R501B	1	D	3	D*	Evaluation underway
RHR-LS-11A	R471F	2	None	3	*	Qualified
RHR-LS-11B	R471F	2	None	3	*	" " "
RHR-LS-11C	R471F	2	None	3	*	" " "
RHR-LS-11D	R471F	2	None	3	*	" " "
RHR-LT-8A	R548N	2	None	3	*	To be qualified by analysis
RHR-M-P/2A	R422J	1	None	3	*	Qualified
RHR-MO-9	C501	1	PQR	3	PQR	New item evaluation underway
RHR-MO-26A	R471F	1	None	3	*	" " " " "
RHR-PIS-22A	R501B	2	D	1	*	NOTE (2) Qualified
RHR-POS-V/41A	C563	1	PQR	1	PQR	Being purchased as qualified
RHR-POS-V/41B	C563	1	PQR	1	PQR	" " " " "
RHR-POS-V/41C	C563	1	PQR	1	PQR	" " " " "
RHR-POS-V/50A	C512	1	PQR	1	PQR	" " " " "
RHR-POS-V/50B	C508	1	PQR	1	PQR	" " " " "
RHR-POT-608A	R572L	1	None	3	*	Evaluation underway
RHR-POT-609A	R572L	1	None	3	*	" " " "
RHR-PS-16A	R501B	1	D	3	D*	Qualified
RHR-PS-18	R501I	2	None	3	*	To be qualified by analysis
RHR-TE-27A	R548K	1	LM	3	LM*	" " " " "
RHR-TE-4A	R572L	1	None	3	*	" " " " "
RHR-TE-5A	R548N	2	None	3	*	NOTE (2) To be qualified by analysis
RHR-V-60A	R548J	2	None	3	*	To be tested
RHR-V-75A	R548N	2	None	3	*	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
ROA-M-AD/19	R548K	1	LM	1	*	Being purchased as qualified
ROA-POS-AD/11	R522K	1	D	1	*	" " " " "
ROA-POS-AD/15	R548C	1	M	1	*	" " " " "
ROA-POS-AD/17	R548C	1	M	1	*	" " " " "
ROA-POS-AD/19	R548K	1	LM	1	*	" " " " "
ROA-POS-V/1	R572F	1	M	1	*	To be replaced with qualified unit
ROA-POS-V/2	R572F	1	M	1	*	" " " " "
ROA-SPV-100	R572F	1	M	1	*	To be qualified by analysis
ROA-SPV-11	R522K	1	D	1	*	Qualified
ROA-SPV-15	R548C	1	M	1	*	" " "
ROA-SPV-17	R548C	1	M	1	*	" " "
ROA-SPV-200	R572F	1	M	1	*	To be qualified by analysis

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RRA-RMS-FN/S2	R441G	2	None	3	*	To be qualified by analysis
RRA-RMS-FN/S4	R441C	2	None	3	*	" " " " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RRC-CB-P1A/RPT3	R471D	2	D	1	*	Obtaining data from manufacturer
RRC-CB-P1A/RPT4	R522H	2	D	1	*	" " " " " "
RRC-CB-P1B/RPT3	R471D	2	D	1	*	" " " " " "
RRC-CB-P1B/RPT4	R522H	2	D	1	*	" " " " " "
RRC-MO-16A	R501F	1	D	1	*	Qualified
RRC-MO-16B	R501K	1	D	1	*	" " "
RRC-POS-16A	R501F	1	D	1	*	New items--evaluation underway
RRC-POS-16B	R501K	1	D	1	*	" " " " "
RRC-POS-19	C506	1	PQR	1	PQR	Retest
RRC-POS-20	R501K	2	D	1	*	" "
RRC-PS-18A	R471B	1	D	1	*	Being analyzed
RRC-PS-18B	R471D	1	D	1	*	Qualified
RRC-PS-36A	R548G	2	L,M	1	L,M*	NOTE (2) Being analyzed
RRC-PS-36B	R548G	2	L,M	1	L,M*	NOTE (2) " " "
RRC-V-19	C506	1	PQR	1	PQR	New item evaluation underway
RRC-V-20	R501K	1	D	1	*	" " " " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RWCU-DPIS-25	R522C	2	DI	1,4	I*	NOTE (2)
RWCU-FT-15	R522C	1	DI	4	I	Replace
RWCU-FT-36	R522C	1	DI	1,4	I*	" " "
RWCU-FT-37	R471D	2	D	1,4	*	NOTE (2)
RWCU-FT-41	R522C	1	DI	1,4	I*	Replace

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-EHO-FN/1A1	R572N	1	M	5	*	Being tested
SGT-EHO-FN/1A2	R572N	1	M	5	*	" " "
SGT-FS-2A2	R572N	1	M	5	*	New item evaluation underway
SGT-FT-1A1	R572N	1	M	5	*	Qualified
SGT-FT-1A2	R572N	1	M	5	*	" " "
SGT-M-FN/1A1	R572N	1	M	5	*	" " "
SGT-M-FN/1A2	R572N	1	M	5	*	" " "
SGT-MC-H/6A	R572N	1	M	5	*	" " "
SGT-MC-H/7A	R572N	1	M	5	*	" " "
SGT-ME-6A	R572N	1	M	5	*	" " "
SGT-ME-7A	R572N	1	M	5	*	" " "
SGT-TE-6A1	R572N	2	M	5	*	Being qualified by analysis
SGT-TE-7A1	R572N	2	M	5	*	" " " " "
SGT-TE-8A1	R572N	2	M	5	*	" " " " "
SGT-TS-6A1	R572N	2	M	5	*	Corrective action currently underway
SGT-TS-7A1	R572N	2	M	5	*	" " " " "
SGT-TS-8A1	R572N	2	M	5	*	" " " " "
SGT-TS-EH1A10	R572N	1	M	5	*	Qualified
SGT-TS-EH1A11	R572N	1	M	5	*	" " "
SGT-TS-EH1A111	R572N	1	M	5	*	" " "
SGT-TS-EH1A112	R572N	1	M	5	*	" " "
SGT-TS-EH1A113	R572N	1	M	5	*	" " "
SGT-TS-EH1A114	R572N	1	M	5	*	" " "
SGT-TS-EH1A115	R572N	1	M	5	*	" " "
SGT-TS-EH1A116	R572N	1	M	5	*	" " "
SGT-TS-EH1A117	R572N	1	M	5	*	" " "
SGT-TS-EH1A118	R572N	1	M	5	*	" " "
SGT-TS-EH1A12	R572N	1	M	5	*	" " "
SGT-TS-EH1A13	R572N	1	M	5	*	" " "
SGT-TS-EH1A14	R572N	1	M	5	*	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-TS-EH1A15	R572N	1	M	5	*	Qualified
SGT-TS-EH1A16	R572N	1	M	5	*	" " "
SGT-TS-EH1A17	R572N	1	M	5	*	" " "
SGT-TS-EH1A18	R572N	1	M	5	*	" " "
SGT-TS-EH1A19	R572N	1	M	5	*	" " "
SGT-TS-EH1A21	R572N	1	M	5	*	" " "
SGT-TS-EH1A210	R572N	1	M	5	*	" " "
SGT-TS-EH1A211	R572N	1	M	5	*	" " "
SGT-TS-EH1A212	R572N	1	M	5	*	" " "
SGT-TS-EH1A213	R572N	1	M	5	*	" " "
SGT-TS-EH1A214	R572N	1	M	5	*	" " "
SGT-TS-EH1A215	R572N	1	M	5	*	" " "
SGT-TS-EH1A216	R572N	1	M	5	*	" " "
SGT-TS-EH1A217	R572N	1	M	5	*	" " "
SGT-TS-EH1A218	R572N	1	M	5	*	" " "
SGT-TS-EH1A22	R572N	1	M	5	*	" " "
SGT-TS-EH1A23	R572N	1	M	5	*	" " "
SGT-TS-EH1A24	R572N	1	M	5	*	" " "
SGT-TS-EH1A25	R572N	1	M	5	*	" " "
SGT-TS-EH1A26	R572N	1	M	5	*	" " "
SGT-TS-EH1A27	R572N	1	M	5	*	" " "
SGT-TS-EH1A28	R572N	1	M	5	*	" " "
SGT-TS-EH1A29	R572N	1	M	5	*	" " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SPTM-TE-1A	C466	1	PQR	3	PQR	Test results being evaluated
SPTM-TE-11	C448	1	PQR	3	PQR	" " " " "
SPTM-TE-13	C448	1	PQR	3	PQR	" " " " "
SPTM-TE-15	C448	1	PQR	3	PQR	" " " " "
SPTM-TE-2A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-3A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-4A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-5A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-6A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-7A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-8A	C466	1	PQR	3	PQR	" " " " "
SPTM-TE-9	C448	1	PQR	3	PQR	" " " " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SRM-DET-1A	CRPV	1	PQR	3	PQR	Evaluation underway
SRM-DET-1B	CRPV	1	PQR	3	PQR	" " " "
SRM-DET-1C	CRPV	1	PQR	3	PQR	" " " "
SRM-DET-1D	CRPV	1	PQR	3	PQR	" " " "
SRM-EAMP-1A	R501B	1	D	3	D*	" " " "
SRM-EAMP-1B	R501K	1	D	3	D*	" " " "
SRM-EAMP-1C	R501B	1	D	3	D*	" " " "
SRM-EAMP-1D	R501K	1	D	3	D*	" " " "

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SW-PS-1014	R548E	1	None	3	*	Qualified
SW-RE-4	R522K	2	D	1	*	NOTE (2)
SW-RE-5	R522H	2	D	1	*	NOTE (2)
SW-V-201	R548C	1	M	3	M*	Qualified
SW-V-204	R548C	1	M	3	M*	To be tested
SW-V-212	R548C	1	M	3	M*	" " "
SW-V-213	R548C	1	M	3	M*	Qualified

TABLE B
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO FULL POWER OPERATION

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
TIP-SV-1	R501P	1	EF	1	*	Evaluation underway
TIP-SV-2	R501P	1	EF	1	*	" " " "
TIP-SV-3	R501P	1	EF	1	*	" " " "
TIP-SV-4	R501P	1	EF	1	*	" " " "
TIP-SV-5	R501P	1	EF	1	*	" " " "
TIP-SV-6	R501Q	1	D	1	*	" " " "
TIP-V-1	R501P	1	EF	1	*	" " " "
TIP-V-2	R501P	1	EF	1	*	" " " "
TIP-V-3	R501P	1	EF	1	*	" " " "
TIP-V-4	R501P	1	EF	1	*	" " " "
TIP-V-5	R501P	1	EF	1	*	" " " "

TABLE C
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO END OF FIRST REFUELING OUTAGE

ACCIDENT	A = HELB - RCIC	G = HELB - RWCU	M = HELB - AS
LEGEND:	B = HELB - RCIC	H = HELB - RWCU	N = HELB - MS
	C = HELB - RCIC	I = HELB - RWCU	O = HELB - RFW
	D = HELB - AS	J = HELB - RWCU	P = LOCA - RRC
	E = HELB - RCIC	K = HELB - RWCU	Q = LOCA - MSL
	F = HELB - RWCU	L = HELB - RWCU	R = LOCA - SMALL

*: This component should be qualified to the conditions inside the reactor building due to LOCA breaks inside the primary containment.

- | | | |
|------------------------|-------------------------------|----------------|
| 1: P, Q, R | 2: N, O, P, Q, R | 3: A through R |
| 4: F through L | 5: A, B, C, E through L, N, O | |
| 6: A, B, C, E, P, Q, R | | |

NOTE (1) For definition of table headings, see Table E.

NOTE (2) This item is necessary for a passive integrity function only. Environmental qualification for operability is not required.

TABLE C
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO END OF FIRST REFUELING OUTAGE

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAC-CNTR-1B	R572F	1	M	1	*	
CAC-E/S-1B24	R572F	1	M	1	*	
CAC-E/S-1B43	R572F	1	M	1	*	
CAC-EHO-FCV/1B	R548Q	1	K	1	*	
CAC-EHO-FCV/2B	R548H	1	L	1	*	
CAC-EHO-FCV/3B	R480M	1	None	1	*	
CAC-EHO-FCV/4B	R471B	1	D	1	*	
CAC-EHO-FCV/5B	R572F	1	M	1	*	
CAC-EHO-FCV/6B	R572F	1	M	1	*	
CAC-EHO-TCV/4B	R572F	1	M	1	*	
CAC-EHO-V/1B	R572F	1	M	1	*	
CAC-EHO-V/2B	R572F	1	M	1	*	
CAC-EHO-V/3B	R572F	1	M	1	*	
CAC-FT-5B	R572F	2	M	1	*	NOTE (2)
CAC-POS-FCV/1B	R548Q	1	K	1	*	
CAC-POS-FCV/2B	R548H	1	L	1	*	
CAC-POS-FCV/3B	R480M	1	None	1	*	
CAC-POS-FCV/4B	R471B	1	D	1	*	
CAC-POS-FCV/5B	R572F	1	M	1	*	
CAC-POS-FCV/6B	R572F	1	M	1	*	
CAC-POS-TCV/4B	R572F	1	M	1	*	
CAC-POS-V/1B	R572F	1	M	1	*	
CAC-POS-V/2B	R572F	1	M	1	*	
CAC-POS-V/3B	R572F	1	M	1	*	
CAC-RLY-4B/CR1	R471D	1	D	1	*	
CAC-RLY-4B/CR2	R471D	1	D	1	*	
CAC-RLY-80FCV1B	R471D	1	D	1	*	
CAC-RLY-80FCV2B	R471D	1	D	1	*	
CAC-RLY-80FCV3B	R471D	1	D	1	*	

TABLE C
EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
PRIOR TO END OF FIRST REFUELING OUTAGE

EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CAC-RLY-80FCV4B	R471D	1	D	1	*	
CAC-RLY-CR3B	R572F	1	M	1	*	
CAC-RLY-CR4BV14	R572F	1	M	1	*	
CAC-RLY-CR5B	R572F	1	M	1	*	
CAC-RLY-CR6B	R572F	1	M	1	*	
CAC-RLY-MR1B	R572F	1	M	1	*	
CAC-RLY-MR2B	R572F	1	M	1	*	
CAC-RLY-TDE2B	R572F	1	M	1	*	
CAC-TE-1B	R572F	1	M	1	*	
CAC-TE-2B	R572F	1	M	1	*	
CAC-TE-3B	R572F	1	M	1	*	
CAC-TE-4B	R572F	1	M	1	*	
CAC-TE-5B	R572F	1	M	1	*	
CAC-TE-6B	R572F	1	M	1	*	
CAC-TT-4B	R572F	1	M	1	*	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT. INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CEP-SPV-1A	R548G	2	LM	1	*	
CEP-SPV-1B	R548G	2	LM	1	*	
CEP-SPV-2A	R548P	2	JM	1	*	
CEP-SPV-2B	R548P	2	JM	1	*	
CEP-SPV-3A	R471J	2	D	1	*	
CEP-SPV-3B	R471J	2	D	1	*	
CEP-SPV-4A	R501K	2	D	1	*	
CEP-SPV-4B	R501K	2	D	1	*	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CRA-M-FN/3B	C522	1	PQR	1	PQR	
CRA-M-FN/3C	C522	1	PQR	1.	PQR	
CRA-M-FN/4B	C572	1	PQR	1	PQR	
CRA-M-FN/5B	C564	1	PQR	1	PQR	
CRA-M-FN/5D	C564	1	PQR	1	PQR	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CSP-DPIS-V/4	R501K	1	D	1	*	
CSP-DPIS-V/5	R501F	1	D	1	*	
CSP-DPIS-V/6	R501F	1	D	1	*	
CSP-POS-V/10P1	R471B	1	D	1	*	
CSP-POS-V/10P12	R471B	1	D	1	*	
CSP-POS-V/10P13	R471B	1	D	1	*	
CSP-POS-V/10P2	R471B	1	D	1	*	
CSP-POS-V/10P3	R471B	1	D	1	*	
CSP-POS-V/10P4	R471B	1	D	1	*	
CSP-POS-V/10P9	R471B	1	D	1	*	
CSP-POS-V/6	R471J	1	D	1	*	
CSP-POS-V/7P1	R471D	1	D	1	*	
CSP-POS-V/7P12	R471D	1	D	1	*	
CSP-POS-V/7P2	R471D	1	D	1	*	
CSP-POS-V/7P3	R471D	1	D	1	*	
CSP-POS-V/7P4	R471D	1	D	1	*	
CSP-POS-V/7P9	R471D	1	D	1	*	
CSP-POS-V/8P1	R471J	1	D	1	*	
CSP-POS-V/8P12	R471J	1	D	1	*	
CSP-POS-V/8P2	R471J	1	D	1	*	
CSP-POS-V/8P3	R471J	1	D	1	*	
CSP-POS-V/8P4	R471J	1	D	1	*	
CSP-POS-V/8P9	R471J	1	D	1	*	
CSP-SPV-1	R501F	1	D	1	*	
CSP-SPV-10A	R471B	1	D	1	*	
CSP-SPV-10B	R471B	1	D	1	*	
CSP-SPV-2	R501K	1	D	1	*	
CSP-SPV-3	R471B	1	D	1	*	
CSP-SPV-4	R501F	1	D	1	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
CSP-SPV-5	R501F	1	D	1	*	
CSP-SPV-6	R501K	1	D	1	*	
CSP-SPV-7A	R471B	1	D	1	*	
CSP-SPV-7B	R471B	1	D	1	*	
CSP-SPV-8A	R471J	1	D	1	*	
CSP-SPV-8B	R471J	1	D	1	*	
CSP-SPV-9	R501F	1	D	1	*	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
E-TR-7BB	R471A	2	D	3	D*	
E-TR-8BA	R606A	2	None	3	*	
E-TR-8BB	R471D	2	D	3	D*	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
FDR-LS-42	R422I	1	None	3	*	
FDR-LS-43	R422M	1	C	3	*	
FDR-LS-44	R422L	1	AB	3	*	
FDR-LS-45	R422C	1	None	3	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
FPC-DPIC-1	R471J	2	D	3	D*	NOTE (2)
FPC-DPIS-11	R471J	2	D	3	D*	NOTE (2)
FPC-DPIS-12	R471J	2	D	3	D*	NOTE (2)
FPC-FIC-21	R606A	1	None	3	*	
FPC-FIS-20	R548K	2	LM	3	LM*	
FPC-FT-16	R522H	1	D	3	D*	
FPC-FT-17	R572J	1	None	3	*	
FPC-LIS-1A	R572N	2	M	3	M*	NOTE (2)
FPC-LIS-1B	R572F	2	M	3	M*	NOTE (2)
FPC-LIS-2A	R572N	2	M	3	M*	NOTE (2)
FPC-LIS-2B	R572F	2	M	3	M*	NOTE (2)
FPC-LIS-3A1	R572N	2	M	3	M*	NOTE (2)
FPC-LIS-3A2	R572N	2	M	3	M*	
FPC-LIS-3B1	R572F	2	M	3	M*	NOTE (2)
FPC-LIS-3B2	R572F	2	M	3	M*	
FPC-LS-4	R572K	2	None	3	*	
FPC-LS-5	R572K	2	None	3	*	
FPC-LT-21	R606A	2	None	3	*	
FPC-M-P/1A	R548L	2	None	3	*	
FPC-M-P/1B	R548L	2	None	3	*	
FPC-MO-172	R471D	1	D	3	D*	
FPC-MO-173	R471D	1	D	3	D*	
FPC-MO-175	R548M	2	M	3	M*	
FPC-MO-181A	R548L	2	None	3	*	NOTE (2)
FPC-MO-181B	R548L	2	None	3	*	NOTE (2)
FPC-MO-184	R471D	1	D	3	D*	
FPC-PS-6A	R548K	1	LM	3	LM*	
FPC-PS-6B	R548H	1	L	3	L*	
FPC-PS-9A	R548K	1	LM	3	LM*	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
FPC-PS-9B	R548H	1	L	3	L*	
FPC-RMS-P/1A	R548K	2	LM	3	LM*	
FPC-RMS-P/1B	R548H	2	L	3	L*	
FPC-SPV-1	R471J	1	D	3	D*	
FPC-TE-4	R548K	1	LM	3	LM*	
FPC-TE-5A	R548K	1	None	3	*	
FPC-TE-5B	R548K	1	LM	3	LM*	
FPC-TE-6	R572K	2	None	3	*	
FPC-TE-7	R572K	1	None	3	*	
FPC-TE-8	R572K	1	None	3	*	

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EQUIPMENT TO HAVE QUALIFICATION DOCUMENTATION
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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
LPCS-DPIS-6	R471A	1	D	3	D*	
LPCS-FIS-4	R471A	1	D	3	D*	
LPCS-FT-3	R471A	1	D	3	D*	
LPCS-M-P/1	R422C	1	None	3	*	
LPCS-M-P/2	R422C	1	None	3	*	
LPCS-PIS-1	R471A	1	D	3	D*	
LPCS-POS-V/51	C554	1	PQR	3	PQR	
LPCS-POS-V/6	C547	1	PQR	3	PQR	
LPCS-PS-5	R471A	2	D	3	D*	NOTE (2)
LPCS-PS-9	R471A	1	D	3	D*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MSLC-FT-3A	R471J	1	D	3	D*	
MSLC-FT-3B	R471J	1	D	3	D*	
MSLC-FT-3C	R471J	1	D	3	D*	
MSLC-FT-3D	R471J	1	D	3	D*	
MSLC-M-FN/1	R471J	1	D	3	D*	
MSLC-MO-1A	R471J	1	D	3	D*	
MSLC-MO-1B	R471J	1	D	3	D*	
MSLC-MO-1C	R471J	1	D	3	D*	
MSLC-MO-1D	R471J	1	D	3	D*	
MSLC-RLY-CR/10	R522P	1	D	3	D*	
MSLC-RLY-CR/11	R522P	1	D	3	D*	
MSLC-RLY-CR/12	R522P	1	D	3	D*	
MSLC-RLY-CR/13	R522P	1	D	3	D*	
MSLC-RLY-CR/1A	R522P	1	D	3	D*	
MSLC-RLY-CR/1B	R522P	1	D	3	D*	
MSLC-RLY-CR/1C	R522P	1	D	3	D*	
MSLC-RLY-CR/1D	R522P	1	D	3	D*	
MSLC-RLY-CR/5A1	R522P	1	D	3	D*	
MSLC-RLY-CR/5A2	R522P	1	D	3	D*	
MSLC-RLY-CR/5B1	R522P	1	D	3	D*	
MSLC-RLY-CR/5B2	R522P	1	D	3	D*	
MSLC-RLY-CR/5C1	R522P	1	D	3	D*	
MSLC-RLY-CR/5C2	R522P	1	D	3	D*	
MSLC-RLY-CR/5D1	R522P	1	D	3	D*	
MSLC-RLY-CR/5D2	R522P	1	D	3	D*	
MSLC-RLY-CR/6A1	R522P	1	D	3	D*	
MSLC-RLY-CR/6A2	R522P	1	D	3	D*	
MSLC-RLY-CR/6B1	R522P	1	D	3	D*	
MSLC-RLY-CR/6B2	R522P	1	D	3	D*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
MSLC-RLY-CR/6C1	R522P	1	D	3	D*	
MSLC-RLY-CR/6C2	R522P	1	D	3	D*	
MSLC-RLY-CR/6D1	R522P	1	D	3	D*	
MSLC-RLY-CR/6D2	R522P	1	D	3	D*	
MSLC-RLY-CR/8	R522P	1	D	3	D*	
MSLC-RLY-CR/9	R522P	1	D	3	D*	
MSLC-TD-TK/2A	R522P	1	D	3	D*	
MSLC-TD-TK/2B	R522P	1	D	3	D*	
MSLC-TD-TK/2C	R522P	1	D	3	D*	
MSLC-TD-TK/2D	R522P	1	D	3	D*	
MSLC-TD-TK/3A	R522P	1	D	3	D*	
MSLC-TD-TK/3B	R522P	1	D	3	D*	
MSLC-TD-TK/3C	R522P	1	D	3	D*	
MSLC-TD-TK/3D	R522P	1	D	3	D*	
MSLC-TD-TK/4A	R522P	1	D	3	D*	
MSLC-TD-TK/4B	R522P	1	D	3	D*	
MSLC-TD-TK/4C	R522P	1	D	3	D*	
MSLC-TD-TK/4D	R522P	1	D	3	D*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
REA-M-AD/8	R548K	1	LM	1	*	
REA-POS-AD/8	R548K	1	LM	1	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-CE-1B	R522H	2	D	3	D*	NOTE (2)
RHR-DPIS-29B	R501K	2	D	3	D*	NOTE (2)
RHR-FIS-10B	R501K	1	D	3	D*	
RHR-FIS-10C	R501K	1	D	3	D*	
RHR-FT-1	R548J	2	None	3	*	NOTE (2)
RHR-FT-13	R548H	2	L	3	L*	NOTE (2)
RHR-FT-15B	R501K	1	D	3	D*	
RHR-FT-15C	R501K	1	D	3	D*	
RHR-FT-7B	R501K	1	D	3	D*	
RHR-LS-10A	R471E	2	None	3	*	
RHR-LS-10B	R471E	2	None	3	*	
RHR-LS-10C	R471E	2	None	3	*	
RHR-LS-10D	R471E	2	None	3	*	
RHR-LT-8B	R548J	2	None	3	*	
RHR-M-P/2B	R422I	1	None	3	*	
RHR-M-P/2C	R422M	1	C	3	C*	
RHR-MO-26B	R471E	1	None	3	*	
RHR-PIS-22B	R501K	2	D	1	*	NOTE (2)
RHR-PIS-22C	R501K	2	D	1	*	NOTE (2)
RHR-POT-608B	R572I	1	None	3	*	
RHR-POT-609B	R572I	1	None	3	*	
RHR-PS-16B	R501K	1	D	3	D*	
RHR-PS-16C	R501K	1	D	3	D*	
RHR-PS-19B	R501K	1	D	3	D*	
RHR-PS-19C	R501K	1	D	3	D*	
RHR-TE-27B	R548K	1	LM	3	LM*	
RHR-TE-4B	R572I	1	None	3	*	
RHR-TE-5B	R548J	2	None	3	*	NOTE (2)
RHR-V-182	R548L	1	None	3	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RHR-V-60B	R548N	2	None	3	*	
RHR-V-75B	R548J	2	None	3	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
RRA-RMS-FN/S1	R441J	2	C	3	C*	
RRA-RMS-FN/S3	R441F	2	None	3	*	
RRA-RMS-FN/S5	R441B	2	None	3	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-EHO-FN/1B1	R572N	1	M	5	*	
SGT-EHO-FN/1B2	R572N	1	M	5	*	
SGT-FS-2B1	R572N	1	M	5	*	
SGT-FT-1B1	R572N	1	M	5	*	
SGT-FT-1B2	R572N	1	M	5	*	
SGT-M-FN/1B1	R572N	1	M	5	*	
SGT-M-FN/1B2	R572N	1	M	5	*	
SGT-MC-H/6B	R572N	1	M	5	*	
SGT-MC-H/7B	R572N	1	M	5	*	
SGT-ME-6B	R572N	1	M	5	*	
SGT-ME-7B	R572N	1	M	5	*	
SGT-MO-1B	R572N	1	M	5	*	
SGT-MO-3B1	R572N	1	M	5	*	
SGT-MO-3B2	R572N	1	M	5	*	
SGT-MO-4B1	R572N	1	M	5	*	
SGT-MO-4B2	R572N	1	M	5	*	
SGT-MO-5B1	R572N	1	M	5	*	
SGT-MO-5B2	R572N	1	M	5	*	
SGT-SPV-2B	R572N	1	M	5	*	
SGT-SPV-F4	R572N	2	M	5	*	
SGT-SPV-F5	R572N	2	M	5	*	
SGT-SPV-F6	R572N	2	M	5	*	
SGT-TE-6B1	R572N	2	M	5	*	
SGT-TE-7B1	R572N	2	M	5	*	
SGT-TE-8B1	R572N	2	M	5	*	
SGT-TS-6B1	R572N	2	M	5	*	
SGT-TS-7B1	R572N	2	M	5	*	
SGT-TS-8B1	R572N	2	M	5	*	
SGT-TS-EH1B10	R572N	1	M	5	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-TS-EH1B11	R572N	1	M	5	*	
SGT-TS-EH1B11	R572N	1	M	5	*	
SGT-TS-EH1B112	R572N	1	M	5	*	
SGT-TS-EH1B113	R572N	1	M	5	*	
SGT-TS-EH1B114	R572N	1	M	5	*	
SGT-TS-EH1B115	R572N	1	M	5	*	
SGT-TS-EH1B116	R572N	1	M	5	*	
SGT-TS-EH1B117	R572N	1	M	5	*	
SGT-TS-EH1B118	R572N	1	M	5	*	
SGT-TS-EH1B12	R572N	1	M	5	*	
SGT-TS-EH1B13	R572N	1	M	5	*	
SGT-TS-EH1B14	R572N	1	M	5	*	
SGT-TS-EH1B15	R572N	1	M	5	*	
SGT-TS-EH1B16	R572N	1	M	5	*	
SGT-TS-EH1B17	R572N	1	M	5	*	
SGT-TS-EH1B18	R572N	1	M	5	*	
SGT-TS-EH1B19	R572N	1	M	5	*	
SGT-TS-EH1B21	R572N	1	M	5	*	
SGT-TS-EH1B210	R572N	1	M	5	*	
SGT-TS-EH1B211	R572N	1	M	5	*	
SGT-TS-EH1B212	R572N	1	M	5	*	
SGT-TS-EH1B213	R572N	1	M	5	*	
SGT-TS-EH1B214	R572N	1	M	5	*	
SGT-TS-EH1B215	R572N	1	M	5	*	
SGT-TS-EH1B216	R572N	1	M	5	*	
SGT-TS-EH1B217	R572N	1	M	5	*	
SGT-TS-EH1B218	R572N	1	M	5	*	
SGT-TS-EH1B22	R572N	1	M	5	*	
SGT-TS-EH1B23	R572N	1	M	5	*	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SGT-TS-EH1B24	R572N	1	M	5	*	
SGT-TS-EH1B25	R572N	1	M	5	*	
SGT-TS-EH1B26	R572N	1	M	5	*	
SGT-TS-EH1B27	R572N	1	M	5	*	
SGT-TS-EH1B28	R572N	1	M	5	*	
SGT-TS-EH1B29	R572N	1	M	5	*	



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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SPTM-TE-1B	C466	1	PQR	3	PQR	
SPTM-TE-10	C448	1	PQR	3	PQR	
SPTM-TE-12	C448	1	PQR	3	PQR	
SPTM-TE-14	C448	1	PQR	3	PQR	
SPTM-TE-16	C448	1	PQR	3	PQR	
SPTM-TE-2B	C466	1	PQR	3	PQR	
SPTM-TE-3B	C466	1	PQR	3	PQR	
SPTM-TE-4B	C466	1	PQR	3	PQR	
SPTM-TE-5B	C466	1	PQR	3	PQR	
SPTM-TE-6B	C466	1	PQR	3	PQR	
SPTM-TE-7B	C466	1	PQR	3	PQR	
SPTM-TE-8B	C466	1	PQR	3	PQR	

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EPN	RAD ZONE	USE CODE	ACCIDENT INFORMATION			STATUS
			Exp To	Reqd For	Qual To	
SW-MO-187A	R548L	1	None	3	*	
SW-MO-187B	R548L	1	None	3	*	
SW-MO-188A	R548L	1	None	3	*	
SW-MO-188B	R548L	1	None	3	*	
SW-MO-75A	R522K	2	D	3	D*	
SW-MO-75B	R522H	2	D	3	D*	
SW-PS-1015	R548F	1	None	3	*	
SW-V-206	R548F	1	None	3	*	
SW-V-209	R548F	1	None	3	*	
SW-V-210	R548F	1	None	3	*	
SW-V-211	R548C	1	M	3	M*	
SW-V-34	R441D	2	None	3	*	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

REASON CODES

<u>CODE</u>	<u>DESCRIPTION</u>
A	Failure will provide false indication, but no operator action is required based solely on the indication.
B	This component is redundant.
C	This system is isolated at the time of the accident, so this component has no accident function.
D	The component this instrument controls is not required for accident mitigation or safe shutdown.
E	This instrument is local- or rack-mounted inside the reactor building, and is not used for accident mitigation or safe shutdown.
F	This local switch/controller is isolated from system operation via a transfer switch in the control room.
G	The effect of this relay is overridden by the isolation signal.
H	Failure of this component cannot affect the safety position of its associated valve.
J	This valve is outside the system isolation boundary. Its failure, in any mode, has no effect.
K	This CRD component is not related to the scram function.
L	This POS/RLY is not required for isolation or for position indication of its associated valve.
M	Not part of R.G. 1.97 required instrumentation.
N	Stem leakoff isolation fails closed. Fail-open is not a problem, since it would only port water to the EDR header, isolated by containment isolation valves.
O	The safety function of this item is associated with FPC but is not required since it is backed up by SW temperature instrumentation.
P	No credit is taken for this item's function in the harsh environment following an accident.



TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

REASON CODES (Cont'd.)

<u>CODE</u>	<u>DESCRIPTION</u>
Q	This item is required only for the system's standby mode, not operation.
R	Only used when train stops working properly; not necessary for safety function.
S	This equipment is used to cool the RCIC pump room; since no credit is taken for the use of RCIC, this item is not required.
T	No credible failure of this device will result in the loss of an MCC.

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
CAC-FI-5A1	R572D	3	E	
CAC-FI-5B1	R572H	3	E	
CAC-FR-67A1	R572D	3	E	
CAC-FR-67B1	R572H	3	E	
CAC-LI-1A	R572D	3	E	
CAC-LI-1B	R572H	3	E	
CAC-PI-1A1	R572D	3	E	
CAC-PI-1B1	R572H	3	E	
CAC-RMC-2A/LOCL	R572D	3	F	
CAC-RMC-2B/LOCL	R572D	3	F	
CAC-RMC-5A/LOCL	R572D	3	F	
CAC-RMC-5B/LOCL	R572D	3	F	
CAC-RMS-11A/LOC	R572F	3	F	
CAC-RMS-11B/LOC	R572F	3	F	
CAC-RMS-1ASTA	R572F	3	F	
CAC-RMS-1ASTO	R572F	3	F	
CAC-RMS-1BSTA	R572F	3	F	
CAC-RMS-1BSTO	R572F	3	F	
CAC-RMS-EHCL1A	R572D	3	F	
CAC-RMS-EHCL1B	R572H	3	F	
CAC-RMS-PBA/LOC	R572F	3	F	
CAC-RMS-PBB/LOC	R572F	3	F	
CAC-TR-1A1	R572D	3	E	
CAC-TR-1B1	R572H	3	E	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
CMS-TE-15	C	3	M	
CMS-TE-16	C	3	M	
CMS-TE-17	C	3	M	
CMS-TE-18	C	3	M	
CMS-TE-19	C	3	M	
CMS-TE-20	C	3	M	
CMS-TE-24/1	C	3	M	
CMS-TE-24/2	C	3	M	
CMS-TE-25/1	C	3	M	
CMS-TE-25/2	C	3	M	
CMS-TE-26/1	C	3	M	
CMS-TE-26/2	C	3	M	
CMS-TE-32	C	3	M	
CMS-TE-33	C	3	M	
CMS-TE-36	C	3	M	
CMS-TE-37	C	3	M	
CMS-TE-38	C	3	M	
CMS-TE-39	C	3	M	
CMS-TE-40	C	3	M	
CMS-TE-51	C	3	M	
CMS-TE-52	C	3	M	
CMS-TE-53	C	3	M	
CMS-TE-54	C	3	M	
CMS-TE-55	C	3	M	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
CRA-M-1A1	C516	3	P	
CRA-M-1A2	C516	3	P	
CRA-M-1B1	C516	3	P	
CRA-M-1B2	C516	3	P	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
CRD-E/P-001	R522C	3	K	
CRD-M/A-9A	R522C	3	K	
CRD-M/A-9B	R522C	3	K	
CRD-MO-3	R522C	3	K	
CRD-PIS-600	R501	3	K	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
CSP-POS-V/10P10	R	3	L	
CSP-POS-V/10P11	R	3	L	
CSP-POS-V/7P10	R	3	L	
CSP-POS-V/7P11	R	3	L	
CSP-POS-V/7P13	R	3	L	
CSP-POS-V/8P10	R	3	L	
CSP-POS-V/8P11	R	3	L	
CSP-POS-V/8P13	R	3	L	
CSP-RLY-V/10R3	R471H	3	L	
CSP-RLY-V/10R4	R471H	3	L	
CSP-RLY-V/7R3	R471H	3	L	
CSP-RLY-V/7R4	R471H	3	L	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
CVB-SPV-1A1	C492	3	H	
CVB-SPV-1A2	C492	3	H	
CVB-SPV-1B1	C492	3	H	
CVB-SPV-1B2	C492	3	H	
CVB-SPV-1C1	C492	3	H	
CVB-SPV-1C2	C492	3	H	
CVB-SPV-1D1	C492	3	H	
CVB-SPV-1D2	C492	3	H	
CVB-SPV-1E1	C492	3	H	
CVB-SPV-1E2	C492	3	H	
CVB-SPV-1F1	C492	3	H	
CVB-SPV-1F2	C492	3	H	
CVB-SPV-1G1	C492	3	H	
CVB-SPV-1G2	C492	3	H	
CVB-SPV-1H1	C492	3	H	
CVB-SPV-1H2	C492	3	H	
CVB-SPV-1J1	C492	3	H	
CVB-SPV-1J2	C492	3	H	
CVB-SPV-1K1	C492	3	H	
CVB-SPV-1K2	C492	3	H	
CVB-SPV-1L1	C492	3	H	
CVB-SPV-1L2	C492	3	H	
CVB-SPV-1M1	C492	3	H	
CVB-SPV-1M2	C492	3	H	
CVB-SPV-1N1	C492	3	H	
CVB-SPV-1N2	C492	3	H	
CVB-SPV-1P1	C492	3	H	
CVB-SPV-1P2	C492	3	H	
CVB-SPV-1Q1	C492	3	H	
CVB-SPV-1Q2	C492	3	H	
CVB-SPV-1R1	C492	3	H	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
CVB-SPV-1R2	C492	3	H	
CVB-SPV-1S1	C492	3	H	
CVB-SPV-1S2	C492	3	H	
CVB-SPV-1T1	C492	3	H	
CVB-SPV-1T2	C492	3	H	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
E-42-7BB/8ASPAR	R572D	3	T	Spare
E-42-7BB/8CSPAR	R572D	3	T	Spare
E-42-8B/10BSPAR	R522D	3	T	
E-42-8B/2ASPARE	R522D	3	T	
E-42-S21A/1CSPA	R471H	3	T	Spare, bus protected from faults
E-42-S21A/2CSPA	R471H	3	T	Spare, bus protected from faults
E-42-S21A/3CSPA	R471H	3	T	Spare, bus protected from faults
E-42-S21A/4CSPA	R471H	3	T	Spare, bus protected from faults

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
FPC-M-P/3	R	3	P	
FPC-RMS-P/3	R	3	P	



TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
HPCS-POS-V/51	C556	3	A	
HPCS-POS-V/76	C	3	A	



TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
IRM-DET-2A	CRPV	3	M	
IRM-DET-2B	CRPV	3	M	
IRM-DET-2C	CRPV	3	M	
IRM-DET-2D	CRPV	3	M	
IRM-DET-2E	CRPV	3	M	
IRM-DET-2F	CRPV	3	M	
IRM-DET-2G	CRPV	3	M	
IRM-DET-2H	CRPV	3	M	
IRM-EAMP-2A	R501B	3	M	
IRM-EAMP-2B	R501K	3	M	
IRM-EAMP-2C	R501B	3	M	
IRM-EAMP-2D	R501K	3	M	
IRM-EAMP-2E	R501B	3	M	
IRM-EAMP-2F	R501K	3	M	
IRM-EAMP-2G	R501B	3	M	
IRM-EAMP-2H	R501K	3	M	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
LD-TE-17A	C564	3	P	
LD-TE-17B	C548	3	P	
LD-TE-17C	C532	3	P	
LD-TE-17D	C516	3	P	
LD-V-5A	C508	3	N	
LD-V-5AA	C501	3	N	
LD-V-5B	C508	3	N	
LD-V-5BB	C501	3	N	
LD-V-5C	C509	3	N	
LD-V-5CC	C547	3	N	
LD-V-5D	C509	3	N	
LD-V-5DD	C547	3	N	
LD-V-5E	C509	3	N	
LD-V-5EE	C547	3	N	
LD-V-5F	C505	3	N	
LD-V-5G	C507	3	N	
LD-V-5H	C504	3	N	
LD-V-5L	C507	3	N	
LD-V-5M	C507	3	N	
LD-V-5N	C508	3	N	
LD-V-5Q	C557	3	N	
LD-V-5R	C562	3	N	
LD-V-5S	C557	3	N	
LD-V-5T	C509	3	N	
LD-V-5U	C506	3	N	
LD-V-5V	C547	3	N	
LD-V-5W	C548	3	N	
LD-V-5X	C540	3	N	
LD-V-5Y	C501	3	N	
LD-V-5Z	C515	3	N	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
LPRM-DET-12BCD	CRPV	3	MP	
LPRM-DET-13CDA	CRPV	3	MP	
LPRM-DET-14ABD	CRPV	3	MP	
LPRM-DET-15ABC	CRPV	3	MP	
LPRM-DET-16BCD	CRPV	3	MP	
LPRM-DET-21ABC	CRPV	3	MP	
LPRM-DET-22DAB	CRPV	3	MP	
LPRM-DET-23CDA	CRPV	3	MP	
LPRM-DET-24BCD	CRPV	3	MP	
LPRM-DET-25ABC	CRPV	3	MP	
LPRM-DET-26DAB	CRPV	3	MP	
LPRM-DET-27CDA	CRPV	3	MP	
LPRM-DET-31CDA	CRPV	3	MP	
LPRM-DET-32DAB	CRPV	3	MP	
LPRM-DET-33ABC	CRPV	3	MP	
LPRM-DET-34BCD	CRPV	3	MP	
LPRM-DET-35CDA	CRPV	3	MP	
LPRM-DET-36DAB	CRPV	3	MP	
LPRM-DET-37ABC	CRPV	3	MP	
LPRM-DET-41CDA	CRPV	3	MP	
LPRM-DET-42BCD	CRPV	3	MP	
LPRM-DET-43ABC	CRPV	3	MP	
LPRM-DET-44DAB	CRPV	3	MP	
LPRM-DET-45CDA	CRPV	3	MP	
LPRM-DET-46BCD	CRPV	3	MP	
LPRM-DET-47ABC	CRPV	3	MP	
LPRM-DET-51ABC	CRPV	3	MP	
LPRM-DET-52BCD	CRPV	3	MP	
LPRM-DET-53CDA	CRPV	3	MP	



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TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
LPRM-DET-54DAB	CRPV	3	MP	
LPRM-DET-55ABC	CRPV	3	MP	
LPRM-DET-56BCD	CRPV	3	MP	
LPRM-DET-57CDA	CRPV	3	MP	
LPRM-DET-61ABC	CRPV	3	MP	
LPRM-DET-62DAB	CRPV	3	MP	
LPRM-DET-63CDA	CRPV	3	MP	
LPRM-DET-64BCD	CRPV	3	MP	
LPRM-DET-65ABC	CRPV	3	MP	
LPRM-DET-66DAB	CRPV	3	MP	
LPRM-DET-72DAB	CRPV	3	MP	
LPRM-DET-73ABC	CRPV	3	MP	
LPRM-DET-74BCD	CRPV	3	MP	
LPRM-DET-75CDA	CRPV	3	MP	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
MS-DPI-5	R471B	3	E	
MS-MO-V/20	R5010	3	J	
MS-PS-39A	R522P	3	P	Not related to ADS function
MS-PS-39B	R522P	3	P	Not related to ADS function
MS-PS-39C	R522P	3	P	Not related to ADS function
MS-PS-39D	R522P	3	P	Not related to ADS function
MS-PS-39E	R522P	3	P	Not related to ADS function
MS-PS-39F	R522P	3	P	Not related to ADS function
MS-PS-39G	R522P	3	P	Not related to ADS function
MS-PS-39H	R522P	3	P	Not related to ADS function
MS-PS-39J	R522P	3	P	Not related to ADS function
MS-PS-39K	R522P	3	P	Not related to ADS function
MS-PS-39L	R522P	3	P	Not related to ADS function
MS-PS-39M	R522P	3	P	Not related to ADS function
MS-PS-39N	R522P	3	P	Not related to ADS function
MS-PS-39P	R522P	3	P	Not related to ADS function
MS-PS-39R	R522P	3	P	Not related to ADS function
MS-PS-39S	R522P	3	P	Not related to ADS function
MS-PS-39U	R522P	3	P	Not related to ADS function
MS-PS-39V	R522P	3	P	Not related to ADS function
MS-SPV-1AC	C522	3	P	Not related to ADS function
MS-SPV-1BC	C522	3	P	Not related to ADS function
MS-SPV-1CC	C522	3	P	Not related to ADS function
MS-SPV-1DC	C522	3	P	Not related to ADS function
MS-SPV-22A1	C513	3	H	
MS-SPV-22B1	C513	3	H	
MS-SPV-22C1	C513	3	H	
MS-SPV-22D1	C513	3	H	
MS-SPV-28A1	R5010	3	H	
MS-SPV-28B1	R5010	3	H	
MS-SPV-28C1	R5010	3	H	



TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
MS-SPV-28D1	R5010	3	H	
MS-SPV-2AC	C522	3	P	Not related to ADS function
MS-SPV-2BC	C522	3	P	Not related to ADS function
MS-SPV-2CC	C522	3	P	Not related to ADS function
MS-SPV-2DC	C522	3	P	Not related to ADS function
MS-SPV-3AC	C522	3	P	Not related to ADS function
MS-SPV-3BC	C522	3	P	Not related to ADS function
MS-SPV-3CC	C522	3	P	Not related to ADS function
MS-SPV-3DC	C522	3	P	Not related to ADS function
MS-SPV-4AC	C522	3	P	Not related to ADS function
MS-SPV-4BC	C522	3	P	Not related to ADS function
MS-SPV-4CC	C522	3	P	Not related to ADS function
MS-SPV-4DC	C522	3	P	Not related to ADS function
MS-SPV-5BC	C522	3	P	Not related to ADS function
MS-SPV-5CC	C522	3	P	Not related to ADS function

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
MSLC-H-A	R471J	3	P	
MSLC-H-B	R471J	3	P	
MSLC-H-C	R471J	3	P	
MSLC-H-D	R471J	3	P	
MSLC-TE-10A	R471J	3	D	
MSLC-TE-10B	R471J	3	D	
MSLC-TE-10C	R471J	3	D	
MSLC-TE-10D	R471J	3	D	

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TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
RCC-TS-10A	R548L	3	0	
RCC-TS-10B	R548L	3	0	

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TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
RCIC-FIS-2	R471D	3	P	Not assoc. with containment iso.
RCIC-LMS-V/19B	R548H	3	P	Not assoc. with containment iso.
RCIC-LS-10	R422L	3	P	Not assoc. with containment iso.
RCIC-LS-3	R422L	3	P	Not assoc. with containment iso.
RCIC-LS-4	R548N	3	P	Not assoc. with containment iso.
RCIC-LS-5	R548J	3	P	Not assoc. with containment iso.
RCIC-LS-6	R548	3	P	Not assoc. with containment iso.
RCIC-M-P/3	R422L	3	P	Not assoc. with containment iso.
RCIC-MO-V/1	R422L	3	P	Not assoc. with containment iso.
RCIC-MO-V/10	R422L	3	P	Not assoc. with containment iso.
RCIC-MO-V/22	R441I	3	P	Not assoc. with containment iso.
RCIC-MO-V/45	R422L	3	P	Not assoc. with containment iso.
RCIC-MO-V/46	R422L	3	P	Not assoc. with containment iso.
RCIC-MO-V/59	R441I	3	P	Not assoc. with containment iso.
RCIC-PI-1	R471D	3	P	Not assoc. with containment iso.
RCIC-PI-2	R471D	3	P	Not assoc. with containment iso.
RCIC-PI-4	R471D	3	P	Not assoc. with containment iso.
RCIC-PI-803	R471	3	P	Not assoc. with containment iso.
RCIC-POS-V/21	R422L	3	P	Not assoc. with containment iso.
RCIC-POS-V/22	R422L	3	P	Not assoc. with containment iso.
RCIC-POS-V/25	R422	3	P	Not assoc. with containment iso.
RCIC-POS-V/26	R422	3	P	Not assoc. with containment iso.
RCIC-POS-V/4	R423	3	P	Not assoc. with containment iso.
RCIC-POS-V/5	R422	3	P	Not assoc. with containment iso.
RCIC-POS-V/54	R422	3	P	Not assoc. with containment iso.
RCIC-PS-1	R422	3	P	Not assoc. with containment iso.
RCIC-PS-12A	R471	3	P	Not assoc. with containment iso.
RCIC-PS-12B	R471	3	P	Not assoc. with containment iso.
RCIC-PS-12C	R471	3	P	Not assoc. with containment iso.
RCIC-PS-12D	R471	3	P	Not assoc. with containment iso.
RCIC-PS-20	R471	3	P	Not assoc. with containment iso.

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TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
RCIC-PS-21	R471	3	P	Not assoc. with containment iso.
RCIC-PS-32A	R501	3	P	Used for steam condensing mode
RCIC-PS-32B	R501	3	P	Used for steam condensing mode
RCIC-PS-33A	R501	3	P	Used for steam condensing mode
RCIC-PS-33B	R501	3	P	Used for steam condensing mode
RCIC-PS-34	R422	3	P	Not assoc. with containment iso.
RCIC-PS-6	R471	3	P	Not assoc. with containment iso.
RCIC-PS-9A	R471	3	P	Not assoc. with containment iso.
RCIC-PS-9B	R471	3	P	Not assoc. with containment iso.
RCIC-PT-4	R471	3	P	Not assoc. with containment iso.
RCIC-PT-5	R471	3	P	Not assoc. with containment iso.
RCIC-PT-7	R471	3	P	Not assoc. with containment iso.
RCIC-PT-8	R471	3	P	Not assoc. with containment iso.
RCIC-RMS-TURTRP	R422	3	P	Not assoc. with containment iso.
RCIC-SPV-25	R471	3	P	Not assoc. with containment iso.
RCIC-SPV-26	R501	3	P	Not assoc. with containment iso.
RCIC-SPV-4	R471	3	P	Not assoc. with containment iso.
RCIC-SPV-5	R501	3	P	Not assoc. with containment iso.
RCIC-SPV-54	R471	3	P	Not assoc. with containment iso.
RCIC-SS-1	R422	3	P	Not assoc. with containment iso.
RCIC-SS-C002	R422	3	P	Not assoc. with containment iso.
RCIC-SV-C002	R422	3	P	Not assoc. with containment iso.

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
REA-DPS-1A	R572C	3	D	
REA-DPS-1B	R572C	3	D	
REA-M-FN/1A	R572C	3	C	
REA-M-FN/1B	R572C	3	C	
REA-RLY-V/CR1	R522K	3	G	
REA-RLY-V/CR2	R548P	3	G	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
RHR-CE-25	R441G	3	P	
RHR-CI-6	R501K	3	P	
RHR-CIST-30A	R501B	3	A	
RHR-CIST-30B	R501K	3	A	
RHR-I/P-1A	R522K	3	P	Associated with steam condensing
RHR-I/P-1B	R522H	3	P	Associated with steam condensing
RHR-I/P-3A	R522K	3	P	Associated with steam condensing
RHR-I/P-3B	R522H	3	P	Associated with steam condensing
RHR-POS-V/111A	C563	3	A	
RHR-POS-V/111B	C563	3	A	
RHR-POS-V/111C	C563	3	A	
RHR-POS-V/112A	C512	3	A	
RHR-POS-V/112B	C512	3	A	
RHR-POS-V/113	C512	3	A	
RHR-POS-V/89	R548J	3	A	
RHR-PT-26A	R501B	3	P	Associated with steam condensing
RHR-PT-26B	R501K	3	P	Associated with steam condensing
RHR-PT-28	R501K	3	P	
RHR-SPV-41A	R501F	3	P	Used for testing only
RHR-SPV-41B	R522H	3	P	Used for testing only
RHR-SPV-41C	R501K	3	P	Used for testing only
RHR-SPV-50A	R548G	3	P	Used for testing only
RHR-SPV-50B	R501K	3	P	Used for testing only
RHR-SPV-51A	R522K	3	D	
RHR-SPV-51B	R522H	3	D	
RHR-SPV-65A	R522K	3	D	
RHR-SPV-65B	R522H	3	D	
RHR-SPV-89	R522H	3	P	Used for testing only
RHR-TE-31	R441G	3	P	Associated with steam condensing

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
ROA-DPS-11A	R572C	3	D	
ROA-DPS-11B	R572C	3	D	
ROA-M-FN/1A	R572C	3	C	
ROA-M-FN/1B	R572C	3	C	
ROA-RLY-V/CR1A	R548G	3	G	
ROA-RLY-V/CR200	R522H	3	G	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
RRA-M-FN/6	R441I	3	S	
RRA-RMS-FN/S6	R441I	3	S	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
RRC-FS-2A	C501	3	P	
RRC-FS-2B	C501	3	P	
RRC-FS-7A	C501	3	P	
RRC-FS-7B	C501	3	P	
RRC-FT-11A	R471B	3	P	
RRC-FT-11B	R471D	3	P	
RRC-FT-14A	R471B	3	P	
RRC-FT-14B	R471D	3	P	
RRC-FT-14C	R471B	3	P	
RRC-FT-14D	R471D	3	P	
RRC-FT-24A	R471B	3	P	
RRC-FT-24B	R471D	3	P	
RRC-FT-24C	R471B	3	P	
RRC-FT-24D	R471D	3	P	
RRC-MO-23A	C503	3	P	
RRC-MO-23B	C508	3	P	
RRC-MO-60A	C512	3	P	
RRC-MO-60B	C512	3	P	
RRC-MO-67A	C514	3	P	
RRC-MO-67B	C514	3	P	
RRC-POS-27A	C506	3	A	
RRC-POS-27B	C506	3	A	
RRC-POT-26A	C506	3	A	
RRC-POT-26B	C506	3	A	
RRC-SPV-85A	C501	3	P	
RRC-SPV-85B	C501	3	P	
RRC-TE-23A	C501	3	P	
RRC-TE-23B	C501	3	P	
RRC-TE-28A	C501	3	P	

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TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
RRC-TE-28B	C501	3	A	
RRC-TE--35A	C501	3	A	
RRC-TE-35B	C501	3	A	
RRC-TT-601A	C	3	P	
RRC-TT-601B	C	3	P	
RRC-TT-601C	C	3	P	
RRC-TT-601D	C	3	P	

1. The first part of the document is a list of names and titles.

2. The second part of the document is a list of dates and times.

3. The third part of the document is a list of locations and addresses.

4. The fourth part of the document is a list of activities and events.

5. The fifth part of the document is a list of contacts and phone numbers.

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
RWCU-MO-V/100	C501	3	P	Not assoc. with containment iso.
RWCU-MO-V/101	C514	3	P	Not assoc. with containment iso.
RWCU-MO-V/102	C502	3	P	Not assoc. with containment iso.
RWCU-MO-V/106	C501	3	P	Not assoc. with containment iso.

MEMORANDUM FOR THE RECORD

DATE: 10/15/54

TO: SAC, NEW YORK

FROM: SA [Name], NEW YORK

SUBJECT: [Subject Name]

RE: [Subject Name]

[Detailed description of the memorandum's content, including dates and actions taken]

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TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
SGT-CNTR-ESH1A	R572N	3	Q	
SGT-CNTR-ESH1B	R572N	3	Q	
SGT-CNTR-ESH2A	R572N	3	Q	
SGT-CNTR-ESH2B	R572N	3	Q	
SGT-DPIS-1A	R572N	3	M	
SGT-DPIS-1B	R572N	3	M	
SGT-DPIS-2A	R572N	3	M	
SGT-DPIS-2B	R572N	3	M	
SGT-DPIS-3A	R572N	3	M	
SGT-DPIS-3B	R572N	3	M	
SGT-DPIS-4A	R572N	3	M	
SGT-DPIS-4B	R572N	3	M	
SGT-DPIS-5A	R572N	3	M	
SGT-DPIS-5B	R572N	3	M	
SGT-DPIS-6A	R572N	3	M	
SGT-DPIS-6B	R572N	3	M	
SGT-ESH-1A	R572N	3	Q	
SGT-ESH-1B	R572N	3	Q	
SGT-ESH-2A	R572N	3	Q	
SGT-ESH-2B	R572N	3	Q	
SGT-FS-2A1	R572N	3	R	
SGT-FS-2B2	R572N	3	R	
SGT-ME-16A	R572N	3	AB	
SGT-ME-16B	R572N	3	AB	
SGT-ME-17A	R572N	3	AB	
SGT-ME-17B	R572N	3	AB	
SGT-ME-3A	R572N	3	AB	
SGT-ME-3B	R572N	3	AB	
SGT-ME-4A	R572N	3	AB	
SGT-ME-4B	R572N	3	AB	
SGT-ME-5A	R572N	3	AB	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
SGT-ME-5B	R572N	3	AB	
SGT-RLY-ESH1A11	R572N	3	Q	
SGT-RLY-ESH1A21	R572N	3	Q	
SGT-RLY-ESH1B11	R572N	3	Q	
SGT-RLY-ESH1B21	R572N	3	Q	
SGT-RMS-EH1A19	R572D	3	F	
SGT-RMS-EH1A29	R572H	3	F	
SGT-RMS-EH1B19	R572D	3	F	
SGT-RMS-EH1B29	R572H	3	F	
SGT-RMS-ESH1A1	R572N	3	F	
SGT-RMS-ESH1A2	R572N	3	F	
SGT-RMS-ESH1B1	R572N	3	F	
SGT-RMS-ESH1B2	R572N	3	F	
SGT-RMS-ESH2A1	R572N	3	F	
SGT-RMS-ESH2A2	R572N	3	F	
SGT-RMS-ESH2B1	R572N	3	F	
SGT-RMS-ESH2B2	R572N	3	F	
SGT-TC-H/1A1	R572N	3	Q	
SGT-TC-H/1A2	R572N	3	Q	
SGT-TC-H/1B1	R572N	3	Q	
SGT-TC-H/1B2	R572N	3	Q	
SGT-TC-H/2A1	R572N	3	Q	
SGT-TC-H/2A2	R572N	3	Q	
SGT-TC-H/2B1	R572N	3	Q	
SGT-TC-H/2B2	R572N	3	Q	
SGT-TE-1A	R572N	3	AB	
SGT-TE-1B	R572N	3	AB	
SGT-TE-6A	R572N	3	AB	
SGT-TE-6B	R572N	3	AB	
SGT-TE-7A	R572N	3	AB	
SGT-TE-7B	R572N	3	AB	

LIST OF PERSONNEL WHOSE NAMES ARE ON THE ROSTER

NO.	NAME	GRADE	STATUS	REMARKS
1	WATSON	SGT	1	100-10-TGS
2	WATSON	SGT	2	100-11-TGS
3	WATSON	SGT	3	100-12-TGS
4	WATSON	SGT	4	100-13-TGS
5	WATSON	SGT	5	100-14-TGS
6	WATSON	SGT	6	100-15-TGS
7	WATSON	SGT	7	100-16-TGS
8	WATSON	SGT	8	100-17-TGS
9	WATSON	SGT	9	100-18-TGS
10	WATSON	SGT	10	100-19-TGS
11	WATSON	SGT	11	100-20-TGS
12	WATSON	SGT	12	100-21-TGS
13	WATSON	SGT	13	100-22-TGS
14	WATSON	SGT	14	100-23-TGS
15	WATSON	SGT	15	100-24-TGS
16	WATSON	SGT	16	100-25-TGS
17	WATSON	SGT	17	100-26-TGS
18	WATSON	SGT	18	100-27-TGS
19	WATSON	SGT	19	100-28-TGS
20	WATSON	SGT	20	100-29-TGS
21	WATSON	SGT	21	100-30-TGS
22	WATSON	SGT	22	100-31-TGS
23	WATSON	SGT	23	100-32-TGS
24	WATSON	SGT	24	100-33-TGS
25	WATSON	SGT	25	100-34-TGS
26	WATSON	SGT	26	100-35-TGS
27	WATSON	SGT	27	100-36-TGS
28	WATSON	SGT	28	100-37-TGS
29	WATSON	SGT	29	100-38-TGS
30	WATSON	SGT	30	100-39-TGS
31	WATSON	SGT	31	100-40-TGS
32	WATSON	SGT	32	100-41-TGS
33	WATSON	SGT	33	100-42-TGS
34	WATSON	SGT	34	100-43-TGS
35	WATSON	SGT	35	100-44-TGS
36	WATSON	SGT	36	100-45-TGS
37	WATSON	SGT	37	100-46-TGS
38	WATSON	SGT	38	100-47-TGS
39	WATSON	SGT	39	100-48-TGS
40	WATSON	SGT	40	100-49-TGS
41	WATSON	SGT	41	100-50-TGS

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
SGT-TI-10A	R572N	3	AB	
SGT-TI-10B	R572N	3	AB	
SGT-TI-8A	R572N	3	AB	
SGT-TI-8B	R572N	3	AB	
SGT-TI-9A	R572N	3	AB	
SGT-TI-9B	R572N	3	AB	
SGT-TS-1A1	R572N	3	Q	
SGT-TS-1A11	R572N	3	Q	
SGT-TS-1A2	R572N	3	Q	
SGT-TS-1A21	R572N	3	Q	
SGT-TS-1A3	R572N	3	Q	
SGT-TS-1A31	R572N	3	Q	
SGT-TS-1A4	R572N	3	Q	
SGT-TS-1A41	R572N	3	Q	
SGT-TS-1B1	R572N	3	Q	
SGT-TS-1B11	R572N	3	Q	
SGT-TS-1B2	R572N	3	Q	
SGT-TS-1B21	R572N	3	Q	
SGT-TS-1B3	R572N	3	Q	
SGT-TS-1B31	R572N	3	Q	
SGT-TS-1B4	R572N	3	Q	
SGT-TS-1B41	R572N	3	Q	
SGT-TS-2A1	R572N	3	Q	
SGT-TS-2A11	R572N	3	Q	
SGT-TS-2A2	R572N	3	Q	
SGT-TS-2A21	R572N	3	Q	
SGT-TS-2A3	R572N	3	Q	
SGT-TS-2A31	R572N	3	Q	
SGT-TS-2A4	R572N	3	Q	
SGT-TS-2A41	R572N	3	Q	
SGT-TS-2B1	R572N	3	Q	

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

<u>EPN</u>	<u>RAD ZONE</u>	<u>USE CODE</u>	<u>REASON CODE</u>	<u>COMMENTS</u>
SGT-TS-2B11	R572N	3	Q	
SGT-TS-2B2	R572N	3	Q	
SGT-TS-2B21	R572N	3	Q	
SGT-TS-2B3	R572N	3	Q	
SGT-TS-2B31	R572N	3	Q	
SGT-TS-2B4	R572N	3	Q	
SGT-TS-2B41	R572N	3	Q	

C. 2877
SYSTEMS WHICH CAN BE USED FOR THE PURPOSES OF THIS ACT

NAME	TYPE	CLASSIFICATION	STATUS
SIC-10-1	1	1	1
SIC-10-2	1	1	1
SIC-10-3	1	1	1
SIC-10-4	1	1	1
SIC-10-5	1	1	1
SIC-10-6	1	1	1
SIC-10-7	1	1	1
SIC-10-8	1	1	1
SIC-10-9	1	1	1
SIC-10-10	1	1	1
SIC-10-11	1	1	1
SIC-10-12	1	1	1
SIC-10-13	1	1	1
SIC-10-14	1	1	1
SIC-10-15	1	1	1
SIC-10-16	1	1	1
SIC-10-17	1	1	1
SIC-10-18	1	1	1
SIC-10-19	1	1	1
SIC-10-20	1	1	1
SIC-10-21	1	1	1
SIC-10-22	1	1	1
SIC-10-23	1	1	1
SIC-10-24	1	1	1
SIC-10-25	1	1	1
SIC-10-26	1	1	1
SIC-10-27	1	1	1
SIC-10-28	1	1	1
SIC-10-29	1	1	1
SIC-10-30	1	1	1
SIC-10-31	1	1	1
SIC-10-32	1	1	1
SIC-10-33	1	1	1
SIC-10-34	1	1	1
SIC-10-35	1	1	1
SIC-10-36	1	1	1
SIC-10-37	1	1	1
SIC-10-38	1	1	1
SIC-10-39	1	1	1
SIC-10-40	1	1	1
SIC-10-41	1	1	1
SIC-10-42	1	1	1
SIC-10-43	1	1	1
SIC-10-44	1	1	1
SIC-10-45	1	1	1
SIC-10-46	1	1	1
SIC-10-47	1	1	1
SIC-10-48	1	1	1
SIC-10-49	1	1	1
SIC-10-50	1	1	1

TABLE D
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
SLC-EHC-2	R548C	3	P	SLC sys func is non-safety-related
SLC-EHC-3	R548C	3	P	SLC sys func is non-safety-related
SLC-FIC-4	R548C	3	P	SLC sys func is non-safety-related
SLC-FT-1	R522H	3	P	SLC sys func is non-safety-related
SLC-LT-1	R548C	3	P	SLC sys func is non-safety-related
SLC-M-P/1A	R548C	3	P	SLC sys func is non-safety-related
SLC-M-P/1B	R548C	3	P	SLC sys func is non-safety-related
SLC-MO-1A	R548C	3	P	SLC sys func is non-safety-related
SLC-MO-1B	R548C	3	P	SLC sys func is non-safety-related
SLC-POS-8	C	3	P	SLC sys func is non-safety-related
SLC-POS-V/31	R548C	3	P	SLC sys func is non-safety-related
SLC-PT-4	R548C	3	P	SLC sys func is non-safety-related
SLC-RLY-K1	R548C	3	P	SLC sys func is non-safety-related
SLC-RMS-EHC/S2	R548C	3	P	SLC sys func is non-safety-related
SLC-RMS-P/1A	R548C	3	P	SLC sys func is non-safety-related
SLC-RMS-P/1B	R548C	3	P	SLC sys func is non-safety-related
SLC-RMS-V/S3	R548C	3	P	SLC sys func is non-safety-related
SLC-TE-6	R548C	3	P	SLC sys func is non-safety-related
SLC-TIC-EHC/2	R548C	3	P	SLC sys func is non-safety-related
SLC-TS-3	R548C	3	P	SLC sys func is non-safety-related

EQUIPMENT WHICH CAN FALL WITHOUT AFFECTING SAFE SHUTDOWN
TABLE 1

REF.	RAJ ZONE	RAJ CODE	PERSON CODE	COMMENTS
SW-RT-1	RT-1	3	3	
SW-RT-2	RT-2	3	3	

TABLE D.
EQUIPMENT WHICH CAN FAIL WITHOUT AFFECTING SAFE SHUTDOWN

EPN	RAD ZONE	USE CODE	REASON CODE	COMMENTS
SW-RT-1	R522K	3	P	
SW-RT-2	R522H	3	P	

TABLE 2
SAFETY SYSTEMS

The following definitions were adopted as guidelines for the design of the safety systems in process:

A. Safety Function: A function which must be provided in order to maintain the system in a safe and stable condition. Safety functions are defined below with reference to the NRP. Plans meet the safety objectives noted in Section 1.0.

The safety function is:

1. Emergency Reactor Shutdown
R activity control - Reactor trip and control core reactivity to assure reactor shutdown.

2. Primary Control System
Maintain and regulate the level of primary coolant in the reactor core to prevent an accident in order to prevent a significant release of radioactivity.

3. Reactor Core Cooling
a. Integral Core Cooling - Primary core heat removal is directly provided to prevent damage to the reactor. This function involves the injection of emergency cooling water by various methods and systems.

b. RCS Pressure Control - Maintain reactor coolant system pressure in accordance with design hydraulic limits for any given reactor operating mode.

c. RCS Level Control - Maintain reactor vessel water level to assure adequate core cooling.

TABLE E
DEFINITIONS

The following definitions were adopted to facilitate consistency in project results:

- A. Safety Function: A function which must be provided in order to maintain the nuclear plant in a safe and stable condition. Safety Functions noted below will assure that the WNP-2 plant meets the safety objectives noted in Section 1.0.

The safety functions are:

1. Emergency Reactor Shutdown
Reactivity Control - establish and control core reactivity to assure reactor shutdown.

2. Primary Containment Isolation
Sealing all potential paths out of primary containment following an accident in order to prevent a significant release of radioactive materials.

3. Reactor Core Cooling
 - a. Initial Core Cooling - provide core heat removal immediately following an accident to prevent damage to the fuel. This function involves the injection of emergency cooling water by various methods and systems.

 - b. RCS Pressure Control - maintain reactor coolant system pressure in accordance with thermal-hydraulic limits for any given reactor operating mode.

 - c. RCS Level Control - maintain reactor vessel water level to ensure adequate core cooling.

Containment Strategy

4. Primary Containment Strategy - To contain the containment H₂ and O₂ concentrations within acceptable limits in order to prevent the possibility of a hydrogen explosion.

5. Primary Containment Strategy - To contain the containment H₂ and O₂ concentrations within acceptable limits in order to prevent the possibility of a hydrogen explosion.

Control System Test Strategy

6. Control System Test Strategy - Provide code removal for extended periods to maintain the reliability of the control system.

Prevention of Ignition in the Release of Radioactive Material

7. Prevention of Ignition in the Release of Radioactive Material - Provide code removal for extended periods to maintain the reliability of the control system.

User Control Codes with Describe Equipment in Training

8. User Control Codes with Describe Equipment in Training - Provide code removal for extended periods to maintain the reliability of the control system.

Appendix

User Codes

X

9. The equipment will not experience the environmental conditions of design basis accidents and is not required before, during, or after an accident.

4. Containment Integrity

- a. Primary Containment Hydrogen Control - to maintain the containment H_2 and O_2 concentration within acceptable limits in order to prevent the possibility of a hydrogen explosion.
- b. Primary Containment Pressure and Temperature Control - to maintain the containment environment within acceptable limits in order to prevent damage to the containment structure and its contents.

5. Core Residual Heat Removal

Long-Term Core Cooling - provide core heat removal for extended periods of time via recirculation of reactor coolant.

6. Prevention of Significant Release of Radioactive Material to the Environment

Reactor Building Isolation - sealing and/or controlling potential release paths out of the reactor building in order to prevent excessive release of radioactive materials to the atmosphere.

- B. Use: Contains codes which describe equipment use during accident conditions.

Codes for the equipment "USE" during a Design Basis Accident are:

Accident

Use Codes:

X

- 0 The equipment will not experience the environmental conditions of design basis accidents and is not required before, during, or after an accident.

1. Equipment that will experience the environmental conditions of a design basis accident for which it is intended to be qualified and that will be qualified to demonstrate a capability in the accident environment for the time required for accident mitigation with a safety margin as follows:

2. Equipment will experience the environmental conditions of a design basis accident through which it is intended to be qualified for mitigation of said accident through which it must not fail in a manner detrimental to plant safety or accident mitigation, and it will be qualified to demonstrate a capability to withstand said accident with the time during which it must not fail with a safety margin as follows:

3. Equipment that will experience environmental conditions of a design basis accident through which it is not intended to be qualified for mitigation of said accident, and whose failure in any mode is deemed not detrimental to plant safety or accident mitigation, and that is not to be qualified for any accident environment, but which is qualified for its non-accident service environment.

4. Safety-related equipment that will not experience environmental conditions of a design basis accident for which it must respond to mitigate said accident and that will be qualified to demonstrate a capability under the expected extremes of its accident service environment. This equipment would be located outside the Reactor Building.

C. Radiation Zone: The reactor building was divided into four zones as shown in Appendix B. These zones are shown as follows in Appendix B.

- 1 Equipment that will experience the environmental conditions of a design basis accident for which it must function to mitigate said accident, and that will be qualified to demonstrate operability in the accident environment for the time required for accident mitigation with a safety margin to failure.
- 2 Equipment will experience the environmental conditions of a design basis accident through which it need not provide an active function for mitigation of said accident, but through which it must not fail in a manner detrimental to plant safety or accident mitigation, and that will be qualified to demonstrate the capability to withstand any accident environment for the time during which it must not fail with a safety margin to failure.
- 3 Equipment that will experience environmental conditions of a design basis accident through which it need not function for mitigation of said accident, and whose failure (in any mode) is deemed not detrimental to plant safety or accident mitigation, and need not be qualified for any accident environment, but will be qualified for its non-accident service environment.
- 4 Safety-related equipment that will not experience environmental conditions of a design basis accident for which it must function to mitigate said accident and that will be qualified to demonstrate operability under the expected extremes of its accident service environment. This equipment would be located outside the Reactor Building.

C. Radiation Zone: The reactor building was divided into zones to facilitate the equipment radiation dose determination. These zones are shown as maps in Appendix B.

Accident Information: This column in Appendix A, B, and C includes "Exposure" which indicates the equipment that would be exposed to "Red" or "Yellow" radiation. This indicates the accident that a component would be required for a "Red" or "Yellow" radiation. The accident in Appendix A, B, and C indicates the equipment that must be replaced.

Exposure Information: An area that would be exposed to "Red" or "Yellow" radiation in the accident is indicated in the accident description. This indicates the equipment that must be replaced.

D. Accident Information: This column in Appendices A, B, and C includes "Exp To", which indicates the accident that equipment would be exposed to; "Reqd For", which identifies the accidents that a component would be required for; and "Qual To", indicating the accident environment the equipment must be qualified to.

E. Harsh Environment: An area that would be exposed to a significant increase in the maximum temperature, pressure, and humidity during design basis accidents and/or the total radiation dose (normal + accident) is above 10^4 rad.

TABLE B
SYSTEM ABBREVIATIONS

SW:	Standby Service Water
ST:	Standby Gas Treatment
SC:	Standby Shift Control
STM:	Suppression Pool Temperature Monitor
WCU:	Reactor Water Clean-Up
RC:	Reactor Recirculation
RA:	Reactor Return Air
RS:	Reactor Protection System
ROA:	Reactor On-Line Air
RR:	Reactor Heat Removal
RW:	Reactor Feedwater
REA:	Reactor Exhaust Air
RIC:	Reactor Inlet Cooling
ROC:	Reactor Outlet Cooling
RT:	Reactor Temperature
ISC:	Main Steam Isolation Control
IS:	Main Steam
LRM:	Local Reactor Monitor
LPSC:	Low Pressure Core Flow
LD:	Leak Detector
IRM:	Intermediate Range Monitor
RY:	Reactor Control
HPSC:	High Pressure Core Flow
PC:	Reactor Pool Cooling
DR:	Reactor Drain
DR:	Reactor Drain
VB:	Containment Vacuum Breaker
SSB:	Containment Sump Supply
CRD:	Control Rod Drive Hydraulic
RA:	Containment Return Air
MS:	Containment Monitor System
IA:	Containment Instrumentation
EB:	Containment Exhaust
CS:	Containment Air System
CA:	Containment Air

TABLE F
SYSTEM ABBREVIATIONS

CAC: Containment Atmosphere Control
CAS: Control Air System
CEP: Containment Purge Exhaust
CIA: Containment Instrument Air
CMS: Containment Monitor System
CRA: Containment Recirculation Air
CRD: Control Rod Drive (Hydraulic)
CSP: Containment Purge Supply
CVB: Containment Vacuum Breaker

E: Electrical
EDR: Equipment Drains Radioactive

FDR: Floor Drains Radioactive
FPC: Fuel Pool Cooling

HPCS: High Pressure Core Spray
HY: Hydraulic Control
IRM: Intermediate Range Monitor

LD: Leak Detection
LPCS: Low Pressure Core Spray
LPRM: Local Power Range Monitor

MS: Main Steam
MSLC: Main Steam Leakage Control

PI: Process Instrumentation

RCC: Reactor Building Closed Cooling
RCIC: Reactor Core Isolation Cooling
REA: Reactor Exhaust Air
RFW: Reactor Feedwater
RHR: Residual Heat Removal
ROA: Reactor Outside Air
RPS: Reactor Protection System
RRA: Reactor Return Air
RRC: Reactor Recirculation
RWCU: Reactor Water Clean-Up

SGT: Standby Gas Treatment
SLC: Standby Liquid Control
SPTM: Suppression Pool Temperature Monitor
SW: Standby Service Water

MEMORANDUM FOR THE RECORD

On 10/10/54, the following information was received from the [redacted] regarding the [redacted] of the [redacted] in the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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The [redacted] of the [redacted] in the [redacted] area is [redacted] and is [redacted] to the [redacted] of the [redacted] area.

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Very truly yours,
[redacted]

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