

10855-D7.5

ENVIRONMENTAL DESIGN CRITERIA
FOR THE
HOPE CREEK GENERATING STATION

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
NEWARK, NEW JERSEY

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DESIGN CRITERIA DOCUMENTS
REVISION STATUS SHEET

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I. SCOPE

- A. This document specifies the bounding plant indoor environmental data to be used for the design and procurement of Bechtel supplied equipment. This document provides the basis for the overall E.Q. program. During the procurement cycle, the equipment location is determined so that the environmental condition may be extracted from the appropriate tables. Certain equipment however may not be qualified to the stated environmental conditions. See paragraphs IIC, IIIC and IVA for further details.
- B. Seismic and missile design requirements are not included in the scope of this document.
- C. The plant environmental conditions contained in this document have been taken from the following sources.
 - 1. Normal Conditions - Bechtel design criteria or calculations for the heating and ventilating and radiation shielding design for Hope Creek Unit 1.
 - 2. Abnormal Conditions - Bechtel design criteria or calculations performed to bound the environment caused by such an event. Abnormal condition calculations were performed for areas containing or affecting safety-related equipment.
 - 3. Design basis event (DBE) conditions - Bechtel design criteria or calculations of bounding environment for the DBEs are identified in Table 2. The bounding environment for other than radiation conditions is always due to a pipe break, e.g., PBIC, PBOC, instrument line break. The LOCA is always the bounding condition for post-accident radiation conditions, with the following exceptions:
 - a. HPCI and RCIC system doses are determined by the anticipated transient without a scram (ATWS) accident.
 - b. Spent fuel pool cleaning and cooling system doses are determined by the fuel handling accident.

4. General Electric document 22A2928, Revision 2, BWR Equipment Environmental Interface Document
 5. General Electric document NEDO-10698, Environmental Qualification of Class I Control and Instrumentation Equipment
 6. Reactor building flood levels - Bechtel calculations defining flood depths
- D. This document does not describe the requirements for methods of qualifying equipment to environmental conditions. These requirements are contained in other design criteria and specifications.

II. DESCRIPTION

- A. Incorporation of appropriate environmental design data is necessary to ensure proper functional performance of the system or equipment during all design modes of operation.
- B. This document indicates certain conditions to which the equipment may be exposed and may be required to operate, but does not provide loading combinations for the design of safety related structures.
- C. Special cases not covered by this document may be necessary for some equipment or special locations. See Paragraph IA.

III. REQUIREMENTS

Equipment shall be designed and tested to meet the requirements of 10 CFR 50, Appendix A, General Design Criteria 4 titled "Environmental and Missile Design Basis."

In order to meet the above requirements, the environmental conditions have been specified for three event categories: normal, abnormal and design basis event. The three categories are defined and discussed in the following sections.

A. Normal Conditions

Normal environmental conditions are defined as those conditions existing during routine plant operations including startup, shutdown, refueling and maintenance operations. Under these conditions systems and components required to shutdown the reactor and maintain it in a safe shutdown condition and which also have to mitigate the consequences of a design basis event (DBE) shall be designed to remain functional after exposure to the most extreme environmental normal conditions that can occur and under which the component must function. These environmental conditions are as follows:

1. Temperature, pressure, and humidity must be at least as high as the maximum design conditions maintained at the equipment location by the cooling or ventilating systems during normal operation.
2. Maximum expected integrated radiation doses must be as high as the predicted 40 years dose at the equipment location during normal operation (i.e. 100% load factor and 100% of rated power). The same criterion also applies to the expected maximum dose rates.

B. Abnormal Conditions

Abnormal conditions are those that may be experienced during the operating lifetime of the plant. These conditions are anticipated operational occurrences, such as loss-of-offsite power, see Table 1, and should not be interpreted to be accident conditions. Equipment required for a safe shutdown of the plant shall be designed to remain functional during the abnormal environmental conditions to which it may be exposed as shown in Table 6.

1. Temperature, pressure, and humidity must be at least as high as the conditions maintained at the equipment location by the cooling or ventilating system under the abnormal condition.
2. Abnormal event radiation doses and dose rates, where identified, are included in the normal doses and dose rates reported in Table 6.

The total duration of an abnormal condition will be the algebraic sum of all dependent, and succeeding events initiated by any postulated abnormal event. For a discussion of some of these occurrences and their duration, see Section V.

C. Design Basis Event Conditions

The design basis event (DBE) conditions are those that would exist during an accident event, see Table 2. The DBE conditions shown in Table 6 are those that would exist for the most severe pipe break with the exceptions as delineated in Section I.C.3. For the duration of DBE environmental conditions two different periods are used. For temperatures, pressures and humidities a conservative duration of 100 days is applied. Ambience is reached at the end of this period. For the post-accident integrated radiation exposures a period of 180 days is used. The systems and components required to mitigate the consequences of the DBE shall be designed to remain functional after exposure to the following environmental conditions:

1. Temperature, pressure, and humidity must be as high as expected after a DBE. The expected temperature, pressure and humidity should be applied for a period of 100 days following a DBE. For some specific components however, the temperature, pressure, or humidity may be reduced to cover just their required functional period after the accident.
2. Maximum expected total integrated radiation doses (TID), in general, should be as high as predicted for a 180 day period following a LOCA. However, for some specific components, the TID can be reduced to cover just their functional period after the accident which may be much less. The radiation source terms and calculation methodology are based on the requirements of NUREG 0588.

Post LOCA doses are calculated to 180 days by which time the total integrated doses have essentially saturated. Not all safety related equipment is required to function for this entire period but none should fail during the 180 day period in a way that would jeopardize a safety function.

IV. USE OF TABLES 1 THROUGH 7

A. General

Care should be exercised when extracting information from the tables. The conditions are those that would exist in the specific area during normal, abnormal, and the most severe DBE conditions. The data provided in this DITS was obtained from an area or room by room analysis of the most severe heating/cooling loads. This conservatively bounds the environment caused by postulated events. As a result, certain equipment may actually experience a less severe environment than that specified in this DITS. When detailed calculations or documentation exists to justify a less stringent environment, then these lower values may be used when necessary to qualify specific equipment. Examples of these situations follow:

1. Certain equipment will not be required to operate for the entire 100 or 180 days following the DBE. The conditions specified will reflect only that time the equipment is required to operate.
2. Some equipment which is part of the primary containment boundary and which is located outside primary containment but inside the reactor building takes suction from the drywell (e.g., hydrogen recombiner) or suppression pool (e.g., RHR pump). This equipment will have the surrounding environmental conditions specified in addition to the internal conditions (radiation, temperature, and pressure) due to its communication with primary containment. Depending on the equipment's function, this could apply to normal, abnormal, and DBE or only DBE conditions.
3. Materials that are purchased for several locations, such as valves, could have conditions specified for the most extreme environment any single item will experience. For example, nuclear class valves that will be located in both the drywell and reactor building could have the drywell conditions specified in the

procurement documents for qualification purposes. A general envelope to be used for equipment located in more than one building is presented in Sections X.A-C.

Some of the conditions described in 1 through 3 above are outside the scope of this document and will have to be developed on a case by case basis and will have to be documented in design criteria and specifications, as required.

B. Margin

Margin is defined as the difference between the most severe specified service conditions of the environment and the conditions used in type testing to account for normal variations in commercial production of equipment and reasonable errors in defining satisfactory performance. The following applies to margin as addressed by this document:

1. Any conservatism included in the development of the conditions specified may not be considered margin. These tables, therefore, do not include margin. Margin must be addressed by the procurement documents or the vendor's qualification plan.
2. A method of including margin acceptable to the NRC is presented in NUREG-0588.

V. ADDITIONAL ENVIRONMENTAL CONDITIONS

There are several additional conditions that could exist during the operating life of the plant. These conditions have the potential to affect equipment qualification. These conditions are identified and defined along with any limitation on their use in the following sections:

A. Design Basis Tornado (DBT)

The design basis tornado is considered to be one of the design basis events. However, the depressurization resulting from the tornado is not included in Table 6. Depending on the translational velocity of the tornado, the entire plant or only portions will experience the maximum depressurization of -3 psig (11.7 psia). The duration of the DBT is from 3 seconds up to one (1) minute.

Although discussed above to some extent, it is not necessary to specify the DBT as one of the environmental conditions in procurement documents for equipment as the depressurization is not expected to be so severe as to have an effect on the safety-related systems. A plant specific tornado depressurization study has shown that damage resulting from the DBT will be limited to non pressure tight doors springing open and some HVAC ducting experiencing deformation.

B. Equipment Submergence

1. Drywell

Submergence is generally not considered to be applicable to the drywell. Any water that would be introduced into the drywell during normal operation would be removed by the sump pumps. In the event of sump pump failure, the water level would reach a depth of approximately one (1) foot when it would begin to flow through the drywell vents to the suppression pool.

2. Reactor Building

The flood levels for the reactor building and main steam tunnel are presented in Table 7. These levels are based on the largest moderate energy line in a compartment breaking and blowing down for 30 minutes before isolation occurs. The levels shown in Table 7 include a 50% safety factor over the calculated levels. The equipment function should be very carefully considered before specifying that qualification for submergence is required. In general, any equipment that has the potential of being submerged will not be required to operate after submergence.

3. Control, Auxiliary and Turbine Buildings

Internal flooding for the control and auxiliary buildings need not be considered for equipment qualification. All flooding potentials were examined during the separation review program, and it was determined that there is no accident

scenario severe enough to flood safety related equipment and components located in these buildings. There are no essential safety related components located in the turbine building.

4. External Flooding

Flooding of the reactor, control and auxiliary buildings from external sources need not be considered as all entrances, openings etc. into these buildings have been designed watertight up to the highest flood level of elevation 126.2 feet. There are no essential safety related equipment or components in the turbine building.

C. Dust

In a nuclear power plant there are three major sources of dust: transport from outside the plant through the ventilation system; deterioration of uncoated concrete floors and; residue from maintenance activities. However, for the reasons discussed below, dust is not expected to be a factor in equipment qualification.

1. Plant Ventilation

All major ventilation units supplying the plant with outside air have two filters in series to insure the cleanliness of the air. The first, or low efficiency, filter has a minimum rating of 55% removal and the second, high efficiency, filter has a rating of 80-85% efficiency. Certain HVAC units such as the reactor building ventilation system (RBUS) have a higher rated first filter for additional air cleanliness. The ducting for these systems is arranged in such a manner that the recirculated air is mixed with the outside air before the HVAC filters. This will guard against any contamination from compartments where dust may exist. The pressure drop across the filters is monitored by pressure differential indicators so that the filters may be replaced to ensure that the air quality will not be degraded.

2. Concrete Coatings

In general, areas containing equipment that may be sensitive to dust, such as electrical switchgear, will have the floors coated with a sealing medium. Surfaces that are not coated in the above manner but are subject to radiological contamination are coated with a material intended to ease the decontamination process which will also minimize dust generation.

3. Housekeeping

Housekeeping, cleanliness, and fire protection administrative procedures will prevent the accumulation of debris during normal operation and subsequent maintenance.

4. Equipment Maintenance

The equipment suppliers of equipment known to be sensitive to dust shall be requested to provide cleaning and maintenance procedures to prevent dust accumulation.

D. Non-Seismic Vibration

Individual equipment vibration is not anticipated to be a condition affecting other equipment qualification. Piping or equipment in the plant is supported so that any vibration originating at rotating equipment is restricted by the supports. Any vibration that is identified during startup testing or operation will be considered at that time and the necessary corrective measures will be taken. A separate program will be developed for addressing and analyzing the non-seismic vibrations on a case by case basis for those cases where there are no corrective measures available.

E. Loss of HVAC

All areas containing safety-related equipment with the exception of the diesel generator electrical switchgear, battery and remote shutdown panel rooms, are supplied by redundant HVAC systems. (Redundancy is achieved through availability of extra equipment train.) Loss of a HVAC system is assumed to occur once per year for 24 hours per occurrence.

F. Loss-of-Offsite-Power (LOP)

Loss-of-offsite power will occur when all power on the offsite power distribution system is lost. This occurrence will cause the diesel generators to start and supply power to those systems that are safety-related and a small number of non-safety related systems. The conditions described in the abnormal conditions section of Table 6 will occur during this time. A LOP is conservatively assumed to occur four (4) times during the 40 year plant life, for 12 hours per occurrence.

VI. REACTOR BUILDING ENVIRONMENT

A. Outside Primary Containment/Inside Reactor Building

1. Normal Conditions

a. Normal conditions are listed below:

	<u>Temperature (degrees F)</u>	<u>Pressure (inch WG)</u>	<u>Humidity (%)</u>
Maximum	115	1.0	90
Average	varies	-0.25	40
Minimum	40	-0.25	20

The above conditions are for the general reactor building environment. The minimum temperature of 40°F is both for shutdown and operating conditions. The 115°F temperature also envelopes the conditions existing during equipment testing. The area specific conditions, including maximum radiation dose rates and total integrated doses are shown in Table 6.

- b. Rooms which have the potential of spreading radioactive material (air, vapor, etc.) to adjacent rooms with lower concentrations of radioactivity will be kept at slightly negative pressures to prevent contamination of adjacent areas. The pressure range for these rooms is -0.1 to -0.25 inch WG.

2. Abnormal Conditions

The anticipated events leading to abnormal conditions are listed in Table 1.

The abnormal conditions existing at the various locations in the reactor building are shown in Table 6.

<u>Temperature</u>	<u>Pressure</u>	<u>Humidity</u>
Varies	atmospheric	100% maximum 20% minimum

The specific temperatures are listed in Table 6.

3. DBE Conditions

Safety related systems that are required to operate following a design basis event (DBE) shall be capable of operating in the conditions associated with that event and after performing its function, shall not fail in a way that would jeopardize a safety function. DBE conditions can be grouped into two categories, bulk environmental conditions and local steam conditions which are described below.

a. Bulk Atmosphere Condition

This DBE atmospheric condition is experienced uniformly throughout the entire building excluding those rooms containing high energy line breaks. Equipment needed for safety related system operation, such as pumps, valves, motors, wiring, controls and instrumentation, as a minimum requirement shall be capable of operation for the required duration and subsequently

shall remain in a safe condition, when subjected to an accident environment of 148°F at 100% relative humidity for 30 minutes and 148°F and 95% relative humidity for the remainder of the 100 days. Operator action accounts for the decrease in the relative humidity after 30 minutes.

b. Local Steam Conditions

This atmospheric condition is experienced locally for a pipe break inside a room or in the path that steam takes in escaping from the room. Temperatures in these areas will be much higher than the bulk atmospheric conditions experienced uniformly throughout the plant.

Under this condition, safety related system equipment shall be capable of functioning for the required duration and shall subsequently remain in a safe condition when subjected to the local (proximity to break) steam environmental conditions if the equipment is:

- (1) Required to detect a failure;
- (2) Required to perform and/or maintain isolation function;
- (3) Required to perform a water line isolation function and could be subjected to the steam environment, such as electrical cable or valve operator;
- (4) Required for safety related system operation, and is located so a failure in some other system exposes the safety related system equipment to the local accident environment.
- (5) Required to track the post accident environment conditions, such as pressure, temperature, and radiation monitors.

- (6) Required to control the environmental consequences of the failure.

The local steam environment from a steam line break can have higher localized room temperatures and pressures as shown in Table 6. The maximum temperatures and pressures shown in Table 6 as X-30 minutes represent a temperature or pressure of X for 30 minutes with a temperature of 148°F and pressure of 0 psig for the remainder of the 100 day DBE, one exception is in torus compartment area. Temperatures may be either 302°F for 30 minutes, or 175°F for 9 days. 148°F would always follow for the remainder of the 100 days. Max relative humidity of 100% has a duration of 6 hours to account for the time to complete vessel depressurization.

The worst DBE conditions must be used to qualify walls, isolation dampers, and isolation valves which are located in these areas. Nonsafety-related equipment is not expected to function.

c. Radiation Conditions

The radiation conditions existing inside the reactor building for a DBE are presented in Table 6.

B. Inside Drywell

1. Normal Conditions

a. Temperature, Pressure and Humidity Conditions

	<u>Temperature (degrees F)</u>	<u>Pressure (psig)</u>	<u>Humidity (%)</u>
Maximum	150	2.0	90
Average	135	0	50
Minimum	40 (not operating) 60 (operating)	-0.5	20

b. Radiation Conditions (outside Bioshield)

Total integrated gamma plus neutron dose:
 2.5×10^7 rads/40 yr. (4.2×10^6 rads
for neutrons).]2

Total integrated neutron fluence: 4.2×10^{14} neutrons/cm² for 40 years
(≥ 1.0 MeV)

2. Abnormal Conditions

a. Temperature, Pressure and Humidity Conditions

The temperature and pressures in the drywell resulting from a loss of offsite power (LOP) event are shown in Figures 6 and 7. The humidity will be in the range of 20 to 90%.

b. Radiation Conditions

The radiation exposure does not increase above the normal operating levels during LOP event.

3. DBE Conditions

a. Temperature, Pressure, and Humidity Conditions are provided in table 5.

These environmental conditions are based on a combination of DBE's to ensure conservative bounding values. The 100% Relative Humidity for 100 days is also conservative, and encompasses that environment produced by containment spray actuation.

b. The primary containment post-LOCA total integrated doses (TID) and dose rates are provided in Table 4.

Both gamma and beta doses were calculated for the primary containment. The doses were calculated by assuming that 100% of the

core noble gas inventory, and 50% of the core halogen inventory are initially released to the drywell atmosphere in accordance with NUREG-0588. The time-dependent and location-dependent distribution of the radioactivity is then calculated mechanistically using the methodology described in NUREG-0588, Rev. 1, Section 1.4 and Appendix D.

The beta doses and dose rates were calculated assuming a semi-infinite cloud geometry. For most components, the beta doses in Table 6 can be reduced by performing a detailed study which accounts for the actual geometry and thickness of the component. In addition (See Reference 5), the beta contribution may be reduced or neglected provided:

- i. The material of interest is enclosed in a hermetically sealed enclosure with a thickness equivalent to at least 70 mils of material with a density of one, or
- ii. The component will not be affected by changes within a distance equivalent to 70 mils of its surface with unit density material.
- iii. For materials enclosed in a housing the beta plateout dose can generally be neglected.

In all cases the supplier shall justify any beta reduction factor used in equipment qualification.

4. Section VI.B and Tables 3, 4 and 5 are to be used for specifying the conditions to be used in equipment qualification for the primary containment. Figures 1 and 2 are a generic set of conditions which envelope the environmental conditions in a BWR drywell. The design conditions, other than the radiation environment, for coatings are based on a small

reactor coolant pressure boundary (RCPB) line break in the drywell which does not immediately depressurize the reactor pressure vessel (RPV). Both drywell spray trains spraying 75°F water with 100% efficiency into a drywell purged of air is conservatively assumed. These conditions are more severe than a DBE because the coating is subjected to a longer time at temperature and pressure followed by a high depressurization rate. The radiation environment to which coatings are to be qualified are those in Tables 4.

C. Inside Torus (Wetwell)

1. Normal Conditions

a. Temperature, Pressure and Humidity.

	<u>T (°F)</u>	<u>P (psig)</u>	<u>H (%)</u>
Maximum	150	+2.0	90
Average	100	varies	varies
Minimum	40	-0.5	20

b. Radiation Conditions

Total integrated gamma dose:
 3.5×10^5 rads (40y)

]Δ

2. Abnormal Conditions

a. The abnormal conditions for the torus areas will be enveloped by the temperature and pressure functions shown in Figures 6 and 7. Humidity range will be same as under normal conditions.

b. Radiation Conditions

The radiation exposures will not increase above the normal operating levels.

3. DBE Conditions

a. Figures 8 and 9 show the temperature and pressures inside the torus (wetwell) following a LOCA. Humidity will be 100% for 100 days following the DBE.

b. Radiation Conditions

For the 180 days following the DBE the total integrated doses are:

6.3×10^6 rads (Gamma)

3.5×10^8 rads (Beta)

] Δ 2

VII. AUXILIARY BUILDING ENVIRONMENT

A. Radwaste Areas

1. Normal Conditions

During normal conditions, the temperature in most parts of the radwaste area will be between 40 and 115°F. The pressure in these areas will be atmospheric and the humidity will be between 20 and 90%. These conditions are intended to envelope the most severe normal operation conditions in these areas. Specific conditions may be less severe and are shown in Table 6.

2. Abnormal Conditions

The only abnormal condition directly and noticeably affecting the radwaste areas of the auxiliary building would be a loss of HVAC. Temperatures could rise to a maximum of 120°F.

3. DBE Condition

A number of safety related components are located at the lower elevations of the radwaste areas. Also, the post-accident sampling station is located in the radwaste areas.

Temperature, pressure and humidity conditions

will not be significantly more severe than during normal operation or abnormal events. Radiation levels, however, will increase due to direct radiation shine from the reactor building and from airborne cloud activities. Integrated DBE radiation doses for the general radwaste areas are: Gamma 1.0 Rads/180d and Beta 20 Rads/180d. (due to environmental airborne activities only) Radiation levels at the post accident sampling station area will be higher.

B. Diesel Generator Areas

1. Normal Conditions

Temperatures will be maintained between 40 and 104°F, except the diesel generator and H&V equipment rooms which will reach a maximum of 120°F. Certain other rooms such as battery rooms will have more stringent temperature requirements. Specific conditions may be found in Table 6. The total integrated dose for 40 years is 180 rads.

2. Abnormal Conditions

The temperatures in the diesel generator area will reach 120°F during diesel generator operation. The pressure will be atmospheric but may vary between 0.25 and -0.25 inch water and the relative humidity will be between 20 and 90%. A minimum of 40°F may be reached if a loss of heating occurs. CO₂ injection will result in a lower local temperature, however, no specific temperature need be specified. Fire protection equipment will be specified for this service.

3. DBE Conditions

The conditions in the diesel generator area will not be significantly more severe during a DBE than during normal operation. The DBE radiation level in this area is due to the environmental airborne doses, which will be 0.6 rad/180d for gammas and 20 rads/180d for betas.

C. Service Areas

1. Normal Conditions

The temperatures will be maintained between 68 and 80°F for personnel areas and 60 and 104°F for equipment areas. The pressure in these areas will be atmospheric and the relative humidity will be between 20 and 90%. The total integrated, 40 year dose for these areas will be 180 rads and 880 rads for uncontrolled and controlled areas respectively. Specific conditions for these areas can be found in Table 6.

2. Abnormal Conditions

A minimum of 40°F may be reached if a loss of heating occurs.

3. DBE Conditions

The DBE radiation level in this area is due to the environmental airborne doses. They are 0.6 rad/180 days for gammas and 20 rads/180 days for betas.

D. Control Area and Technical Support Center

1. Normal Conditions

Temperature in the control room will be maintained at 76°F $\pm 2^{\circ}\text{F}$, with the relative humidity between 40 and 50%. The pressure will always be higher than the surrounding areas. The total integrated dose will be 180 rads for 40 years.

2. Abnormal Conditions.

The control room will maintain a temperature of 76°F $\pm 2^{\circ}\text{F}$ during abnormal conditions. The pressure and humidity ranges also will not differ from those during normal operation. Other locations in the control area will be maintained at different temperatures depending on specific services. These conditions are presented in Table 6.

3. DBE Conditions

The temperatures in the control room will be maintained the same as those for normal operation. The pressure will be positive to guard against the possibility of inleakage of airborne contamination. The radiation dose resulting from the DBE will be less than 20.0 rads. Humidity ranges will not differ from those during normal operation.

VIII. TURBINE BUILDING ENVIRONMENT

A. Normal Conditions

During normal operation, temperatures will be maintained between 40 and 104°F, except in some of the high radiation areas where a maximum of 120°F will be maintained. Pressure will be 1" water gauge maximum -0.1" water gauge minimum. Relative humidity will be between 20 and 90%. These general conditions are specified to envelope the most severe normal operation conditions of any in the area. Specific areas may have less severe conditions as identified in Table 6. The total integrated doses for the various areas in the turbine building are given in Table 6.

B. Abnormal Conditions

The only safety-related components located inside the turbine building are reactor protection system switches on the main turbine and condenser. None of the anticipated abnormal events listed in Table I will create environmental conditions inside the turbine building which could prevent the reactor protection system from performing its safety function.

C. DBE Conditions

The only safety-related components located inside the turbine building are reactor protection system switches on the main turbine and condenser. None of the postulated design basis events listed in Table 2, will create environmental conditions inside the turbine building which could prevent the reactor protection system from performing its safety function.

IX. INTAKE STRUCTURE

A. Normal Conditions

During normal conditions, the temperature in the intake structure (except fan rooms) will be between 40 and 104°F. During shutdown conditions, the temperature will be maintained at 60°F or higher. The pressure in this structure will be atmospheric and the humidity is not controlled and will be the same as ambient. The total radiation exposure for this area will be 180 rads over the 40 year design life. The room specific temperatures can be found in Table 6.

B. Abnormal Conditions

The abnormal conditions are shown in Table 6. The pressure will be atmospheric and humidity will be between 20 and 100%.

C. DBE Conditions

The temperatures, pressures and humidity will be the same as for normal operating conditions. The radiation doses in this area are negligible.

X. GENERAL BUILDING ENVIRONMENT

There are specifications which cover equipment located in several areas and buildings throughout the plant. To avoid assigning different environmental conditions for each piece of equipment, a single set of conditions may be assigned to cover all areas except the intake structure. It should be noted that these conditions are specified to envelope the most severe conditions and individual areas may have less severe conditions. If necessary, a note will be added in procurement documents stating that these conditions will be used in qualification unless area specific conditions are used.

A. Normal Conditions

	<u>Temperature (degrees F)</u>	<u>Pressure (inch WG)</u>	<u>Humidity (%)</u>
Maximum	120	1.0	90
Minimum	40	-0.25	5
(5° room 5423)			

Total integrated dose: 2.0×10^7 rads/40y

B. Abnormal Conditions

Temperature: 148°F (195°F room 4416)
Pressure: +1.0 inch WG to -0.25 inch WG
Humidity: 100%

C. DBE Conditions

Temperature: 340°F for 30 minutes
175°F from 30 minutes to 9 days
148°F from 9 days to 100 days

Pressure: 16.3 psig for 30 minutes
0 psig from 30 minutes to 100 days

Humidity: 100% for 6 hours
95% 6 hours to 100 days

DBE integrated dose:

Shine: 3×10^7 rads (180 days)

Airborne:

Gamma - 2.5×10^4 rads (180 days)

Beta - 1.1×10^6 rads (180 days)

Examples of areas outside the drywell that exceed
50 rads/hr or 2.0×10^7 rads/40 yrs are:

RWCU backwash receiver TK room,

RWCU phase separator room,

Spent fuel storage pool,

RWCU filter/demin cubicle,

Air ejector room

Waste sludge separator room

Primary recombiner cells

Offgas holdup delay pipe chase

Drum storage hayloft

Table 6 shall be used to determine the exceptions to the above conditions. The above conditions shall not be used for equipment which will only be placed in a single location. A sample environmental data sheet to be used with each specification is shown in Figures 3 and 4.

XI. GENERAL CRITERIA, STANDARDS AND GUIDES

- A. The following IEEE Standards, NRC documents, and Hope Creek project specifications are to be referred to as applicable for environmental qualification of equipment. However, it is not to be considered all inclusive.
1. IEEE Std 278, dated 1967 Guide to Classifying Electrical Materials Exposed to Neutron and Gamma Radiation
 2. IEEE Std 317, dated 1976 Electrical Penetration Assemblies in Containment Structures
 3. IEEE Std 323, dated 1971 Standard for Qualifying Class IE Equipment for Nuclear Power Stations
 4. IEEE Std 334, dated 1974 Type Test of Continuous Duty Class I Motors
 5. IEEE Std 382, dated 1972 Type Test of Class I Electric Valve Operators
 6. IEEE Std 383, dated 1974 Class IE Electric Cables, Field Splices, and Connections
 7. Hope Creek Specification 10855-G-013(Q) Environmental Qualification of Safety Related Equipment
 8. Regulatory Guide 1.89, November 1974, Rev. 0 Qualification of Class IE Equipment for Nuclear Power Plants

9. NUREG 0588

Interim Staff Position
on Environmental
Qualification of Safety
Related Electrical
Equipment

- B. Ducts and dampers used for ventilation are subjected to different environmental conditions:

1. Normal conditions inside and outside the ducts and
2. Conditions inside and outside the ducts for a DBE.

In order for the manufacturer to properly qualify the equipment to the most stringent conditions all of the above information must be given on a data sheet shown in Figure 4.

- C. All reactor building isolation valves must be bubble tight for a negative pressure of 0.25 inch WG.

XII. REFERENCES

- A. GE Documents 22A2928, Revision 2, "BWR Equipment Environmental Interface Data".
- B. GE Document NEDO-10698 "Environmental Qualification of Class I Control and Instrumentation Equipment".
- C. Bechtel Design Guide N2.2.2 "Pressure and Temperature Conditions for Environmental Qualifications of Coatings Inside BWR Containments with a Generic Set of Conditions for both BWRs and PWRs".
- E. Hope Creek Design Criteria 10855 D2.2, "Design Criteria for Reactor Building".
- F. Hope Creek Design Criteria 10855-D3.47 "Turbine Building Heating, Ventilating, and Cooling Systems (HAVC)".
- G. Hope Creek Design Criteria 10855-D3.48, "Reactor Building HVAC".

- H. Hope Creek Design Criteria 10855-D3.48A, "Technical Support Center HVAC".
- I. Hope Creek Design Criteria 10855-D3.49, "Drywell Cooler System".
- J. Hope Creek Design Criteria 10855-D3.50, "Auxiliary Building Control Area HVAC".
- K. Hope Creek Design Criteria 10855-D3.51, "Auxiliary Building Diesel Generator HVAC".
- L. Hope Creek Design Criteria 10855-D3.52, "Auxiliary Building Radwaste Areas HVAC".
- M. Hope Creek Design Criteria 10855-D3.53, "Auxiliary Building Service Area HVAC".
- N. Hope Creek Design Criteria 10855-D3.54, "Administrative and Miscellaneous Areas HVAC".
- O. Hope Creek Design Criteria 10855-D3.57A, "Service Water Intake Structure and Miscellaneous Yard Buildings HVAC".
- P. Nuclear Regulatory Commission Regulatory Guide 1.3 "Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss-of-Coolant Accident in a Boiling Water Reactor".
- Q. Nuclear Regulatory Commission Regulatory Guide 1.76 "Design Basis Tornado for Nuclear Power Plants".
- R. Nuclear Regulatory Commission Regulatory Guide 1.117 "Tornado Design Classification".
- S. NRC Bulletin No. 79-01B, "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors," January 14, 1980.

Table 1
Anticipated Abnormal Events

Inadvertent Closure of MSIV
Inadvertent Closure of All MSIUs
Pressure Regulator Fails Open
Loss of Aux. Transf. (Loss of Power)
Loss of Grid Conn. (Loss of Power)
Grid Tie-Line Disturb. & Recov.
Loss of Condenser Vacuum
Turbine Trip without Bypass
Turbine Trip with Bypass
Generator Load Reject w/o Bypass
Generator Load Reject w/Bypass
Single SRV Opens-Depressurize (SORV)
Trip of both Recirc. Pumps
Recirculation Failure Decrease Flow
Recirculation Failure Increase Flow
Feedwater (FW) Controller Fails-Max. Demand
Loss of All FW Flow
Loss of FW Heaters-Auto
Loss of FW Heaters-Manual
Trip One FW Pump & Recovery
Worst in Sequence Rod Error

Table 1 cont.

Instrument Ranging Error
Rod Withdrawn Error at Power
Inadvertent (or manual) Scram
Inadvertent HPCI Injection
Table 1 (Cont'd)
Inadvertent RCIC Injection
Loss of HVAC in Steam Tunnel
Loss of HVAC in Drywell
Loss of HVAC in Aux. Building
Loss of HVAC in Reactor Building
Loss of HVAC in Turbine Building

Table 2
Postulated Design Basis Events

Small High Energy (H.E.) Pipe Break in Drywell
Small H.E. Line Pipe Break in Reactor Building (R.B.)
Outside Drywell
Large H.E. Pipe Break in Drywell
Large H.E. Pipe Break in R.B. Outside Drywell
Large H.E. Pipe Break in Outside R.B.
Open Recirc Valve in Cold Loop (Reverse Flow)
Start Recirc Pump in Cold Loop (Forward Flow)
Seizure of Recirc Pump
Inadvertent LPCS Injection
Inadvertent ADS-Depressurize
Worst ATWS-MSIV Closure No Scram, Two Pump Trip
Control Rod Accident (Drop)
Reactor Overpressure Backup Scram
Reactor Drain Shutoff
Improper Shutdown of Plant (RHR Suct thru S/RU
and Supp Pool)
Improper Startup of Plant Hot RWCU
Fuel Handling Accident
Tornado

Inside Primary Containment

Condition	Component	Temperature	340°F	340°F	320°F	250°F	200°F
1	Core spray injection check valve	Pressure	-2 to 62 psig	-2 to 35 psig	-2 to 35 psig	0 to 25 psig	0 to 20 psig
	LPCI-RHR Injection check valve,	Rel. humidity	100 percent	100 percent	100 percent	100 percent	100 percent
	Reactor shutdown cooling suction valve including operator and cable,	Duration (1)	45 seconds	3 hours	6 hours	1 day	100 days
	Relief valve including operator and cable,						
	Vessel level indicator						
	Structural components (e.g., loop restraints, vessel skirt, etc.)						
2	Pendwater Check Valves,	Temperature	340°F	340°F	320°F		
	HPCI steam line isolation valve including operator and cable,	Pressure	-2 to 62 psig	-2 to 35 psig	-2 to 35 psig		
	RCIC steam line isolation valve including operator and cable,	Rel. humidity	100 percent	100 percent	100 percent		
	Reactor Water Clean-up suction valve including operator and cable,	Duration	45 seconds	3 hours	6 hours		
	Reactor water sample line valve including operator and cable,						
	Lines 2 inches and smaller (Isolation Valves, Operators, Cabling),						
	Cables to intermediate range monitors and power range monitor						
	Reactor vessel head spray isolation valve including operator and cable						

Table 3 (Cont'd)

Design Basis Event Environmental Conditions

Inside Primary Containment

Condition	Component					
3	Main steam isolation valves including operator and cable, Main steam drain isolation valves including operator and cable, Standby liquid control injection check valve	Temperature	340°F	340°F		
		Pressure	-2 to 62 psig	-2 to 35 psig		
		Rel. humidity	100 percent	100 percent		
		Duration	45 seconds	1 hour		
4(2)	Recirculation valves (main valves, bypass valves, equalizer valve) including operators and cables, Reactor Protection System, Neutron Monitoring System	Temperature	340°F	340°F	320°F	
		Pressure	-2 to 62 psig	-2 to 35 psig	-2 to 35 psig	
		Rel. humidity	100 percent	100 percent	100 percent	
		Duration	45 seconds	3 hours	4.5 hours	

Inside Primary Containment

Condition	Component	Valves not required to be operable but must not fail to open under the following conditions				
5	Feedwater check valve, HPCI and steam line isolation valves including operators and cables, Recirculation valves (main valves bypass valves, equalizer valves), including operators and cables, Reactor vessel head spray isolation valve including operator and cable, Reactor water cleanup suction valves including operator and cable, Reactor water sample line valves including operator and cable, lines 2 inches and smaller (isolation valves, operators, cabling)	Temperature	250°F	200°F		
		Pressure	-2 to 25 psig	-2 to 20 psig		
		Rel. humidity	100 percent	100 percent		
		Duration	1 day	100 days		
6	Main steam isolation valves including operator and cable, Main steam drain isolation valves including operator and cable, Standby liquid control injection check valve	Temperature	340°F	320°F	250°F	200°F
		Pressure	-2 to 35 psig	-2 to 35 psig	-2 to 25 psig	-2 to 20 psig
		Rel. humidity	100 percent	100 percent	100 percent	100 percent
		Duration	3 hours	6 hours	1 day	100 days

(1) Durations shown are termination times measured from the initiation of the postulated accident, i.e. Condition 1, the 3 hour duration is the period from 45 seconds through 3 hours, the one day duration is the period from 6 hours through 1 day (24 hours).

(2) For the recirculation valves to perform their safety function they must close following a recirculation line break, so that the core flooding can be carried out in the required time. For this safety requirement the environmental conditions will not exceed 310°F at 62 psig for 1/2 hour. The specified conditions in (4) above are to enable a normal vessel shutdown cooling procedure during a steam leak.

Table 3 (Cont'd)

The following is a compilation of basic DBE environmental pressures and temperatures together with the time durations expected. The full spectrum of simultaneous environment possibilities is not presented in a series of curves, but rather as an exposition of the boundaries within which designated equipment must operate at discrete times during the cycles/modes of the reactor's operation.

Temperatures

340°F	Upper boundary on maximum superheat temperature for a steam leak with the reactor vessel at 400 - 500 psi, containment at 50 psia
320°F	Maximum superheat temperature during shutdown cooling line flush after reactor has been depressurized to 150 psia
250°F	Maximum long term temperature in the containment during the first day following a postulated Design Basis Event
200°F	Extended long term temperature in the containment following a postulated Design Basis Event

Pressures

-2 psig	Assumed minimum pressure of the primary containment
+62 psig	Positive design pressure of the primary containment
35 psig	The containment pressure corresponding to all the non-condensibles initially in the drywell being transferred to wetwell

Table 3 (Cont'd)

25 psig	Upper boundary on long term pressure response up to one day following a postulated Design Basis Event
20 psig	Upper boundary on extended long term pressure at one day and longer following a postulated Design Basis Event

Durations

45 seconds	Conservative time duration to cover peak containment pressure
1 hour	Conservative time duration during which values that must isolate automatically on low Reactor Pressure Vessel pressure or high drywell pressure, must be operable
3 hours	Conservative duration of time to depressurize the Reactor Pressure Vessel at a rate not exceeding 100 degrees/hour, down to 150 psia
4.5 hours	Conservative time at which shutdown cooling system flush is complete. Normal shutdown cooling necessitates closure of recirculation line valves.
6 hours	Conservative duration of time to complete vessel depressurization to approximate containment pressure. This time includes Reactor Pressure Vessel depressurization to 150 psia not exceeding a rate of 100°F per hour, flushing of system and depressurization to approximate containment pressure.

Table 4

Radiation Conditions Inside Primary Containment

Area (fig.5)	Radiation Type	Operating Dose Rate (1)	Design Basis Event Type	Basis Event Dose Rate(1,3)	Integrated Dose (1,2,5) Normal	Dose (1,2,5) DBE
Drywell, Inside Vessel Shield	Gamma Neutron Beta	2.3×10^4 8.8×10^3 (4)	LOCA	SEE NOTE 6	8.1×10^9 3.1×10^9 -----	SEE NOTE 7
Outside Vessel Shield Zone 1 Above Core	Gamma Neutron Beta	2.1×10^1 3.0 (4)	LOCA	SEE NOTE 6	7.4×10^6 1.1×10^6	SEE NOTE 7
Zone 2 Core Region	Gamma Neutron Beta	59 12 (4)	LOCA	SEE NOTE 6	2.1×10^7 4.2×10^6 -----	SEE NOTE 7
Zone 3 Under Vessel	Gamma Neutron Beta	54 12 (4)	LOCA	SEE NOTE 6	1.9×10^7 4.2×10^6 -----	SEE NOTE 7
Zone 4 Near Recirc.	Gamma Neutron Beta	44 0.6 (4)	LOCA	SEE NOTE 6	1.5×10^7 2.1×10^5 -----	SEE NOTE 7
Zone 5 > 15 ft. Recirc.	Gamma Neutron Beta	15 1.1 (4)	LOCA	SEE NOTE 6	5.3×10^6 3.9×10^5 -----	SEE NOTE 7
Zone 6 Torus	Gamma Neutron Beta	1.0 (note 8) 0.1 (4)	LOCA	5.1×10^4 at 48 hr ----- 1.5×10^6 at 48 hr	3.5×10^5 3.5×10^4 -----	6.3×10^6 ----- 3.5×10^8

- W 6] 2
- The unit of dose rate is Rads/hr. The units of dose is rads.
 - Normal integrated dose is calculated for a period of 40 years.
 - DBE dose rate is the dose rate immediately following the DBE except otherwise specified.
 - The beta dose is not significant compared to others during normal operation.
 - Gamma, beta, and neutron radiation shall all be considered for equipment qualification inside the drywell.
 - Gamma 1.9×10^7 (airborne)
 1.9×10^5 (plateout at 1 hr)
 - Beta 3.1×10^8 (airborne)
 1.1×10^7 (plateout at 1 hr)
 - Gamma 2.6×10^7 (airborne)
 3.4×10^6 (plateout)
 - Beta 9.5×10^8 (airborne)
 6.7×10^8 (plateout)
 - 20' away from 28" recirc. line

Table 5

**Environmental Conditions Inside Primary Containment
for the Design Basis Event**

Drywell			
<u>Time</u>	<u>Temperature (Degrees F)</u>	<u>Pressure (psig)</u>	<u>Humidity (%)</u>
0 - 20 sec	340	0 - 62	100
20 sec - 5 min	340	62	100
5 min - 3 hr	340	40	100
3 - 6 hr	320	40	100
6 - 24 hr	250	25	100
1 - 4 days	200	25	100
4 - 180 days	200	10	100

Table 6
Normal and Maximum Plant Environmental Conditions

INDEX

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TABLE 6
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT(1)*	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				ONE CONDITIONS			
		PRESS MAX/MIN (Mg)	TEMP (°F) TEST/MAX/AVE/MIN	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/MIN)	INTEGR. DOSE (RAD) (2)	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG) (3)	TEMP (°F) (3)	% REL HUMIDITY (3)	MAX LOCA DOSE RATE (RAD/HR)(5,7)
REACTOR BUILDING EL. 54 FT.													
Core Spray Pump Rooms 4116, 4105, 4118	H	0/- .25	110/78/68/40	90/20	0.01	3.5E3	ATM	113	100/20	ATM	148	100-30 min. 1.1E5 (6)	4E6
HPCI Pump Room 4111	H	0/- .25	107/83/72/60	90/20	2.5	9.1E3	ATM	110	100/20	2.9-30 min. (4)	300-30 min. (5)	100-6 hrs (6)	2E5
RHR Pump Rooms 4114, 4107	H	0/- .25	111/84/73/40	90/20	10.0	3.5E4	ATM	112	100/20	ATM	115	100-30 min. 1.1E5 (6)	3E6
RHR Pump & HX Rooms 4109, 4113	H	0/- .25	111/79/69/40	90/20	10.0	3.5E4	ATM	113	100/20	ATM	115	100-30 min. 1.6E5 (6)	5E6
RCIC Pump Room 4110	H	0/- .25	106/79/69/60	90/20	4.5	9.1E3	ATM	112	100/20	1.5-30 min. (4)	300-30 min. (5)	100-6 hrs (6)	2E5
Elect. Equipment Room 4112, 4108	H	0/- .25	77/72/62/40	90/20	0.0025	8.8E2	ATM	108	100/20	ATM	117	100-30 min. 7.8E-1 (6)	8E0
CRW/DRW Pump Room 4106	H	0/- .25	-/85/74/40	90/20	0.21	7.4E4	ATM	116	100/20	ATM (4)	148	100-30 min. 1.1E5 (6)	4E6
Torus Water Filter Pump Room 4101	H	0/- .25	-/113/104/40	90/20	0.015	5.25E3	ATM	142	100/20	ATM	148	100-30 min. 5.9E2 (6)	2E4
Stair Vestibule 4103, 4117	H	0/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min. 1.2E1 (6)	4E2
Torus Compartment 4102	H	0/- .25	-/88/77/40	90/20	0.100	3.5E4	ATM	108	100/20	1.1-30 min. (4)	302-30 min. or 175-9 days 148°F thereafter	100-6 hrs (6)	2.9E5
CRW/DRW Pump Room 4115	H	0/- .25	-/85/74/40	90/20	0.21	7.4E4	ATM	116	100/20	ATM	148	100-30 min. 2.6E0 (6)	3E1
Core Spray Pump Room 4104	H	0/- .25	110/78/68/40	90/20	0.01	3.5E3	ATM	113	100/20	ATM	125	100-30 min. 1.1E5 (6)	4E6

*For Notes see page 81.

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TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	NORMAL OPERATING CONDITIONS						ABNORMAL CONDITIONS			DBE CONDITIONS				
	ENVIRON- MENT (1)	PRESS MAX/MIN (mg)	TEMP (°F) TEST/MAX/AVE/MIN	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/HR)	INTEGR. DOSE (RAD) (2)	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG) (3)	TEMP (°F) (3)	% REL HUMIDITY (3)	MAX DOSE RATE (RAD/HR) (5,7)	DOSE SHINE DOSE (RAD) (8)
REACTOR BUILDING EL. 77 FT.														
RACS Pump Room, 4209	H	0/-25	-/93/82/40	90/20	0.0025	8.8E2	ATM	124	100/20	ATM	148	100-30 min. 3.0E0 (6)	3E1	
RACS MX Room 4211	H	0/-25	-/93/82/40	90/20	0.0025	8.8E2	ATM	124	100/20	ATM	148	100-30 min. 3.0E0 (6)	3E1	
RMR MX Room 4208, 4214	H	0/-25	111/79/69/40	90/20	10.0	3.5E4	ATM	113	100/20	ATM	114	100-30 min. 1.1E5 (6)	3E6] 2	
Safeguard Inst. Room 4210, 4219	H	0/-25	-/82/77/67	90/20	0.0025	8.8E2	ATM	115	100/20	ATM	148	100-30 min. 3.0E0 (6)	3E1	
Motor Control Center 4215	H	0/-25	-/77/70/57	90/20	0.0025	8.8E2	ATM	109	100/20	ATM	148	100-30 min. 3.0E0 (6)	3E1	
Motor Control Center 4201	H	0/-25	-/87/79/40	90/20	0.0025	8.8E2	ATM	118	100/20	ATM	128	100-30 min. 2.3E1 (6) at 36 hours	2E3] 2	
Motor Control Center 4218	H	0/-25	-/76/67/40	90/20	0.0025	8.8E2	ATM	107	100/20	ATM	148	100-30 min. 2.1E0 (6)	2E1	
CRD Pump Room 4202	H	0/-25	-/97/86/40	90/20	0.0025	8.8E2	ATM	130	100/20	ATM	148	100-30 min. 3.4E0 (6) at 36 hours	3E2	
Corridor 4203	H	0/-25	-/82/77/40	90/20	0.0025	8.8E2	ATM	110	100/20	ATM	148	100-30 min. 1.1E4 (6)	4E5	
Vestibule 4204	H	0/-25	-/104/-40	90/20	0.015	5.3E3	ATM	108	100/20	1.1-30 min. (4)	302-30 min. (5)	100-6 hrs (6) 3.0E0	3E1	
Passage 4207, 4213	H	0/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min. 3.0E0 (6)	3E1	
Vestibule 4206, 4212	H	0/-25	111/79/69/40	90/20	0.015	5.3E3	ATM	113	100/20	ATM	148	100-30 min. 3.0E0 (6)	3E1	
Motor Control Center 4205	H	0/-25	-/77/70/57	90/20	0.0025	8.8E2	ATM	109	100/20	ATM	148	100-30 min. 2.4E1 (6)	4E1	
Corridor 4216	H	0/-25	-/82/77/40	90/20	0.0025	8.8E2	ATM	110	100/20	ATM	148	100-30 min. 2.1E0 (6)	2E1	
Vestibule 4217	H	0/-25	-/104/-40	90/20	0.015	5.3E3	ATM	108	100/20	1.1-30 min. (4)	302-30 min. (5)	100-6 hrs (6) 2.1E0	2E1	

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TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT(1)	NORMAL OPERATING CONDITIONS					ABNORMAL CONDITIONS					DBE CONDITIONS				
		PRESS MAX/MIN (PSI)	TEMP TEST/MAX/AVE/MIN (°F)	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/HR)	INTEGR. DOSE (RAD)(2)	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG)	TEMP (°F) (3)	% REL HUMIDITY (3)	MAX LOCA DOSE RATE (RAD/HR)(5,7)	LOCA INTEGR. SHIRE DOSE (RAD) (8,9)		
REACTOR BUILDING EL. 102 FT.																
Steam Tunnel 4316	H	0/- .25	-/97/86/66	90/20	10.0	3.3E6	ATM	129	100/20	16.3-30 min. (4)	315-30 min. (5)	100-6 hrs (6)	1.9E7	3E7		
North Pipe Chase 4329	H	0/- .25	-/103/94/40	90/20	0.715	2.5E5	ATM	129	100/20	1.1-30 min. (4)	302-30 min. (5)	100-6 hrs (6)	1.1E5	4E6		
South Pipe Chase 4321	H	0/- .25	-/91/81/40	90/20	1.0	1.3E6	ATM	119	100/20	1.1-30 min. (4)	298-30 min. (5)	100-6 hrs (6)	1.1E5	4E6		
HPCI Pipe Chase 4327	H	0/- .25	-/71/62/46	90/20	2.5	9.1E3	ATM	106	100/20	3.2-30 min. (4)	302-30 min. (5)	100-6 hrs (6)	7.7E4	4E4		
RCIC Pipe Chase 4319	H	0/- .25	-/71/62/46	90/20	1.5	6.5E3	ATM	105	100/20	1.1-30 min. (4)	300-30 min. (5)	100-6 hrs (6)	3.5E6	6E4		
Personnel & Equipment Access Area 4322, 4331	H	0/- .25	-/92/82/66	90/20	0.0025	8.8E2	ATM	115	100/20	ATM	148	100-30 min. (6)	1.1E0	2E2		
Neutron Monitoring System 4318	H	0/- .25	-/99/90/74	90/20	250.0	1.1E6	ATM	118	100/20	ATM	148	100-30 min. (6)	1.8E2	3E2		
CRD Hydraulic 4320	H	0/- .25	-/92/82/66	90/20	0.02	7.6E3	ATM	115	100/20	ATM	148	100-30 min. (6)	8.4E2	6E4		
CRD Master Control Area & Corridor 4317, 4315	H	0/- .25	-/92/82/66	90/20	0.0025	8.8E2	ATM	115	100/20	ATM	148	100-30 min. (6)	9.6E0	1E2		
Washdown Area 4332	H	0/- .25	-/92/82/66	90/20	0.0025	8.8E2	ATM	115	100/20	ATM	148	100-30 min. (6)	1.1E0	2E2		
Equipment Air Lock 4304, 4305, 4313,	H	0/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min. (6)	1.5E-2	2E1		
Motor Control Center 4310	H	0/- .25	-/91/77/40	90/20	0.0025	8.8E2	ATM	122	100/20	ATM (4)	128	100-30 min. (6)	1.5E-1	5E0		
Motor Control Center, 4303	H	0/- .25	-/85/74/40	90/20	0.0025	8.8E2	ATM	115	100/20	ATM (4)	123	100-30 min. (6)	4.5E2	3E2		
SACS Pump & HI Room 4307, 4309	H	0/- .25	-/94/87/40	90/20	0.0025	8.8E2	ATM	95	100/20	ATM	104	100-30 min. (6)	2.7E1	5E2		
T10U1758-U1V																



TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				TEST CONDITIONS			
	PRESS. MAX/MIN (psi)	TEMP. % REL. (°F)	MAX DOSE RATE (RAD/MIN)	TEST/MAX/MIN MAX/MIN	PRESS. RATE (PSIG)	TEMP. % REL. (°F)	HUMIDITY MAX/MIN	PRESS. (PSIG)	TEMP. (°F)	% REL. HUMIDITY (%)	MAX DOSE RATE (RAD/Hr)	LEAD TRITIUM SHINE DOSE (RAD)(8.)
CBD Removal 6 Repair 4326	N 0/- .25	-/104/-40	90/20	0.0025	8.8E2	-	-	ATM	148	100-20 min. 9.4E1	-	2E2
CBD Storage 4333	N 0/- .25	-/104/-40	90/20	0.10	3.5E4	-	-	ATM	148	100-30 min. 9.4E1	-	2E2
Vestibule & Elev. Machine Room 4331, 4334	N 0/- .25	-/104/-40	90/20	0.0025	8.8E2	-	-	ATM	148	100-30 min. 1.5E-2	-	2E1
Drywell Access Room 4330	N 0/- .25	-/104/-40	90/20	2.5	8.8E5	-	-	ATM	148	100-30 min. 1.9E7 (gamma)	-	2E7
RPT Breather Room 4301	N 0/- .25	-/91/77/40	90/20	0.0025	8.8E2	ATM	122	100/20	ATM	148	3.1E8 (beta)	1E9
Equipment Air Lock (truck bay), 4323	N 0/- .25	-/84/74/40	90/20	0.0025	8.8E2	ATM	107	100/20	ATM	148	100-30 min. 1.5E-2	2E1
Equipment Air Lock, 4324	N 0/- .25	-/104/-40	90/20	0.0025	8.8E2	-	-	ATM	148	100-30 min. 9.4E0	-	1E2
CBD Hydraulic 4328	N 0/- .25	-/92/82/66	90/20	0.02	7.0E3	ATM	115	100/20	ATM	148	.100-30 min. 1.1E5	4E6

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT	NORMAL OPERATING CONDITIONS						ABNORMAL CONDITIONS						ONE CONDITIONS					
		PRESS. MAX/MIN (Mg)	TEMP (°F) TEST MAX/AVE/MIN	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/HR)	INTEGR. DOSE (RAD)(2)	PRESS. (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG) (3)	TEMP (°F) (3)	% REL HUMIDITY (3)	MAX LOCA DOSE RATE (RAD/HR)(5,7)	LOCA INTEGR SHINE DOSE (RAD)(8)					
<u>REACTOR BUILDING EL. 132 FT.</u>																			
RnCU Recirc. Pump Room 4403, 4405	H	0/- .25	-/104/-40	90/20	92.0	1.1E6	-	-	-	1.3-30 min. (4)	299-30 min. (5)	100-6 hrs (6)	1.5E-2	2E1					
RnCU Backwash Pump Room 4406	H	0/- .25	-/104/-40	90/20	55.0	1.1E6	-	-	-	ATM	148	100-30 min. (6)	1.5E-2	2E1					
RnCU Backwash Recirc. Tank 4407	H	0/- .25	-/104/-40	90/20	1.19E2	4.2E7	-	-	-	ATM	148	100-30 min. (6)	1.5E-2	2E1					
South Pipe Chase 4402	H	0/- .25	-/104/-40	90/20	89.0	2.0E6	-	-	-	1.3-30 min. (4)	305-30 min. (5)	100-6 hrs (6) at 36 hrs	4.8E3	6E4					
FRVS Recirc. 4410,	H	0/- .25	-/80/69/40	90/20	0.0025	8.8E2	ATM	110	100/20	ATM	148	100-30 min. (6) at 10 days	2.1E3	2E6					
FRVS Recirc 4411	H	0/- .25	-/80/69/40	90/20	0.0025	8.8E2	ATM	110	100/20	ATM	148	100-30 min. (6)	4.8E3	2E6					
Equipment Area 4401	H	0/- .25	-/76/65/40	90/20	0.0025	8.8E2	ATM	105	100/20	ATM	148	100-30 min. (6)	1.5E-2	2E1					
Corridor 4404	H	0/- .25	-/76/65/40	90/20	0.0025	8.8E2	ATM	105	100/20	ATM	148	100-30 min. (6)	1.5E-2	2E1					
Compressor & Elect. Equip. Area 4408	H	0/- .25	-/76/65/40	90/20	0.0025	8.8E2	ATM	105	100/20	ATM	148	100-30 min. (6) at 10 days	4.7E-2	7E1					
Instrument Gas Compressor Rm. 4412, 4413	H	0/- .25	-/80/67/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min. (6) at 10 days	2.0E0	3E3					
Entrance to Stm. Vent 4409	H	0/- .25	-/88/-40	90/20	0.0025	8.8E2	ATM	108	100/20	1.1-30 min. (4)	302-30 min. (5)	100-6 hrs (6)	2.0E2	6E3					
Central Alarm Station 4416 (TSC)	H	.25/- .25	-/104/78/68	90/20	0.0005	2E2	ATM	195	100/20	-	-	-	-	-					
Monitoring and Communication Area 4415 (TSL)	H	.25/- .25	-/104/78/68	90/20	0.0005	2E2	ATM	107	100/20	-	-	-	-	-					

Table 6 (Cont'd.)
INDUSTRIAL AND MANUFACTURING PLANT ENVIRONMENTAL CONDITIONS

AREA	INDUSTRIAL & MANUFACTURING PLANT	MANUFACTURING CONDITIONS			INDUSTRIAL CONDITIONS		
		PROCESS TEMP (°F) (deg)	RELATIVE HUMIDITY (%) (%)	TEMP. WALL (°F) (deg)	PROCESS PRESS (PSIG) (psi)	TEMP. WALL (°F) (deg)	REL HUMIDITY (%) (%)
MANUFACTURING PLANT 145 ft.							
Water tank 4500	H	W/-, -25	-/110/-/80	80/20	5, 7	216	-
South Pipe Line	H	W/-, -25	-/110/-/80	90/20	55, 0	2, 0Kb	-
45002							
License Filter & Holdup Pump Room elevation 4500	H	W/-, -25	-/110/-/80	90/20	55, 0	2, 0Kb	-
Liquid Filter 4500	H	W/-, -25	-/94/d3/40	90/20	0, 0025	8, 0Kc	AIR
West Pipe Line	H	W/-, -25	-/110/-/80	90/20	0, 015	5, 3Kd	AIR
45003							
Electrical Equipment Area 45001	H	W/-, -25	-/94/d3/40	90/20	0, 0025	0, 0K2	AIR
Airlock 4510	H	W/-, -25	-/110/-/80	90/20	0, 0025	8, 0Kd	AIR
Frigid Vent Hm. 4511, 4512	H	W/-, -25	-/110/90/80	90/20	0, 0025	0, 0Kd	AIR
Sample Station Room 4513	H	W/-, -25	-/110/-/80	90/20	1, 6	5, 0Kd	AIR
General Work Area 4514 (150')	H	25/-, -25	-/110/75/80	90/20	0, 0025	8, 0Kd	AIR
Conference Room 4515 (150')	H	25/-, -25	-/110/75/80	90/20	0, 0025	0, 0Kd	AIR
Instrument Room 4516 (150')	H	25/-, -25	-/110/75/80	90/20	0, 0025	0, 0Kd	AIR
Stairwell 4517 (150')	H	25/-, -25	-/110/75/80	90/20	0, 0025	8, 0Kd	AIR
Steam Tunnel Water Unit 4518 Space	H	W/-, -25	-/94/80/60	90/20	0, 0025	0, 0Kd	AIR
Corridor 4504	H	W/-, -25	-/94/80/60	90/20	0, 0025	0, 0Kd	AIR
Plant 450-014							

TABLE 6 (Cont'd)
MINIMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

ITEM DESCRIPTION & ITEM NUMBER	ENVIRON- MENT (1)	MINIMAL OPERATING CONDITIONS					ADDITIONAL CONDITIONS					URE CONDITIONS				
		PRESS MAX/MIN (kPa)	TEMP (°C) TEST/MAX/AVG/MIN	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/Hr)	INTEGR. DOSE (RAD) (2)	PRESS (PSIG)	TEMP (°F) TEST/MAX/AVG/MIN	% REL HUMIDITY MAX/MIN	PRESS (PSIG) (3)	TEMP (°F) (3)	% REL HUMIDITY (3)	MAX LOCA DOSE RATE (RAD/Hr) (5,7)	LOCA INTEGR. SHINE DOSE (RAD) (8,9)		
<u>REACTOR BUILDING, EL. 100 & 176 ft.</u>																
Gamma Scan Detector Area 4015	H	0/- .25	-/100/93/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min (6)	1.5E-2	2E1		
Core Loading Area 4011	H	0/- .25	-/104/-/40	90/20	0.10	3.5E4	-	-	-	ATM	148	100-30 min (6)	1.5E-2	2E1		
Containment Pre- Purge Cleanup Re- 4003	H	0/- .25	-/104/-/40	90/20	0.10	3.5E4	-	-	-	ATM	143	100-30 min (6)	4.8E3	2E3		
Motor Control Center 4011	H	0/- .25	-/84/74/40	90/20	0.0025	8.8E2	ATM	109	100/20	ATM	148	100-30 min (6)	4.8E3	3E4		
Recombiner (Post LOCA) 4002, 4004	H	0/- .25	-/84/74/40	90/20	0.0025	8.8E2	ATM	109	100/20	ATM	131	100-30 min (6)	4.8E3	8E4		
Fuvs Units 4017, 4017	H	0/- .25	-/b3/73/56	90/20	0.0025	8.8E2	ATM	108	100/20	ATM	146	100-30 min (6)	2.1E3	2E6		
Corridor 4003	H	0/- .25	-/100/-/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min (6) at 10 days	2E6	2E6		
New Fuel Fault 4010	H	0/- .25	-/104/-/40	90/20	0.10	3.5E4	-	-	-	ATM	148	100-30 min (6) at 36 hrs	4E1	4E1		
Core Loading Area 4011	H	0/- .25	-/104/-/40	90/20	0.10	3.5E4	-	-	-	ATM	148	100-30 min (6)	1.5E-2	2E1		
Gamma Scan Electronics Re- 4009	H	0/- .25	-/100/93/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min (6)	1.5E-2	2E1		
Spent Fuel Pool area 4012	H	0/- .25	-/104/y1/40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min (6)	1.5E-2	2E1		
Bottom of Spent Fuel Pool 4012	H	-	-/135/125/60	100	3.0E4	1.0E10	-	-	-	-	150	100	1.5E-2	2E1		
Spent Fuel Pool Gate 4012	H	-	-/135/125/60	100	3.0E4	1.7E7	-	-	-	-	150	100	1.5E-2	2E1		
Equipment area 4005	H	0/- .25	-/101/91/70	90/20	0.0025	8.8E2	ATM	174	100/20	ATM	148	100-30 min (6)	4.8E3	8E4		

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS					ABNORMAL CONDITIONS					DBE CONDITIONS				
		PRESS MAX/MIN (in)	TEMP (°F) TEST/MAX/AVE/MIN	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/Hr)	INTEGR. DOSE (RAD) (2)	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG) (3)	TEMP (°F) (3)	% REL HUMIDITY (3)	MAX LOCA DOSE RATE (RAD/Hr) (5,7)	LOCA INTE SHINE DOSI (RAD)		
Elect. Access Area 4619	H	0/- .25	-/104/-40	90/20	0.0025	8.8E2	ATM	122	100/20	ATM	148	100-30 min (6)	1.5E-2	ZEL		
SLC Room 4606	H	0/- .25	-/101/91/70	90/20	0.0025	8.8E2	ATM	124	100/20	ATM	148	100-30 min (6)	6.9E-2	SEO		
RMCU F/D Rm. 4620, 4621	H	0/- .25	-/104/-40	90/20	7.3E2	2.6E8	ATM	126	100/20	6.2-30 min. (4)	222-30 min. (5)	100-6 hrs (6)	1.5E-2	ZEL		
Fuel Pool Cooling Pump Room 4625, 4626	H	0/- .25	-/100/93/40	90/20	0.15	5.3E4	ATM	119	100/20	ATM	148	100-30 min (6)	1.5E-2	ZEL		
Dryer Separator Pool 4623	H	0/- .25	-/104/-40	90/20	0.0025	8.8E2	ATM	122	100/20	ATM	148	100-30 min (6)	1.5E-2	ZEL		
Bottom of Dryer Separator Pool	H	0/- .25	-/115/-40	100	10	3.2E5	ATM	122	100/20	ATM	148	100-30 min (6)	1.5E-2	ZEL		
Fuel Pool MX Room 4627, 4628	H	0/- .25	-/100/93/40	90/20	0.5	1.8E5	ATM	119	100/20	ATM	148	100-30 min (6)	1.5E-2	ZEL		
Isolation Valve Room 4624	H	0/- .25	-/110/-40	90/20	0.0025	8.8E2	-	-	-	ATM	148	100-30 min (6)	4.7E-2 at 10 days	ZEL		
FHVS Recirc. Unit Room 4614, 4616	H	0/- .25	-/83/73/56	90/20	0.0025	8.8E2	ATM	108	100/20	ATM	148	100-30 min (6)	2.1E3 at 10 days	ZEL		
Fuel Pool Water Suction Area 4607	H	0/- .25	-/104/91/40	90/20	0.140	5.26E4	ATM	122	100/20	ATM	148	100-30 min (6)	1.5E-2	ZEL		

TABLE 6 (Cont'd)
NORMAL AND ABNORMAL PLANT ENVIRONMENTAL CONDITIONS

ITEM DESCRIPTION & ROOM NUMBER	PRESS. (PSI) (kg)	ENVIRON- MENT (1) (kg)	NORMAL OPERATING CONDITIONS			ABNORMAL CONDITIONS			USE CONDITIONS		
			TEST/HAR/AVE/MIN	% HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/Hr)	TEST (PSIG) (RAD)	TEMP (°F) (RAD)	PRESS (PSIG) (RAD)	% REL HUMIDITY MAX/MIN	TEMP (°F) (RAD)	DOSAGE RATE (RAD/Hr) (RAD)
REACTOR BUILDING EL. 201 FT.											
Elevator Machine 4701	N	0/- .25	-/105/92/67	90/20	0.0025	8.8E2	Atm.	120	100/20	Atm	146 (6)
Polar Crane Entry Platform 4702	N	0/- .25	-/105/92/67	90/20	0.0025	8.8E2	Atm.	120	100/20	Atm	146 (6)
PPV Head Washdown Area 4705	N	0/- .25	-/105/92/67	90/20	0.025	1.6E3	Atm.	120	100/20	Atm	146 (6)
Laydown Area 4706	N	0/- .25	-/105/92/67	90/20	0.0025	8.8E2	Atm.	120	100/20	Atm	146 (6)
Cask Washdown Area 4707	N	0/- .25	-/105/92/67	90/20	0.015	1.6E2	Atm.	120	100/20	Atm	146 (6)
New Fuel Storage 4708	N	0/- .25	-/105/92/67	90/20	0.0025	8.8E2	Atm.	120	100/20	Atm	146 (6)
Mort Area 4709	N	0/- .25	-/105/92/67	90/20	0.0025	8.8E2	Atm.	120	100/20	Atm	146 (6)
Laydown Area 4710	N	0/- .25	-/105/92/67	90/20	0.0025	8.8E2	Atm.	120	100/20	Atm	146 (6) at 10 days

TABLE 6
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBERS	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				DOSE CONDITIONS			
		PRESS. MAX/AIR (psi) (kg)	TEMP. (°F) (°C)	REL. HUMIDITY MAX/AIR (%)	MAT DOSE RATE (RAD/HR)	TEMP. REL. (°F) (°C)	PRESS. (PSIG) (kg) (2)	REL. HUMIDITY MAX/HR (%)	DOSE RATE (RAD/HR)(5.7)	TEMP. REL. (°F) (°C)	HUMIDITY (%)	SHINE DOSE (RAD) (6.)	
Turbine Building E1 54 Feet	N	1/-1	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
Condenser Deaerating Pump Room, 1101	N	1/-1	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
Secondary Condensate Pump Room, 1102	N	1/-1	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
Turbine Generator Pedestal Area 1103	N	1/-1	-/104/-40	90/20	0.1	3.5E4	-	-	-	-	-	-	-
Primary Condensate Pumps, 1104	N	1/-1	-/104/-40	90/20	0.1	3.5E4	-	-	-	-	-	-	-
Down. Water Storage Tank 1105	N	1/-1	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
SHU & CBN Sump & Pumps Area, 1106	N	1/-1	-/104/-40	90/20	0.01	3.5E3	-	-	-	-	-	-	-
Pipeline E1. 70 feet, 1107 A	N	1/-1	-/120/-40	90/20	11.0	1.0E6	-	-	-	-	-	-	-
Pipeline, 1107	N	1/-1	-/120/-40	90/20	11.0	1.0E6	-	-	-	-	-	-	-
Chem. Sump & Pumps, 1108	N	1/-1	-/104/-40	90/20	0.01	3.5E3	-	-	-	-	-	-	-
Down. Water Storage & Pumps, 1109	N	1/-1	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
Down. Water Trans. Pumps, 1110	N	1/-1	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
Condenser Instrument Compartment, 1111	N	1/-1	-/110/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-
Condensate Piping Area, 1112	N	1/-1	-/120/-40	90/20	3.0	1.1E6	-	-	-	-	-	-	-
Turbine Gen. Pedestal Foundation Area, 1113	N	1/-1	-/120/-40	90/20	3.0	1.1E6	-	-	-	-	-	-	-

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

PLANT DESCRIPTION & NUMBER	ENVIRON- MENTAL MENT [1]	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				MAX CONDITIONS			
		PRESS. MM/H	TEMP. (°F) (kg)	TEST/MAX/AVG/MIN	% REL HUMIDITY MM/H/MIN	MAX DOSE RAU/HK	TEST. RAU	PRESS. (kg)	TEMP. (°F) (kg)	HUMIDITY MM/H/MIN	X REL HUMIDITY (%)	SHR. RATE (RAU/HK)(5,7)	LOCAL TOTAL RAD (RAD/H)
Lumensers Area A, id., 1114 1115, 1116	N	1/-.-.1	-/120/-/40	90/20	5.0	1.1E6							
Circ. Water Piping Area, 1117	N	1/-.-.1	-/120/-/40	90/20	3.0	1.1E6							
Area, LHM & Emergency Shutdown, 1118	N	1/-.-.1	-/110/-/40	90/20	0.01	5.5E3							
Oil Interceptor Rooms, 1119	N	1/-.-.1	-/110/-/40	90/20	0.0025	8.8E2							
Drastic Storage Area Room, 1120	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Drastic Pump 1121	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Dr. 10 Storage Room, 1122	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Refueling Water Pump, 1124	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Equipment Unloading Area, 1125	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Makeup Urchin, Pump Room, 1126	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Makeup Urchin, Storage Waste Tank Room, 1127	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.8E2							
Condensate Urchin, Tank Area above 11. but feet, 1128	N	1/-.-.1	-/120/-/40	90/20	3.0	1.1E6							
Off Gas Pipe Tunnel Above 11. by feet, 1129, 1130, 1131	N	1/-.-.1	-/100/-/40	90/20	3.0E1	1.1E7							
Pipeline 11. by feet, 1132	N	1/-.-.1	-/100/-/40	90/20	4.0E1	1.3E7							
Plant 11. by feet 1133													

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS			MAXIMUM OPERATING CONDITIONS			DOSE CONDITIONS			
		PRESS. MASS/MIN (kg)	TEMP. °C	% REL. HUMIDITY MASS/MIN	PRESS. MASS/MIN (kg)	TEMP. °C	% REL. HUMIDITY MASS/MIN	PRESS. MASS/MIN (kg)	TEMP. °C	% REL. HUMIDITY MASS/MIN	Dose RATE (RAD/Hr) (5.7)
Turbine Building El. 77 feet											
Laboratory Vestibule, 1201	H	1/-1	-/104/-40	90/20	J.0	1.1E6					
Labyrinth Vestibule, 1202	H	1/-1	-/104/-40	90/20	0.1	3.5E4					
Electrical Equip. Room, 1203	H	1/-1	-/104/-40	90/20	0.0025	8.8E2					
Electrical Equipment Area, 1204, 1205	H	1/-1	-/104/-40	90/20	0.0025	8.8E2					
Pack. Vacuum Pump Room, 1206	H	1/-1	-/104/-40	90/20	0.1	3.5E4					
Steam Packing Exhaustor Room, 1207	H	1/-1	-/110/-40	90/20	0.1	3.5E4					
Future Condensate Demin., 1208	H	1/-1	-/110/-40	90/20	1.E1	3.5E6					
Condensate Demin. 1209, 1210, 1211, 1212, 1213, 1214, 1215	H	1/-1	-/110/-40	90/20	1.E1	3.5E6					
Regeneration Area, 1216	H	1/-1	-/110/-40	90/20	6.E1	2.1E7					
Corridor, 1217	H	1/-1	-/85/-40	90/20	0.0025	8.8E2					
Air Ejector Rooms, 1218, 1219	H	1/-1	-/110/-40	90/20	2.6E4	9.3E7					
Condenser Water Box Laydown, 1220	H	1/-1	-/120/-40	90/20	3.0	1.1E6					
Lube Oil Receiving Tank, 1221	H	1/-1	-/104/-40	90/20	0.0025	8.8E2					
EHC Power Unit Area, 1222	H	1/-1	-/90/-40	90/20	0.0025	8.8E2					

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				DUE CONDITIONS					
	ENVIRON- MENT (1)	PRESS. MAX/AIR (psi)	TEMP. (°F)	% REL. HUMIDITY MAI/MIN	MAX DOSE RATE (RAD/Hr)	INTER- DOSE (RAD)	TEMP. (°F)	PRESS. (psi)	TEMP. (°F)	% REL. HUMIDITY MAI/MIN	PRESS. (psi)	TEMP. (°F)	% REL. HUMIDITY (1)	Dose Rate (RAD/Hr)(5,7)
Labyrinth Vestibule, 1223	H	1/-1	-/90/-/40	90/20	3.0	1.166	-	-	-	-	-	-	-	-
Equipment Unload and Access Area, 1224,1225	H	1/-1	-/90/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Labyrinth Vestibule 1226	H	1/-1	-/104/-/40	90/20	0.1	3.5E4	-	-	-	-	-	-	-	-
Condensate Return Tank Area, 1227	H	1/-1	-/90/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Pipe Chase, 1228	H	1/-1	-/120/-/40	90/20	1.0	3.5E5	-	-	-	-	-	-	-	-
Pipingay, 1229	H	1/-1	-/120/-/40	90/20	0.1	3.5E4	-	-	-	-	-	-	-	-
Valve Gallery, 1230	H	1/-1	-/110/-/40	90/20	0.1	3.5E4	-	-	-	-	-	-	-	-
Pipingay El. 94 ft. 9 in., 1231	H	1/-1	-/120/-/40	90/20	2.0	7.0E5	-	-	-	-	-	-	-	-

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				ONE CONDITIONS			
	PRESS. MAX/MIN (kg)	ENVIRON- MENT (1) TEST/MAV/AVE/MIN	TEMP (°F) MAX/MIN	% REL. HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/HHR)	DOSE (RAD)	TEMP. MAX (°F) (2)	% REL. HUMIDITY MAX/MIN	PRESS. (PSIG) (3)	TEMP. (°F) (3)	% REL. HUMIDITY (3)	DOSE RATE (RAD/MIN) (5.7) (RAD) (6.2)
Turbine Building [1. 102 feet]												
Vestibule, 1301	N	1/-.-.1	-/104/-40	90/20	0.0025	8.8E2						
Electrical Equipment Area, 1302	N	1/-.-.1	-/104/-40	90/20	0.0025	8.8E2						
Cond. Pump Removal Area, 1303	N	1/-.-.1	-/104/-40	90/20	0.0025	8.8E2						
Corridor, 1304	N	1/-.-.1	-/85/-40	90/20	0.0025	8.8E2						
Feedwater Heater, 1305	N	1/-.-.1	-/120/-40	90/20	2.0	7.5E						
Equipment Access, 1306	N	1/-.-.1	-/85/-40	90/20	0.0025	8.8E2						
Corridor, 1307	N	1/-.-.1	-/85/-40	90/20	0.0025	8.8E2						
Feedwater Heater 1308,1309	N	1/-.-.1	-/120/-40	90/20	2.0	7.0E5						
Condenser Area, 1310, 1311, & 1312	N	1/-.-.1	-/120/-40	90/20	3.0	1.1E6						
Condenser Area, 1313	N	1/-.-.1	-/120/-40	90/20	10.0	3.5E6						
Lube Oil Reservoir 1314	N	1/-.-.1	-/104/-40	90/20	0.0025	8.8E2						
Battery Room 1315	N	1/-.-.1	-/104/-40	90/20	0.0025	8.8E2						
Equipment Unloading Area, 1316	N	1/-.-.1	-/85/-40	90/20	0.0025	8.8E2						
Equipment Access Area, 1317	N	1/-.-.1	-/85/-40	90/20	0.0025	8.8E2						
O.C. Equipment Room 1323	N	1/-.-.1	-/110/-40	90/20	0.0025	8.8E2						

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	NORMAL OPERATING CONDITIONS			ABNORMAL CONDITIONS			MAX CONDITIONS		
	ENVIRON- MENT (1)	PRESS MAX/MIN (kg)	TEMP TEST/MAX/AVE/MIN (°F)	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/Hr)	INTEN- SITY (RAD)	PRESS (kg)	TEMP (°F)	% REL HUMIDITY (%)
Turbine Building									
El. 102 Feet	H	1/-1	-100/-40	90/20	1.61	3.566	-	-	-
Labyrinth Vestibule, 1318, 1319, 1320, 1321	H	1/-1	-100/-40	90/20	1.61	3.566	-	-	-
Pipe Chase At El. 115 ft. 6 in. 1322	H	1/-1	-120/-40	90/20	2.0	7.65	-	-	-
Turbine Building									
El. 120 Feet	H	1/-1	-91/-40	90/20	0.0025	0.8E2	-	-	-
Mezz. Air Equipment Area, 1401	H	1/-1	-100/-40	90/20	0.0025	0.8E2	-	-	-
RFPT Lube Oil Reservoir, 1402, 1403, 1404	H	1/-1	-100/-40	90/20	0.0025	0.8E2	-	-	-
Mainsteam Pipe Chase At El. 123 ft., 1405	H	1/-1	-120/-40	90/20	1.61	3.566	-	-	-
Electrical Equipment, 1406	H	1/-1	-100/-40	90/20	0.0025	0.8E2	-	-	-
Equipment Unloading, Area, 1409	H	1/-1	-110/-40	90/20	0.0025	0.8E2	-	-	-
Labyrinth Vestibule 1410, 1411	H	1/-1	-120/-40	90/20	1.0	3.565	-	-	-
RFPT Lube Oil Purifier, 1412	H	1/-1	-100/-40	90/20	0.0025	0.8E2	-	-	-

TABLE 6 (Cont'd)
NOMINAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & NUMBER	NORMAL OPERATING CONDITIONS				ADDITIONAL CONDITIONS				WATER CONDUCTIVITIES ($\mu\text{M}/\text{cm}^3$) ($\mu\text{S}/\text{cm}^{-1}$)
	PRESS. PSI/INCH OF WATER	TEMP. DEG. F ($^{\circ}\text{F}$)	MAX. DOSE RAD/HOUR	INTC.	PRESS. PSI (lb/in^2)	TEMP. DEG. F ($^{\circ}\text{F}$)	HUMIDITY PERCENT RELATIVE HUMIDITY MAX/MIN	% HUMIDITY MAX/MIN	
Turbine Building E1, 137 feet	N	1/-1	-/104/-/40	90/20	0.0025	6.962	-	-	-
Equipment Laydown Area 1501	N	1/-1	-/104/-/40	90/20	0.0025	6.962	-	-	-
Equipment Unloading & Service Area, 1502, 1503	N	1/-1	-/95/-/40	90/20	0.0025	6.962	-	-	-
Fensterer Heater, 1504, 1505, 1506	N	1/-1	-/120/-/40	90/20	2.0	7.15	-	-	-
Corridor, 1507	N	1/-1	-/95/-/40	90/20	0.0025	6.962	-	-	-
Steam Seal Evaporator, 1508	N	1/-1	-/120/-/40	90/20	5.0	1.866	-	-	-
Reactor Feed Pump Turbine, 1509, 1510, 1511	N	1/-1	-/120/-/40	90/20	5.0	1.866	-	-	-
Boilermate Separator, 1512, 1514	N	1/-1	-/120/-/40	90/20	3.0	1.166	-	-	-
HP & LP Turbine Area, 1513	N	1/-1	-/104/-/40	90/20	2.0	7.065	-	-	-
Equipment Unloading Area, 1515	N	1/-1	-/104/-/40	90/20	0.0025	6.962	-	-	-
Reactor Recirculation No Sets, 1516, 1517	N	1/-1	-/104/-/40	90/20	0.0025	6.962	-	-	-
Corridor, 1518	N	1/-1	-/95/-/40	90/20	0.0025	6.962	-	-	-
Shutdown Area, 1519	N	1/-1	-/104/-/40	90/20	0.0025	6.962	-	-	-
Emergency Vent Stack, 1520	N	1/-1	-/120/-/40	90/20	0.4	1.464	-	-	-

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TABLE 6 (CONT'D)
NORMAL AND UNUSUAL PLANT ENVIRONMENTAL CONDITIONS

AREA ELEVATION & HUMIDITY	PRESS. NAN/MIN H.E.H. (1) [mg]	ELEVATION- H.E.H. (1) 100/MMOL/MIN	OPERATING CONDITIONS			AERIAL CONDITIONS			DUE CONDITIONS		
			TEMP (°F)	% REL HUMIDITY PAR/MIN	MAX DOSE RAD (RAD/HOUR)	TEMP RAD (RAD/HOUR)	% REL HUMIDITY PAR/MIN	TEMP PSI (PSIG)	HUMIDITY RAD/HOUR	TEMP RAD (RAD/HOUR)	% REL HUMIDITY (J)
Turbine Building E.L. 124'-0"	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.662	-	-	-	-	-
Valve gallery, low	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.662	-	-	-	-	-
Valve gallery, high	N	1/-.-.1	-/100/-/40	90/20	0.0025	8.662	-	-	-	-	-
Turbine building E.L. 171' feet											
Turbine Bay Crane Access Platform, 170'	H	1/-.-.1	-/100/-/40	90/20	0.0025	8.662	-	-	-	-	-
Elevator Machine Room, 170'	H	1/-.-.1	-/100/-/40	90/20	0.0025	5.363	-	-	-	-	-
Hyd Equipment areas, 170'	H	1/-.-.1	-/100/-/40	90/20	0.0025	8.662	-	-	-	-	-
Compressor Exhaust Rooms, 170'	H	1/-.-.1	-/100/-/40	90/20	0.015	5.363	-	-	-	-	-
Hyd Equipment areas, 170'	H	1/-.-.1	-/100/-/40	90/20	0.0025	8.662	-	-	-	-	-

TABLE 6 (cont'd.)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA	NORMAL OPERATING CONDITIONS	PRESSURE	TEMP. °F (°C)	% REL. HUMIDITY PART/MIN (PPM) TEST/HUM/AIR/MIN (PPM)	MAX DOSE RAD/HOUR (RAD/Hr)	INTER- VALS RAD/HOUR (RAD/Hr)	ABNORMAL CONDITIONS			DUE CONDITIONS		
							TEMP. °F (°C)	PRESS PSI (KPa)	WELL HUMIDITY PART/MIN (PPM) RAD/HOUR (RAD/Hr)	TEMP. °F (°C)	PRESS PSI (KPa)	WELL HUMIDITY PART/MIN (PPM) RAD/HOUR (RAD/Hr)
Military Building												
11. 54 Feet												
Waste Surge Tank Room, J101	H	W/-25	-/115/-40	90/20	0.8	2.8E-5						
Waste Surge Pump Room, J102	H	W/-25	-/110/-40	90/20	0.07	2.5E-4						
Floor Drain Sample Tank Room, J103, J105	H	W/-25	-/115/-40	90/20	0.0025	8.8E-2						
Floor Drain Sample Pump Room, J104	H	W/-25	-/100/-40	90/20	0.0025	8.8E-2						
Corridor, J106	H	-25/-25	-/104/-40	90/20	0.0025	8.8E-2						
Waste Sample Tank Room, J107, J109	H	W/-25	-/115/-40	90/20	0.0025	8.8E-2						
Waste Sample Pump Room, J108	H	W/-25	-/100/-40	90/20	0.0025	8.8E-2						
Corridor, J110, J111	H	-25/-25	-/104/-40	90/20	0.0025	8.8E-2						
Waste Collector Sump, J112	H	W/-25	-/104/-40	90/20	0.07	1.8E-4						
Waste Collector Tank Room, J113, J114	H	W/-25	-/115/-40	90/20	1.0	3.5E-5						
Waste Collector Pump Room, J114, J115	H	W/-25	-/112/-40	90/20	0.325	1.1E-5						
Filter Room, J117	H	W/-25	-/104/-40	90/20	1.0	3.5E-5						
Concentrated Waste Tanks, J118, J119	H	W/-25	-/115/-40	90/20	0.0	2.1E-6						
Concentrated waste Pump Room, J120	H	W/-25	-/104/-40	90/20	1.0	3.5E-5						

F.I.T. & (Cont'd)
NORMAL AND NORMA PLANT ENVIRONMENTAL CONDITIONS

AREA	DESCRIPTION & NAME	NORMAL OPERATING CONDITIONS				EOT CONDITIONS					
		PRESS (psi)	REL HUM- IDIT (1) (%)	TEMP (°F) (kg)	FLD/MIN(AVE)/MIN	% REL HUMIDITY MASS/MIN (kg/Hr)	WET DOSE RATE (kg/Hr)	TEMP. WHS (kg)	PRESS (PSIA) (kg)	TEMP (°F) (kg)	% REL HUMIDITY MASS RATE (kg/Hr)(S.E.) (kg)
UR. SICKLETON & HUM. REACTOR	H	U/-25	-/104/-40	90/20	0.4	1.4E5	-	-	-	-	-
Waste Neutralizer Pump Room, J121, J124	H	U/-25	-/115/-40	90/20	2.5	8.8E5	-	-	-	-	-
Waste Neutralizer Tank, J122, J123	H	U/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-
Waste Evaporator Room Area, J124, J126	H	U/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-
Corridor, J127	H	.25/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-
Waste Evaporator Recirc. Pump Room, J171, J173	H	.25/-25	-/104/-40	90/20	2.5	8.8E5	-	-	-	-	-
Waste Evaporator Tank Room, J172, J174	H	.25/-25	-/115/-40	90/20	0.0025	8.8E2	-	-	-	-	-
Cleanout Phase Separator Pump Room, J128	H	U/-25	-/104/-40	90/20	5.1	1.8E7	-	-	-	-	-
Cleanout Phase Separator, J129, J130, Tank Area, J131	H	U/-25	-/115/-40	90/20	5.1	1.7E8	-	-	-	-	-
Spent Resin Tank Room, J132	H	U/-25	-/115/-40	90/20	0.0025	8.8E2	-	-	-	-	-
Laboratory Vestibule	H	U/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-
Spent Resin Pump Room, J133	H	U/-25	-/120/-40	90/20	1.1E1	3.9E6	-	-	-	-	-
Waste Sludge Pump Room, J134	H	U/-25	-/112/-40	90/20	5.1	1.7E8	-	-	-	-	-
Waste Sludge Phase Separator, J135	H	U/-25	-/115/-40	90/20	5.1E	1.7E8	-	-	-	-	-
Flour Train Collector Tank, J136, J137	H	U/-25	-/115/-40	90/20	0.015	5.3E3	-	-	-	-	-
Flour Train Collector Pump Room, J138	H	U/-25	-/104/-40	90/20	0.015	5.3E3	-	-	-	-	-
Deicer Train Filter Room, J139	H	U/-25	-/115/-40	90/20	0.015	5.3E3	-	-	-	-	-
Laboratory Vestibule J140	H	U/-25	-/104/-40	90/20	0.015	5.3E3	-	-	-	-	-

TABLE 6 (CONT'D)
MINIMUM AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT (1)	MINIMUM OPERATING CONDITIONS					ABNORMAL CONDITIONS					DUE CONDITIONS				
		PRESS MAX/MIN (psi)	TEMP TEST/MAX/Avg/MIN (°F)	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAU/Hr)	INTEGR. DOSE (RAU) (2)	PRESS (psi)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAU/Hr) (5,7)	DOSE SHINE DOSE (RAU/Hr) (5,7)	LOCA INTEGR (RAU) (8,9)	
Detergent Drain Pump Room, J141	H	0/- .25	-/104/-40	90/20	0.015	5.3E3	-	-	-	-	-	-	-	-	-	-
Detergent Drain Tank Room, J142	H	0/- .25	-/115/-40	90/20	0.015	5.3E3	-	-	-	-	-	-	-	-	-	-
Aux Sumps, J143	H	0/- .25	-/104/-40	90/20	0.05	1.8E4	-	-	-	-	-	-	-	-	-	-
Corridor, J144	H	.25/- .25	-/104/-40	90/20	0.5025	8.8E2	-	-	-	-	-	-	-	-	-	-
R/W Desin holdup Tank Room, J145	H	0/- .25	-/115/-40	90/20	4.5E1	1.6E7	-	-	-	-	-	-	-	-	-	-
R/R Regenerator Vessel Room, J146	H	0/- .25	-/115/-40	90/20	2.25E2	7.9E7	-	-	-	-	-	-	-	-	-	1
Decon. Solution L.s. Pumps, J147	H	0/- .25	-/110/-40	90/20	0.5	1.8E5	-	-	-	-	-	-	-	-	-	-
Decon. solution Concentrated Waste Tank Room, J148	H	0/- .25	-/115/-40	90/20	1.0	3.5E5	-	-	-	-	-	-	-	-	-	-
Concentrate Return Vent Room, J149	H	0/- .25	-/95/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	-
Chem. waste Sample Tank, J150	H	0/- .25	-/115/-40	90/20	0.35	1.2E5	-	-	-	-	-	-	-	-	-	-
Chem. waste Sample Pump Room, J151	H	0/- .25	-/120/-40	90/20	0.06	2.1E4	-	-	-	-	-	-	-	-	-	-
M&V, J152	H	0/- .25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	-
Filter Room, J153	H	0/- .25	-/104/-40	90/20	1.0	3.5E5	-	-	-	-	-	-	-	-	-	-
Corridor, J154	H	0/- .25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	-
Decon. Solution Concentrator Room, J175	H	0/- .25	-/115/-40	90/20	2.0	7.0E5	-	-	-	-	-	-	-	-	-	-
Decon. Solution Concentrator Recycle Pump Room, J176	H	0/- .25	-/104/-40	90/20	0.5	1.8E5	-	-	-	-	-	-	-	-	-	-
Vestibule, J177	H	0/- .25	-/104/-40	90/20	2.0E1	7.0E6	-	-	-	-	-	-	-	-	-	-

Table 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL LIMITATIONS

AREA	DESCRIPTION & ROOM NUMBER	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				GAS CONDITIONS			
		LAPTOP- PC	RELATIVE HUMIDITY (%) (mg)	TEST/WATER/ANT/MIN	% REL HUMIDITY MAX/MIN	MAX DUST LEVEL (HAU/100m)	REL HUMIDITY (%) (mg)	PRESS (PSIG) (kPa)	TEMP (°F) (°C)	% REL HUMIDITY (%) (mg)	WATER CONTENT (HAU/m) (S.G.)	WATER CONTENT (HAU/m) (S.G.)	WATER CONTENT (HAU/m) (S.G.)
Charcoal Tank 3152, 3159-1	H	0/- .25	-/104/-/40	90/20	3.24.3	1.2t.8	-	-	-	-	-	-	-
Refrigerator Room, 3160	H	0/- .25	-/104/-/40	90/20	0.0425	0.042	-	-	-	-	-	-	-
Corridor 3157, 3162, 3163, 3164	H	.25/0	-/104/-/40	90/20	0.0025	0.002	-	-	-	-	-	-	-
Analyzer Room, 3168	H	0/- .25	-/104/-/40	90/20	2.04.2	7.04.7	-	-	-	-	-	-	-
Off Gas Panel Room, 3169	H	0/- .25	-/104/-/40	90/20	0.0025	0.002	-	-	-	-	-	-	-
Valve Gallery, 3159	H	0/- .25	-/104/-/40	90/20	25	8.36.6	-	-	-	-	-	-	-
Primary Recombiner Valve Maintenance Area, 3167-1, 3168-1	H	0/- .25	-/115/-/40	90/20	56.2	1.75.8	-	-	-	-	-	-	-
Recombiner 3167, 3168 H	0/- .25	-/115/-/40	90/20	5E3	1.75.8	-	-	-	-	-	-	-	-
and Comps & Plenums, 3170	H	0/- .25	-/104/-/40	90/20	0.05	1.86.4	-	-	-	-	-	-	-
Hyd. room 3126, 3158, 3161 H	0/- .25	-/104/-/40	90/20	0.015	5.36.3	-	-	-	-	-	-	-	-
Auxiliary Building Control & Diesel Area #1, 24 feet	-	-	-	-	-	-	-	-	-	-	-	-	-
Vestibule, 3101	H	.25/0	-/104/-/40	90/20	0.00025	21.2	-	-	-	-	-	-	-
Electrical Equipment Area, 3102	H	.25/0	-/104/85/-/40	90/20	0.00025	21.2	.25/0	1.34	90/20	-	-	-	-
Equipment Room, 3103	H	.25/0	-/104/10/-/40	90/20	0.00025	21.2	.25/0	1.04	90/20	-	-	-	-
Gallery Room, 3104, 3120	H	0/- .25	7/100/77/74	90/20	0.00025	21.2	0/- .25	0.0	90/20	-	-	-	-
Hyd. Jet Room, 3105	H	.25/0	-/104/-/40	90/20	0.00025	21.2	.25/0	1.04	90/20	-	-	-	-
Storage Area, 3106	H	.25/0	-/104/-/40	90/20	0.00025	21.2	.25/0	1.04	90/20	-	-	-	-
Vestibule, 3121	H	.25/0	-/104/-/40	90/20	0.00025	21.2	-	-	-	-	-	-	-

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA	LOCATION & HUMAN HABITAT	NORMAL OPERATING CONDITIONS			ABNORMAL CONDITIONS			ABNORMAL CONDITIONS		
		ENVIRON- MENT (1)	PRESS. (PSI)	TEMP. (°F)	% REL HUMIDITY (MM/HHR)	HUMIDITY (MM/HHR)	MAX DOSE (RAD/HR)	TEMP. (°F)	PRESS. (PSIG)	% REL HUMIDITY (MM/HHR)
Battery Room, S110	N	W/-25	77/85/77/74	90/20	0.0005	2E2	.25/0	40	90/20	-
Diesel Fuel Storage, S109, S109, S110,	N	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Corridor, S111, S112	N	.25/0	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Military Building										
L1, 77 & 81 Foot	N	.25/-25	-/104/-40	90/20	0.0005	8.8E2	-	-	-	-
Cable Tray Area, S201, S211	N	.25/-25	-/104/-40	90/20	0.0005	8.8E2	-	-	-	-
Store Room, S202	N	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Corridor, S203, S209	N	.25/-25	-/104/-40	90/20	0.0005	8.8E2	-	-	-	-
Electrical Access Area, S204	N	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Battery Room, S205,	N	W/-25	-/104/117/7	90/5	0.0005	8.8E2	-	-	-	-
Battery Charger Room S206	N	W/-25	-/82/85/83	90/5	0.0005	8.8E2	-	-	-	-
Emergency Shower Area, S208	N	.25/-25	-/104/-40	90/20	0.0005	8.8E2	-	-	-	-
Over, S210	N	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Elevator Machine Room, S211	N	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Oil Interceptor, S209	N	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-
Cable Tray Area, S201, S211	N	.25/-25	-/104/-40	90/20	0.0005	8.8E2	-	-	-	-
Vestibule, S110	N	.25/-25	-/104/-40	90/20	0.0005	8.8E2	-	-	-	-

TABLE 6 (Cont'd.)
MANUAL AND HANLAPM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & NUM NUMBER	MANUAL OPERATING CONDITIONS				DUE CONDITIONS							
	PRESS (kg)	ENVIRON- MENTAL REL. (1)	HUM/MIN (kg)	TEST/HUM/MIN (kg)	% REL HUMIDITY HUM/MIN	PRESS (kg)	TEMP (°C)	PRESS (PSIG) (1)	% REL HUMIDITY (%) (3)	TEMP (°C) (2)	PRESS (kg)	% REL HUMIDITY HUM/MIN (kg)
Hatchday 3210	N	.25/- .25	-/104/-/40	90/20	0.0025	8.862	-	-	-	-	-	-
Vial Sampler Area, J195, J199	N	.25/0	-/104/-/40	90/20	0.0025	8.862	-	-	-	-	-	-
Pipemay Areas, J180 + J189	N	.25/0	-/115/-/40	90/20	54.2	2.380	-	-	-	-	-	-
Off West Holdup Area, J181, J182	N	.25/- .25	-/115/-/40	90/20	N.1	1.169	-	-	-	-	-	-
Delay Pipe Vestibule, J183	N	.25/- .25	-/104/-/40	90/20	0.0025	8.862	-	-	-	-	-	-
Vestibule, J184	N	.25/- .25	-/115/-/40	90/20	0.0025	8.862	-	-	-	-	-	-
Pipemay Area L. I. 66 ft. J186	N	.25/- .25	-/115/-/40	90/20	1.0	3.563	-	-	-	-	-	-
Pipemay Area L. I. 75 ft., J187	N	.25/- .25	-/115/-/40	90/20	1.0E 3	2.965	-	-	-	-	-	-
Vestibule, J188	N	.25/- .25	-/104/-/40	90/20	0.0025	8.862	-	-	-	-	-	-
Pipemay Areas, L. I. 65 ft. J190	N	.25/- .25	-/115/-/40	90/20	1.5E 2	2.116	-	-	-	-	-	-
Recycle & Concentrated Basic Pump Room, J191, J196	N	.25/- .25	-/104/-/40	90/20	1.0	3.565	-	-	-	-	-	-
Basic Liquid Alor Rooms, J192, J199	N	.25/- .25	-/115/-/40	90/20	3.0	1.8E 6	-	-	-	-	-	-
Heating Element Rooms, J193, J197	N	.25/- .25	-/115/-/40	90/20	3.0	1.8E 6	-	-	-	-	-	-
N/w Regeneration System Control Panel Room, J197	N	.25/- .25	-/115/-/40	90/20	0.0025	8.862	-	-	-	-	-	-

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENTAL POINT (1)	NORMAL OPERATING CONDITIONS					ABNORMAL CONDITIONS					DBE CONDITIONS				
		PRESS MAX/MIN (mg)	TEMP TEST/MAX/Avg/MIN (°F)	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAU/Hr)	INTEGR. RAU (RAU) (2)	PRESS (mg)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY (3)	MAX LOCA RAU RATE (RAU/Hr) (5,7)	LOCA INTEGR (RAU) (8,9)		
<u>Auxiliary building Control & Diesel Area EL. // feet</u>																
Vestibule, 5201	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Cable Splicing Room, 5202	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Electrical Tray Area, 5203, 5204, 5205, 5206,	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Corridor, 5207, 5211, 5237	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
6kV Equipment Room, 5208, 5209, 5210, 5211	N	.25/.-25	90/104/90/40	90/20	0.0005	2E2	.25/.-25	104	90/20	-	-	-	-	-	-	
Access Area, 5215	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Electrical Raceway, 5216	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Vestibule, 5233	N	.25/.-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
<u>Auxiliary building EL. 102 feet</u>																
Plant Personnel Entrance, 3801	N	.25/.-25	-/100/-40	90/20	0.0005	1.8E2	-	-	-	-	-	-	-	-	-	
Corridor, 3810	N	.25/.-25	-/100/-40	90/20	0.0005	1.8E2	-	-	-	-	-	-	-	-	-	
Men's Toilet Room, 3803	N	.25/.-25	-/104/-40	90/20	0.0005	1.8E2	-	-	-	-	-	-	-	-	-	
Janitor's Room, 3804	N	.25/.-25	-/104/-40	90/20	0.0005	1.8E2	-	-	-	-	-	-	-	-	-	
Unrestricted Machine Shop, 3805	N	.25/.-25	-/100/-40	90/20	0.0005	1.8E2	-	-	-	-	-	-	-	-	-	

TABLE 6 (Cont'd)
MATERIAL AND MANUFACTURING PLANT ENVIRONMENTAL LIMITATIONS

NAME	DESCRIPTION & HAZARD NUMBER	NORMAL OPERATING CONDITIONS				ABNORMAL OPERATING CONDITIONS				WATER CONDITIONS				
		PRESSURE (kg)	ENVIRON- MENT (L)	PARTICLE TEST/MIL/AVL/MIN	HUMIDITY HAZ/MIN	TEMP. IN% (HAZ)	PRESS (PSIG)	TEMP % REL HUMIDITY HAZ/HIN	PRESS (PSIG)	TEMP % REL HUMIDITY HAZ/HIN	TEMP % REL HUMIDITY (%)	TEMP % REL HUMIDITY (%)	WATER INLET (MM/MM)(L/L)	WATER OUTLET (MM/MM)(L/L)
Corridor, J306	H	.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Maintenance, J307	H	.25/- .25	-/100/-/40	90/7	0.0005	1.4E7								
Store Room, J308	H	.25/- .25	-/100/-/40	90/7	0.0005	1.4E7								
Restricted Machine Shop, J309	H	.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Uncontamination Room, J310	H	.25/- .25	-/100/-/40	90/20	0.0025	1.4E7								
Uncontamination Room, J311	H	.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Electrical Access areas, J314, J315		.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Hot water heater room, J316	H	.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Loyer, J317		.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Lobby, J318	I	.25/- .25	-/100/-/40	90/20	0.0005	1.4E7								
Tank Room, J319	A	.25/- .25	-/115/-/40	90/20	0.00025	1.4E7								
Fuel Pool Filter Room, J321	H	.25/- .25	-/115/-/40	90/20	2.41	7.0E6								
Floor Drain Filter, J320	H	.25/- .25	-/115/-/40	90/20	0.04	1.4E4								
Floor Drain Drain, J321	H	.25/- .25	-/115/-/40	90/20	0.015	5.3E3								
Waste Drain Room, J322	H	.25/- .25	-/115/-/40	90/20	X1	1.1E7								
Waste Filter, J323	H	.25/- .25	-/115/-/40	90/20	1.0E2	3.5E7								
Fuel Pool Filter Holding Pump Room J324	H	.25/- .25	-/100/-/40	90/20	5.5	1.9E6								

TABLE 6 (Cont'd.)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA	LE. DURATION & HIGH NUMBER	NORMAL OPERATING CONDITIONS				ADDITIONAL CONDITIONS				USE CONDITIONS
		PRESS. PSI/IN. (kg)	EVAPOR- ATE RATE [l]	TEMP. °F (°C)	% REL. HUMIDITY MASS/MIN	MATERIAL DOSE RAU/H	INSTR. RAU	PRESS. PSI (kg)	TEMP. °F (°C)	
Floor Drain Holding Pump 3325	H	.25/- .25	-/100/-/40	90/20	0.015	5.35.3	-	-	-	-
Nestle Filter Holding Pump 3326	H	.25/- .25	-/100/-/40	90/20	1.71	6.06.6	-	-	-	-
Lobby, 3327, 3328	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-
Office, 3310	H	.25/- .25	-/300/-/40	90/7	0.0025	8.86.2	-	-	-	-
Electrical Equipment Area, 3329	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-
Radioactive Control Room, 3343	H	.25/- .25	-/300/-/40	90/7	0.0025	8.86.2	-	-	-	-
Electrical Penetration Room, 3331	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-
Up/Up Area, 3334	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-
Electrical Access Area, 3330	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-
Corridor 3325, 3346	I	.25/- .25	-/100/-/40	90/20	.0025	8.86.2	-	-	-	-
Equipment Access 3340	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-
Ur. Radioactive Storage 3344	H	.25/- .25	-/100/-/40	90/20	0.2	7.06.4	-	-	-	-
Ur. Lumper & Seamer Area 3347	H	.25/- .25	-/100/-/40	90/20	500	6.06.4	-	-	-	-
Radioactive Loading Area 3348	H	.25/- .25	-/100/-/40	90/20	500	1.26.5	-	-	-	-
Ur. Turn Table Area 3349, 3350	H	.25/- .25	-/100/-/40	90/20	500	1.36.6	-	-	-	-
Asphalt Metering Pump Area 3350	H	.25/- .25	-/100/-/40	90/20	0.0025	8.86.2	-	-	-	-

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS						ABNORMAL CONDITIONS						DBE CONDITIONS					
		PRESS MAX/MIN (psi)	TEMP (°F) TEST/MAX/AVE/MIN	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAU/Hr)	INTEGR. RAUSE (RAU) (2)	PRESS (psi)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (psi)	TEMP (°F)	% REL HUMIDITY (3)	MAX LOCA RAUSE RATE (RAU/Hr)(5,7)	LOCA RAUSE (RAU) (8,9)					
Extruder Manifold Area 3358	H	.25/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	-	-	-	
Extruder Evaporator 3357, 3359	H	.25/-25	-/104/-40	90/20	550	1.4E6	-	-	-	-	-	-	-	-	-	-	-	-	
Resin Recirc. Pump Room 3360	H	.25/-25	-/104/-40	90/20	1.3E3	7.0E6	-	-	-	-	-	-	-	-	-	-	-	-	
Centrifuge Feed Tank Room 3361	H	.25/-25	-/104/-40	90/20	4.4E3	1.5E9	-	-	-	-	-	-	-	-	-	-	-	-	
Crystallizer Bottoms Pump Room 3362	H	.25/-25	-/104/-40	90/20	40.0	1.4E7	-	-	-	-	-	-	-	-	-	-	-	-	
Crystallizer Bottoms Tank Room 3360	H	.25/-25	-/104/-40	90/20	100	3.5E7	-	-	-	-	-	-	-	-	-	-	-	-	
Crystallizer Instr. Rack, Condenser, and Sample Areas 3363, 3364, 3365	H	.25/-25	-/104/-40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	-	-	-	
Crystallizer Recirc. Pump Room 3367	H	.25/-25	-/104/-40	90/20	52	1.6E7	-	-	-	-	-	-	-	-	-	-	-	-	
Auxiliary building Control & Diesel Area E.L. 102 Feet																			
Electrical Access Area, 5301, 5319	H	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	-	-	-	
Control Equipment Room, 5302	H	.25/-25	83/85/63/40	90/20	0.0005	2E2	.25/-25	85	90/20	-	-	-	-	-	-	-	-	-	
Corridor, 5303	H	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	-	-	-	
Vestibule, 5305, 5310	H	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	-	-	-	
Electrical Tray Area, 5303, 5304, 5305, 5306	H	.25/-25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	-	-	-	

TABLE 6 (Cont'd.)
SUSPENDED AND MASTICATE PLANT IN HUMID TROPICAL CONDITIONS

TEST AREA	ENVIRONMENTAL HUMAN RESPONSE	MANUAL OPERATING CONDITIONS				AUTOMATIC CONDITIONS				DUE CONDITIONS			
		PRESS. MM/SEC.	PRESS. MM/MIN	TEMP. (°F)	REL. HUMIDITY MM/HHR	PRESS. MM/SEC.	TEMP. (°F)	HUMIDITY MM/HHR	PRESS. MM/SEC.	TEMP. (°F)	HUMIDITY MM/HHR	PRESS. MM/SEC.	TEMP. (°F)
Diesel generator, Human, 5,004, 5,805, 5,806, 5,807	H	.25/- .25	120/120/-40	90/20	0.0005	21.6	.25/- .25	120	.0005	21.6	0.0005	.25/- .25	120
Lurri room, 5,310,	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Electrical Tray Area, 5,311, 5,312, 5,313, 5,314	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Electrical Assembly Human, 5,316	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
<hr/>													
military building at 144 feet													
Residential, 5401	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Uncontrolled Utility Locker Area, 5402	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Linear Storage Area, 5403	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Electrical Tray Human, 5404	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Lurri Room, 5405, 5406	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Uncontrolled Toilet, 5406, 5407	H	.25/- .25	-104/-40	90/20	0.0005	21.2							
Uncontrolled Main- tenance Locker Area, 5408	H	.25/- .25	-104/-40	90/20	0.0005	21.2							

TABLE 6 (Cont'd.)
INDOOR AND OUTDOOR PLANT ENVIRONMENTAL CONDITIONS

AREA	ENVIRONMENTAL DATA [1]	INDOOR/OUTDOOR CONDITIONS			ADDITIONAL CONDITIONS					GSE CONDITIONS			
		PRESS. MM/HOUR (kg)	TEMP. °C (°F)	R.H. REL. HUMIDITY MMIN/MIN	MICRO- DOSE RAD/HOUR	PRESS. MM/HOUR (kg)	TEMP. °C (°F)	R.H. REL. HUMIDITY MMIN/MIN	PRESS. MM/HOUR (kg)	TEMP. °C (°F)	R.H. REL. HUMIDITY MMIN/MIN	PRESS. MM/HOUR (kg)	TEMP. °C (°F)
UNCONTROLLED Maintenance Toilet, J410, J411, J412	N	.25/- .25	-/30/-/60	90/20	0.0005	212							
UNCONTAMINATED AREA, J411, J412, J413, J416	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Linen Storage Room J414	N	.25/- .25	-/90/-/60	90/20	0.0025	8.8E2							
Monitor Area, J451	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Vestibule, J413	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Controlled Locker Corridor Area, J444, J445	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Controlled Corridor, J445	N	.25/- .25	-/30/-/60	90/20	0.0025	8.8E2							
Passeyway, J480	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Electrical Machinery Room, J484, J490	N	.25/- .25	-/100/-/60	90/20	0.0025	8.8E2							
Military Panel Room, J492	N	.25/- .25	-/100/-/60	90/20	0.0025	8.8E2							
Passeyway, J439	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Controlled Access Areas, J430, J431	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Vestibule, J435	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Technical nuclear Shop, J429	N	.25/- .25	-/60/-/60	90/20	0.0025	8.8E2							
Controlled Laundry Storage, J430	N	.25/- .25	-/90/-/60	90/20	0.0025	8.8E2							
Wet & Dry Laundry, J431	N	.25/- .25	-/90/-/60	90/20	0.0025	8.8E2							

TABLE 6 (Cont'd)
NATURAL AND MANUFACTURED PLANT ENVIRONMENTAL LIMITATIONS

AREA	INITIAL- HEAT [°C]	PRESS- URE [kg]	NORMAL OPERATING CONDITIONS		ABNORMAL CONDITIONS				DATE CONDITIONS	
			TEMP. [°C]	HUMI- DITY REL. [MM/MIN]	TEMP. [°C]	PRESS. [kg]	TEMP. [°C]	PRESS. [kg]	HUMI- DITY REL. [MM/MIN]	SHINE WAVE [NM/NO] (S,Y)
UR. 24H PTEL 4 ROAST AREA/NL	N	.25/- .25	-/30/-/80	90/20	0.0025	b.002	-	-	-	-
Respiratory, Lemister's Valves, J447	N	.25/- .25	-/6/-/80	90/20	0.0025	b.002	-	-	-	-
Controlled Toilet, J449	N	.25/- .25	-/80/-/80	90/20	0.0025	b.002	-	-	-	-
Offices, J418, J419	N	.25/- .25	-/80/-/80	90/20	0.0025	b.002	-	-	-	-
Clean Chem. Lab., J427	N	.25/- .25	-/80/-/80	90/20	0.0025	b.002	-	-	-	-
Controlled Hot Line Lab., J421	N	.25/- .25	-/80/-/80	90/20	0.0025	b.002	-	-	-	-
Chem. Storage, J426	N	.25/- .25	-/75/-/80	90/20	0.0025	b.002	-	-	-	-
Mounting Room, J423	N	.25/- .25	-/80/-/80	90/20	0.0025	b.002	-	-	-	-
Litteration & Repair Shop, J400	N	.25/- .25	-/80/-/80	90/20	0.0025	b.002	-	-	-	-
Electrical Access Area, J425	N	.25/- .25	-/100/-/80	90/20	0.0025	b.002	-	-	-	-
Equipment Removal Area, J446	N	.25/- .25	-/100/-/80	90/20	0.0025	b.002	-	-	-	-
Access Area J452	N	.25/- .25	-/100/-/80	90/20	0.0025	b.002	-	-	-	-
Maintenance Area J454	N	.25/- .25	-/100/-/80	90/20	0.0025	b.002	-	-	-	-
Ur. Stor. Area J455	N	.25/- .25	-/100/-/80	90/20	0.0025	b.002	-	-	-	-
Mem. Filter Area J457	N	.25/- .25	-/100/-/80	90/20	0.0025	b.002	-	-	-	-
Vapor Lubricator Room J458	N	.25/- .25	-/100/-/80	90/20	0.002	7.0E3	-	-	-	-
Heater Room J459	N	.25/- .25	-/100/-/80	90/20	75	2.6E1	-	-	-	-
Toaster Undercover Room J460	N	.25/- .25	-/100/-/80	90/20	0.05	1.0E4	-	-	-	-

Table 6 (Cont'd.)
MANUAL AND MAINTAIN PLANT ENVIRONMENTAL CONDITIONS

LOCATION	TEMPERATURE (°F)	PRESSURE (PSI)	INDOOR OPERATING CONDITIONS		INDOOR CONDITIONS	
			HUMIDITY (%)	VENTILATION (LFS/MASS/AVL/MIN)	% REL HUMIDITY (%)	REL HUMIDITY (MASS/MIN)
Y.M. 341 Area 3401	80	.25/- .25	-110/-140	90/20	0.0125	80.0/-2
Lorriour 3402	80	.25/- .25	-110/-140	90/20	0.0025	80.0/-2
Unassigned 3403	80	.25/- .25	-110/-140	90/20	0.015	80.0/-2
Fungi Area 3404	80	.25/- .25	-110/-140	90/20	1.30.3	7.0/-6
Ventilator Room 3405	80	.25/- .25	-110/-140	90/20	2.71.3	1.50.7
Extruder Ventilator	80	.25/- .25	-110/-140	90/20	0.015	80.0/-2
Vent Room Area 3406	80	.25/- .25	-110/-140	90/20	0.005	80.0/-2
Extruder Ventilator	80	.25/- .25	-110/-140	90/20	0.015	80.0/-2
Vent Room Blower area 3407	80	.25/- .25	-110/-140	90/20	0.015	80.0/-2

military building
Control & Diesel Area
S.L. 120 ± 15 feet

Electrical Access Area, 3401	80	.25/- .25	-110/-140	90/20	0.0005	21.2
Non-Wing Areas, 3402	80	.25/- .25	-110/-140	90/20	0.0005	21.2
Ventilator, 3403	80	.25/- .25	-110/-140	90/20	0.0005	21.2
Central Equipment Room, 3404	80	.25/- .25	-110/-140	90/20	0.0005	21.2
It Converter Room, 3405	80	.25/- .25	-110/85/40	90/20	0.0005	21.2
Electrical Tray Areas, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414	80	.25/- .25	-110/-140	90/20	0.0005	21.2
Lorriour, 3407, 3410, 3413	80	.25/- .25	-110/-140	90/20	0.0005	21.2
Glass It Switchgear rooms, 3411, 3412, 3413, 3417, 3418	80	.25/- .25	-110/-140	90/20	0.0005	21.2

TABLE 6 (CONT'D)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS					ABNORMAL CONDITIONS					DUE CONDITIONS				
		PRESS MAX/MIN (PSI)	TEMP TEST/HAS/AVE/HAS (°F)	% REL HUMIDITY MAX/MIN	MAX DOSE RATE (RAD/HHR)	INTEGR. DOSE (RAU)(2)	PRESS (PSI)	TEMP (°F)	% REL HUMIDITY MAX/MIN (%)	PRESS (PSI)	TEMP (°F)	% REL HUMIDITY (%)	MAX LINCA DOSE RATE (RAD/HHR)(5,7)	DOA INTEGR DOSE(2) (RAU)(8,9)		
Do Control Room, 3410, 3412, 3414, 3416	H	.25/- .25	85/85/-40	90/20	0.0005	2E2	.25/- .25	85	90/20	-	-	-	-	-	-	
Electrical Tray Area, 3419, 3421, 3422, 3420	H	.25/- .25	-/104/-40	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
<u>Auxiliary Building</u> <u>El. 13 & 145 feet</u>																
Uncontrolled Locker Area, 3514, 3519	H	.25/- .25	-/80/-/60	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Corridor 3543	H	.25/- .25	-/85/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
Corridor, 3539, 3544, 3542	H	.25/- .25	-/85/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
Central Monitors Area, 3534	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
Electrical Tray Room, 3510	H	.25/- .25	-/80/-/60	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Areas 3509	H	.25/- .25	-/80/-/60	90/20	0.0005	2E2	-	-	-	-	-	-	-	-	-	
Controlled Corridor, 3512	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
Health and Physics Office Area, 3536	H	.25/- .25	-/80/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Information Area, 3501	H	.25/- .25	-/80/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Vestibule, 3502, 3505	H	.25/- .25	-/80/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Storage Room 3503	H	.25/- .25	-/80/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Personnel Toilet, 3513	H	.25/- .25	-/84/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Corridor, 3515	H	.25/- .25	-/83/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Drying Area, 3516	H	.25/- .25	-/84/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	
Personnel Showers, 3517	H	.25/- .25	-/82/-/60	90/20	.0005	2E2	-	-	-	-	-	-	-	-	-	

TABLE 6 (CONT'D)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

AREA DESCRIPTION & ROOM NUMBER	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS				ABNORMAL CONDITIONS				DRE CONDITIONS				
		PRESS MM/H/MIN (mg)	TEMP °F TEST/MAX/Avg/H/MIN	% REL HUMIDITY MAX/H/MIN	MAX DUSE RATE (KAU/H/MIN)	INTEGR. DUSE (KAU) (2)	PRESS mg	TEMP °F	% REL HUMIDITY MAX/H/MIN	PRESS (PSIG)	TEMP °F (J)	% REL HUMIDITY (J)	MAX LOCA DUSE RATE (KAU/H/MIN) (5,7)	LOCA INTEGR (KAU) (6,9)
Controlled Locker Area, J520	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Clean Clothing Issue, J521	H	.25/- .25	-/80/-/60	90/20	0.0025	2E2	-	-	-	-	-	-	-	-
Toilet Room, J522	H	.25/- .25	-/80/-/60	90/20	0.0025	2E2	-	-	-	-	-	-	-	-
Controlled Corridor, J522	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Access Area, J533	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Decontamination Area, J525	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	8
Unisolve Area, J526	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Corridor, J540	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Unisolve Area, J523	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Supervisor's Lockers, J524	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Toilet Room, J530	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Drying Area, J537	A	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Shower Area, J538	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Clean Clothing Issue Room J541	A	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Shower Room, J526	H	.25/- .25	-/80/-/60	90/20	0.0025	2E2	-	-	-	-	-	-	-	-
Drying Area, J527	H	.25/- .25	-/80/-/60	90/20	0.0025	2E2	-	-	-	-	-	-	-	-
Supervisors Uncontrolled Lockers, J525	H	.25/- .25	-/80/-/60	90/20	0.0025	2E2	-	-	-	-	-	-	-	-
Entry, J529	H	.25/- .25	-/80/-/60	90/20	0.0025	2E2	-	-	-	-	-	-	-	-
Auxiliary Decontam- ination Area, J547	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
Unisolve Area, J543	H	.25/- .25	-/80/-/60	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-
TECH/So-ULV														

TABLE 6 (Cont'd)
MANUAL AND MAXIMUM PLANT ENVIRONMENTAL LIMITATIONS

UNIT NUMBER & DESCRIPTION	LOCATION NUMBER	ENVIRONMENTAL LIMITS	MANUAL OPERATING CONDITIONS			ADDITIONAL CONDITIONS			DUST CONDITIONS		
			TEMP. °F	REL. HUMIDITY %	AIR FLOW MASS/ MIN	PRESS. IN. Hg	REL. HUMIDITY %	TEMP. °F	REL. HUMIDITY %	WEIGHT PSI/LB	SHINE RATE MM/MM
Shower Room J2539	N	-25/-25 -100/-100	90/20	0.00/20	8.00/4	-	-	-	-	-	-
Drying Area J2530	N	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Toilet Room J2526	H	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Conference Room J246	N	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Telephone Equipment Room J245	N	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Controlled Luridizer J251	N	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Jammer Room J2523	N	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Reheater Storage Room J2524	N	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Controlled Locker Room J2526	N	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Isolation Area, J278	A	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Reheater (Uncontrolled Locker Room), J2527/ LARRY, J261	N	-25/-25 -100/-100	90/20	0.00/20	8.00/2	-	-	-	-	-	-
Toilet Number J2535	H	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Urinal Area, J2539	N	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Showers Area, J2560	J	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Rest Room, J2564	N	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Standard Room, J2562	N	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Starlight Room, J2548	H	-25/-25 -100/-100	90/20	0.00/20	1.7	-	-	-	-	-	-
Reheater, Urinal, Shower, J2567	-	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Emergency Bathing Room, J2511	-	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-
Rest Room, J2519	N	-25/-25 -100/-100	90/20	0.00/20	21.7	-	-	-	-	-	-

TABLE 6 (Cont'd.)
HANDEL AND WATSON PLANT ENVIRONMENTAL CONDITIONS

NAME	LOCATION & ROOM NUMBER	LUMINANCE- LEVEL (L)	PRESSURE (mm Hg)	TEMP. (°C)	INDOOR CONDITIONS		OUTDOOR CONDITIONS						
					HUMIDITY HALF/HOUR	HUMIDITY HALF/MIN	WALL WATER (mm/m)	WALL WATER (mm/m)	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY (%)	WET BULB TEMP (°F)	WATER TEMP (°F)
Uncontrolled Laundry Room 2508	n	.75/- .25	-/65/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Janitor Room, 2507	n	.75/- .25	-/39/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Tool Storage Issue Room, 2500	n	.75/- .25	-/65/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Inventory Lab., Area, 2531	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Storage, 2535	n	.75/- .25	-/65/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Laboratory, 2508	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Uncontrolled Inst. Shop, 2505	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Office, 2503, 2508	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Controlled Inst. Shop, 2511	n	.75/- .25	-/60/-/60	90/20	0.000/5	0.000/5	21.2	-	-	-	-	-	-
Laboratory, 2512, 2510	n	.75/- .25	-/65/-/60	90/20	0.000/5	0.000/5	21.2	-	-	-	-	-	-
Remote Structures Panel Room 2516	n	.75/- .25	-/70/70/74	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Computer Service Room 2513	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Cornfield, 2503	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Area 2514	n	.75/- .25	-/60/-/60	90/20	.000/5	.000/5	21.2	-	-	-	-	-	-
Metal Filter Room 2508	n	.75/- .25	-/104/-/60	90/20	0.000/5	0.000/5	21.2	-	-	-	-	-	-
Access Area 2507	n	.75/- .25	-/104/-/60	90/20	0.000/5	0.000/5	21.2	-	-	-	-	-	-
Uncont. Separation Room 2503	n	.75/- .25	-/104/-/60	90/20	0.000	0.000	21.2	-	-	-	-	-	-
Vapor Drying Room 2504	n	.75/- .25	-/104/-/60	90/20	100	100	33.3	-	-	-	-	-	-

TABLE b (Cont'd)
MEASURABLE PLANT ENVIRONMENTAL CONDITIONS

LOCATION	EXPOSURE TIME & EXPOSURE HEIGHT	LEVAC FLOOR [L]	PRESS PSI/MIN [PSI]	INDIVIDUAL CONDITIONS		ADDITIONAL CONDITIONS		USER CONDITIONS	
				REL HUMIDITY PERCENT [RH]	THERM TEMP DEGREES FAHRENHEIT [°F]	PRESS PSI [PSI]	REL HUMIDITY PERCENT [RH]	PRESS PSI [PSI]	REL HUMIDITY PERCENT [RH]
Auxiliary Building									
Control & Diesel Area E.L. 137 & 145 feet									
watch engineer's office	N	.25/0	76/76/76/74	50/40	0.0005	26.2	.25/-25	69	90/20
Corridor, 5502, 5512, and Insr.-Meeting 5503 areas 5504, 5505, 5506, 5508,	N	.25/0	76/76/76/74	50/40	0.0005	26.2	-	-	-
Realty Room, 5511	N	.25/0	76/76/76/74	50/40	0.0005	26.2	-	-	-
Areas 5514, 5513	N	.25/-25	76/76/76/74	50/20	0.0005	26.2	-	-	-
Corridor, 5525	N	.25/-25	-/104/-104	50/20	0.0005	26.2	-	-	-
Post Office, 5530	N	.25/-25	-/104/-104	50/20	0.0005	26.2	-	-	-
Battery Room, 5537, 5541, 5543, 5545	N	.25/-25	77/60/77/74	50/5	0.0005	26.2	.25/-25	104	90/20
Battery Charger Room, 5538, 5540, 5542, 5544	N	.25/-25	-/104/-104	50/20	0.0005	26.2	.25/-25	104	90/20
Electrical Cable Unload, 5531, 5532, 5533, 5534 and Loadsc., 5535									
Passageway, 5533, 5534	N	.25/-25	-/104/-104	50/20	0.0005	26.2	-	-	-
Central Room 5510	N	.25/0	76/76/76/74	50/40	0.0005	26.2	.25/-25	73	90/40
Electrical Access 5501	N	.25/-25	92/92/91/40	50/40	0.0005	26.2	.25/-25	92	90/20
Computer Room 5515	N	.25/0	76/76/76/74	50/40	0.0005	26.2	.25/-25	91	90/20

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

ITEM DESCRIPTION & ITEM NUMBER	ENVIRON- MENT (1)	NORMAL OPERATING CONDITIONS					AEROMIAL CONDITIONS					DINE CONDITIONS				
		PRESS URE/INCH (PSI)	TEMP (°F)	% REL HUMIDITY MAX/MIN	DOSE RATE (RAD/Hr)	INTEGR. DOSE (RAD)(2)	PRESS (PSI)	TEMP (°F)	% REL HUMIDITY MAX/MIN	PRESS (PSIG)	TEMP (°F)	% REL HUMIDITY MAX/MIN	Dose Rate (RAD/Hr)(5,7)	Loca Shine Rate (RAD/Hr)(8,9)		
<u>Auxiliary Building E1, 152'-0" & 162'-0"</u>																
H&V Equipment Area, S601, S602	N	.25/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
H&V Equipment Room S603	N	.25/- .25	-/104/-/40	90/20	0.1	3.5E4	-	-	-	-	-	-	-	-	-	
Corridor S604, S605	N	.25/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
H/V Exhaust System S606	N	.25/- .25	-/104/-/40	90/20	0.1	3.5E4	-	-	-	-	-	-	-	-	-	
Wind Area Supply Unit, S607	N	.25/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
H&V Equipment Area, S608,	N	.25/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
Unassigned S609	N	.25/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	-	-	-	-	-	-	-	-	
Mechanical Room S610	N	.25/- .25	-/104/-/40	90/20	0.0025	8.8E2	-	10%	-	-	-	-	-	-	-	
<u>E1, 155'-0" & 162'-0"</u>																
Vestibule S611	N	.25/- .25	-/104/-/40	90/20	0.0025	2E2	-	-	-	-	-	-	-	-	-	
Control Area H&V Equipment Room S612, S613	N	.25/- .25	106/106/104/40	90/20	0.0025	2E2	.25/- .25	106.	90/20	-	-	-	-	-	-	
IT Panel Control Equipment Room S614	N	.25/- .25	-/104/-/40	90/20	0.0025	2E2	-	-	-	-	-	-	-	-	-	
Corridor S615, S616, S617, S618, S619	N	.25/- .25	-/104/-/40	90/20	0.0025	2E2	-	-	-	-	-	-	-	-	-	
H&V Switchgear Equipment Room, S620, S621	N	.25/- .25	-/104/-/40	90/20	0.0025	2E2	-	-	-	-	-	-	-	-	-	

TABLE 6 (CONT'D)
NORMAL AND FAULTY PLANT ENVIRONMENTAL CONDITIONS

DEPT.	DETAILED LOCATION & NUMBER NUMBER	NORMAL OPERATING CONDITIONS			ABNORMAL CONDITIONS			CIR. CONDITIONS			
		PRESS. PSI/ATM (kg)	EXT. TEM- PERAT. DEG. F (kg)	% REL. HUMIDITY HAIL/RAIN PSI/IN. (kg/m)	THER. WAT. PSI/IN. (kg/m)	PRESS. PSI (kg)	TEMP. DEG. F (kg)	REL. HUMIDITY PSI/IN. (kg)	TEMP. DEG. F (kg)	HUMIDITY PSI/IN. (kg)	WAT. WATT PSI/IN. (kg)
Inverter Room 2602J, 2611J, 2612J, 2613J, 2614J, 2615J, 2616J, 2617J, 2618J,	A	-25/-25	+100/-40	90/20	0.0005	21.2	-25	100	90/20	-	-
Battery Room (U) 2605, 2614	A	-25/-25	110/100/-110	90/5	0.0005	21.2	-25	120	90/20	-	-
Battery rooms (Non-U) 2606, 2617	B	-25/-25	110/90/110/10	90/5	0.0005	21.2	-	-	-	-	-
Elect. Room 1E Panel Room 2602U	B	-25/-25	+100/-40	90/20	0.0005	21.2	-25	120	90/20	-	-
Electrical Room 2619	A	-25/-25	+100/-40	90/20	0.0005	21.2	-	100	-	-	-
<u>MILITARY BUILDINGS</u>											
Litreator Absent Room 2611J	B	0.025/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Units w Main Vent Stack Enclosure 2612, 2613J	B	11/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Military Building Control w Interi Office											
<u>11. 110°-0° & 170°-0°</u>											
Elevator machine Room 2615	C	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Lift Room 2616	D	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Wheel Area Non- Equipment Room 2604	A	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Lift Room 2615, 2616	B	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Wheel Area Non- Equipment Room 2603	B	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Lift Room 2615	C	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-
Lift Room 2616	D	-25/-25	+100/-40	90/20	0.0005	21.2	-	-	-	-	-

TABLE 9 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

ITEM	DESCRIPTION	OPERATING CONDITIONS		ABNORMAL CONDITIONS		DEGRADATION	
		ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 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664, 665, 666, 667, 668, 669, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 689, 690, 691, 692, 693, 694, 695, 696, 697, 697, 698, 699, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 789, 790, 791, 792, 793, 794, 795, 796, 797, 797, 798, 799, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 839, 840, 841, 842, 843, 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1768, 1769, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1							

TABLE 6 (Cont'd)
NORMAL AND MAXIMUM PLANT ENVIRONMENTAL CONDITIONS

NOTES:

1. Environment for which equipment should be qualified for:
M-Mild- Defines an environment which, during or after a design basis event (DBE), does not experience an environment that is significantly more severe than that existing during normal and abnormal events.
Mild environment may also be simplified to define an environment with conditions of temperature, pressure, and humidity within the following normal ambient ranges:

T (40-120°F),
P (1.0/-0.25 psig),
H (5-90%),
Radiation TID $\leq 1.0 \times 10^{-3}$ Rad/40y

- H - Harsh - Defines an environment that exceeds the conditions specified under mild environment.
2. Integrated dose rate is calculated using the average dose rate during normal operation.
 3. The duration that the given temperature and pressure will exist is 100 days unless otherwise specified.
 4. Pressure will be at its maximum value for 30 minutes at which time it will drop to 0 psig for the remainder of the 100 days.
 5. Temperature will be at its maximum value for 30 minutes at which time it will drop to 148°F for the remainder of the 100 days.
 6. Relative Humidity will be at its maximum value for either 30 minutes or 6 hours, (as indicated) at which time it will drop to 95% R.H. for the remainder of the 100 days.
 7. Dose rate is for gamma radiation calculated at 0 hours after DBE unless otherwise specified.
 8. The LOCA integrated dose is for gamma radiation for a period of 180 days after DBE unless otherwise specified.
 9. Dose rates and integrated doses values given above do not include post-DBE airborne cloud contributions. These contributions are shown below:

- a. Reactor Building Airborne: gamma: 6.8E1 rad/hr (at 8 hr) 2.5E4 rad
beta: 1.9E3 rad/hr (at 96 hr) 1.1E6 rad
- a. Turbine Building Airborne: gamma: 2.6E-2 rad/hr (at 6 hr) 1.4E0 rad
beta: 8.7E-2 rad/hr (at 8 hr) 2.0E1 rad
- a. Control Building Airborne: gamma: 7.7E-3 rad/hr (at 6 hr) 5.5E-1 rad
beta: 6.4E-2 rad/hr (at 8 hr) 1.9E1 rad
- a. Service Area: gamma: 1.2E-2 rad/hr (at 6 hr) 6.4E-1 rad
beta: 8.7E-2 rad/hr (at 8 hr) 2.0E1 rad
- a. Radwaste Area: gamma: 1.5E-2 rad/hr (at 6 hr) 7.9E-1 rad
beta: 8.7E-2 rad/hr (at 8 hr) 2.0E1 rad

*This definition of mild environment does not address the post-accident function of components prior to experiencing the full burden of DBE environment. See PLB-5916 and FSAR Section 3.11.

Table 7
Reactor Building Internal Flooding Depths (2,5)

<u>Room</u>	<u>Description</u>	<u>Flood Depth(1) (ft)</u>
<u>E1 54 ft</u>		
Torus		
Water Filter		8.5
Pump Room 4101		
Core Spray Pump		6.5
Rooms 4104, 4105, 4116, 4118		
CRW/DRW Pump		2.0
Room 4106		
CRW/DRW Pump		2.0
Room 4115		
RHR Pump Room		6.0
4107, 4114		
Electrical Equipment		0.0
Room 4108		
RHR Pump and HX		8.0
Room 4109, 4113		
Electrical Equipment		N/A
Room 4112		
RC1C Pump Room		1.5
4110		
HPCI Pump		9.0
Room 4111		
Torus Area		17.0
Room 4102		
<u>E1 77 ft</u>		
Motor Control		N/A
Center, 4201		

<u>Room</u>	<u>Description</u>	<u>Flood Depth(1) (ft)</u>
Safeguard Instr. Rooms 4210, 4219		1.0
CRD Pump Room, 4202		1.5
Corridor 4203		4.5
Motor Control Center 4205		2.0
RHR HX Room, 4214		N/A
RACS HX & Pump Rooms, 4211, 4209, 4213		1.0] ²
Motor Control Center, 4215		3.5
Corridor, 4216		1.5
Motor Control Center, 4218		N/A
RHR HX Room, 4208		N/A
<u>El 102 ft</u>		
SACS Pump & HX Rooms, 4309 & 4307		2.0
RPT Breaker Room, 4301		0.6
Motor Control Center, 4303		0.6
Equipment Air Lock, 4323		1.3
Drywell Access Room, 4330		4.6

<u>Room</u>	<u>Description</u>	<u>Flood Depth(1)</u>	<u>(ft)</u>
CRD Removal, Repair, and Storage Areas 4326, 4333		0.4] Δ_2
CRD Hydraulic Rooms, 4320, 4328		0.4	
Personnel & Equipment Access Area, 4322, 4331		0.4	
CRD Master Control Area & Corridor, 4317, 4315		0.4	
Main Steam Tunnel, Room 4316		28	
<u>E1 132 ft</u>			
RWCU Recirc Pump Rooms, 4405, 4403		4.9	
All other areas of elev. 132 ft.		0.24] Δ
<u>E1. 145 ft</u>			
RWCU Filter Demin Pumps 4502		13.3	
RWCU Filter Demin Pumps 4503		15.2	
RWCU HX Room 4506		2.7	
All Other Areas of Elev. 145 Ft.		0.5] Δ_2

<u>Room</u>	<u>Description</u>	<u>Flood Depth(1) (ft)</u>
El. 162 ft all areas (3)		0.31
El. 178 ft all areas (4)		0.3

Notes

- (1) Flood depths include a 50% safety factor
- (2) Areas not identified have no moderate energy piping in them and will not see a flooding condition.
- (3) No flooding is expected in the following rooms;
RWCU Filter/Demin Area 4620, 4621
Vault area 4610
- (4) No flooding is expected in the following rooms;
Isolation Valve Room 4624
Electrical Access Area 4619
- (5) This table does not include flood depth in those normally flooded compartments (e.g. spent fuel pool)

BWR Drywell Temperature Envelope
10855-D7.5, Rev.2

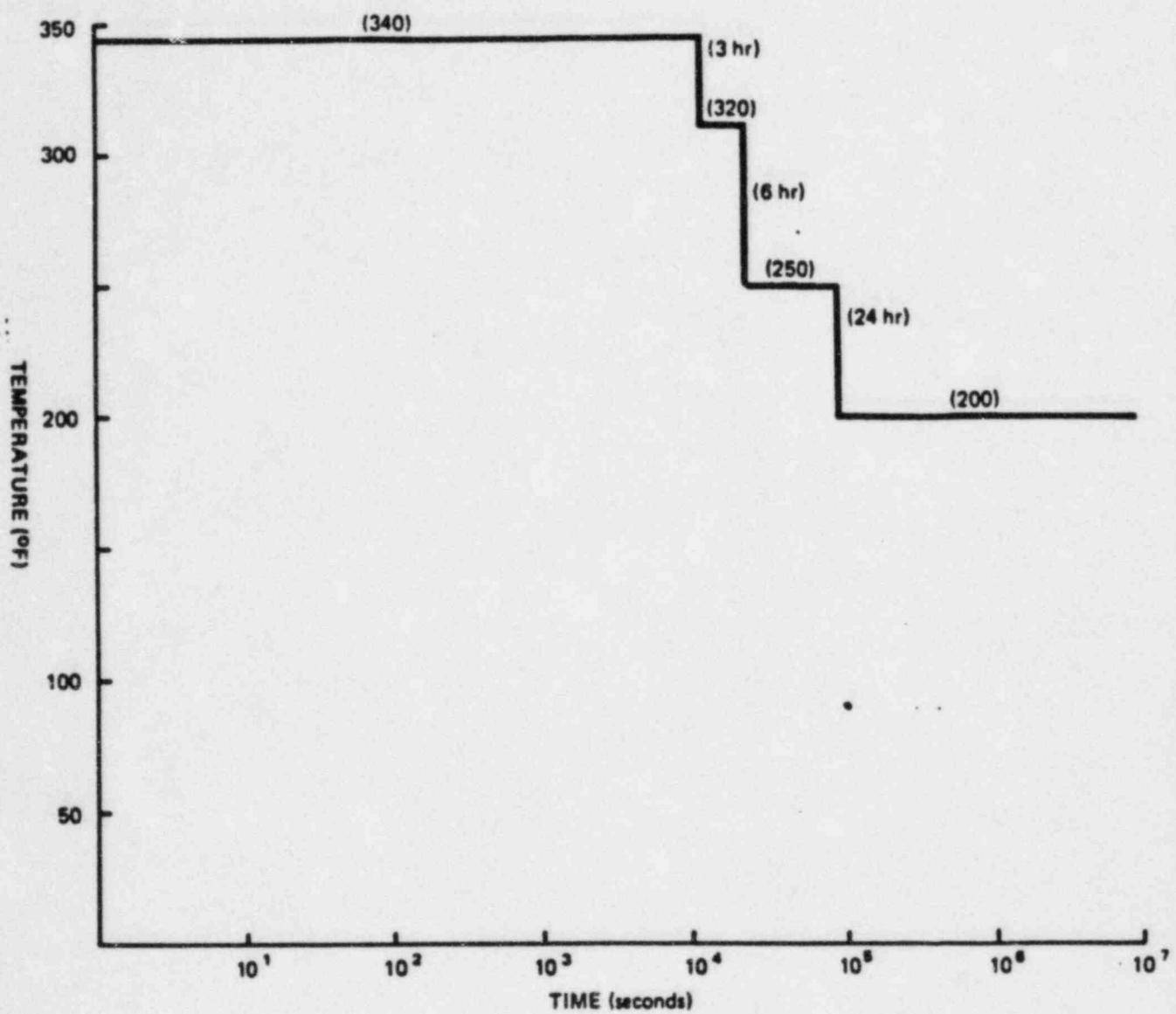


Figure 2
Page 87

SAMPLE ENVIRONMENTAL DATA SHEET

GENERAL

1. Normal Operating Conditions

Temperature: Test _____ °F, Max. _____ °F
 Average _____ °F, Min. _____ °F

Pressure: Max. _____
 Min. _____

Relative humidity: Normal _____ %, Max. _____ %, Min. _____ %
 Total integrated radiation dose _____ Rads.

Maximum Dose Rate _____ Rad/h Gamma

Maximum Dose Rate _____ Rad/h Neutron

2. Abnormal Event Conditions

Temperature _____ °F

Pressure _____

Humidity _____

Duration _____, Frequency _____

3. Design Basis Event Conditions
 (Listed in order of occurrence)

Duration	Temp (°F)	Press. (psig)	Humidity (%)

Total integrated radiation dose over above period:

Maximum Dose Rate:	Gamma _____	Rads
	Beta _____	Rads
	Gamma _____	Rad/h
	Beta _____	Rad/h

SAMPLE ENVIRONMENTAL DATA SHEET

Item No. _____

DUCTS AND VALVES

A. CONDITIONS INSIDE DUCTS/VALVES

1. Normal operating conditions

Temperature: Average _____ °F, Min. _____ °F
 Max. _____ °F

Pressure: Max. _____ Min. _____
 Relative humidity: Normal _____ %, Max. _____ %, Min. _____ %

Total integrated radiation dose _____ Rads.

Maximum Dose Rate _____ Rad/h Gamma

Maximum Dose Rate _____ Rad/h Neutron

2. Abnormal operating conditions

Temperature _____ °F

Pressure _____ °F

Relative humidity: Max. _____ %, Min. _____ %

Duration _____, Frequency _____

3. Pipe break outside containment

Duration	Temp (°F)	Press. (psig)	Humidity (%)

Total integrated radiation dose over above
period:

Gamma: _____ Rads

Beta: _____ Rads

Maximum Dose Rate:

Gamma: _____ Rad/h

Beta: _____ Rad/h

4. Loss of coolant accident (LOCA)

Duration	Temp (°F)	Press. (psig)	Humidity (%)

Total integrated radiation dose over above period:

Maximum dose rate:	Gamma _____ Rads
	Beta _____ Rads
	Gamma _____ Rad/hr
	Beta _____ Rad/hr

B. ENVIRONMENTAL CONDITIONS OUTSIDE DUCTS/VALVES

1. Normal operating conditions

Temperature: Test _____ °F
 Average _____ °F, Min. _____ °F
 Max. _____ °F

Relative humidity: Average _____ %, Max. _____ %,
 Min. _____ %

Total integrated radiation dose _____ Rads.

2. Abnormal operating conditions

Temperature _____ °F

Pressure _____ °F

Relative humidity: Max. _____ %, Min. _____ %

3. Worst accident conditions

Duration	Temp (°F)	Press. (psig)	Humidity (%)

Total integrated radiation dose over above period

Gamma _____ Rads

Beta _____ Rads

Maximum dose rate:

Gamma _____ Rad/hr

Beta _____ Rad/hr

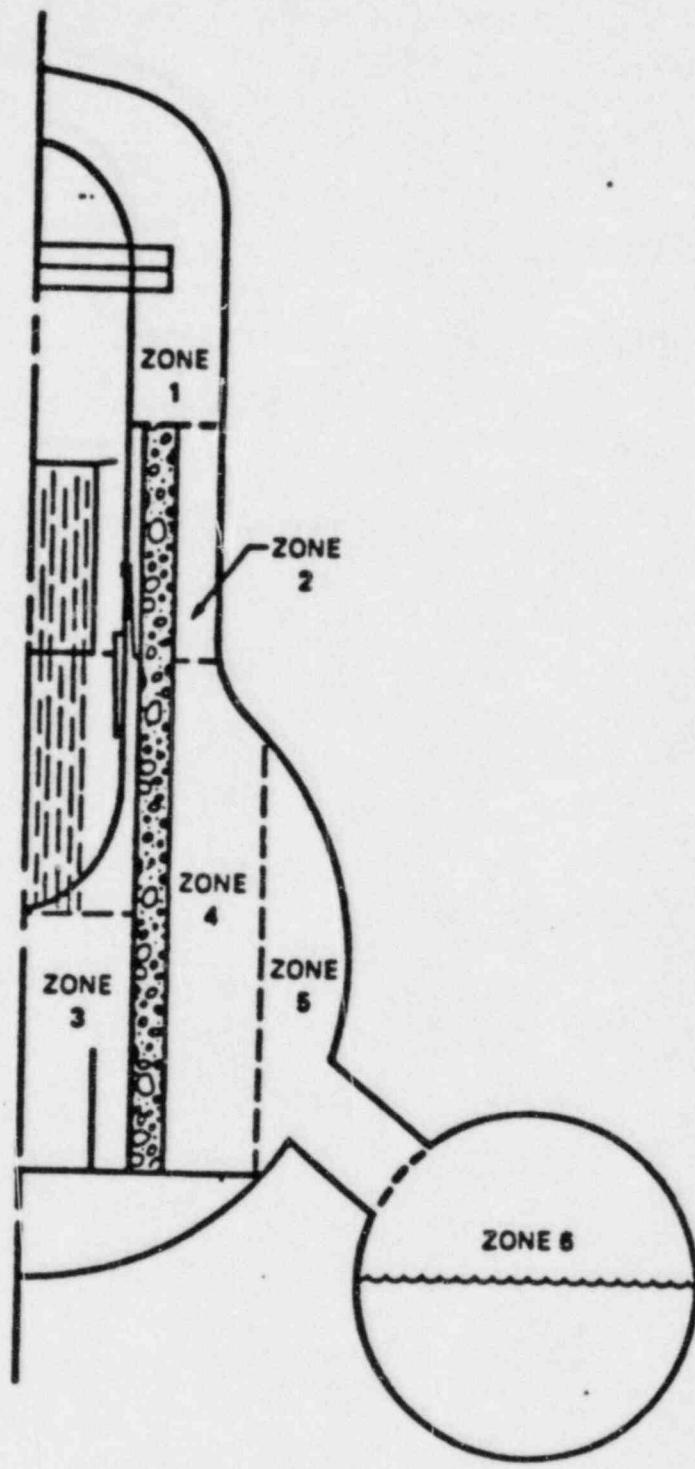


Figure 5
Primary Containment Zones

FIGURE 6
PRIMARY CONTAINMENT
TEMPERATURE RESPONSE -
LOSS OF OPPOSITE POWER

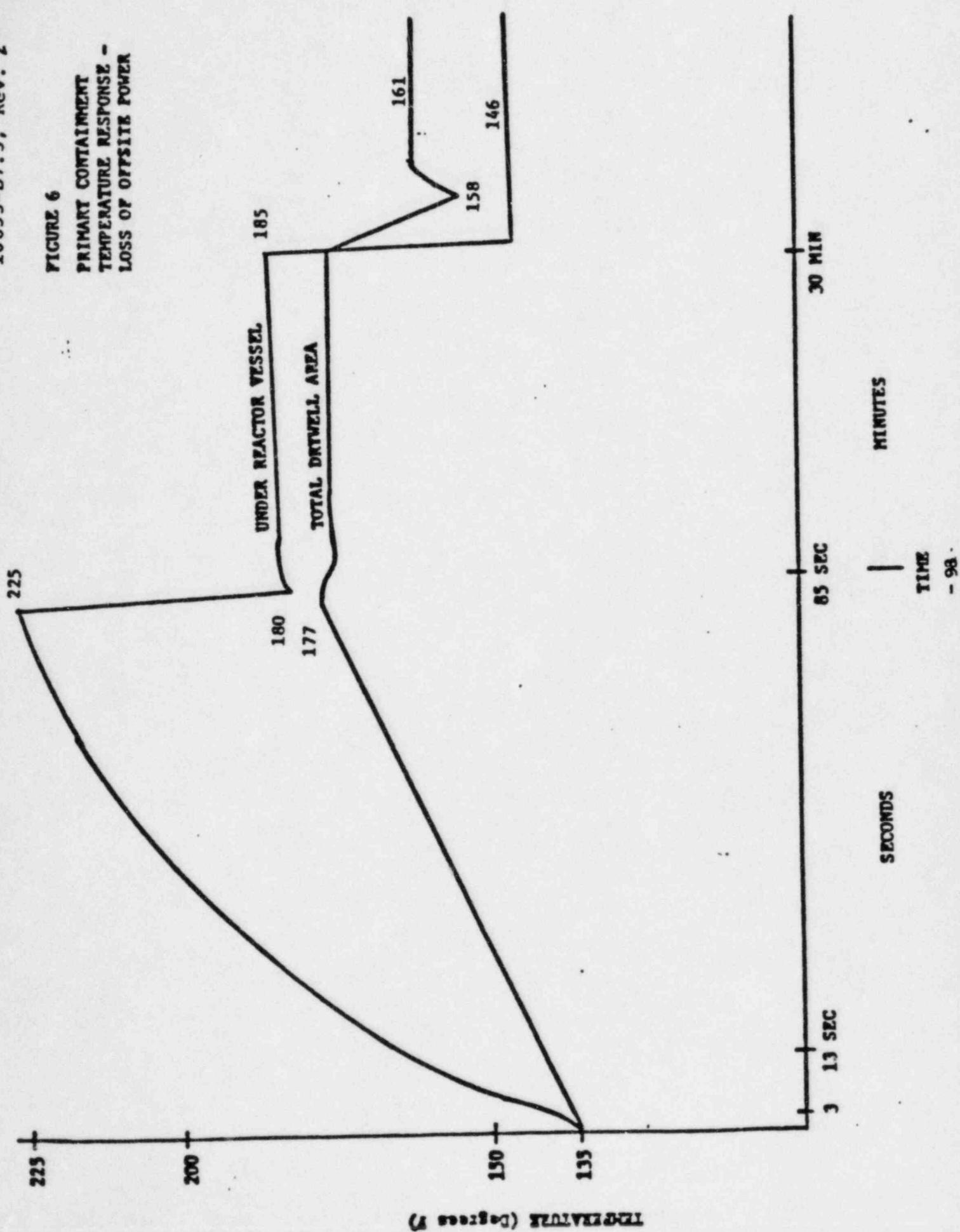


FIGURE 7

PRIMARY CONTAINMENT
PRESSURE RESPONSE -
LOSS OF OFFSITE POWER

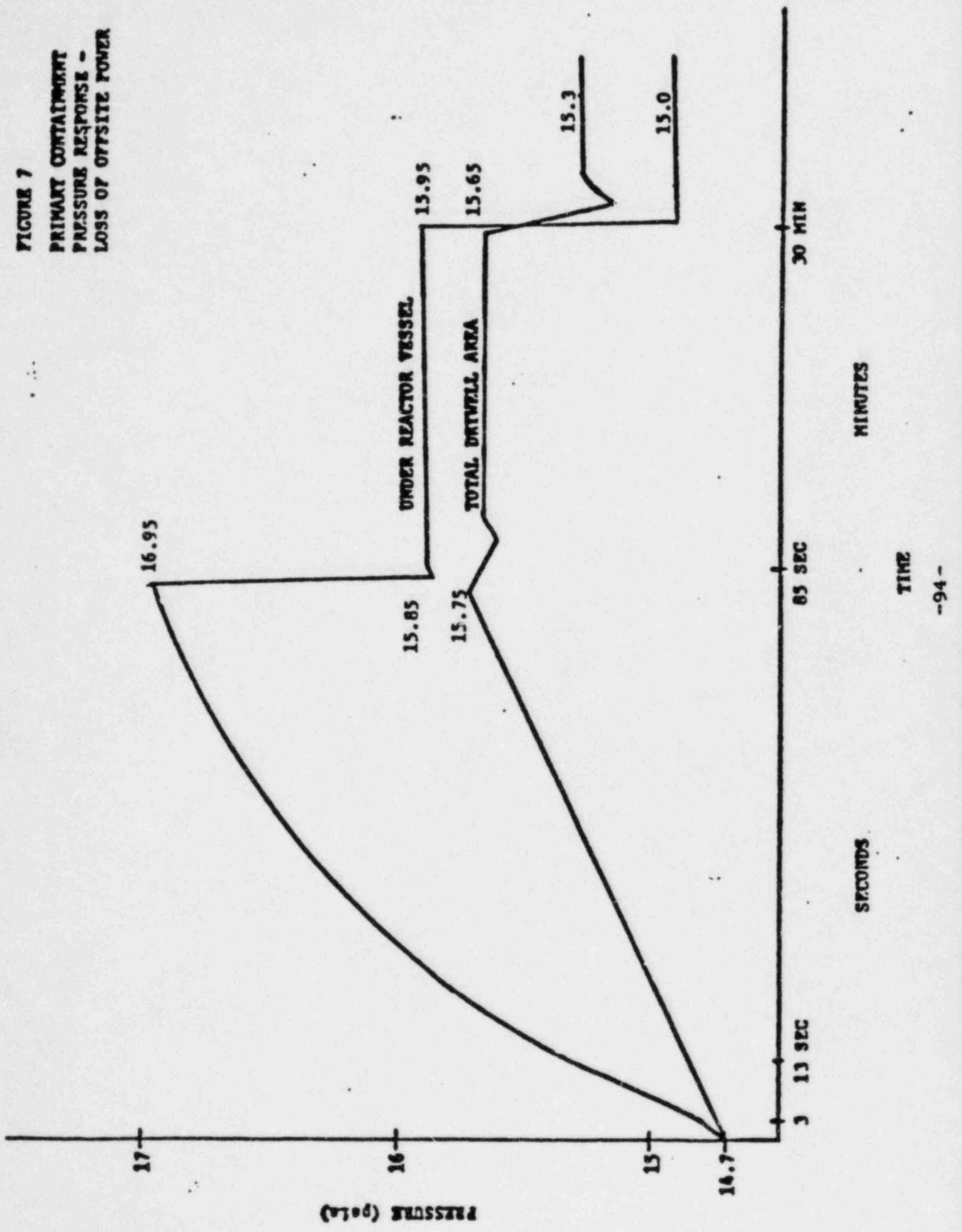
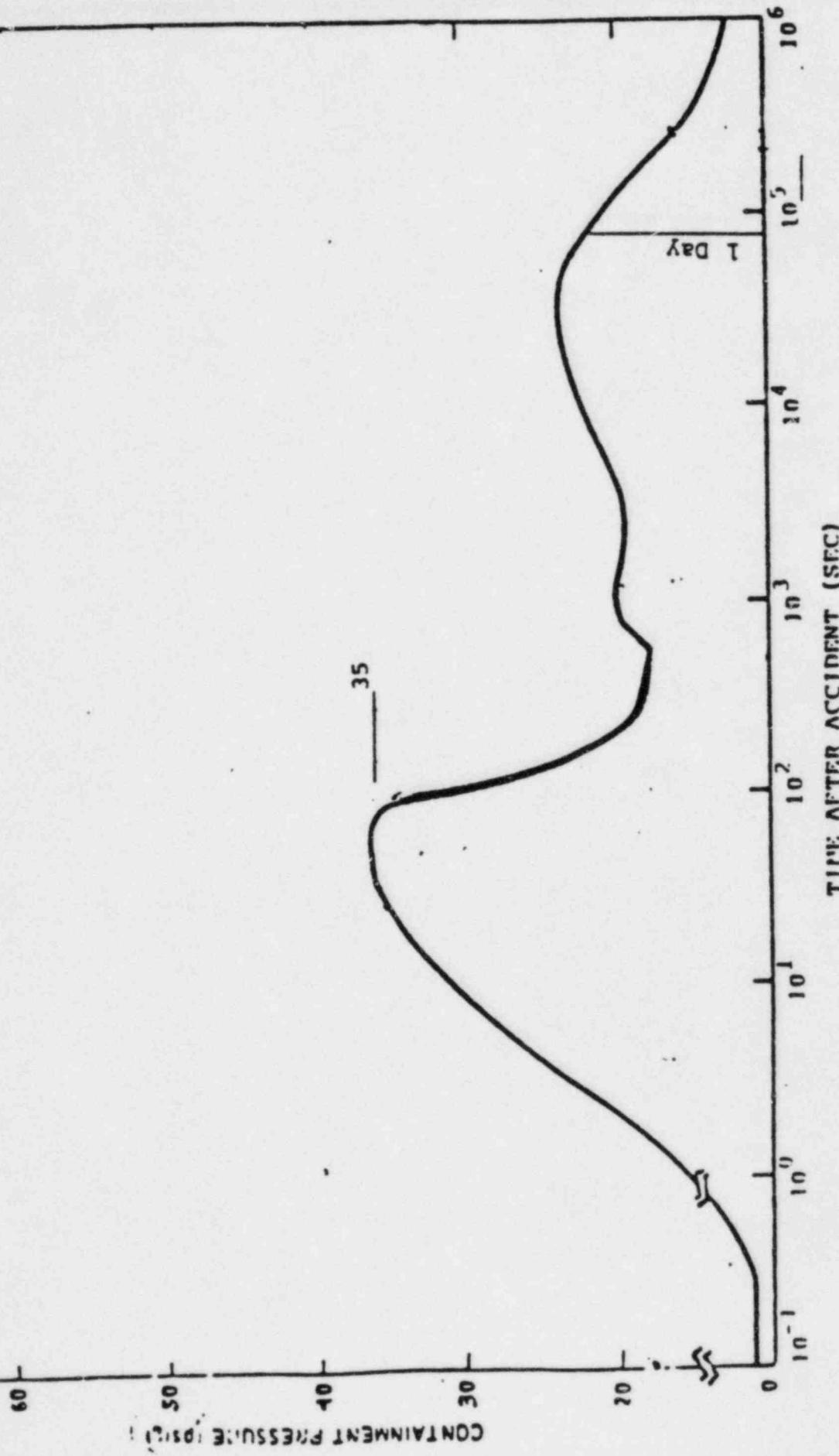


FIGURE 8
WETWELL PRESSURE
ENVELOPE - DBE



TYPICAL WETWELL PRESSURE ENVELOPE - DBE

10855-D.7.5, Rev. 2

FIGURE 9

WETWELL TEMPERATURE
ENVELOPE - DUE

SUPERFUSION POOL TEMPERATURE ($^{\circ}$ F)

250

200

150

100

50

212 $^{\circ}$ F

10⁻¹ 10⁰ 10¹ 10² 10³ 10⁴ 10⁵ 10⁶

TIME AFTER ACCIDENT (SEC)