

DUANE ARNOLD ENERGY CENTER
SEMIANNUAL REPORT
ON THE
ENVIRONMENTAL QUALIFICATION PROGRAM FOR SAFETY-RELATED
ELECTRICAL EQUIPMENT
IOWA ELECTRIC LIGHT AND POWER COMPANY
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I. INTRODUCTION

This report provides a semiannual update on the Duane Arnold Energy Center (DAEC) environmental qualification program. Consistent with References 1 and 2, the scope of this report includes only equipment which is required to perform a safety function while exposed to the harsh environment effects of a loss-of-coolant accident (LOCA) or a high-energy line break (HELB).

In Sections II through V of this report, technical changes, additions, or deletions from corresponding sections of Reference 2 are indicated by revision bars.

This report incorporates the results of a) an evaluation of harsh environment equipment aging effects (as committed in Reference 1), b) a review of plant design changes completed subsequent to the development of the DAEC environmental qualification data base, and c) implementation of a detailed environmental qualification evaluation procedure to improve the detail and consistency of the summary information.

Where evaluation has identified documentation as inadequate to support environmental qualification, an action item is assigned for further resolution. Action Items 1 through 27 were identified and described in References 1 and 2. As a result of our most recent evaluation efforts, three additional action items were identified. A description of each action item, its resolution status, and justification for continued operation are provided in Section II of this report.

Section III reiterates previous commitments with respect to the high-pressure coolant injection (HPCI) system post-accident function and operability and residual heat removal (RHR) corner room HELB. This section also includes a brief description of the aging evaluation effort.

Instruments considered necessary because of their reference in the plant emergency procedures have been classified as safety display instrumentation. Environmental qualification of these instruments is addressed in Section IV.

Section V describes the format and information contained in the equipment qualification summary sheets of Appendix B3.

Appendix A is a listing of all electrical equipment included in the environmental qualification program sorted by system. It is provided in the same format as Appendix A of Reference 2.

Appendix B contains three parts. Appendix B1 provides a list of general notes which are referenced in the equipment qualification summary sheets. Appendix B2 contains a cross index to the summary sheets which list equipment by plant identification number and corresponding equipment identification number. Appendix B3 contains the equipment qualification summary sheets for harsh environment equipment arranged by equipment identification number (the first part of which corresponds to manufacturer model type).

II. ACTION PLAN

The information provided in this section is an item-by-item description of intended action to correct or resolve cases of incomplete documentation supporting environmental qualification. In each case, a description of the action item, its resolution status, and justification for continued operation are provided.

1. ASCO SOLENOID VALVES

Action complete (see Reference 1).

2. MAIN STEAM SAFETY RELIEF SOLENOID VALVES

Action complete (see Reference 1).

3. TERMINAL BLOCKS

Action complete (see Reference 1).

4. SOLENOID VALVE SV-4310

Action complete (see Reference 2).

5. MAIN STEAM ISOLATION VALVE POSITION SWITCHES

Action complete (see Reference 1).

6. PRESSURE TRANSMITTERS PDT-2046, -1947

a. Action Item Description

These pressure transmitters sense differential pressure between the tubes and shell of the RHR heat exchanger and function to maintain service water pressure greater than RHR system pressure to prevent radioactive leakage into RHR service water. These transmitters must be qualified for a radiation dose of 5.9×10^6 rads. Documentation demonstrating qualification is not available.

b. Resolution

These components will be replaced during the Spring 1984 refueling outage with transmitters qualified to NUREG 0588, Category 1.

c. Justification for Continued Operation

Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. During this time, action will be taken to shut down redundant systems beyond those needed for coolant injection. This will result in radiation exposures to only one of two redundant equipment trains. Also, actual doses will be less than those calculated using such conservative assumptions. Finally, if the operating equipment suffers degradation due to radiation exposure, the shutdown redundant system will be activated. During time available after stabilization of core cooling, additional coolant injection paths will be established, if necessary, to ensure long-term cooling.

7. RHR PUMP MOTORS 1P-229A,B,C,D

a. Action Item Description

These motors are General Electric Model 5K6336XC213A. They are located in the RHR rooms and must qualify for a radiation dose of 5.9×10^6 rads. Qualification for pressure, temperature, and humidity is not required.

b. Resolution

A qualification analysis (Report NSE-76-1281, dated February 8, 1982) supplied by General Electric under Proposal 424-TY527-KE1 (GE-KE-1-100 dated August 11, 1981) has been reviewed and found acceptable.

8. CORE SPRAY PUMP MOTORS 1P-211A,B

a. Action Item Description

These motors are General Electric Model 5K6336XC229A. They are located in the RHR rooms and must qualify for a radiation dose of 5.9×10^6 rads. Qualification for pressure, temperature, and humidity is not required.

b. Resolution

A qualification analysis (Report NSE-76-1281, dated February 8, 1982) supplied by General Electric under Proposal 424-TY527-KE1 (G-KE-1-100 dated August 11, 1981) has been reviewed and found acceptable.

9. LEVEL SWITCHES LS-1861A,B,C,D

a. Action Item Description

These level switches function for reactor shutdown on scram discharge volume high level. They are Magnetrol Model SL5.0-751, but were supplied by General Electric. They are located in the reactor building and must be qualified for a radiation dose of 2.8×10^5 rads (1-hour dose following a LOCA due to operational requirement of only first few seconds following an accident). General Electric has qualified these items for 1.7×10^5 rads. Qualification for pressure, temperature, and humidity is not required. Additional justification for qualification is required.

b. Resolution

In response to IE Bulletin 80-17, Iowa Electric is installing new redundant and diverse scram discharge volume level sensors via DCR 1047. These sensors are being procured in accordance with NUREG 0588, Category I requirements. While these sensors will not replace LS-1861A,B,C,D, they will perform the same function and will be environmentally qualified. These instruments are scheduled to be installed during the Fall 1982 refueling outage.

Also, the design basis LOCA radiation doses at the location of these level switches have been recalculated resulting in a required 1-hour dose of 2.7×10^4 rads. This refined dose is less than the GE qualified value of 1.7×10^5 rads and also reclassifies the instruments as mild environment items. Therefore, although the modification described above for IE Bulletin 80-17 is still being pursued as scheduled, the resolution of the environmental qualification concern identified by this action item is complete.

10. FLOWMETERS FM-8408A,B,C,D

a. Action Item Description

These flowmeters monitor main steam line leakage flow. They are S.K. Instrument Model 20-9651-8550, but were supplied by General Electric. These flowmeters provided a signal to their respective flow switches which cause system isolation on high flow. The flow switches are located in the control room (mild environment). The flowmeters and associated transmitter circuitry are located in the steam tunnel and must be qualified for a total dose of 2.1×10^7 rads. Qualification for temperature, pressure, and humidity is not required. S.K. Instrument has qualified the flowmeter for 1×10^6 rads. Additional qualification documentation is required.

b. Resolution

New flow sensors qualified to NUREG 0588, Category I will be installed outside the steam tunnel to provide the signal to perform the safety function of system isolation on high flow. The new qualified flow sensors will be installed during the Spring 1984 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) Failure of these components could, at worst, cause the failure of the main steam isolation valve (MSIV) leakage control system to function properly. In this case, radioactive leakage past the MSIVs, which is expected to be minimal, will normally be contained by the main steam piping outside the drywell.

11. HEATERS 1S-122A,B,C,D

Action complete (see Reference 2).

12. EXHAUST UNITS 1K-25A,B

a. Action Item Description

These motor-operated blowers exhaust main steam line leakage. They are Siemens Model 2CH6-041-1U, but were supplied by General Electric. They are located in the reactor building and must be qualified for a total dose of 1.1×10^7 rads. Qualification for pressure, temperature, and humidity is not required. Additional qualification documentation is required.

b. Resolution

Iowa Electric through participation with the utility/environmental qualification BWR Owners Group, has initiated effort to obtain documentation on this equipment which will demonstrate environmental qualification by analysis. This analysis should be complete by December 1982. Should this analysis show that component parts (i.e., motor bearings) are not qualified for their radiation environment, they will be replaced with qualified parts during the Spring 1984 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) Failure of these components could, at worst, cause the failure of the MSIV leakage control system to function properly. In this case, radioactive leakage past the MSIVs, which is expected to be minimal, will normally be contained by the main steam piping outside the drywell.

13. MOTOR CONTROL CENTER 1D41

Action complete (see Reference 2).

14. AIR COOLING UNITS 1V-AC-11,12

a. Action Item Description

The motors for these air cooling units are Westinghouse Model TEFC. These units function to provide post-accident room cooling for the RHR rooms. These units are located in the RHR rooms and must be qualified for a total dose of 5.9×10^6 rads. Qualification for pressure, temperature, and humidity is not required. Additional qualification documentation is required.

b. Resolution

Subsequent investigation and evaluation indicate that it is not feasible to document qualification of these motors. These motors will be replaced during the spring 1984 refueling outage with the new motors procured in accordance with NUREG 0588, Category I requirement. Iowa Electric is currently locating a supplier for these motors.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) Failure of the room cooling unit would, at worst, result in elevated room temperatures during emergency conditions. A study was recently completed to evaluate the effect of loss of room cooling in the HPCI room. The results of this study, which are conservatively analogous to the RHR corner rooms, show a temperature rise of approximately 13F in 2 hours using conservative assumptions. Under realistic room and environmental conditions, it is expected that the room temperature will remain near or below the maximum design room temperature.
- 3) Although each RHR corner room contains one cooling unit, the corner rooms and their associated safety-related equipment provide redundant safety trains.

15. AIR COOLING UNITS 1V-AC-14A,B

a. Action Item Description

The motors for these air cooling units are Westinghouse Model TEFC. These units function to provide post-accident room cooling for the HPCI room. These items must qualify for a 30-day design basis LOCA dose of 8.1×10^6 rads. Qualification for pressure, temperature, and humidity is not required. Additional qualification documentation is required.

b. Resolution

Further reevaluation has determined that the safety-related equipment, which is located in the HPCI room and which must operate during a design basis LOCA, is qualified to the maximum temperature which would occur if the room cooling units were to fail. Also, the equipment in the room which is not required to operate, cannot fail in a manner detrimental to safety nor in a way misleading to the operators. Therefore, these room cooling units do not perform a harsh environment safety function and further environmental qualification documentation is not necessary.

16. MOTOR-OPERATED VALVES

Action complete (see Reference 2).

17. FLOW SWITCHES FIS-2111, 2131

a. Action Item Description

These flow switches are Barton Model 289 and are qualified for a integrated radiation dose of 3×10^6 rads. These items are located in the RHR rooms and monitor core spray pump discharge flow. They must be qualified for a total dose of 5.9×10^6 rads.

b. Resolution

These instruments will be replaced with Barton Model 581A flowswitches procured in accordance with NUREG 0588, Category I requirements. Installation will be no later than Spring 1984 with every effort to complete installation during the Fall 1982 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. During this time, action will be taken to shut down redundant systems beyond those needed for coolant injection. This will result in radiation exposures to only one of two redundant equipment trains. Also, actual doses will be less than those calculated using such conservative assumptions. Finally, should the operating equipment suffer degradation due to radiation exposure, the shutdown redundant system will be activated. During the time available after stabilization of core cooling, additional coolant injection paths will be established, if necessary, to ensure long-term cooling.
- 2) Failure of the flow switch could affect the operation of core spray miniflow control valves MO-2104 and MO-2124. If the valve remains open longer than intended, the result would be a slight reduction in core spray system flow to the reactor vessel until operator action is taken to manually close the valve. If the valve remains closed longer than intended, operator action will be taken to either open the valve or shut off the affected core spray pump.
- 3) Automatic operation of miniflow bypass control is intended for initial startup of the HPCI immediately after an accident. Because it is already known that the switches are qualified to 70% of the 30-day integrated dose, they can be expected to operate through the initial stages of an accident. In the longer term, startup and shutdown of the core spray system will be performed manually under close operator supervision to ensure that adequate flowpaths are available.

18. PRESSURE SWITCHES PDIS-1971A,B

a. Action Item Description

These pressure switches are Barton Model 289 and are qualified for an integrated radiation dose of 3×10^6 rads. These items are located in the RHR rooms and must be qualified for a total dose of 5.9×10^6 rads. Documentation demonstrating environmental qualification is not available.

b. Resolution

These components will be replaced during the spring 1984 refueling outage with components qualified to NUREG 0588, Category 1.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. During this time, action will be taken to shut down redundant systems beyond those needed for coolant injection. This will result in radiation exposures to only one of two redundant equipment trains. Also, actual doses will be less than those calculated using such conservative assumptions. Finally, if the operating equipment suffers degradation due to radiation exposure, the shutdown redundant system will be activated. During the time available after stabilization of core cooling, additional coolant injection paths will be established, if necessary, to ensure long-term cooling.
- 2) Failure of the flow switch could affect the operation of RHR miniflow control valves MO-2009 and MO-1935. If the valve remains open longer than intended, the result would be a slight reduction in RHR system flow to the reactor vessel until operator action is taken to manually close the valve. If the valve remains closed longer than intended, operator action will be taken to either open the valve or shut off the affected RHR pumps.
- 3) Automatic operation of miniflow bypass control is intended for initial startup of the low-pressure coolant injection (LPCI) immediately after an accident. Because it is already known that the switches are qualified to 70% of the 30-day integrated dose, they can be expected to operate through the initial stages of an accident. In the longer term, startup and shutdown of the RHR system will be performed manually under close operator supervision to ensure that adequate flowpaths are available.

19. LIMITORQUE VALVE MOTOR BRAKES

a. Action Item Description

Environmental qualification documentation is not available to support a post-accident function capability of motor brakes contained in Limitorque valve operators. Limitorque valve operator records have been reviewed to confirm the list of harsh environment valve operators containing motor brakes. The following motor operators have been determined to contain motor brakes: MO-1909, MO-1908, MO-2238, MO-2239, MO-1902, MO-2135, MO-2115, MO-2117, MO-2137, MO-2003, MO-2000, MO-1905, MO-4627, and MO-4628.

b. Resolution

Identification of valve operators with unqualified motor brakes will be accomplished by December 1982, through walkdowns for motor brake nameplate information and vendor contacts. Motor brakes lacking qualification documentation will be qualified by analysis or replaced. Qualified motor operators will be in place by the end of the refueling outage scheduled for Spring 1984.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) As was demonstrated during Limitorque valve operator qualification tests, the weatherproof operator housing minimizes the effect of all harsh environmental parameters except for radiation. Therefore, the primary concern of an unqualified motor brake would be radiation induced failure of the motor brake solenoid (resulting in locking the valve in its position at the time of failure). All valve operators identified above perform their safety function immediately upon detection of accident initiation and prior to being subjected to a radiation dose of a value likely to cause motor brake failure.
- 2) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.

3) Additional justification is provided below:

- a) Valves MO-1905 and MO-2003 are containment isolation valves in the LPCI injection lines. These valves are normally closed and will remain so following an accident until it becomes necessary to initiate core cooling with the LPCI system. In the event that these valves fail to open at that time, this will cause a loss of all LPCI capability. An analogous scenario has been evaluated in response to FSAR Question 9-6.4 on Page 9-6.4-1 of the DAEC FSAR. The conclusion for case three of that question wherein "no LPCI flow will enter the vessel" is that it "will not result in a peak cladding temperature greater than that presented in the FSAR." Therefore, the consequences of the potential failure of these valves has been evaluated and found acceptable.
- b) Valves MO-2238 and MO-2239 are containment isolation valves in the HPCI system. As discussed in Section III-A of this report, the HPCI system need not be environmentally qualified for the HPCI function. Should these valves be required to perform their containment isolation function, the HPCI function will no longer be required and containment isolation will occur prior to the valves receiving a significant radiation dose. Following closure for containment isolation, the valves need not reopen.
- c) Valves MO-1902, and MO-2000 are containment isolation valves for the containment atmosphere spray headers in the RHR system. These valves are normally closed and will remain so unless the operator elects to manually initiate drywell or suppression pool spray. If the valves fail to open, the operator will be denied containment spray capability. In evaluating the design basis accident (DBA), the DAEC FSAR does not take credit for operation of the containment spray system, therefore, inability to initiate containment spray will not impair the ability for safe shutdown following a DBA.

- d) Valves MO-2115, MO-2117, MO-2135, and MO-2137 are core spray pump discharge isolation valves. These valves are normally closed and must open to provide core spray flow to the reactor vessel. The environment surrounding these valves does not become harsh until after the valves perform their safety function. The radiation dose to these valve operators is primarily a result of the radioactive process fluid flowing through the valves after they open.
- e) Valves MO-4627 and MO-4628 are recirculation pump discharge isolation valves (one for each loop). These valves are normally open but close in the event of high drywell pressure or low reactor vessel level. This directs flow from the LPCI system through the recirculation loop directly to the reactor vessel. In the event of a failure of these valves to close, core cooling flow continues to be provided, although a portion of the flow will be through the suction side of the intact recirculation loop backwards through the recirculation pump and into the reactor vessel. Additional cooling is also provided by the redundant core spray system.
- f) Valves MO-1908 and MO-1909 are containment isolation valves in the RHR letdown line. These valves are normally closed and will remain so following a DBA. The shutdown cooling mode of the RHR system is not required following a DBA with its high radiation source terms; therefore, the valves remain in the closed position and will be unaffected by a brake failure.

20. GENERAL ELECTRIC ELECTRICAL PENETRATIONS NS02-I, NS02-II, NS03, AND NS04

a. Action Item Description

The following electrical penetrations (General Electric Models NS02-I, NS02-II, NS03, and NS04) provide cable penetrations into the drywell.

JX-103	JX-105A	JX-105B	JX-105C
JX-105D	JX-101A	JX-101B	JX-104A
JX-104B	JX-104C	JX-104D	

The penetrations are required to be qualified for LOCA conditions inside drywell. The penetrations have qualification documentation for all required parameters except demineralized water spray.

b. Resolution

The electrical penetrations are shielded from the effects of water spray by a metal enclosure which totally surrounds the penetration and electrical termination area. The enclosure's orientation and adequacy for shielding against water spray will be evaluated during the Fall 1982 refueling outage. An engineering analysis of the electrical penetration capability to withstand design basis LOCA effects will be completed by December 30, 1982. Any modifications resulting from the walkdown and/or analysis will be completed by the end of the Spring 1984 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

The subject penetrations have been tested and environmentally qualified for severe LOCA environmental conditions including high humidity and superheated steam. The penetration assemblies are inherently designed to prevent the intrusion of moisture into critical components. Therefore, a demineralized water spray is not expected to impact the environmental capability of the penetrations.

21. AUTOMATIC VALVE COMPANY SOLENOID VALVE C5450-5

a. Action Item Description

Solenoid valves SV-4400, SV-4402, SV-4405, and SV-4406 (Automatic Valve Company Model C5450-5) are located in the drywell and are required to function as part of the automatic depressurization system (ADS). The solenoid valves are required to be qualified for LOCA conditions inside drywell. The valves have qualification documentation for all required parameters except demineralized water spray.

b. Resolution

An engineering analysis, completed March 30, 1982, has established the qualification of these components for demineralized water spray.

22. FENWAL CONTROL UNITS 35003-0

a. Action Item Description

Control units CU-5835A1, A2, B1, B2, and CU-5837A1, A2, B1, B2 (Fenwal Model 35003-0) are located in the standby gas treatment system (SGTS) room at elevation 786' in the reactor building. They are required to function as part of the SGTS. The control units must be qualified for a 30-day integrated radiation dose of 1.6×10^8 rads. Qualification for pressure, temperature, and humidity is not required. Each control unit consists of a metallic sensor and an electronic switch. Qualification documentation is not available for the electronic switch.

b. Resolution

The electronic switches will be relocated to a mild environment no later than Spring 1984. The metallic sensor does not contact any radiation-sensitive materials.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) At the start of an accident, both trains of the SGTS will be automatically started. Plant operating procedures require that one train be manually isolated such that only one train is operated at a time. The dominant radiation source for the SGTS is the loading of the SGTS filters.

Therefore, the train which is isolated initially following an accident will not experience the same radiation doses as the operating train. Should the initially operated train fail, the redundant train can be restarted to maintain the SGTS function.

23. ELECTRODYNE VALVE OPERATOR TN-24-400

a. Action Item Description

Valve operators MO-1904 and MO-2004 (Electrodyne Model TN-24-400) are located in the RHR valve room and are required to function as part of the RHR. These operators are required to be qualified for a temperature of 277F, a pressure of 1.2 psig, a relative humidity of 100%, and a 40-year normal plus 30-day accident integrated radiation dose of 5.6×10^6 rads.

b. Resolution

Qualification of the operators will be pursued primarily by engineering analysis. Qualified valve operators will be in place not later than the first refueling outage in 1984.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) The room in which the valves are located does not contain a high-energy line; however, it does communicate with the torus room in which a HELB is postulated. Therefore, the HELB conditions in the torus room have been conservatively applied to the room containing these valves. Due to the remoteness of these valves from the source of the HELB, the actual environmental conditions at the valve's location will be less than specified.

24. ASCO SOLENOID VALVES HT831665, 831665, 8320A6, HB8302C25RU

a. Action Item Description

The following solenoid valves (ASCO Models HT831665, 831665, 8320A6, and HB8302C252RU) are located in various areas at the DAEC and are required to perform safety functions in several different systems.

SV-1963	SV-1966	SV-2033	SV-2037
SV-5815A	SV-5815B	SV-5825A	SV-5825B
SV-5801A	SV-5801B	SV-7602A	SV-7602B
SV-4303	SV-4306	SV-4307	SV-4308
SV-4311	SV-4312	SV-4313	SV-4640
			SV-4309

These solenoid valves are all located in areas which are harsh for radiation only, with the required doses ranging from 2.9×10^5 rads to 1.6×10^8 rads.

b. Resolution

Depending on procurement lead time, these valves will be replaced during one of the next two refueling outages scheduled for all 1982 and pring 1984. The Model 831665 and HT831665 valves will be replaced by ASCO Model NP831665E; the Model 8320A6 will be replaced by ASCO Model NP8320A173E; and the Model HB8302C25RU will be replaced by ASCO Model 206-832-2U. All these replacement models are qualified for a radiation dose in excess of 1.6×10^8 rads and to the requirements of NUREG 0588, Category I.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.

- 2) The following applies to the identified valves in the SGTS (SV-5815A, B; SV-5825A, B; SV-5801A, B; SV-7602A, B): At the start of an accident, both trains of the SGTS will be automatically started. Plant operating procedures require that one train be manually isolated such that only one train is operated at a time. The dominant radiation source for the SGTS is the loading of the SGTS filters. Therefore, the train which is isolated initially following an accident will not experience the same radiation doses as the operating train. Should the initially operated train fail, the redundant train can be restarted to maintain the SGTS function.
- 3) The following applies to the identified valves in the RHR system (SV-1963, SV-1966, SV-2033, and SV-2037): These solenoid valves control air to their respective control valves to effect isolation of the two independent RHR trains. Post-accident (30 day) valve operability is required only in the unlikely event that it is necessary to cross-tie the two independent trains together.
- 4) The following applies to the identified valves in the containment atmosphere control and primary containment isolation systems (SV-4303, SV-4306, SV-4307, SV-4308, SV-4309, SV-4311, SV-4312, SV-4313, and SV-4640): With the exception of SV-4303 and SV-4309, the function of these valves is limited to containment isolation which occurs in the first few seconds following an accident. These valves need not function following containment isolation. SV-4303 and SV-4309, in addition to the containment isolation function, may also be required to initiate containment purge within 30 days following an accident. This would occur only in the unlikely event of worst-case hydrogen generation combined with minimum drywell leakage.

25. PENN TEMPERATURE SWITCH A-19ABB-6

a. Action Item Description

Temperature switches TS-5808A and TS-5808B (Penn Model A-19ABB-6) are located in the SGTS room at elevation 786' in the reactor building. They are required to function as part of the SGTS. The

temperature switches are required to be qualified for a 30-day integrated radiation dose of 1.6×10^8 rads. Qualification for pressure, temperature, and humidity is not required.

b. Resolution

Subsequent investigation and evaluation indicate that it is not feasible to document qualification of these temperature switches. These temperature switches will be replaced during the Spring 1984 refueling outage with new temperature switches procured in accordance with NUREG 0588, Category I requirements.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) At the start of an accident, both trains of the SGTS will be automatically started. Plant operating procedures require that one train be manually isolated such that only one train is operated at a time. The dominant radiation source for the SGTS is the loading of the SGTS filters. Therefore, the train which is isolated initially following an accident will not experience the same radiation doses as the operating train. Should the initially operated train fail, the redundant train can be restarted to maintain the SGTS function.

26. GULTON INDUSTRIES COMPANY TEMPERATURE ELEMENT TCA-0646

a. Action Item Description

Temperature elements TE-5805U, V, W, and X (Gulton Industries Company TCA-0646) are located in the SGTS room at elevation 786' in the reactor building. They are required to function as part of the SGTS. The temperature elements are required to be qualified for a 30-day integrated radiation dose of 1.6×10^8 rads. Qualification for pressure, temperature, and humidity is not required.

b. Resolution

A materials analysis completed in June 1982 has determined that this model temperature element does not contain any organic or electronic subcomponents and, therefore, is not subject to thermal and radiation degradation.

27. INDUSTRIAL ENGINEERING EQUIPMENT COMPANY TEMPERATURE SWITCH CT32-23

a. Action Item Description

Temperature sensors TE-5805A, B and TS-5836A, B (Industrial Engineering Equipment Company Model CT32-23) are located in the SGTS room at elevation 786' in the reactor building. They are required to function as part of the SGTS. The temperature sensors are required to be qualified for a 30-day integrated radiation dose of 1.6×10^8 rads. Qualification for pressure, temperature, and humidity is not required.

b. Resolution

An engineering analysis, based on vendor supplied data, will be performed for these temperature sensors to demonstrate environmental qualification. Should this analysis show that the temperature sensors are not qualified for their post-accident radiation environment, they will be replaced with qualified components no later than the Spring 1984 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.

- 2) At the start of an accident, both trains of the SGTS will be automatically started. Plant operating procedures require that one train be manually isolated such that only one train is operated at a time. The dominant radiation source for the SGTS is the loading of the SGTS filters. Therefore, the train which is isolated initially following an accident will not experience the same radiation doses as the operating train. Should the initially operated train fail, the redundant train can be restarted to maintain the SGTS function.

28. INDUSTRIAL ENGINEERING EQUIPMENT COMPANY SGTS HEATERS

a. Action Item Description

Heaters 1S-1061A and 1S-1061B are CVI-supplied and were manufactured by Industrial Engineering Equipment Company. They function to reduce and/or maintain the relative humidity of the air entering the prefilter in each train of the SGTS and must be qualified for 1.6×10^8 rads (30-day accident integrated radiation dose). Qualification for temperature, pressure, and humidity is not required.

b. Resolution

An engineering analysis will be performed for these heaters to demonstrate environmental qualification. This analysis will be completed by September 10, 1982.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.

- 2) At the start of an accident, both trains of the SGTS will be automatically started. Plant operating procedures require that one train be manually isolated so only one train is operated at a time. The dominant radiation source for the SGTS is the loading of the SGTS filters. Therefore, the train which is isolated initially following an accident will not experience the same radiation doses as the operating train. Should the initially operated train fail, the redundant train can be restarted to maintain the SGTS function.

29. ROSEMOUNT TEMPERATURE ELEMENTS MODEL 104MA23ABBB

a. Action Item Description

The following temperature elements are located in the steam tunnel and turbine building near the main steam lines and are required to function for main steam line break (MSLB) leakage detection.

TE-4443A	TE-4443B	TE-4443C	TE-4443D
TE-4444A	TE-4444B	TE-4444C	TE-4444C
TE-4445A	TE-4445B	TE-4445C	TE-4445D
TE-4446A	TE-4446B	TE-4446C	TE-4446D
TE-4477A	TE-4477B	TE-4478A	TE-4478B
TE-4479A	TE-4479B	TE-4480A	TE-4480B

These temperature elements are required to be qualified for a temperature of 300F, a pressure of 1.8 psig, a relative humidity of 100%, and a 40-year integrated dose of 7.2×10^6 rads.

b. Resolution

Subsequent investigation and evaluation indicate that it is not feasible to document qualification of these temperature elements. These temperature elements will be replaced with new temperature elements procured in accordance with NUREG 0588, Category I requirements. Replacement of these temperature elements is scheduled for the Spring 1984 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) The equipment qualification concern is the quantitative effect of radiation on the mechanical and electrical properties of each temperature element's teflon-insulated lead wire. This lead wire is contained inside a weatherproof head and is not subject to mechanical stress. Also, it is not essential that electrical insulation maintain its mechanical strength and other properties for proper operation of the temperature element. With respect to electrical properties, only dielectric strength and electrical resistance are important but these properties are not permanently affected by radiation dose. Although teflon's electrical resistance and dielectric strength are somewhat affected by radiation dose rate, these temperature elements do not perform a safety function during accidents which produce high radiation dose rates. Therefore, it is unlikely that degradation of the insulation due to radiation damage will result in failure of the instrument.
- 3) These temperature elements function to close the main steam isolation valves in the event of a MSLB. Due to redundancy, all temperature elements in a given area would be required to fail to prevent the main steam line isolation for a steam line break in that area.
- 4) For design-basis MSLBs, diverse means of detecting the accident (such as reactor vessel low water level or main steam line high flow) exist and will result in automatic closure of the main steam isolation valves.

30. BARKSDALE PRESSURE SWITCHES PS-8404A,B,C,D

a. Action Item Description

These pressure switches monitor pressure between MSIVs and provide a low-pressure permit to the MSIV leakage control system. They are Barksdale Model PlH-M85SS-V,

but were supplied by General Electric. They are located above the CRD repair room and must be qualified for a total dose of 1.1×10^7 rads (40-year normal operating dose plus 30-day post-accident dose). Qualification for temperature, pressure and humidity is not required. Documentation demonstrating qualification is not available.

b. Resolution

New pressure switches qualified to NUREG 0588, Category 1 will be installed to perform low-pressure monitoring between the MSIVs. Installation will be no later than the Spring 1984 refueling outage.

c. Justification for Continued Operation

Continued station operation is justified for the following reasons:

- 1) Radiation doses were calculated using conservative, nonmechanistic models. Mechanistic release models will result in radiation releases which occur several hours after the postulated accident. Therefore, actual doses will be less than those calculated using such conservative assumptions.
- 2) Failure of these components could, at worst, cause the failure of the MSIV leakage control system to function properly. In this case, radioactive leakage past the MSIVs, which is expected to be minimal, will normally be contained by the main steam piping outside the drywell.

III. SUPPLEMENTAL INFORMATION

A HIGH-PRESSURE COOLANT INJECTION SYSTEM

The following statement was included in Iowa Electric's response to IE Bulletin 79-01B (Reference 4).

An analysis of the high-pressure coolant injection (HPCI) system operation under the postulated accidents defined by NRC IE Bulletin 79-01B has shown that HPCI system components are not subjected to a harsh environment for those accidents requiring the HPCI system to function. The results of the analysis are as follows:

1. The postulated accident for which the HPCI system must function is a LOCA. Due to containment of the LOCA, the environmental effects on the HPCI system under LOCA are limited to exposure to increased radiation dose.
2. For a large-break LOCA, reactor coolant system (RCS) depressurization would initiate HPCI rapidly. However, HPCI would not contribute significantly to core cooling due to the rapid RCS depressurization, resulting in low HPCI flow, and the subsequent initiation of LPCI and core spray systems to achieve the core cooling function. Because the HPCI function is only momentary for the large-break LOCA, the radiation exposure of HPCI components due to this size LOCA for the period permitting HPCI flow would not exceed the present HPCI equipment qualification envelope.
3. For a small-break LOCA, HPCI system operation is initiated by gradual reduction of reactor vessel level or containment high pressure. The HPCI initiation setpoint of low reactor vessel level will cause HPCI flow to reestablish reactor vessel level and prevent fuel exposure and subsequent fuel damage. If fuel damage is prevented, the radiation dose to which the HPCI components are exposed under a sustained small-break LOCA is less than 1×10^4 rads. Because this integrated dose is less than our harsh/nonharsh environment boundary condition of 1×10^5 rads, the HPCI system can be considered to be in a nonharsh environment under small-break LOCA conditions.
4. A study by General Electric on the effects of loss of dc power on the emergency core cooling function was transmitted to the NRC on November 1, 1978. This study demonstrates that BWR-4 plants with the LPCI configuration at the DAEC will not experience fuel damage, even assuming a loss of the HPCI function is coupled with a dc power source failure. This report reinforces our contention that fuel damage and subsequent high-radiation exposure to the HPCI components under small-break LOCA conditions are improbable events, and need not be considered in the environmental conditions for which the HPCI system must function.
5. Although the above concludes that the HPCI system exists in a nonharsh environment for LOCA, the HPCI components were included in the scope of our current review because of their importance as a major safety system.

Because we believe the above analysis to be realistic, we have classified all HPCI system components except containment isolation valves and those needed to isolate a HPCI steam line break as being in mild environments. Accordingly, except for those components mentioned above, HPCI system components are not included in this report.

B. DELETION OF HELB IN RHR CORNER ROOMS

As discussed in Section III.B and illustrated in Table III-2 and Figure III-4 of Reference 1, the original HELB analysis for the DAEC evaluated a break in the RHR corner rooms. Subsequent investigation indicates that the high-energy line in the RHR corner rooms is operated at high-energy conditions only during the RHR steam-condensing mode of operation. This mode of operation, as described in Section 4.8.6.3 of the DAEC FSAR, is an alternative shutdown mode where steam is condensed using an RHR heat exchanger. In the commercial operation of the DAEC to date, this mode of operation has been used rarely. Any future use of this operating mode is limited to specific special case applications and represents a situation where the pipe in the RHR corner room is operated at high-energy conditions less than 1% of the time that the plant is in operation. Accordingly, it is not considered appropriate to evaluate a HELB and its associated environment effects in the RHR system condensing piping. In accordance with this position, the equipment located in the RHR corner rooms will be environmentally qualified for HELB conditions. This is reflected in the Appendix B3 equipment qualification summary sheets.

C. EVALUATION OF HARSH ENVIRONMENT EQUIPMENT AGING EFFECTS

As committed in Reference 1, an evaluation of aging degradation effects on harsh environment equipment has been initiated. One of the two types of evaluations was conducted depending on purchase order date.

For equipment purchased prior to May 23, 1982, the Division of Responsibility (DOR) guidelines were used as a basis for the evaluation. For cases where preaging was accomplished as part of the equipment's qualification program, the testing procedure and resultant qualified life were evaluated for acceptability. Where preaging was not accomplished, an analysis was conducted to identify subcomponent materials known to be susceptible to thermal and/or radiation degradation. The limiting subcomponent material was used in determining the equipment's qualified life.

For equipment purchased after May 23, 1980, NUREG 0588, Category I guidelines were used as a basis for the aging evaluation. The qualification test procedure and resultant qualified life were evaluated for acceptability.

The evaluations described above were summarized on an aging evaluation form identified by the manufacturer's model code described in Section V (where a description is provided of how this code is used to form the equipment and evaluation numbers). The resultant qualified life for each manufacturer's model type has been incorporated into the report evaluation sheets of Appendix B3. Where the qualified life is known to have a dependency on periodic surveillance and/or subcomponent replacement, an explanatory note is provided at the bottom of the Appendix B3 evaluation sheets.

IV. SAFETY DISPLAY INSTRUMENTATION

As committed in Iowa Electric's response to the SER (Reference 1), component evaluation sheets have been prepared for all safety display instrumentation located in harsh environments. These sheets are included in Appendix B3 of this report.

As stated in Reference 1, finalization of safety display instrumentation is being pursued as expeditiously as possible. Iowa Electric has developed a schedule for resolution of safety display instrumentation concerns based on implementation of the revised emergency procedures at the time of the Fall 1982 refueling outage. This will allow the final list of safety display instruments which must be environmentally qualified to be completed by January 1, 1983. A component evaluation sheet demonstrating environmental qualification or identifying an action item for each component on the final list will be completed by March 1, 1983. Resolution of all action items identified will be complete by the Spring 1984 refueling outage based on the availability of qualified components.

The component evaluation sheets included in this report have been completed to the extent possible with available information. As stated above, the component evaluation sheets for all safety display instrumentation will be completed by March 1, 1983.

A. INSTRUMENTS NOT CONSIDERED SAFETY-RELATED

The following instruments are mentioned in the DAEC emergency procedures but are not considered to be safety-related. The instruments listed are only those that are located in harsh environments; however, the justification for why they are not safety-related applies to all components of the associated instrument loops (i.e., associated nonsafety-related instruments located in mild environments).

TE-4328A	TE-4328B	TE-4328C	TE-4328D
TE-4328E	TE-4328F	TE-4328G	TE-4328H
TE-4328J	TE-4328K	TE-4328L	TE-4328M
TE-4386A	TE-4386B	TE-4386C	TE-4386D
TE-4386E	TE-4386F	TE-4386G	TE-4386H
TE-4386J	TE-4386K	TE-4386L	TE-4386M
TE-4400	TE-4401	TE-4402	TE-4403
TE-4404	TE-4405	TE-4406	TE-4407

B. JUSTIFICATION OF NONSAFETY-RELATED INSTRUMENTS

Temperature elements TE-4328A through M and TE-4386A through M measure the temperature in the drywell and torus. They perform no automatic safety function, but are mentioned in the emergency procedures as a means of indicating abnormal temperatures in the drywell or torus. The temperature elements are located in different regions of the drywell and torus such that the environment is different at each element. The probability of all elements failing simultaneously is small. Because all the elements are measuring temperature inside primary containment, the temperature of any one element that causes a grossly erroneous reading would be easily detected by comparison to other nearby elements and would not mislead the operator.

Temperature elements TE-4400 through TE-4407 are used to provide indication of relief valve opening and closing. These temperature elements are not the primary means to determine relief valve position. Pressure switches are installed in the piping downstream of the relief valves that provide this primary indication. Failure of these temperature elements would not mislead the operator because of other means available to determine valve position.

V. DESCRIPTION OF REPORT DATA SHEETS AND EVALUATION SHEETS

Appendix B3 is an updated summary of environmental qualification information for all equipment required to perform a safety function in a harsh environment. This summary takes the form of Equipment Qualification Report Data Sheets (Figure 5-1) and Evaluation Sheets (Figure 5-2). These sheets are in a format similar to that requested in IE Bulletin 79-01B. The data sheets summarize individual equipment data and environmental qualification requirements. The evaluation sheets summarize the acceptability of the equipment's environmental qualification program.

The data and evaluation sheets are organized and presented by manufacturer model type (i.e., by the evaluation number described below). Where identical types of equipment exist (i.e., same manufacturer and model), qualification applies

generically. For these types of equipment, a complete evaluation sheet has been prepared once for the generic type of equipment.

In Appendix B3, the evaluation sheet precedes the data sheets for all equipment of that generic type.

A description of the information presented on the data sheets is provided below. The numbers refer to the circled numbers on the sample data sheet (Figure 5-1).

1. EVALUATION NO

Number of Form XXXX-YY which is unique for each manufacturer model type of equipment. This is the primary identifying number associated with the evaluation-related data for all equipment of a given manufacturer model type. The "XXXX" is the EPRI data bank number (from Reference 4) associated with the manufacturer of the equipment. The "YY" is a two-digit number associated with the equipment model.

1A. EQUIPMENT NO

Number of Form XXXX-YY-ZZZ which is unique for each piece of equipment. This is the primary identifying number for equipment-related data. The "XXXX" and "YY" are formed consistent with the evaluation number. The "ZZZ" is an arbitrarily assigned three-digit number unique to each piece of equipment of that manufacturer and model type.

2. COMPONENT

Generic name for the piece of equipment (e.g., motor-operated valve, pressure transmitter).

3. MANUFACTURER

Name of equipment manufacturer (not necessarily supplier) of the equipment as determined from vendor drawings, nameplate data during walkdowns, or vendor contacts.

4. MODEL NUMBER

Manufacturer-supplied model number as determined from vendor drawings, nameplate data during walkdowns, or vendor contacts. If a model number is not available, then a serial number of vendor drawing number is provided.

5. SHEET NUMBER, REVISION, DATE

Self-explanatory information provided for control purposes.

6. PLANT ID

Plant-unique equipment identification number consistent with that appearing on the plant's piping and instrument diagram, instrument index, and equipment lists.

7. SYSTEM

Name of system in which the equipment is physically located and for which the equipment performs its safety function. A list of all safety-related systems is provided in Table 5-1. Equipment not belonging to any one system (e.g., electric cable) is included in the system referred to as ancillary components.

8. PURCHASE ORDER

The word "APED" (if a General Electric purchase), Bechtel purchase order number, an Iowa Electric purchase order number, a DCR number, or the word "field" (for field purchases) as determined from the instrument index, equipment list, or vendor documents.

9. FUNCTION/SERVICE

Chosen consistent with the system function, to be one of the following: reactor shutdown, primary containment isolation, reactor core cooling, containment heat removal, post-accident monitoring, mitigate radioactive release (i.e., maintain release of radioactivity to environment within 10 CFR 100 limits), and support (i.e., perform auxiliary support function).

10. ACCURACY: SPEC

Required or specified accuracy as determined from the FSAR or the equipment's technical specification. This is applicable to instruments only where accuracy is important to the equipment's safety function.

11. NOT USED

12. LOCATION

Abbreviation of room or area location containing the equipment as determined by location drawings or by walkdown. A list of locations is provided in Table 5-2.

13. FLOOR ELEVATION

Floor elevation of the room or location containing the piece of equipment. The combination of location and floor elevation sufficiently locates the equipment for determining environmental condition requirements.

14. FLOOD LEVEL ELEVATION

Post-accident flood level for the equipment's location as determined from an approved calculation. For location not subject to post-accident flooding, NA (not applicable) is indicated.

15. ABOVE FLOOD LEVEL

"Yes" or "no," indicating whether the equipment will be above the post-accident flood level. This is determined from a review of equipment location design drawings and a review of project design criteria.

Note: For the following accidents (Items 16 through 22), "yes" indicates the equipment is essential to either mitigating the accident or achieving safe shutdown. "No" if either of these conditions are met.

16. LOCA

Design-basis loss-of-coolant accident (worst-case recirculation line break within drywell)

17. MSLB

Main steam line break (pipe break in main steam system outside drywell)

18. FWLB

Feedwater line break (pipe break in main feedwater system)

19. HPCI

High-pressure coolant injection (pipe break in high-pressure coolant injection system steam supply)

20. RCIC

Reactor core isolation cooling (pipe break in reactor core isolation cooling system steam supply)

21. RWCUC

Reactor water cleanup (pipe break in reactor water cleanup system)

22. SCRAM

Scram discharge volume (pipe break in scram discharge volume system). This is for potential future use.

23. WALKDOWN

(Future use)

24. ENVIRONMENT

"Harsh" or "mild" describing the type of environment the equipment is subjected to before or during the time the equipment performs its safety function. To be classified as a harsh environment, a location must meet either of the following two criteria:

1. The post-LOCA integrated radiation dose over the required operating time exceeds 1×10^5 rads.
2. The nonradiation parameters as a result of a HELB (temperature, pressure, humidity, etc) exceed the values established as design parameters for the heating, ventilating, and air conditioning (HVAC) design at the location. The design parameters for the HVAC are defined by the existing plant design specifications.

All other plant locations are designated as mild environments.

25. SYSTEM

A two-digit system code determined from Item 7 and Table 5-1.

26. P&ID

Piping and instrument diagram drawing number and grid coordinates describing functional location of the equipment.

27. LOC DWG

Location drawing number and grid coordinates showing physical plant location of the equipment.

28. ELEC SCHEME

Electrical scheme and sheet number showing electrical power supply schematic for the equipment. The scheme and sheet number should be separated by a slash (e.g., E122/4).

29. VDR ID

Vendor identification number (applicable to General Electric-supplied equipment, Target Rock solenoid valves, ASCO solenoid valves, and other vendors where this information is readily available).

30. MFGR MODEL REF

A vendor drawing, walkdown reference, or other source of information which indicates manufacturer and model number.

31. REQUIRED OPERATING TIME

Required post-accident operability period (either 1 hour or 30 days) as determined from knowledge of the equipment's safety function. Equipment which must operate only once early in the accident or for a very short period post-accident (such as automatic protection systems which quickly place the plant in a stabilized condition) will have an operating time of 1 hour. (The 1 hour is chosen to provide substantial margin.) Equipment whose function requires long-term operation (beyond the point of reaching the initial stabilized condition) will have an operating time of 30 days.

32. TEMP (F)

Peak post-accident temperature (time-dependent curve for drywell and torus) to which the equipment is subjected before or during the performance of its safety function.

33. PRESSURE

Peak post-accident pressure in psig (time-dependent curve for drywell) to which the equipment is subjected before or during the performance of its safety function.

34. RELATIVE HUMIDITY

Peak post-accident relative humidity (%) to which the equipment is subjected before or during the performance of its safety function.

35. CHEMICAL SPRAY

Description of spray ("demin water" for inside drywell or "NA" for outside drywell) to which equipment is subjected before or during the performance of its safety function.

36. SEISMIC

(Future use)

37. RADIATION

Integrated radiation dosage in rads consistent with operating time (Item 31).

38. AGING

40 years

39. SUBMERGENCE

"Yes" or "NA" consistent with Item 15.

40. REMARKS (OPTIONAL)

Any explanatory remarks related to Items 31 through 39 may be provided here.

A description of the information presented on the evaluation sheets is provided below. The numbers refer to the circled numbers on the sample evaluation sheet (Figure 5-2).

1 THROUGH 5. Refer to description of information appearing on data sheet.

11. ACCURACY: DEMO Demonstrated instrument accuracy as determined, if available, from qualification test reports or vendor catalogues. This is applicable to instruments only and is otherwise indicated as "NA"

31W THROUGH 39W. REQUIRED ENVIRONMENT

The most limiting (worst-case) value of the environmental parameter as determined from a review of Items 31 through 39 of the associated data sheets for all equipment of that manufacturer model type.

40. Not used.

41 THROUGH 49. DOCUMENTATION REFERENCE REQUIRED

A three-digit number associated with the last three numbers of the equipment number which determined the worst-case environmental parameter (Items 31W through 39W).

50. Not used.

51 THROUGH 59. QUALIFICATION

The value or explanatory note describing the environmental parameter for which the equipment has been demonstrated (by test or analysis) to remain operable. For aging, a qualified life is indicated with a reference to an explanatory note if the qualified life is contingent upon periodically performed maintenance and/or surveillance.

60. Not used.

61 THROUGH 69. DOCUMENTATION REFERENCE QUAL

A letter reference corresponding to a qualification document in the reference list.

70. Not used.

71 THROUGH 79. QUALIFICATION METHOD

Method (type test, analysis, or combination) by which qualification for the environmental parameter being considered was demonstrated.

80. Not used.

81 THROUGH 89. OUTSTANDING ITEMS

"None" or a note reference describing the environmental qualification deficiency.

90. REFERENCE

Description of document referenced in Items 61 through 69.

91. NOTES

Explanatory notes referenced in Items 51 through 59 or 81 through 89.

92 THROUGH 95. Not used.

96. NUREG 0588 APPLICABLE.

"Yes" or "no" corresponding to whether the equipment was purchased after or before May 23, 1980.

VI. LIST OF REFERENCES

1. Iowa Electric Letter LDR-81-257, L.D. Root to H. Denton, dated September 3, 1981, transmitting the DAEC Response to the NRC Safety Evaluation Report on Environmental Qualification of Safety-Related Electrical Equipment
2. Semiannual Report on the Environmental Qualification Program for Safety-Related Electrical Equipment, Iowa Electric Light and Power Company, Docket 50-331, January 15, 1982
3. EPRI Equipment Qualification Data Bank Users Manual, Project 1707-2, Revision 0, January 1981
4. Iowa Electric Letter LDR-80-310, L.D. Root to J. Keppler, dated October 31, 1980, transmitting the DAEC Response to NRC IE Bulletin 79-01B Environmental Qualification of Class 1E Equipment

Sheet No.
Revision:
Date:

5

1
Owner:
Facility:
Unit:
Docket No:
Equip ID: 1A

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks 40
System: 7	Operating Time	31	
Plant I.D. Number: 6	Temperature (*F)	32	
Component: 2	Pressure (PSIG)	33	
Manufacturer: 3	Relative Humidity (%)	34	
Model Number: 4	Chemical Spray	35	
Purchase Order Number: 8	Seismic	36	
Function/Service: 9	Radiation (Rad)	37	
Accuracy: Spec: 10	Aging	38	
Location: 12	Submergence	39	
Floor Elevation: 13			
Flood Level Elevation: 14			
Above Flood Level: Yes: No: 15			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation:			
Above Flood Level: Yes: No:			

Accidents:	LOCA 16	MSLB 17	FWLB 18	HPCI 19	RCIC 20	RWCU 21	SCRM 22
Walkdown: 23	Environment: 24	System: 25	P&ID: 26				
Loc Dwg: 27	Elec Scheme: 28	VDR ID: 29					
Mfr Model Ref: 30							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:	System:	P&ID:				
Loc Dwg:	Elec Scheme:	VDR ID:					
Mfr Model Ref:							

EQUIPMENT QUALIFICATION REPORT DATA SHEET (SAMPLE)

Figure 5-1

1
Owner:
Facility:
Unit
Docket No:

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No:
Revision
Date: 5

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 2 Manufacturer: 3 Model Number: 4 NUREG 0588 Applicable: 96 Accuracy: Demo: 11	Operating Time	31W		51	41		61	71	81
	Temperature (°F)	32W		52	42		62	72	82
	Pressure (PSIG)	33W		53	43		63	73	83
	Relative Humidity (%)	34W		54	44		64	74	84
	Chemical Spray	35W		55	45		65	75	85
	Seismic	36W		56	46		66	76	86
	Radiation (Rad)	37W		57	47		67	77	87
	Aging	38W		58	48		68	78	88
	Submergence	39W		59	49		69	79	89

DOCUMENTATION REFERENCES	NOTES
90	91

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET (SAMPLE)

Figure 5-2

DUANE ARNOLD ENERGY CENTER

MASTER LIST
OF
ALL ENGINEERED SAFETY FEATURES SYSTEMS
REQUIRED TO FUNCTION UNDER POSTULATED ACCIDENT CONDITIONS
(IN ACCORDANCE WITH IE BULLETIN 79-01B)

The applicable systems are listed below.

1. Deleted
2. Control Rod Drive
3. Primary Containment Isolation and Nuclear Steam Supply Shutoff
4. Deleted
5. Main Steam Line Isolation Valve Leakage Control
6. High-Pressure Coolant Injection
7. Automatic Depressurization
8. Core Spray
9. Residual Heat Removal
10. Standby Gas Treatment
11. Standby AC Power Supply
12. DC Power Supply
13. Residual Heat Removal Service Water
14. Emergency Service Water
15. Deleted
16. Reactor Protection
17. Reactor Core Isolation Cooling (Alternative Use Only)
18. Engineered Safeguard Rooms Heating and Ventilating
19. Control Building Heating and Ventilating
20. Standby Diesel Generator Room Ventilation

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21. Emergency Service Water Pump Room Heating and Ventilating
22. Intake Structure Heating and Ventilating
23. Deleted
24. River Water Supply
25. Electrical and Control Panels
26. Pumphouse Drain Sump
27. Leak Detection
28. Deleted
29. Containment Atmosphere Control
30. Deleted
31. Main Feedwater (Alternative Use Only)
32. Ancillary Components
33. Area Radiation Monitoring (Alternative Use Only)
34. Nuclear Boiler/Containment
35. NUREG 0578 Modifications
36. Safety Display Instrumentation

LIST OF LOCATIONS CONTAINING SAFETY-RELATED EQUIPMENT

<u>Description of Location</u>	<u>Name of Location As It Appears on Report Data Sheet</u>
Above CRD repair room	A CRD rr
Control building, control room	CB ctl rm
Control building H&V room	CB H&V rm
Diesel generator room	DG room
Drywell	Drywell
Essential switchgear room	E SWGR rm
H&V control valve room	H&V control valve rm
HPCI room	HPCI room
Intake structure	Intake str
Northeast corner room	NE crnr rm
Northwest corner room	NW crnr rm
Offgas stack building	Offgas stack
Outside turbine building	Outside TB
Pumphouse	Pumphouse
RCIC room	RCIC room
RHR valve room	RHR vlv rm
Radwaste Building	Rad bldg
Radwaste tank room	Radwaste tank room
Reactor building west	RB-W
Reactor building, north	RB-N
Reactor building, south	RB-S
Reactor vessel	RV
Reactor water cleanup pump room	RWCU pump room
Reactor water cleanup heat exchanger room	RWCU heat exch room
Recombiner H&V room	Recombiner H&V room
Southeast corner room	SE crnr rm
Southwest corner room	SW crnr rm
Standby gas treatment room	SGT room
Steam tunnel	Steam tunnel
Torus room, north	Torus room north
Torus room, south	Torus room south
Turbine building	Turbine bldg
Turbine building, north	Turbine bldg north
Turbine building, south	Turbine bldg south
125 V battery room	125V battery room
250 V battery room	250V battery room
24 V battery room	24V battery room
Various	Various

Note: When the equipment is located in a panel or motor control center, the equipment location is followed by the panel or MCC designation.

MASTER LIST CLASS 1E ELECTRICAL
EQUIPMENT REQUIRED TO FUNCTION UNDER
POSTULATED ACCIDENT CONDITIONS

July 15, 1982

APPENDIX A

MASTER LIST CLASS 1E ELECTRICAL EQUIPMENT REQUIRED TO FUNCTION UNDER POSTULATED ACCIDENT CONDITIONS

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SYSTEM: ANCILLARY COMPONENTS

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
CABLE-COAX- RAY	600V CABLE	RAYCHEM	NA	VARIOUS	V'RIO	HARSH	NA	NA	NA
CABLE-COAX1 -ROC	600V CABLE	ROCKBESTOS	RSS-6-104, 10 CELLULAR DI	RB-S	757' -6"	HARSH	NA	NA	NA
CABLE-COAX2 -ROC	600V CABLE	ROCKBESTOS	RSS-6-104, 10 SOLID DIELE	VARIOUS	V'RIO	HARSH	NA		NA
CABLE-CONTR OL-A/E	600V CABLE	ANACONDA ERICSON	NA	VARIOUS	N'	HARSH	NA	NA	NA
CABLE-CONTR OL-OKO	600V CABLE	OKONITE	NA	VARIOUS	V'RIO	HARSH	NA	NA	NA
CABLE-CONTR OL-ROC	600V CABLE	ROCKBESTOS	FIREWALL III,	VARIOUS	V'RIO	HARSH	NA	NA	NA
CABLE-INSTR -A/E	600V CABLE	ANACONDA ERICSON	NA	VARIOUS	N'	HARSH	NA	NA	NA
CABLE-INSTR -OKO	600V CABLE	OKONITE	NA	VARIOUS	V'RIO	HARSH	NA	NA	NA
CABLE-INSTR -ROC	600V CABLE	ROCKBESTOS	FIREWALL III,	VARIOUS	V'RIO	HARSH	NA	NA	NA
CABLE-POWER -A/E	600V CABLE	ANACONDA ERICSON	NA	VARIOUS	N'	HARSH	NA	NA	NA
CABLE-POWER -KER	5 KV CABLE	KERITE	HT WITH NS JA	OUTSIDE DRYWELL	V'RIO	HARSH	NA	NA	NA
CABLE-POWER -OKO	600V CABLE	OKONITE	NA	VARIOUS	V'RIO	HARSH	NA	NA	NA
CABLE-POWER -ROC	600V CABLE	ROCKBESTOS	FIREWALL III,	VARIOUS	V'RIO	HARSH	NA	NA	NA
JX-101A	ELECTRICAL PENETRATION	GE	NS03	DRYWELL	757' -6"	HARSH	NA	E807	M41
JX-101B	ELECTRICAL PENETRATION	GE	NS03	DRYWELL	757' -6"	HARSH	NA	E807	M41
JX-103	ELECTRICAL PENETRATION	GE	NS02-II	DRYWELL	761' -4"	HARSH	NA	E807	M41

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: ANCILLARY COMPONENTS

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
JX-104A	ELECTRICAL PENETRATIONS	GE	NS04	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-104B	ELECTRICAL PENETRATIONS	GE	NS04	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-104C	ELECTRICAL PENETRATIONS	GE	NS04	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-104D	ELECTRICAL PENETRATIONS	GE	NS04	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-105A	ELECTRICAL PENETRATION	GE	NS02-I	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-105B	ELECTRICAL PENETRATION	GE	NS02-I	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-105C	ELECTRICAL PENETRATION	GE	NS02-I	DRYWELL	761' -4"	HARSH NA		E807	M41
JX-105D	ELECTRICAL PENETRATION	GE	NS02-I	DRYWELL	761' -4"	HARSH NA		E807	M41
SPlicing KI TS	SPlicing KITS	RAYCHEM	WCSF-N	VARIOUS	V'RIO	HARSH NA		NA	NA
TERMINAL BL OCKS	TERMINAL BLOCKS	AMERACE CORP	NQB108	VARIOUS	V'RIO	HARSH NA		NA	NA

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: AUTOMATIC DEPRESS- URIZATION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-4400	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M114/F5	E121/2	E338/D5
HS-4402	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M114/D6	E121/2	E338/D5
HS-4405	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M114/D4	E121/2	E338/D5
HS-4406	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M114/F6	E121/2	E338/D5
KY-4400A	RELAY	GE	CR2820 B414AA	CB CTL RM/1C-45	786' -0"	MILD	M114/F6	E122/2	E338/D6
KY-4400B	RELAY	GE	CR2820 B414AA	CB CTL RM/1C-45	786' -0"	MILD	M114/F4	E122/2	E338/D6
PS-1917A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	NW CRNR RM/1C-129B	716' -9"	HARSH	M119/B6	E121/56A	E316/E7
PS-1917B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	NW CRNR RM/1C-129B	716' -9"	HARSH	M119/B6	E121/56A	E316/E7
PS-1925A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	NW CRNR RM/1C-129B	716' -9"	HARSH	M119/B7	E1221/56	E316/E7
PS-1925B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	NW CRNR RM/1C-129B	716' -9"	HARSH	M119/B7	E121/56A	E316/E7
PS-2023A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	SE CRNR RM/1C-129A	716' -9"	HARSH	M120/B4	E121/56	E317/E3
PS-2023B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	SE CRNR RM/1C-129A	716' -9"	HARSH	M120/B4	E121/56	E317/E3
PS-2024A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	SE CRNR RM/1C-129A	716' -9"	HARSH	M120/B2	E121/56	E317/E3
PS-2024B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	SE CRNR RM/1C-129A	716' -9"	HARSH	M120/B2	E121/56	E317/E3
PS-2107A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	SE CRNR RM/1C-123	716' -9"	HARSH	M121/E3	E121/9	E317/D3
PS-2107B	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	SE CRNR RM/1C-123	716' -9"	HARSH	M121/D3	E121/9	E317/D3

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: AUTOMATIC DEPRESS- URIZATION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-2127A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	NW CRNR RM/1C-124	716' -9"	HARSH	M121/C5	E121/10	E316/E7
PS-2127B	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	NW CRNR RM/1C-124	716' -9"	HARSH	M121/C5	E121/10	E316/E7
PS-4310A	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	RB-S/1C-122	757' -6"	MILD	M143/D7	E121/2	E319/E5
PS-4311A	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	SW CRNR RM/1C-58	716' -9"	MILD	M143/E6	E121/2	E317/D7
PS-4312A	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	RB-S/1C-126B	757' -6"	MILD	M143/E6	E121/2	E319/G5
PS-4313A	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	RB-N/1C-121	757' -6"	MILD	M143/F6	E121/2	E318/F4
SV-4400	SOLENOID VALVE	AUTOMATIC VALVE C	C5450-5	DRYWELL	775' -11"	HARSH	M114/F5	E121/2	E330/C4
SV-4402	SOLENOID VALVE	AUTOMATIC VALVE C	C5450-5	DRYWELL	775' -11"	HARSH	M114/D6	E121/2	E330/B4
SV-4405	SOLENOID VALVE	AUTOMATIC VALVE C	C5450-5	DRYWELL	775' -11"	HARSH	M114/D4	E121/2	E330/F4
SV-4406	SOLENOID VALVE	AUTOMATIC VALVE C	C5450-5	DRYWELL	775' -11"	HARSH	M114/F5	E121/2	E330/F4

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: CONTAINMENT ATMOSPHERE CONTROL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-4320A	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	HPCI ROOM	716' -9"	HARSH	M143/C3	E122/31	E317/B4
MO-4320B	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	HPCI ROOM	716' -9"	HARSH	M143/C4	E122/31	E317/B3
MO-4323A	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	CAD VALVE HOUSE	757' -6"	MILD	M143/B3	E122/30	E354/F1
MO-4323B	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	CAD VALVE HOUSE	757' -6"	MILD	M143/B4	E122/30	E354/F1
PDIS-4304	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288A	NE CRNR RM	735' -7"	HARSH	M143/B7	E122/23	E316/F3
PDIS-4305	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288A	NE CRNR RM	735' -7"	HARSH	M143/B8	E122/23	E316/F3
PS-4348	FLOW INDICATING SWITCH	ITT BARTON	289	RB-N	757' -6"	HARSH	M143/C4	E122/12	E318/A5
PS-4365A	PRESSURE SWITCH	BARKSDALE	D1T-A80	RB-S	757' -6"	MILD	M143/F6	E122/31	E319/E5
PS-4365B	PRESSURE SWITCH	BARKSDALE	D1T-A80	RB-N	786' -0"	MILD	M143/D5	E122/31	E320-D3
SV-4129A	SOLENOID VALVE	ASCO	8030A71	OFFGAS STACK/1C-132	740' -0"	MILD	M141/F2	E122/27	E370/E3
SV-4129B	SOLENOID VALVE	ASCO	8030A17	OFFGAS STACK/1C-132	740' -0"	MILD	M141/F2	E122/27	E338/C4
SV-4300	SOLENOID VALVE	ASCO	HT831665	NE CRNR RM	735' -7"	MILD	M143/D7	E122/12	E316/E2
SV-4301	SOLENOID VALVE	ASCO	HT831665	NE CRNR RM	735' -7"	MILD	M143/C8	E122/13	E316/E2
SV-4302	SOLENOID VALVE	ASCO	HT831665	H&V CONTROL VALVE RM	812' -0"	MILD	M143/D7	E122/12	E322/D4
SV-4303	SOLENOID VALVE	ASCO	831665	H&V CONTROL VALVE RM	812' -0"	HARSH	M143/D7	E122/13	E322/D4
SV-4304	SOLENOID VALVE	ASCO	HT831665	NE CRNR RM	735' -7"	MILD	M143/B7	E122/23	E316/F3

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: CONTAINMENT ATMOSPHERE CONTROL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-4305	SOLENOID VALVE	ASCO	HT831665	NE CRNR RM	735' -7"	MILD	M143/B7	E122/23	E316/F3
SV-4306	SOLENOID VALVE	ASCO	831665	RHR VALVE ROOM	757' -6"	HARSH	M143/F1	E122/13	E318/E6
SV-4307	SOLENOID VALVE	ASCO	831665	RHR VALVE ROOM	757' -6"	HARSH	M143/F2	E122/12	E318/D6
SV-4308	SOLENOID VALVE	ASCO	831665	RHR VALVE ROOM	757' -6"	HARSH	M143/E3	E122/12	E318/D6
SV-4309	SOLENOID VALVE	ASCO	831665	NE CRNR RM	716' -9"	HARSH	M143/C7	E122/12	E316/E2
SV-4310	SOLENOID VALVE	ASCO	NP831665E	H&V CONTROL VALVE RM	812' -0"	HARSH	M143/D7	E122/12	E322/D4
SV-4311	SOLENOID VALVE	ASCO	831665	RHR VALVE ROOM	757' -6"	HARSH	M143/F3	E122/13	E318/D6
SV-4312	SOLENOID VALVE	ASCO	831665	RHR VALVE ROOM	757' -6"	HARSH	M143/F3	E122/12	E318/D6
SV-4313	SOLENOID VALVE	ASCO	831665	RHR VALVE ROOM	757' -6"	HARSH	M143/F3	E122/12	E318/D6
SV-4331A	SOLENOID VALVE	TARGET ROCK	72V-004	RHR VALVE ROOM	757' -6"	HARSH	M143/C2	E122/34	E319/G6
SV-4331B	SOLENOID VALVE	TARGET ROCK	72V-004	RHR VALVE ROOM	757' -6"	HARSH	M143/C2	E122/34	E319/G6
SV-4332A	SOLENOID VALVE	TARGET ROCK	72V-004	RB-S	786' -0"	HARSH	M143/C2	E122/33	E321/F6
SV-4332B	SOLENOID VALVE	TARGET ROCK	72V-004	RB-S	786' -0"	HARSH	M143/C2	E122/33	E321/F6
SV-4333A	SOLENOID VALVE	TARGET ROCK	72V-004	TORUS ROOM SOUTH	716' -9"	HARSH	M143/C2	E122/34	E317/F6
SV-4333B	SOLENOID VALVE	TARGET ROCK	72V-004	TORUS ROOM SOUTH	716' -9"	HARSH	M143/C2	E122/34	E317/E6
SV-4334A	SOLENOID VALVE	TARGET ROCK	72V-004	TORUS ROOM NORTH	716' -9"	HARSH	M143/C2	E122/33	E316/D6

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: CONTAINMENT ATMOSPHERE CONTROL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-4334B	SOLENOID VALVE	TARGET ROCK	72V-004	TORUS ROOM NORTH	716' -9"	HARSH	M143/C2	E122/33	E316/D6
SV-8101A	SOLENOID VALVE	TARGET ROCK	72V-003	RB-S	757' -6"	HARSH	M181/F5	E122/29	E319/E6
SV-8101B	SOLENOID VALVE	TARGET ROCK	72V-003	RB-N	757' -6"	HARSH	M181/F4	E122/29	E318/E4
SV-8102A	SOLENOID VALVE	TARGET ROCK	72V-003	RB-S	757' -6"	HARSH	M181/F5	E122/29	E319/E6
SV-8102B	SOLENOID VALVE	TARGET ROCK	72V-003	RB-N	757' -6"	HARSH	M181/F4	E122/29	E318/E4
SV-8103A	SOLENOID VALVE	TARGET ROCK	72V-003	RB-S	757' -6"	HARSH	M181/F5	E122/29	E319/E6
SV-8103B	SOLENOID VALVE	TARGET ROCK	72V-003	RB-N	757' -6"	HARSH	M181/F4	E122/29	E318/E4
SV-8104A	SOLENOID VALVE	TARGET ROCK	72V-003	RB-S	757' -6"	HARSH	M181/F5	E122/29	E319/E6
SV-8104B	SOLENOID VALVE	TARGET ROCK	72V-003	RB-N	757' -6"	HARSH	M181/F4	E122/29	E318/F4
SV-8105A	SOLENOID VALVE	TARGET ROCK	72V-003	RB-S	757' -6"	HARSH	M181/E5	E122/29	E319/E6
SV-8105B	SOLENOID VALVE	TARGET ROCK	72V-003	RB-N	757' -6"	HARSH	M181/E4	E122/29	E318/E5
SV-8106A	SOLENOID VALVE	TARGET ROCK	72V-003	RB-S	757' -6"	HARSH	M181/E5	E122/29	E319/E6
SV-8106B	SOLENOID VALVE	TARGET ROCK	72V-003	RB-N	757' -6"	HARSH	M181/E4	E122/29	E318/E5
SV-8107A	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM NORTH	716' -9"	HARSH	M181/D5	E122/29	E316/D3
SV-8107B	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM SOUTH	716' -9"	HARSH	M181/D4	E122/29	E317/F7
SV-8108A	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM NORTH	716' -9"	HARSH	M181/E5	E122/29	E316/D3

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: CONTAINMENT ATMOSPHERE CONTROL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-8108B	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM SOUTH	716' -9"	HARSH	M181/E4	E122/29	E317/F7
SV-8109A	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM SOUTH	716' -9"	HARSH	M181/D5	E122/29	E317/E4
SV-8109B	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM NORTH	716' -9"	HARSH	M181/D4	E122/29	E316/E6
SV-8110A	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM SOUTH	716' -9"	HARSH	M181/D5	E122/29	E317/E4
SV-8110B	SOLENOID VALVE	TARGET ROCK	72V-003	TORUS ROOM NORTH	716' -9"	HARSH	M181/D4	E122/29	E316/E6
SV-8114A	SOLENOID VALVE	ATKOMATIC	31840	RB-S	757' -6"	MILD	M181/G6	E122/26	E319/E6
SV-8114B	SOLENOID VALVE	ATKOMATIC	31840	RB-N	757' -6"	MILD	M181/G3	E122/26	E318/G6
SV-8115A	SOLENOID VALVE	ATKOMATIC	31840	RB-S	757' -6"	MILD	M181/F6	E122/26	E319/E6
SV-8115B	SOLENOID VALVE	ATKOMATIC	31840	RB-N	757' -6"	MILD	M181/F3	E122/26	E318/G6
SV-8116A	SOLENOID VALVE	ATKOMATIC	31840	RB-S	757' -6"	MILD	M181/E6	E122/26	E319/E6
SV-8116B	SOLENOID VALVE	ATKOMATIC	31840	RB-N	757' -6"	MILD	M181/E3	E122/26	E318/G6
SV-8117A	SOLENOID VALVE	ATKOMATIC	31840	RB-S	757' -6"	MILD	M181/C7	E122/26	M405/C6
SV-8117B	SOLENOID VALVE	ATKOMATIC	31840	RB-N	757' -6"	MILD	M181/C2	E122/26	M405/F6
SV-8117C	SOLENOID VALVE	ATKOMATIC	32840-WP	RB-S	757' -6"	MILD	M181/D6	E122/26	M405/C6
SV-8117D	SOLENOID VALVE	ATKOMATIC	32840-WP	RB-N	757' -6"	MILD	M181/D3	E122/26	M405/F6
1P-28A	PUMP MOTOR	TOKYO SHIBAURA	MB-301	RB-S/1C-219A	757' -6"	MILD	M181/H6	E122/27	E319/E6

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: CONTAINMENT ATMOSPHERE CONTROL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1P-28B	PUMP MOTOR	TOKYO SHIBAURA	MB-301	RB-N/1C-219A	757' -6"	MILD	M181/H6	E122/27	E319/E6
1P-29A	PUMP MOTOR	TOKYO SHIBAURA	MB-302	RB-S/1C-219B	757' -6"	MILD	M181/H3	E122/27	E318/G6
1P-29B	PUMP MOTOR	TOKYO SHIBAURA	MB-301	RB-N/1C-219B	757' -6"	MILD	M181/H3	E122/27	E318/G6

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
CS-6132A	LEVEL SWITCH	DAZIC	CI2120	CB H&V RM	800' -4"	MILD	M161/E1	E113/40	E341/G6
CS-6132B	LEVEL SWITCH	DAZIC	CI2120	CB H&V RM	800' -4"	MILD	M161/F1	E113/40	E341/G6
CS-6132C	LEVEL SWITCH	DAZIC	CI2120	CB H&V RM	800' -4"	MILD	M161/F1	E113/40	E341/G6
CU-7327A	CONTROL UNIT	FENWAL	35003-0	CB H&V RM	807' -8"	MILD	M173/G5	E113/34	E341/G3
CU-7327B	CONTROL UNIT	FENWAL	35003-0	CB H&V RM	800' -4"	MILD	M173/D4	E113/34	E341/G7
CU-7329A	CONTROL UNIT	FENWAL	35003-0	CB H&V RM	807' -8"	MILD	M173/G4	E113/34	E341/G3
CU-7329B	CONTROL UNIT	FENWAL	35003-0	CB H&V RM	800' -4"	MILD	M173/C4	E113/34	E341/G7
DPS-7304A	DIFFERENTIAL PRESSURE SWITCH	DWYER	1636-25	CB H&V RM	800' -4"	MILD	M173/G6	E113/37	E341/F3
DPS-7304B	DIFFERENTIAL PRESSURE SWITCH	DWYER	1636-25	CB H&V RM	800' -4"	MILD	M173/D6	E113/37	E341/F8
EC-7304A	ELECTRIC HEATER CONTACTOR	PACIFIC CHROMALOX	3C5CR-025-348	CB H&V RM	800' -4"	MILD	M173/H3	E113/37	E341/G3
EC-7304B	ELECTRIC HEATER CONTACTOR	PACIFIC CHROMALOX	3C5CR-025-348	CB H&V RM	800' -4"	MILD	M173/E6	E113/37	E341/G7
E/PC-7320A		JOHNSON CONTROLS	N-6810	CB H&V RM/1C-162	807' -8"	MILD	M173/F2	E113/99	E341/G3
E/PC-7320B		JOHNSON CONTROLS	N-6810	CB H&V RM/1C-163	800' -4"	MILD	M173/E2	E113/99	E341/G7
FIC-7320A	FLOW INDICATING CONTROL	GE	540-01	CB CTL RM/1C-26A	786' -0"	MILD	M173/F5	E113/99	E338/E4
FIC-7320B	FLOW INDICATING CONTROL	GE	540-01	CB CTL RM/1C-26B	786' -0"	MILD	M173/F5	E113/99	E338/E4
FS-6924A	FLOW SWITCH	CUSTOM COMPONENT	642D	RB-N	812' -0"	MILD	M169/C3	E113/30	E322/G4

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
FS-6924B	FLOW SWITCH	CUSTOM COMPONENT	642D	RB-N	812' -0"	MILD	M169/C2	E113/31	E322/F4
FS-6925A	FLOW SWITCH	CUSTOM COMPONENT	642D	RB-N	812' -0"	MILD	M169/D2	E113/30	E322/G4
FS-6925B	FLOW SWITCH	CUSTOM COMPONENT	642D	RB-N	812' -0"	MILD	M169/D2	E113/31	E322/F4
FS-7321A	FLOW SWITCH	GE	560	CB CTL RM/1C-26A	786' -0"	MILD	M173/F5	E113/35	E338/E4
FS-7321B	FLOW SWITCH	GE	560	CB CTL RM/1C-26B	786' -0"	MILD	M173/E5	E113/35	E338/E4
FT-7320A	FLOW TRANSMITTER	GE	554	CB H&V RM	800' -4"	MILD	M173/E7	E113/99	E341/G3
FT-7320B	FLOW TRANSMITTER	GE	554	CB H&V RM	800' -4"	MILD	M173/E7	E113/99	E341/G7
HS-6102	HAND SWITCH	GE	CR2940	CB CTL RM/1C-26A	786' -0"	MILD	M161/F7	E113/19	E338/E4
HS-6104A	HAND SWITCH	GE	CR2940-US203E	CB CTL RM/1C-26A	786' -0"	MILD	M161/G5	E113/27	E338/E4
HS-6104B	HAND SWITCH	GE	CR2940-US203E	CB CTL RM/1C-26B	786' -0"	MILD	M161/E5	E113/27	E338/E4
HS-6104U	HAND SWITCH	GE	CR2940-US203E	ESS SWITCHGEAR ROOM	757' -6"	MILD	M161/H5	E113/27	E335/NS
HS-6104V	HAND SWITCH	GE	CR2940-US203E	ESS SWITCHGEAR ROOM	757' -6"	MILD	M161/E6	E133/27	E335/NS
HS-6113A	HAND SWITCH	GE	CR2940-US203E	CB CTL RM/1C-26A	786' -0"	MILD	M161/F6	E113/26	E338/E4
HS-6113B	HAND SWITCH	GE	CR2940-US203E	CB CTL RM/1C-26B	786' -0"	MILD	M161/D6	E113/26	E338/E4
HS-6113U	HAND SWITCH	GE	CR2940-US203E	ESS SWITCHGEAR ROOM	757' -6"	MILD	M161/S6	E113/26	E335/NS
HS-6113V	HAND SWITCH	GE	CR2940-US203E	ESS SWITCHGEAR ROOM	757' -6"	MILD	M161/D6	E113/26	E335/NS

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-6131	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M161/E7	E113/20	E338/E4
HS-6132A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M161/E1	E113/40	E328/E4
HS-6132B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26B	786' -0"	MILD	M161/F1	E113/40	E338/E4
HS-6132C	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M161/F1	E113/40	E338/E4
HS-6924A	HAND SWITCH	GE	SBM	CB CTL RM/1C-26A	786' -0"	MILD	M169/D4	E113/32	E338/E4
HS-6924B	HAND SWITCH	GE	SBM	CB CTL RM/1C-26B	786' -0"	MILD	M169/D1	E113/32	E338/E4
HS-6924U	HAND SWITCH	GE	CR2940-UB203A	RB-N	812' -0"	MILD	M169/D4	E113/30	E322/F5
HS-6924V	HAND SWITCH	GE	CR2940-UB203A	RB-N	812' -0"	MILD	M161/D1	E113/31	E335/G5
HS-6924X	HAND SWITCH	GE	CR2940-UN200D	RB-N	812' -0"	MILD	M169/D4	E113/30	E322/F5
HS-6924Y	HAND SWITCH	GE	CR2940-UN200D	RB-N	812' -0"	MILD	M169/D1	E113/31	E322/G5
HS-7301A	HAND SWITCH	GE	CR2940-UB203A	CB CTL RM/1C-26A	786' -0"	MILD	M173/H7	E113/35	E338/E4
HS-7301B	HAND SWITCH	GE	CR2940-UB203A	CB CTL RM/1C-26B	786' -0"	MILD	M173/D7	E113/35	E338/E4
HS-7304A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M173/H6	E113/37	E338/E4
HS-7304B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26B	786' -0"	MILD	M173/E6	E113/37	E338/E4
HS-7318A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M173/G3	E113/35	E338/E4
HS-7318B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26B	786' -0"	MILD	M173/D3	E113/35	E338/E4

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-7319A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M173/H2	E113/35	E338/E4
HS-7319B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26B	786' -0"	MILD	M173/E2	E113/35	E338/E4
HS-7322A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26A	786' -0"	MILD	M173/F4	E113/39	E338/E4
HS-7322B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-26B	786' -0"	MILD	M173/C4	E113/39	E338/E4
HS-7328A	HAND SWITCH	GE	CR2940-UB202D	CB H&V RM	800' -4"	MILD	M173/F5	E113/152	E341/G3
HS-7328B	HAND SWITCH	GE	CR2940-UB202D	CB H&V RM	800' -4"	MILD	M173/C5	E113/152	E341/G7
LC-7328A	LEVEL SWITCH	SQUARE D	DG-253	CB H&V RM	807' -8"	MILD	M173/F5	E113/152	E341/G3
LC-7328B	LEVEL SWITCH	SQUARE D	DG-253	CB H&V RM	800' -4"	MILD	M173/C5	E113/152	E341/G7
L/R-7315A	LOCKOUT RELAY	WESTINGHOUSE	WL-3573A45-GO	CB CTL RM/1C-26A	786' -0"	MILD	M173/H4	E113/36	E338/E4
L/R-7315B	LOCKOUT RELAY	WESTINGHOUSE	WL-3573A45-GO	CB CTL RM/1C-26B	786' -0"	MILD	M173/E4	E113/36	E338/E4
OT-7304A	TORQUE TRANSMITTER	CHANNEL MASTER	CFEI-74C	CB H&V RM	807' -8"	MILD	M173/F5	E113/39	E341/G3
OT-7304B	TORQUE TRANSMITTER	CHANNEL MASTER	CFEI-74C	CB H&V RM	800' -4"	MILD	M173/C5	E113/39	E341/G7
PB-7316A	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-26A	786' -0"	MILD	M173/H3	E113/35	E338/E4
PB-7316B	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-26B	786' -0"	MILD	M173/E3	E113/35	E338/E4
PB-7328A	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-26A	786' -0"	MILD	M173/F4	E113/34	E338/E4
PB-7328B	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-26B	786' -0"	MILD	M173/C4	E113/34	E338/E4

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PB-7329A	PUSH BUTTON	GE	CR294OU201	CB CTL RM/1C-26A	786' -0"	MILD	M173/F4	E113/34	E338/E4
PB-7329B	PUSH BUTTON	GE	CR294OU201	CB CTL RM/1C-26B	786' -0"	MILD	M173/C4	E113/34	E338/E4
PS-7333A	PRESSURE SWITCH	UNITED ELECTRIC C	270	SGT ROOM	786' -0"	MILD	M173/B6	E113/144	E315/G6
PS-7333B	PRESSURE SWITCH	UNITED ELECTRIC C	270	SGT ROOM	786' -0"	MILD	M173/B8	E113/144	E315/F6
PS-7334A	PRESSURE SWITCH	UNITED ELECTRIC C	270	SGT ROOM	786' -0"	MILD	M173/B6	E113/144	E315/G6
PS-7334B	PRESSURE SWITCH	UNITED ELECTRIC C	270	SGT ROOM	786' -0"	MILD	M173/B8	E113/144	E315/F6
PS-7335A	PRESSURE SWITCH	MERCOND CORP.	DA7031-153	SGT ROOM	786' -0"	MILD	M173/B5	E113/144	E315/G6
PS-7335B	PRESSURE SWITCH	MERCOND CORP.	DA7031-153	SGT ROOM	786' -0"	MILD	M173/B7	E113/144	E315/F6
P/ER-7334A	PNEUMATIC TO ELECTRIC RELAY	PENN	P47BA-6	CB H&V RM/1C-133A	800' -4"	MILD	M173/C6	E113/144	E341/G4
P/ER-7334B	PNEUMATIC TO ELECTRIC RELAY	PENN	P47BA-6	CB H&V RM/1C-133B	800' -4"	MILD	M173/C7	E113/144	E341/F4
RE-6101A	RADIATION ELEMENT	NMC	GA-2T0	CB H&V RM	800' -4"	MILD	M161/H8	E113/102	E341/F8
RE-6101B	RADIATION ELEMENT	NMC	GA-2T0	CB H&V RM	800' -4"	MILD	M161/G8	E113/102	E341/F8
RIM-6101A	RADIATION INDICATOR	NMC	GA-2TMO	CB CTL RM/1C-26A	786' -0"	MILD	M161/H7	E113/35	E338/E4
RIM-6101B	RADIATION INDICATOR	NMC	GA-2TMO	CB CTL RM/1C-26B	786' -0"	MILD	M161/G7	E113/35	E338/E4
SQ-7321A		GE	565	CB CTL RM/1C-162	807' -8"	MILD	M173/F6	E113/99	E341/G3
SQ-7321B		GE	565	CB H&V RM/1C-163	800' -4"	MILD	M173/F6	E113/99	E341/G7

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-6107A	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133A	800' -4"	MILD	M161/G2	E113/82	E341/F5
SV-6107B	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133A	800' -4"	MILD	M161/G2	E113/83	E341/F5
SV-6109A	SOLENOID VALVE	ASCO	8221A1	CB H&V RM/1C-133A	800' -4"	MILD	M161/G3	E113/82	E341/G5
SV-6109B	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133B	800' -4"	MILD	M161/D3	E113/83	E341/G5
SV-6110A	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133A	800' -4"	MILD	M161/B2	E113/82	E341/F7
SV-6110B	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133B	800' -4"	MILD	M161/B2	E113/83	E341/F7
SV-6113A	SOLENOID VALVE	JOHNSON CONTROLS	V-24	CB H&V RM/1C-133A	800' -4"	MILD	M161/H6	E113/26	E341/F4
SV-6113B	SOLENOID VALVE	JOHNSON CONTROLS	V-24	CB H&V RM/1C-133B	800' -4"	MILD	M161/E6	E113/26	E341/F4
SV-6127A	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133A	800' -4"	MILD	M161/H5	E113/27	E341/F4
SV-6127B	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM/1C-133B	800' -4"	MILD	M161/E6	E113/27	E341/F4
SV-7301A	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM	807' -8"	MILD	M173/H6	E113/35	E341/G4
SV-7301B	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM	800' -4"	MILD	M173/D7	E113/35	E341/G7
SV-7318A	SOLENOID VALVE	ASCO	HT-8300B9U	CB H&V RM	807' -8"	MILD	M173/G3	E113/35	E341/G3
SV-7318B	SOLENOID VALVE	ASCO	HT-8300B9U	CB H&V RM	800' -4"	MILD	M173/D2	E113/35	E341/G7
SV-7322A	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM	807' -8"	MILD	M173/F3	E113/39	E341/G3
SV-7322B	SOLENOID VALVE	ASCO	FT8321A5	CB H&V RM	800' -4"	MILD	M173/C3	E113/39	E341/G7

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-7328A	SOLENOID VALVE	ASCO	HT831665	CB H&V RM	807' -8"	MILD	M173/F5	E113/34	E341/G3
SV-7328B	SOLENOID VALVE	ASCO	HT831665	CB H&V RM	800' -4"	MILD	M173/C5	E113/34	E341/G7
SV-7333A	SOLENOID VALVE	ASCO	8210B27	CB H&V RM	800' -4"	MILD	M173/B6	E113/144	E341/G4
SV-7333B	SOLENOID VALVE	ASCO	8210B27	CB H&V RM	800' -4"	MILD	M173/C7	E113/144	E341/F4
SV-7334A	SOLENOID VALVE	ASCO	8210B27	CB H&V RM	800' -4"	MILD	M173/C5	E113/144	E341/G4
SV-7334B	SOLENOID VALVE	ASCO	8210B27	CB H&V RM	800' -4"	MILD	M173/C7	E113/144	E341/F4
TE-7304A	TEMPERATURE ELEMENT	CHANNEL MASTER	CNOF-76D	CB H&V RM	807' -8"	MILD	M173/G6	E113/37	E341/G3
TE-7304B	TEMPERATURE ELEMENT	CHANNEL MASTER	CNOF-76D	CB H&V RM	800' -4"	MILD	M173/D6	E113/37	E341/G7
TS-6124A	TEMPERATURE SWITCH	PENN	A-19AAF-20	CB H&V RM	800' -4"	MILD	M161/A2	E113/35	E341/F7
TS-6124B	TEMPERATURE SWITCH	PENN	A-19AAF-20	CB H&V RM	800' -4"	MILD	M161/A3	E113/35	E341/F7
TS-7304A	TEMPERATURE SWITCH	CHANNEL MASTER	ARC290	CB H&V RM	807' -8"	MILD	M173/G5	E113/37	E341/G3
TS-7304B	TEMPERATURE SWITCH	CHANNEL MASTER	ARC290	CB H&V RM	800' -4"	MILD	M173/D5	E113/37	E341/G7
1T-6924A	CURRENT INDICATOR	GE	9173028	RB-N	812' -0"	MILD	M169/C3	E113/30	E322/G5
1T-6924B	CURRENT INDICATOR	GE	9173029	RB-N	812' -0"	MILD	M169/C2	E113/31	E322/F5
1V-AC-30A	FAN MOTOR	H.K. PORTER	F1R-(P270)-23	CB H&V RM	800' -4"	MILD	M161/G6	E113/26	M5/E2
1V-AC-30B	FAN MOTOR	H.K. PORTER	F1R-(P270)-23	CB H&V RM	800' -4"	MILD	M161/D6	E113/26	M5/E2

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SYSTEM: CONTROL BUILDING H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1V-AC-32	FAN MOTOR	H.K. PORTER	C1H-447APR	CB H&V RM	800' -4"	MILD	M161/G7	E 113/19	M5/D3
1V-CP-30A	PUMP MOTOR	GOULD PUMPS, INC.	3196MT	RB-N	812' -0"	MILD	M169/D3	E 113/30	M4/F5
1V-CP-30B	PUMP MOTOR	GOULD PUMPS, INC.	3196MT	RB-N	812' -0"	MILD	M169/D2	E 113/31	M4/F5
1V-EF-30A	FAN MOTOR	GE	K32EG273	CB H&V RM	800' -4"	MILD	M161/E1	E 113/40	M5/E3
1V-EF-30B	FAN MOTOR	GE	K32EG273	CB H&V RM	800' -4"	MILD	M161/F1	E 113/40	M5/E3
1V-EF-30C	FAN MOTOR	GE	K32EG273	CB H&V RM	800' -4"	MILD	M161/F1	E 113/40	M5/D3
1V-EF-33	FAN MOTOR	LOUIS-ALLIS COMPA	COG4B TYPE 19236S-3	CB H&V RM	800' -4"	MILD	M161/E7	E 113/20	M5/E3
1V-RF-30A	FAN MOTOR	H.K. PORTER	N1R	CB H&V RM	800' -4"	MILD	M161/H5	E 113/27	M5/D2
1V-RF-30B	FAN MOTOR	H.K. PORTER	N1R	CB H&V RM	800' -4"	MILD	M161/E5	E 113/27	M5/D2
1V-SF-30A	FAN MOTOR	ALLIS-CHALMERS	COC64B	CB H&V RM	800' -4"	MILD	M173/G2	E 113/35	M5/E5
1V-SF-30B	FAN MOTOR	ALLIS-CHALMERS	COC64B	CB H&V RM	800' -4"	MILD	M173/D2	E 113/35	M5/E3

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SYSTEM: CONTROL ROD DRIVE SYSTEM

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-1804A	HAND SWITCH	GE	CR2940	CB CTL RM	786' -0"	MILD	M117/A5	E122/12	E338/D5
HS-1804B	HAND SWITCH	GE	CR2940	CB CTL RM	786' -0"	MILD	M117/A5	E122/13	E338/D5
LS-1861A	LEVEL SWITCH	MAGNETROL	SL5.0-751	RB-S	757' -6"	MILD	M118/F5	E66	E319/E5
LS-1861B	LEVEL SWITCH	MAGNETROL	SL5.0-751	RB-S	757' -6"	MILD	M118/F4	E66	E319/E5
LS-1861C	LEVEL SWITCH	MAGNETROL	SL5.0-751	RB-N	757' -6"	MILD	M118/F3	E66	E318/E5
LS-1861D	LEVEL SWITCH	MAGNETROL	SL5.0-751	RB-N	757' -6"	MILD	M118/F3	E66	E318/E5
SV-1804A	SOLENOID VALVE	ASCO	8320A6	RB-S	757' -6"	MILD	M117/A5	E122/12	M405/D6
SV-1804B	SOLENOID VALVE	ASCO	8320A6	RB-S	757' -6"	MILD	M117/A5	E122/13	M405/D6
SV-1840A	SOLENOID VALVE	ASCO	8320A6	RB-N	757' -6"	MILD	M117/G6	E66	E319/E3
SV-1840B	SOLENOID VALVE	ASCO	8320A6	RB-N	757' -6"	MILD	M117/G6	E66	E319/E3
SV-1855	SOLENOID VALVE	ASCO	HVA-90-405	RB-N	757' -6"	MILD	M118/E6	E66	M2/F6
SV-1856	SOLENOID VALVE	ASCO	HVA-90-405	RB-N	757' -6"	MILD	M118/E6	E66	M2/F6
SV-1868	SOLENOID VALVE	ASCO	8323-22	RB-S	757' -6"	MILD	M118/D4	E66	E319/E4
SV-1869	SOLENOID VALVE	ASCO	8323-22	RB-S	757' -6"	MILD	M118/D4	E66	E319/E4

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SYSTEM: CORE SPRAY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
FIS-2111	FLOW INDICATING SWITCH	ITT BARTON	289	SE CRNR RM/1C-123	716' -9"	HARSH	M121/F5	E121/6	E317/E3
FIS-2131	FLOW INDICATING SWITCH	ITT BARTON	289	NW CRNR RM/1C-124	716' -9"	HARSH	M121/G5	E121/6	E316/E7
HS-2100	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/B5	E121/4	E338/D5
HS-2103	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/C3	E121/3	E338/D5
HS-2104	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/D3	E121/6	E338/D5
HS-2112	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/F5	E121/7	E338/D5
HS-2115	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/G5	E121/8	E338/D5
HS-2117	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/G6	E121/5	E338/D5
HS-2120	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M121/B5	E121/4	E338/D5
HS-2123	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/C4	E121/3	E338/D5
HS-2124	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/D4	E121/6	E338/D5
HS-2132	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/E5	E121/7	E338/D5
HS-2135	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/E5	E121/8	E338/D5
HS-2137	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M121/E6	E121/5	E338/D5
HS-2146	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M121/C5	E121/4	E338/D5
HS-2147	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M121/B5	E121/4	E338/D5

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SYSTEM: CORE SPRAY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-2100	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	SE CRNR RM	716' -9"	HARSH	M121/B5	E121/4	E317/D3
MO-2104	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM SOUTH	716' -9"	HARSH	M121/D4	E121/6	E317/E5
MO-2112	MOTOR OPERATOR	LIMITORQUE	SMB-1, AC-CLA	TORUS ROOM SOUTH	716' -9"	HARSH	M121/F5	E121/7	E317/D5
MO-2115	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-O, AC-CLA	RB-S	786' -0"	HARSH	M121/G5	E121/8	E321/D5
MO-2117	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLA	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M121/G6	E121/5	E321/E5
MO-2120	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	NW CRNR RM	716' -9"	HARSH	M121/B5	E121/4	E316/D8
MO-2124	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM NORTH	716' -9"	HARSH	M121/D4	E121/6	E316/F6
MO-2132	MOTOR OPERATOR	LIMITORQUE	SMB-1, AC-CLA	TORUS ROOM NORTH	716' -9"	HARSH	M121/E5	E121/7	E316/F5
MO-2135	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-O, AC-CLA	RB-N	786' -0"	HARSH	M121/E5	E121/8	E320/F5
MO-2137	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLA	RB-N	786' -0"	HARSH	M121/E6	E121/8	E320/E5
MO-2146	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	TORUS ROOM NORTH	716' -9"	HARSH	M121/C5	E121/4	E316/C7
MO-2147	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	TORUS ROOM SOUTH	716' -9"	HARSH	M121/B5	E121/4	E317/D5
1P-211A	PUMP MOTOR	GE	5K6336XC229A	SE CRNR RM	716' -9"	HARSH	M121/C3	E121/3	E317/D2
1P-211B	PUMP MOTOR	GE	5K6336XC229A	NW CRNR RM	716' -9"	HARSH	M121/C4	E121/3	E316/F8

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SYSTEM: DC POWER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1D1	MOTOR CONTROL CENTER	GOULD	FPS-13	125V BATTERY ROOM	757' -6"	MILD	N/A	E27	M2/G5
1D10	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE CD	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G5
1D11	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE CD	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G5
1D12	BATTERY CHARGER	POWER CON-VERSION	3M-130-75	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G5
1D120	BATTERY CHARGER	POWER CON-VERSION	3M-130-75	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/F5
1D13	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE CD	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G5
1D14	DC MOTOR CONTROL CENTER	ITE	85-71170	RB-S	786' -0"	MILD	N/A	E27	E321/D5
1D2	MOTOR CONTROL CENTER	GOULD	FPS-13	125V BATTERY ROOM	757' -6"	MILD	N/A	E27	M2/G6
1D20	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE CD	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G6
1D21	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE NH	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G6
1D22	BATTERY CHARGER	POWER CON-VERSION	3M-130-75	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/F6
1D23	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE NH	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E27	M2/G6
1D4	MOTOR CONTROL CENTER	GOULD	FPS-A	250V BATTERY ROOM	757' -6"	MILD	N/A	E28	M2/G5
1D40	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE CD	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G6
1D41	DC MOTOR CONTROL CENTER	ITE	SERIES 9600	RB-S	757' -6"	MILD	N/A	E28	M2/C6
1D42	DC MOTOR CONTROL CENTER	ITE	85-71170	RB-N	757' -6"	MILD	N/A	E28	M2/F5

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SYSTEM: DC POWER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1D43	BATTERY CHARGER	POWER CON-VERSION	3M-260-75	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G5
1D44	BATTERY CHARGER	POWER CON-VERSION	3M-280-75	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G6
1D5	MOTOR CONTROL CENTER	GOULD	DPR11	24V BATTERY ROOM	757' -6"	MILD	N/A	E28	M2/G5
1D50	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE NA	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G5
1D51	BATTERY CHARGER	POWER CON-VERSION	S-24-25	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G5
1D52	BATTERY CHARGER	POWER CON-VERSION	S-24-25	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G5
1D6	MOTOR CONTROL CENTER	GOULD	FPS-13	24V BATTERY ROOM	757' -6"	MILD	N/A	E28	M2/G6
1D60	MOTOR CONTROL CENTER	DELTA SWITCHBOARD	33431 TYPE NA	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G6
1D61	BATTERY CHARGER	POWER CON-VERSION	S-24-25	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G6
1D62	BATTERY CHARGER	POWER CON-VERSION	S-24-25	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E28	M2/G6

DUANE ARNOLD EODS SECONDARY REPORT
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SYSTEM: EMERGENCY SERVICE WATER

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2039A	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M113/H4	E111/5	E338/E4
HS-2039B	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M113/H2	E111/5	E338/E4
HS-2077	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M113/H3	E111/24	E338/E4
HS-2078	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M113/H1	E111/24	E338/E4
HS-2080	HAND SWITCH	GE	SBM	CB CTL RM/1C-91	786' -0"	MILD	M113/H5	E111/8	E338/B5
HS-2081	HAND SWITCH	GE	SBM	CB CTL RM/1C-92	786' -0"	MILD	M113/G5	E111/8	E338/B5
HS-4927A	HAND SWITCH	GE	CR2940	ESS SWITCHGEAR ROOM	757' -6"	MILD	M146/B7	E111/8	E335/E4
HS-4927B	HAND SWITCH	GE	CR2940	ESS SWITCHGEAR ROOM	757' -6"	MILD	M146/B6	E111/8	E335/E6
HS-4928A	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M146/B7	E111/8	E338/E4
HS-4928B	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M146/B6	E111/8	E338/E4
MO-2039A	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	RB-N	812' -0"	MILD	M113/H4	E111/5	E322/G3
MO-2039B	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	RB-N	812' -0"	MILD	M113/H3	E111/5	E322/G4
MO-2077	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	RB-N	812' -0"	MILD	M113/H3	E111/24	E322/G4
MO-2078	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	RB-N	812' -0"	MILD	M113/H1	E111/24	E322/G4
SV-1956A	SOLENOID VALVE	ASCO	8300A203U	RB-N	812' -0"	MILD	M113/H3	E111/8	E322/G4
SV-1956B	SOLENOID VALVE	ASCO	8300A203U	RB-N	812' -0"	MILD	M113/H2	E111/8	E322/G4

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: EMERGENCY SERVICE WATER

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-2080	SOLENOID VALVE	ASCO	FT8321A5	DG ROOM	757' -6"	MILD	M113/G5	E111/8	E310/C2
SV-2081	SOLENOID VALVE	ASCO	FT8321A5	DG ROOM	757' -6"	MILD	M113/G5	E111/8	E310/C4
1P-99A	PUMP MOTOR	LAYNE & BOWLER	D30839	PUMPHOUSE	757' -6"	MILD	M146/A7	E111/8	M15/G7
1P-99B	PUMP MOTOR	LAYNE & BOWLER	D30839	PUMPHOUSE	757' -6"	MILD	M146/A6	E111/8	M15/G7

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: ENGINEERED SAFEGUARD ROOMS H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-7108A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-23A	786' -0"	MILD	M171/E4	E113/42	E338/E4
HS-7108B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-23B	786' -0"	MILD	M171/E3	E113/42	E338/E4
HS-7116	HAND SWITCH	GE	CR2940-UB202D	CB CTL RM/1C-23B	786' -0"	MILD	M171/B5	E113/147	E338/E4
HS-7119	HAND SWITCH	GE	CR2940-UB202D	CB CTL RM/1C-23A	786' -0"	MILD	M171/B5	E113/147	E338/E4
1V-AC-11	FAN MOTOR	WESTINGHOUSE	TEFC	NW CRNR RM	747' -6"	HARSH	M171/A6	E113/147	M646/E7
1V-AC-12	FAN MOTOR	WESTINGHOUSE	TEFC	SE CRNR RM	747' -0"	HARSH	M171/A6	E113/147	M660/E3
1V-AC-14A	FAN MOTOR	WESTINGHOUSE	TEFC	HPCI ROOM	747' -0"	MILD	M171/G4	E113/42	M660/C3
1V-AC-14B	FAN MOTOR	WESTINGHOUSE	TEFC	HPCI ROOM	747' -0"	MILD	M171/F4	E113/42	M660/C3

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SYSTEM: ESW PUMP ROOM H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-7538A	HAND SWITCH	GE	CR2940-UB2037	PUMPHOUSE/1C-160	761' -0"	MILD	M175/E7	E113/79	E347/G7
HS-7538B	HAND SWITCH	GE	CR2940-UB2037	PUMPHOUSE/1C-161	761' -0"	MILD	M175/E8	E113/79	E347/G7
SV-7536	SOLENOID VALVE	JOHNSON CONTROLS	V-24	PUMPHOUSE	761' -0"	MILD	M175/H7	E113/79	E347/G7
SV-7537	SOLENOID VALVE	JOHNSON CONTROLS	V-24	PUMPHOUSE	761' -0"	MILD	M175/G8	E113/79	E347/G7
SV-7538A	SOLENOID VALVE	JOHNSON CONTROLS	V-24	PUMPHOUSE	761' -0"	MILD	M175/E7	E113/79	E347/G7
SV-7538B	SOLENOID VALVE	JOHNSON CONTROLS	V-24	PUMPHOUSE	761' -0"	MILD	M175/E8	E113/79	E347/G7
SV-7539A	SOLENOID VALVE	JOHNSON CONTROLS	V-24	PUMPHOUSE	761' -0"	MILD	M175/F7	E113/79	E347/G7
SV-7539B	SOLENOID VALVE	JOHNSON CONTROLS	V-24	PUMPHOUSE	761' -0"	MILD	M175/F8	E113/79	E347/G7
TIC-7538A	SEE ATTACHED	PENN	T2J-1	PUMPHOUSE	761' -0"	MILD	M175/E7	E113/79	M679/E7
TIC-7538B	SEE ATTACHED	PENN	T2J-1	PUMPHOUSE	761' -0"	MILD	M175/E8	E113/79	M679/E7
TS-7538C	SEE ATTACHED	PENN	T2J-1	PUMPHOUSE/1C-160	761' -0"	MILD	M175/E7	E113/79	E347/G7
TS-7538D	SEE ATTACHED	PENN	T2J-1	PUMPHOUSE/1C-161	761' -0"	MILD	M175/E8	E113/79	E347/G7
TS-7540A	TEMPERATURE SWITCH	PENN	A-19ABB-6	PUMPHOUSE/1C-160	761' -0"	MILD	M175/E7	E113/79	E347/G7
TS-7540B	TEMPERATURE SWITCH	PENN	A-19ABB-6	PUMPHOUSE/1C-161	761' -0"	MILD	M175/E8	E113/79	E347/G7
1V-SF-56A	FAN MOTOR	JOY	SF-29448, SER	PUMPHOUSE	761' -0"	MILD	M175/G7	E113/79	M679/G7
1V-SF-56B	FAN MOTOR	JOY	SF-29448, SER	PUMPHOUSE	761' -0"	MILD	M175/G8	E113/79	M679/G7

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SYSTEM: HIGH PRESSURE COOLANT INJECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
E/S-2257	POWER SUPPLY	GE	570062BAA1	CB CTL RM/1C-03	786' -0"	MILD	M122/A6	E121/25	E338/D5
E/S-2309	POWER SUPPLY	GE	54C	CB CTL RM/1C-18	786' -0"	MILD	M123/C5	E121/25	E338/C5
FIC-2309	FLOW INDICATING CONTROL	GE	45001	CB CTL RM/1C-03	786' -0"	MILD	M123/C5	E121/25	E338/D5
FS-2310	FLOW INDICATING SWITCH	ITT BARTON	289	HPCI ROOM/1C-120	716' -9"	MILD	M123/C5	E121/24	E317/B4
FT-2309	FLOW TRANSMITTER	G.E.	555-111BCAA3P	HPCI ROOM/1C-120	716' -9"	MILD	M123/C6	E121/25	E338/E4
FY-2309		GE	565	CB CTL RM/1C-03	786' -0"	MILD	M123/C5	E121/25	E338/D5
HS-2202	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/F3	E121/16	E338/D5
HS-2206	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/E2	E121/25	E338/D5
HS-2211	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/D2	E121/25	E338/D5
HS-2212	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/D2	E121/25	E338/D5
HS-2219	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/D4	E121/26	E338/D5
HS-2221	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/B2	E121/11	E338/D5
HS-2222	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/B2	E121/12	E328/D5
HS-2234	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/B5	E121/25	E338/D5
HS-2235	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/B6	E121/25	E338/D5
HS-2238	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/H6	E121/14	E338/D5

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: HIGH PRESSURE CODLANT INJECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2239	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/H5	E 121/15	E338/D5
HS-2247	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/D5	E 121/16	E338/D5
HS-2253	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/B7	E 121/25	E338/D5
HS-2256	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/H4	E 121/13	E338/D5
HS-2257	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/B6	E 121/25	E338/D5
HS-2258	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M122/A7	E 121/25	E338/D5
HS-2259	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/B5	E 121/25	E338/D5
HS-2273	HAND SWITCH	BOURNS		CB CTL RM/1C-03	786' -0"	MILD	M122/A6	E 121/25	E338/D5
HS-2299	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M122/A5	E 121/25	E338/D5
HS-2300	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/F3	E 121/17	E338/D5
HS-2311	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/D6	E 121/16	E338/D5
HS-2312	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/D6	E 121/18	E338/D5
HS-2315	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/E6	E 121/19	E338/D5
HS-2316	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/E6	E 121/20	E338/D5
HS-2318	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/C5	E 121/21	E338/D5
HS-2321	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/A7	E 121/23	E338/D5

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SYSTEM: HIGH PRESSURE COOLANT INJECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2322	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M123/F4	E121/22	E338/D5
LS-2206	LEVEL SWITCH	ROBERT SHAW	82938-G-1	HPCI ROOM	716' -9"	MILD	M122/E2	E121/25	E317/C3
LS-2219	LEVEL SWITCH	ROBERT SHAW	82938-G-1	HPCI ROOM	716' -9"	MILD	M122/D4	E121/25	E317/B3
LS-2222A	LEVEL SWITCH	ROBERT SHAW	83841-A2	HPCI ROOM	716' -9"	MILD	M122/C3	E121/24	E317/C3
LS-2222B	LEVEL SWITCH	ROBERT SHAW	83841-A2	HPCI ROOM	716' -9"	MILD	M122/C3	E121/25	E317/C3
LS-2319	LEVEL SWITCH	ROBERT SHAW	83841-A2	TORUS ROOM NORTH	716' -9"	MILD	M123/A8	E121/24	E316/D8
LS-2320	LEVEL SWITCH	ROBERT SHAW	83841-A2	TORUS ROOM NORTH	716' -9"	MILD	M123/A8	E121/24	E316/D8
LS-5218	LEVEL SWITCH	B/W CONTROL-LERS	E-IF/SO-201	OUTSIDE TB/1C-215	757' -6"	MILD	M109/E4	E108/18	E354/GH
LS-5219	LEVEL SWITCH	B/W CONTROL-LERS	E-IF/SO-201	OUTSIDE TB/1C-215	757' -6"	MILD	M109/E5	E108/18	E354/GH
MO-2202	MOTOR OPERATOR	LIMITORQUE	SMB-2, AC-CLA	HPCI ROOM	716' -9"	MILD	M122/F3	E121/16	E317/C3
MO-2238	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLAS	DRYWELL	775' -11"	HARSH	M122/G6	E121/14	E330/B5
MO-2239	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-3, DC-CLA	STEAM TUNNEL	757' -6"	HARSH	M122/G5	E121/15	E328/D4
MO-2247	MOTOR OPERATED VALVE	LIMITORQUE	SMB-000, DC-C	HPCI ROOM	716' -9"	MILD	M122/D5	E121/16	E317/C3
MO-2290A	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM SOUTH	716' -9"	HARSH	M122/B8	E121/23A	E317/D5
MO-2290B	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM SOUTH	716' -9"	HARSH	M122/B8	E121/23A	E317/D5
MO-2300	MOTOR OPERATOR	LIMITORQUE	SMB-00, DC-CLA	HPCI ROOM	716' -9"	MILD	M123/F4	E121/17	E317/C4

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SYSTEM: HIGH PRESSURE COOLANT INJECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-2311	MOTOR OPERATOR	LIMITORQUE	SMB-3, DC-CLA	HPCI ROOM	716' -9"	MILD	M123/D6	E121/16	E317/C4
MO-2312	MOTOR OPERATOR	LIMITORQUE	SMB-3, DC-CLA	STEAM TUNNEL	757' -6"	HARSH	M123/D6	E121/18	E328/D3
MO-2315	MOTOR OPERATOR	LIMITORQUE	SMB-3, DC-CLA	HPCI ROOM	731' -9"	MILD	M123/E6	E121/19	E317/C4
MO-2316	MOTOR OPERATED VALVE	LIMITORQUE	SMB-O, DC-CLA	HPCI ROOM	716' -9"	MILD	M123/E6	E121/20	E317/C4
MO-2318	MOTOR OPERATED VALVE	LIMITORQUE	SMB-O, DC-CLA	HPCI ROOM	716' -9"	MILD	M123/C5	E121/21	E317/C4
MO-2321	MOTOR OPERATOR	LIMITORQUE	SMB-OO,DC-CLA	TORUS ROOM SOUTH	716' -9"	HARSH	M123/A7	E121/23	E317/D4
MO-2322	MOTOR OPERATOR	LIMITORQUE	SMB-OO,DC-CLA	HPCI ROOM	716' -9"	MILD	M123/F4	E121/22	E317/C4
PS-2215A	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM/1C-120	716' -9"	MILD	M122/D6	E121/24	E317/B4
PS-2215B	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM/1C-120	716' -9"	MILD	M122/D6	E121/24	E317/B4
PS-2215C	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM/1C-120	716' -9"	MILD	M122/D6	E121/24	E317/B4
PS-2215D	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM/1C-120	716' -9"	MILD	M122/D6	E121/24	E317/B4
PS-2233A	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	HPCI ROOM/1C-120	716' -9"	MILD	M122/D4	E121/24	E317/B4
PS-2233B	PRESSURE SWITCH	STATIC-O-RING	5N-AA3	HPCI ROOM/1C-120	716' -9"	MILD	M122/D4	E121/24	E317/B4
PS-2288	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM	716' -9"	MILD	M122/H3	E121/13	E317/C3
PS-2304A	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM/1C-120	716' -9"	MILD	M123/F3	E121/24	E317/B4
PS-2304B	PRESSURE SWITCH	STATIC-O-RING	6N-AA2	HPCI ROOM/1C-120	716' -9"	MILD	M123/E3	E121/25	E317/B4

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SYSTEM: HIGH PRESSURE COOLANT INJECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-2324	PRESSURE SWITCH	BARKSDALE	B2T M12SS	HPCI ROOM/1C-120	716' -9"	MILD	M123/C4	E121/21	E317/B4
SV-2206	SOLENOID VALVE	ASCO	206-832-3RU	HPCI ROOM	716' -9"	MILD	M122/E2	E121/26	E317/C3
SV-2211	SOLENOID VALVE	ASCO	206-832-3RU	HPCI ROOM	716' -9"	MILD	M122/D2	E121/26	E317/C3
SV-2212	SOLENOID VALVE	ASCO	206-832-3RU	HPCI ROOM	716' -9"	MILD	M122/D2	E121/26	E317/C3
SV-2219	SOLENOID VALVE	TARGET ROCK	72V-001	HPCI ROOM	716' -9"	MILD	M122/C4	E121/26	E317/C3
SV-2234	SOLENOID VALVE	ASCO	206-832-3RU	HPCI ROOM	716' -9"	MILD	M122/C5	E121/26	E317/A3
SV-2235	SOLENOID VALVE	ASCO	206-832-3RU	HPCI ROOM	716' -9"	MILD	M122/C5	E121/26	E317/A3
SV-2259	SOLENOID VALVE	SKINNER	L2DB5150	HPCI ROOM	716' -9"	MILD	M122/B5	E121/25	E317/C3
ZS-2201	POSITION SWITCH	NAMCO	D1200G-2	HPCI ROOM	716' -9"	MILD	M122/E3	E121/26	E317/C3
1P-218	HPCI TURBINE AUX OIL PUMP MOTO	GE	1T-1D	HPCI ROOM	716' -9"	MILD	M122/G4	E121/13	E317/C2
1P-219	HPCI TURB CONDENSATE PUMP MOTO	GE	L182AY	HPCI ROOM	716' -9"	MILD	M122/B3	E121/12	E317/C3
1P-233	PUMP MOTOR	GE	5CD14D13 A900	HPCI ROOM	716' -9"	MILD	M123/B3	E121/11	E317/C3
1S-201	TURBINE	TERRY TURBINE	G.E. ORDER NO 205AA872 T*	HPCI ROOM	716' -9"	MILD	M122/E3	E121/25	E317/C3

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SYSTEM: INTAKE STRUCTURE H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-7714A	HAND SWITCH	GE	CR2940-UB202D	INTAKE STR/1C-156	767' -0"	MILD	M177/F6	E113/63	E348/C7
HS-7714B	HAND SWITCH	GE	CR2940-UB202D	INTAKE STR/1C-157	767' -0"	MILD	M177/F6	E113/63	E348/B7
TS-7701	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	761' -0"	MILD	M177/H8	E128/3	M667/F6
TS-7702	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	761' -0"	MILD	M177/H8	E128/7	M667/G6
TS-7703	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	761' -0"	MILD	M177/H8	E128/3	M667/F7
TS-7704	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	761' -0"	MILD	M177/H8	E128/7	M667/G7
TS-7705	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	767' -0"	MILD	M177/H8	E128/3	M667/F2
TS-7706	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	767' -0"	MILD	M177/H8	E128/7	M667/G2
TS-7707	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	767' -0"	MILD	M177/H8	E128/3	M667/F4
TS-7708	TEMPERATURE SWITCH	CHROMALOX	972D	INTAKE STR	767' -0"	MILD	M177/H8	E128/7	M667/G4
1V-SF-50	FAN MOTOR	JOY	SF-302060, SE	INTAKE STR	767' -0"	MILD	M177/G6	E113/63	M17/E7
1V-SF-51	FAN MOTOR	JOY	SF-302061, SE	INTAKE STR	767' -0"	MILD	M177/G6	E113/63	M17/D7
1V-UH-52A	HEATER	CHROMALOX	LUH12-18	INTAKE STR	761' -0"	MILD	M117/H8	E128/3	M667/F6
1V-UH-52B	HEATER	CHROMALOX	LUH12-18	INTAKE STR	761' -0"	MILD	M117/H8	E128/7	M667/G6
1V-UH-52C	HEATER	CHROMALOX	LUH12-18	INTAKE STR	761' -0"	MILD	M117/H8	E128/3	M667/F7
1V-UH-52D	HEATER	CHROMALOX	LUH12-18	INTAKE STR	761' -0"	MILD	M117/H8	E128/7	M667/G7

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SYSTEM: INTAKE STRUCTURE H & V

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1V-UH-52E	HEATER	CHROMALOX	LUH12-18	INTAKE STR	767' -0"	MILD	M177/H8	E128/3	M667/F2
1V-UH-52F	HEATER	CHROMALOX	LUH12-18	INTAKE STR	767' -0"	MILD	M177/H8	E128/7	M667/G2
1V-UH-52G	HEATER	CHROMALOX	LUH12-18	INTAKE STR	767' -0"	MILD	M177/H8	E128/3	M667/F4
1V-UH-52H	HEATER	CHROMALOX	LUH12-18	INTAKE STR	767' -0"	MILD	M177/H8	E128/7	M667/G4

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SYSTEM: LEAK DETECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
E/S-2725	POWER SUPPLY	GE	145C3016-PO01	CB CTL RM/1C-19	786' -0"	MILD	M127/D5	E120/14	E338/D5
E/S-2748	POWER SUPPLY	GE	145C3016-PO01	CB CTL RM/1C-19	786' -0"	MILD	M127/G6	E120/14	E338/D5
FS-2749A	FLOW SWITCH	GE	560	CB CTL RM/1C-19	786' -0"	MILD	M127/G6	E120/14	E338/D5
FS-2749B	FLOW SWITCH	GE	560	CB CTL RM/1C-19	786' -0"	MILD	M127/G6	E120/14	E338/D5
FT-2725	FLOW TRANSMITTER	G.E.	555-111BCAA3P	RB-N	812' -0"	MILD	M127/D5	E120/4	E322/D7
FY-2725		GE	565	CB CTL RM/1C-19	786' -0"	MILD	M127/D5	E120/14	E338/D5
FY-2747		GE	565	CB CTL RM/1C-19	786' -0"	MILD	M127/G5	E120/14	E338/D5
FY-2748		GE	565	CB CTL RM/1C-19	786' -0"	MILD	M127/G5	E120/14	E338/D5
FY-2749		GE	565	CB CTL RM/1C-19	786' -0"	MILD	M127/G5	E120/14	E338/D5
HS-2267A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-21	786' -0"	MILD	M122/A3	E124/7	E338/C4
HS-2267B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-21	786' -0"	MILD	M122/A3	E124/7	E338/C4
HS-2449A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-21	786' -0"	MILD	M124/B7	E124/6	E338/C4
HS-2449B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-21	786' -0"	MILD	M124/A7	E124/6	E338/C4
KS-2524A		EAGLE SIGNAL	HP57A607	CB CTL RM/1C-21	786' -0"	MILD	M125/B3	E124/6	E338/C4
KS-2524B		EAGLE SIGNAL	HP57A607	CB CTL RM/1C-21	786' -0"	MILD	M125/A3	E124/6	E338/C4
KS-2525A		EAGLE SIGNAL	HP57A607	CB CTL RM/1C-21	786' -0"	MILD	M125/B3	E124/6	E338/C4

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SYSTEM: LEAK DETECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
KS-2525B		EAGLE SIGNAL	HP57A607	CB CTL RM/1C-21	786' -0"	MILD	M125/A3	E124/6	E338/C4
PDIS-2244	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-122	757' -6"	MILD	M122/F5	E121/24	E319/E5
PDIS-2245	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M122/F6	E121/24	E319/E4
PDIS-2441	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-121	757' -6"	MILD	M124/F5	E121/37	E318/F4
PDIS-2442	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	NE CRNR RM/1C-57	716' -9"	MILD	M124/F5	E121/37	E316/E2
PDIS-4432A	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-126A	757' -6"	MILD	M114/E2	E122/9	E318/D3
PDIS-4432B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-126A	757' -6"	MILD	M114/E2	E122/9	E318/D3
PDIS-4432C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/E2	E122/9	E319/E4
PDIS-4432D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/E2	E122/9	E319/E4
PDIS-4434A	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-122	757' -6"	MILD	M114/C8	E122/9	E319/E5
PDIS-4434B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-122	757' -6"	MILD	M114/C8	E122/9	E319/E5
PDIS-4434C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/C8	E122/9	E319/E4
PDIS-4434D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/C7	E122/9	E319/E4
PDIS-4436A	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-126A	757' -6"	MILD	M114/C2	E122/9	E318/D3
PDIS-4436B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-126A	757' -6"	MILD	M114/C2	E122/9	E318/D3
PDIS-4436C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/C2	E122/9	E319/E4

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SYSTEM: LEAK DETECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PDIS-4436D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/C2	E122/9	E319/E4
PDIS-4438A	DIFFERENTIAL PRESSURE INOICATI	ITT BARTON	288	RB-N/1C-126A	757' -6"	MILD	M114/E7	E122/9	E318/D3
PDIS-4438B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-126A	757' -6"	MILD	M114/E8	E122/9	E318/D3
PDIS-4438C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/E8	E122/9	E319/E4
PDIS-4438D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-126B	757' -6"	MILD	M114/E8	E122/9	E319/E4
PS-1014	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/F7	E122/9	E304/B6
PS-1015	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/F7	E122/9	E304/B7
PS-1016	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/F6	E122/9	E304/B7
PS-1017	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/F7	E122/9	E304/B7
PS-2246A	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-S/1C-126B	757' -6"	MILD	M122/F5	E121/24	E319/E4
PS-2246B	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-S/1C-122	757' -6"	MILD	M122/F5	E121/24	E319/E5
PS-2246C	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-S/1C-126B	757' -6"	MILD	M122/E5	E121/24	E319/E4
PS-2246D	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-S/1C-122	757' -6"	MILD	M122/E5	E121/24	E319/E5
PS-2443A	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-121	757' -6"	MILD	M124/F5	E121/37	F318/F4
PS-2443B	PRESSURE SWITCH	BARKSDALE	B2T M12SS	NE CRNR RM/1C-57	716' -9"	MILD	M124/F5	E121/37	E316/E2
PS-2443C	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-121	757' -6"	MILD	M124/F5	E121/37	E318/F4

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SYSTEM: LEAK DETECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-2443D	PRESSURE SWITCH	BARKSDALE	B2T M12SS	NE CRNR RM/1C-57	735' -7"	MILO	M124/F5	E121/37	E316/E2
TDS-2085A	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M120/G7	E124/7	E338/C4
TDS-2085A	TEMPERATURE DIFFERENTIAL SWITC			CB CTL RM/1C-21	786' -0"	MILD	M120/G7		E337/C4
TDS-2085B	TEMPERATURE DIFFERENTIAL SWITC			CB CTL RM/1C-21	786' -0"	MILD	M120/G7		E337/C4
TDS-2260A		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M122/A4	E124/6	E338/C4
TDS-2260B		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M122/A4	E124/6	E338/C4
TDS-2445A	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M124/B8	E124/6	E338/C4
TDS-2445B	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M124/A8	E124/6	E338/C4
TDS-2521A	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M125/B4	E124/6	E338/C4
TDS-2521B	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M125/B3	E124/6	E338/C4
TDS-2521C	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M125/A4	E124/6	E338/C4
TDS-2521D	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M125/A3	E124/6	E338/C4
TDS-2743A	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/7	E338/C4
TDS-2743B	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/6	E338/C4
TDS-2743C	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/6	E338/C4
TDS-2743D	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/6	E338/C4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
TDS-2743E	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/6	E338/C4
TDS-2743F	DIFF TEMPERATURE SWIT	TRANSMATION	630A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/6	E338/C4
TE-2082A	TEMPERATURE ELEMENT	NECI	N145C3023	SE CORNER ROOM	716' -9"	MILD	M120/G7	E124/7	M660/E3
TE-2082B	TEMPERATURE ELEMENT	NECI	N145C3023	NW CRNR RM	747' -0"	MILD	M120/G7	E124/7	M646/E7
TE-2083A	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	716' -9"	MILD	M120/G7	E124/7	M661/D2
TE-2083B	TEMPERATURE ELEMENT	NECI	N145C3023	RB-N	757' -6"	MILD	M120/G7	E124/7	M644/F7
TE-2084A	TEMPERATURE ELEMENT	NECI	N145C3023	SE CRNR ROOM	747' -0"	MILO	M120/G7	E124/7	M661/E3
TE-2084B	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	MILD	M120/G7	E124/7	M646/E6
TE-2262A	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	716' -9"	HARSH	M122/A4	E124/6	E317/C2
TE-2262B	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	716' -9"	HARSH	M122/A4	E124/6	E317/C2
TE-2263A	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	716' -9"	HARSH	M122/A3	E124/6	M661/D4
TE-2263B	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	716' -9"	HARSH	M122/A3	E124/6	M661/D4
TE-2264A	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	731' -9"	HARSH	M122/A3	E124/7	E317/C3
TE-2264B	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	731' -9"	HARSH	M122/A3	E124/7	E317/C3
TE-2446A	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	724' -6"	MILD	M124/B8	E124/6	E317/C6
TE-2446B	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	724' -6"	MILD	M124/B8	E124/6	E317/C6

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME OWG/SH	LAYOUT/ LOC
TE-2447A	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	716' -9"	MILD	M124/B8	E124/6	E317/D5
TE-2447B	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	716' -9"	MILD	M124/B8	E124/6	E317/D5
TE-2451A	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	716' -9"	MILD	M124/B7	E124/7	E317/C5
TE-2451B	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	716' -9"	MILD	M124/B7	E124/7	E317/C5
TE-2453	TEMPERATURE ELEMENT	NECI	N145C3023	RCIC ROOM	716' -9"	HARSH	M124/C7	E124/7	M661/B5
TE-2522A	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/B4	E124/6	M646/C3
TE-2522B	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM SOUTH	716' -9"	HARSH	M125/B3	E124/6	M660/H8
TE-2522C	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM SOUTH	716' -9"	HARSH	M125/A4	E124/6	M660/F7
TE-2522D	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM SOUTH	716' -9"	HARSH	M125/A3	E124/6	M660/D5
TE-2523A	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/B4	E124/6	E316/E3
TE-2523B	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/B3	E124/6	E316/E3
TE-2523C	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/A4	E124/6	E316/E3
TE-2523D	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/A3	E124/6	E316/E3
TE-2526A	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/B4	E124/7	M646/F4
TE-2526B	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/B2	E124/7	M646/B8
TE-2526C	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM SOUTH	716' -9"	HARSH	M125/A4	E124/7	M660/D4

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TE-2526D	TEMPERATURE ELEMENT	NECI	N145C3023	TORUS ROOM NORTH	716' -9"	HARSH	M125/A2	E124/7	M646/B2
TE-2742A	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/7	M657/E4
TE-2742B	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/7	M657/E3
TE-2742C	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/7	M657/E4
TE-2742D	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/7	M657/E6
TE-2742E	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/7	E657/F6
TE-2742F	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/7	M657/E5
TE-2743A	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/D4
TE-2743B	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E3
TE-2743C	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E4
TE-2743D	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/F6
TE-2743E	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E6
TE-2743F	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E5
TE-2744A	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/F4
TE-2744B	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/F4
TE-2744C	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU PUMP ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E4

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TE-27440	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E4
TE-2744E	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/E4
TE-2744F	TEMPERATURE ELEMENT	PYCO	02-9039-08-6	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/A8	E124/6	M657/F5
TE-4443A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/D3
TE-4443B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/D3
TE-4443C	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/D3
TE-4443D	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/D4
TE-4444A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/D2
TE-4444B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/D3
TE-4444C	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/D3
TE-4444D	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/D4
TE-4445A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/E2
TE-4445B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/E3
TE-4445C	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/E3
TE-4445D	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/E4
TE-4446A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/E2

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
TE-4446B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H2	E122/9	E328/E3
TE-4446C	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/E3
TE-4446D	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	STEAM TUNNEL	757' -6"	HARSH	M114/H1	E122/9	E328/E4
TE-4477A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/E6	E122/9	E309/D8
TE-4477B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/F8	E122/9	E308/D7
TE-4478A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/F7	E122/9	E309/D7
TE-4478B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/F8	E122/9	E308/C7
TE-4479A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/F6	E122/9	E309/E8
TE-4479B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/G8	E122/9	E308/D7
TE-4480A	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/F6	E122/9	E309/E8
TE-4480B	TEMPERATURE ELEMENT	ROSEMOUNT	104MA23ABBB	TURBINE BLDG.	757' -6"	HARSH	M103/F8	E122/9	E308/D7
TIS-4443	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	RB-S/1C-193A	757' -6"	MILD	M114/H1	E122/9	E319/F2
TIS-4444	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	RB-N/1C-193B	757' -6"	MILD	M114/H1	E122/9	M405-2
TIS-4445	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	RB-N/1C-193C	757' -6"	MILD	M114/H1	E122/9	M405-2
TIS-4446	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	RB-N/1C-193D	757' -6"	MILD	M114/H1	E122/9	M405-2
TIS-4477	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	TB/1C-194A	734' -0"	MILD	M103/F8	E122/9	M405-1

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
TIS-4478	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	TB/1C-194B	734' -0"	MILD	M103/F8	E122/9	M405-1
TIS-4479	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	TB/1C-194C	734' -0"	MILD	M103/G8	E122/9	M405-1
TIS-4480	TEMPERATURE INDICATING SWITCH	ROSEMOUNT	3000A-1-4-2-2	TB/1C-194D	734' -0"	MILD	M103/G8	E122/9	M405-1
TS-2082B				CB CTL RM/1C-21	786' -0"	MILD	M120/G8		E337/C4
TS-2261A		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M122/B3	E124/6	E338/C4
TS-2261B		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M122/B4	E124/6	E338/C4
TS-2450A		TRANSMATION	610A	CB CTL RM/1C-04	786' -0"	MILD	M124/B7	E124/7	E338/D5
TS-2450B		TRANSMATION	610A	CB CTL RM/1C-04	786' -0"	MILD	M124/A7	E124/7	E338/D5
TS-2526A		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M125/B4	E124/6	E338/C4
TS-2526B		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M125/B2	E124/7	E338/C4
TS-2526C		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M125/A4	E124/7	E338/C4
TS-2526D		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M125/A2	E124/7	E338/C4
TS-2742A		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/7	E338/C4
TS-2742B		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/7	E338/C4
TS-2742C		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/7	E338/C4
TS-2742D		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/7	E338/C4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
TS-2742E		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E127/7	E338/C4
TS-2742F		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M127/B8	E124/7	E338/C4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
FM-8408A	FLOW TRANSMITTER	S.K. INSTRUMENT	20-9651-8550	STEAM TUNNEL	757' -6"	HARSH	M184/F4	E122/37	E328/B5
FM-8408B	FLOW TRANSMITTER	S.K. INSTRUMENT	20-9651-8550	STEAM TUNNEL	757' -6"	HARSH	M184/C8	E122/37	E328/B5
FM-8408C	FLOW TRANSMITTER	S.K. INSTRUMENT	20-9651-8550	STEAM TUNNEL	757' -6"	HARSH	M184/C3	E122/37	E328/B5
FM-8408D	FLOW TRANSMITTER	S.K. INSTRUMENT	20-9651-8550	STEAM TUNNEL	757' -6"	HARSH	M184/F8	E122/37	E328/B5
HS-8401A	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/G3	E122/38	E337/D6
HS-8401B	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/C8	E122/38	E337/D6
HS-8401C	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F3	E122/38	E337/D6
HS-8401D	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F8	E122/38	E337/D6
HS-8402A	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/G3	E122/37	E337/D6
HS-8402B	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/C8	E122/37	E337/D6
HS-8402C	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F3	E122/37	E337/D6
HS-8402D	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F8	E122/37	E337/D6
HS-8403A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-14	786' -0"	MILD	M184/G4	E122/37	E337/D6
HS-8403B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-14	786' -0"	MILD	M184/C8	E122/37	E337/D6
HS-8403C	HAND SWITCH	GE	CR2940	CB CTL RM/1C-14	786' -0"	MILD	M184/F3	E122/37	E337/D6
HS-8403D	HAND SWITCH	GE	CR2940	CB CTL RM/1C-14	786' -0"	MILD	M184/F8	E122/37	E337/D6

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-8410	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F5	E122/37	E337/D6
HS-8413	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/D5	E122/37	E337/D6
HS-8417A	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/G4	E122/37	E337/D6
HS-8417B	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/C8	E122/37	E337/D6
HS-8417C	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F3	E122/37	E337/D6
HS-8417D	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/F8	E122/37	E337/D6
HS-8418	HAND SWITCH	GE	SBM	CB CTL RM/1C-14	786' -0"	MILD	M184/G5	E122/37	E337/D6
MO-8401A	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/F3	E122/38	E328/B6
MO-8401B	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/C8	E122/38	E328/B6
MO-8401C	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/C3	E122/38	E328/B6
MO-8401D	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/F8	E122/38	E328/B6
MO-8402A	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/F3	E122/38	E328/B6
MO-8402B	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/C8	E122/38	E328/A6
MO-8402C	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/C3	E122/38	E328/C6
MO-8402D	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/F8	E122/38	E328/B6
MO-8403A	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/F4	E122/38	E328/B5

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SYSTEM: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-8403B	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/C8	E122/38	E328/B4
MO-8403C	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/C3	E122/38	E328/B5
MO-8403D	MOTOR OPERATOR	LIMITORQUE	SB-000, AC-CL	STEAM TUNNEL	757' -6"	HARSH	M184/F8	E122/38	E328/B5
PS-8404A	PRESSURE SWITCH	BARKSDALE	P1H-M85SS-V	A CRD RR/1C-145	771' -10"	HARSH	M184/G3	E122/37	M2/A5
PS-8404B	PRESSURE SWITCH	BARKSDALE	P1H-M85SS-V	A CRD RR/1C-145	771' -10"	HARSH	M184/C8	E122/37	M2/A5
PS-8404C	PRESSURE SWITCH	BARKSDALE	P1H-M85SS-V	A CRD RR/1C-145	771' -10"	HARSH	M184/F3	E122/37	M2/A5
PS-8404D	PRESSURE SWITCH	BARKSDALE	P1H-M85SS-V	A CRD RR/1C-145	771' -10"	HARSH	M184/F8	E122/37	M2/A5
PS-8415A	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55A	757' -6"	MILD	M184/G2	E122/37	M2/E6
PS-8415B	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55A	757' -6"	MILD	M184/C8	E122/37	M2/E6
PS-8415C	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55A	757' -6"	MILD	M184/F3	E122/37	M2/E6
PS-8415D	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55A	757' -6"	MILD	M184/F8	E122/37	M2/E6
1K-25A	MOTOR-OPERATED BLOWER	SIEMENS	2CH6 041-1U	A CRD RR	771' -10"	HARSH	M184/C5	E122/37	M644/B6
1K-25B	MOTOR-OPERATED BLOWER	SIEMENS	2CH6 041-1U	A CRD RR	771' -10"	HARSH	M184/C5	E122/37	M644/C6
1S-122A	HEATER	GE	47C518675	STEAM TUNNEL	757' -6"	HARSH	M184/F4	E122/39	E328/D3
1S-122B	HEATER	GE	47C518675	STEAM TUNNEL	757' -6"	HARSH	M184/B8	E122/39	E328/D3
1S-122C	HEATER	GE	47C518675	STEAM TUNNEL	757' -6"	HARSH	M184/B3	E122/39	E328/E3

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1S-122D	HEATER	GE	47C518675	STEAM TUNNEL	757' -6"	HARSH	M184/E8	E122/39	E328/E3

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LIS-4531	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-56	786' -0"	MILD	M115/F6	E121/2	E320/D4
LIS-4532	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-55	757' -6"	MILD	M115/F3	E121/2	E318/E6
LIS-4533	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-56	786' -0"	MILD	M115/F7	E121/2	E320/D4
LIS-4534	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-55	757' -6"	MILD	M115/F3	E121/2	E318/E6
LIS-4535	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-56	786' -0"	MILD	M115/F7	E122/9	E320/D4
LIS-4536	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-55	786' -0"	MILD	M115/F3	E122/9	E318/E6
LIS-4537	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-56	786' -0"	MILD	M115/F7	E122/9	E320/D4
LIS-4538	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-55	757' -6"	MILD	M115/F3	E122/9	E318/E6
LIS-4561	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-56	786' -0"	MILD	M115/E6	E121/2	E320/D4
LIS-4562	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-55	757' -6"	MILD	M115/E3	E121/2	E318/E6
LITS-4565	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-S/1C-122	757' -6"	MILD	M115/E7	E121/56	E319/E5
LITS-4566	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-121	757' -6"	MILD	M115/E3	E121/56	E318/F4
PS-4310B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	RB-S/1C-122	757' -6"	MILD	M143/D6	E121/2	E319/E5
PS-4311B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	SW CRNR RM/1C-58	716' -9"	MILD	M143/D6	E121/2	E317/D7
PS-4312B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	RB-S/1C-126B	757' -6"	MILD	M143/E6	E121/2	E319/E4
PS-4313B	PRESSURE SWITCH	STATIC-O-RING	12N-AA5	RB-N/1C-121	757' -6"	MILD	M143/E6	E121/2	E318/F4

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SYSTEM: NUCLEAR BOILER/ CONTAINMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-4529	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-S/1C-122	757' -6"	MILD	M115/D7	E121/56	E319/E5
PS-4530	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-121	757' -6"	MILD	M115/E3	E121/56	E318/F4
PS-4543	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	786' -0"	MILD	M115/F6	E66	E320/D4
PS-4544	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	757' -6"	MILD	M115/F3	E66	E318/E6
PS-4545	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	786' -0"	MILD	M115/F7	E121/9	E320/D4
PS-4546	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	757' -6"	MILD	M115/F3	E66	E318/E6
PS-4547	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	786' -0"	MILD	M115/F7	E66	E320/D4
PS-4548	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	786' -0"	MILD	M115/F3	E121/10	E318/E6
PS-4549	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	786' -0"	MILD	M115/F7	E66	E320/D4
PS-4550	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	757' -6"	MILD	M115/F2	E66	E318/E6
PS-4551	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	786' -0"	MILD	M115/F7	E66	E320/D4
PS-4552	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	757' -6"	MILD	M115/F2	E66	E318/E6
PS-4555	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	786' -0"	MILO	M115/E8	E121/56	E320/D4
PS-4556	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	757' -6"	MILD	M115/E3	E121/56	E318/E6
PS-4557	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-56	757' -6"	MILD	M115/E8	E121/56	E320/D4
PS-4558	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-N/1C-55	757' -6"	MILD	M115/E2	E121/56	E318/E6

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SYSTEM: NUCLEAR BOILER/ CONTAINMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-4593A	PRESSURE SWITCH	STATIC-O-RING	9N-AA45-(X9)-	RB-N/1C-56A	786' -0"	MILD	M115/E8	E120/5	E320/D4
PS-4593B	PRESSURE SWITCH	STATIC-O-RING	9N-AA45-(X9)-	RB-N/1C56A	786' -0"	MILD	M115/E8	E120/5	E320/D4
PS-4593C	PRESSURE SWITCH	STATIC-O-RING	9N-AA45-(X9)-	RB-N/1C-55A	757' -6"	MILD	M115/E2	E120/5	M2/E6
PS-4593D	PRESSURE SWITCH	STATIC-O-RING	9N-AA45-(X9)-	RB-N/1C-55A	757' -6"	MILD	M115/E2	E120/5	M2/E6

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
CABLE-COAX- BIW	600V CABLE	BOSTON INSULATED	RG-6A/U, 59B/	VARIOUS	V'RID	HARSH	NA	NA	NA
E/S-4599A	POWER SUPPLY			CB CTL RM/1C-09	786' -0"	MILD	M115/F8	E122/19A	E338/G4
E/S-4599B	POWER SUPPLY			CB CTL RM/1C-09	786' -0"	MILD	M115/F2	E122/19A	E338/G4
HS-8772A	HAND SWITCH	GE	CR2940-UB203F	CB CTL RM/1C-29	786' -0"	MILD	M187/E1	E112/19	E338/E4
HS-8772B	HAND SWITCH	GE	CR2940-UB203F	CB CTL RM/1C-29	786' -0"	MILD	M187/E1	E112/19	E338/E4
HS-8773A	HAND SWITCH	GE	CR2940-UB203A	CB CTL RM/1C-24	786' -0"	MILD	M187/C3	E113/64	E338/D4
HS-8773B	HAND SWITCH	GE	CR2940-UB203A	CB CTL RM/1C-24	786' -0"	MILD	M187/C2	E113/64	E338/D4
INSTRUMENT CABLE	CABLE ASSEMBLY	VICTOREEN	878-1-9	VARIOUS	V'RID	HARSH	NA	NA	NA
LI-4396A	LEVEL INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/B7	E122/19A	E338/G4
LI-4396B	LEVEL INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/B5	E122/19A	E338/G4
LI-4397A	LEVEL INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/B6	E122/20	E338/G4
LI-4397B	LEVEL INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/B5	E122/20	E338/G4
LR-4396A	LEVEL RECORDER			CB CTL RM/1C-09	786' -0"	MILD	M143/B6	E122/19A	E338/G4
LR-4396B	LEVEL RECORDER			CB CTL RM/1C-09	786' -0"	MILD	M143/B5	E122/19A	E338/G4
LT-4396A	PRESSURE TRANSMITTER	ITT BARTON	763	TORUS ROOM NORTH	716' -9"	HARSH	M143/B6	E122/19A	E316/F6
LT-4396B	PRESSURE TRANSMITTER	ITT BARTON	763	TORUS ROOM NORTH	716' -9"	HARSH	M143/B4	E122/19A	E316/E3

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LT-4396C	PRESSURE TRANSMITTER	ITT BARTON	763	RB-S	757' -6"	MILD	M143/E7	E 122/19A	E319/E6
LT-4396D	PRESSURE TRANSMITTER	ITT BARTON	763	RB-S	786' -0"	MILD	M143/D4	E 122/19A	E320/C4
LT-4397A	LEVEL/PRESSURE TRANSMITTER	ITT BARTON	764	TORUS ROOM NORTH	716' -9"	HARSH	M143/B5	E 122/20	E316/F6
LT-4397B	LEVEL/PRESSURE TRANSMITTER	ITT BARTON	764	TORUS ROOM NORTH	716' -9"	HARSH	M143/B5	E 122/20	E316/E3
LY-4396A	LEVEL RELAY	BAILEY METER	752210-AAAE1	CB CTL RM	786' -0"	MILD	M143/C7	E 122/19A	E338/G4
LY-4396B	LEVEL RELAY	BAILEY METER	752210-AAAE1	CB CTL RM	786' -0"	MILD	M143/B4	E 122/19A	E338/G4
PI-4398A	PRESSURE INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/F7	E 124/3	E338/G4
PI-4398B	PRESSURE INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/D5	E 124/3	E338/G4
PI-4399A	PRESSURE INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/D7	E 124/3	E338/G4
PI-4399B	PRESSURE INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M143/D5	E 124/3	E338/G4
PI-4599A	PRESSURE INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M115/F8	E 122/20	E338/G4
PI-4599B	PRESSURE INDICATOR			CB CTL RM/1C-09	786' -0"	MILD	M115/F1	E 122/20	E338/G4
PR-4398A	PRESSURE RECORDER			CB CTL RM/1C-09	786' -0"	MILD	M143/F7	E 124/3	E338/G4
PR-4398B	PRESSURE RECORDER			CB CTL RM/1C-09	786' -0"	MILD	M143/D5	E 124/3	E338/G4
PR-4599A	PRESSURE RECORDER			CB CTL RM/1C-09	786' -0"	MILD	M115/F8	E 122/20	E338/G4
PR-4599B	PRESSURE RECORDER			CB CTL RM/1C-09	786' -0"	MILD	M115/F2	E 122/20	E338/G4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-4400A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E4	E121/2B	M331/C3
PS-4400B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E4	E121/2B	M331/C3
PS-4400C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E4	E121/2B	M331/C3
PS-4401A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E4	E121/2B	M331/C3
PS-4401B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E4	E121/2B	M331/C3
PS-4401C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E4	E121/2B	M331/C3
PS-4402A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C6	E121/2B	M331/C4
PS-4402B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C6	E121/2B	M331/C4
PS-4402C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C6	E121/2B	M331/C3
PS-4403A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C5	E121/2B	M338/C4
PS-4403B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C5	E121/2B	M338/C4
PS-4403C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C5	E121/2B	M338/C4
PS-4404A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C5	E121/2B	M338/F4
PS-4404B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C5	E121/2B	M338/F4
PS-4404C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C5	E121/2B	M338/F4
PS-4405A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C4	E121/2B	M331/F4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-4405B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C4	E121/2B	M331/F4
PS-4405C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/C4	E121/2B	M331/F4
PS-4406A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E6	E121/2C	M331/F4
PS-4406B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E6	E121/2C	M331/F4
PS-4406C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E6	E121/2C	M331/F4
PS-4407A	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E6	E121/2C	M331/F3
PS-4407B	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E6	E121/2C	M331/F3
PS-4407C	PRESSURE SWITCH	PRESSURE CONTROLS	A-17-1N	DRYWELL	775' -11"	HARSH	M114/E6	E121/2C	M331/F3
PT-4398A	LEVEL/PRESSURE TRANSMITTER	ITT BARTON	764	RB-S	757' -6"	HARSH	M143/F7	E124/3	E319/E6
PT-4398B	LEVEL/PRESSURE TRANSMITTER	ITT BARTON	764	RB-N	786' -0"	HARSH	M143/D5	E124/3	E320/C4
PT-4399A	PRESSURE TRANSMITTER	ITT BARTON	763	RB-S	757' -6"	MILD	M143/F7	E124/3	E319/E6
PT-4399B	PRESSURE TRANSMITTER	ITT BARTON	763	RB-N	786' -0"	MILD	M143/D6	E124/3	E320/C4
PT-4599A	PRESSURE TRANSMITTER	ITT BARTON	763	RB-N/1C-56	786' -0"	MILD	M115/F8	E122/20	E320/D3
PT-4599B	PRESSURE TRANSMITTER	ITT BARTON	763	RB-N/1C-55	757' -6"	MILD	M115/F2	E122/20	M2/E6
RE-4175	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRH	OFFGAS STACK	756' -6"	MILD	M141/G1	E58/1	E370/C6
RE-4176	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRN	OFFGAS STACK	756' -6"	MILD	M141/G1	E58/1	E370/C6

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
RE-5945	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRN	TB	780' -6"	MILD	M159/G3	E58/1	E313/F7
RE-5946	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRH	TB	780' -6"	MILD	M159/G3	E58/1	E313/G5
RE-7644	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRH	RB-N	855' -0"	MILD	M176/E3	E58/1	E326/G4
RE-7645	RADIATION MONITOR	KAMAN SCIENCES CO	KMPIG-HRN	RB-N	855' -0"	MILD	M176/E3	E58/1	E326/G3
RE-7646	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRH	RB-N	855' -0"	MILD	M176/E3	E58/1	E326/G4
RE-7647	RADIATION MONITOR	KAMAN SCIENCES CO	KMPIG-HRN	RB-N	855' -0"	MILD	M176/E3	E58/1	E326/G3
RE-7648	RADIATION MONITOR	KAMAN SCIENCES CO	KMG-HRH	RB-N	855' -0"	MILD	M176/E3	E58/1	E326/G4
RE-7649	RADIATION MONITOR	KAMAN SCIENCES CO	KMPIG-HRN	RB-N	855' -0"	MILD	M176/E3	E58/1	E326/F3
RE-9184A	RADIATION ELEMENT	VICTOREEN	877-1	DRYWELL	757' -6"	HARSH	M148/C5	E63	E329/E5
RE-9184B	RADIATION ELEMENT	VICTOREEN	877-1	DRYWELL	757' -6"	HARSH	M148/C4	E63	E329/C4
RE-9185A	RADIATION ELEMENT	VICTOREEN	877-1	TORUS ROOM NORTH	716' -9"	HARSH	M148/C5	E63	E316/F6
RE-9185B	RADIATION ELEMENT	VICTOREEN	877-1	TORUS ROOM SOUTH	716' -9"	HARSH	M148/C4	E63	E317/G2
RIM-9184A	RADIATION INDICATOR	VICTOREEN 8	867A	CB CTL RM/1C-09	786' -0"	MILD	M148/C5	E63	E338/G4
RIM-9184B	RADIATION INDICATOR	VICTOREEN 8	867A	CB CTL RM/1C-09	786' -0"	MILD	M148/C4	E63	E338/G4
RIM-9185A	RADIATION INDICATOR	VICTOREEN 8	867A	CB CTL RM/1C-09	786' -0"	MILD	M148/C5	E63	E338/G4
RIM-9185B	RADIATION INDICATOR	VICTOREEN 8	867A	CB CTL RM/1C-09	786' -0"	MILD	M148/C4	E63	E338/G4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
RM-4175	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	OFFGAS STACK	740' -0"	MILD	M141/G1	E58/1	E370/G3
RM-4176	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	OFFGAS STACK	740' -0"	MILD	M141/G1	E58/1	E370/G3
RM-5945	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	TB	780' -6"	MILD	M159/G3	E58/1	E313/F8
RM-5946	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	TB	780' -6"	MILD	M159/G3	E58/1	E313/F7
RM-7644	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	RB-N	833' -6"	MILD	M176/E2	E58/1	E324/B3
RM-7645	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	RB-N	833' -6"	MILD	M176/E2	E58/1	E324/B3
RM-7646	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	RB-N	833' -6"	MILD	M176/E2	E58/1	E324/B3
RM-7647	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	RB-N	833' -6"	MILD	M176/E2	E58/1	E324/B3
RM-7648	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	RB-N	833' -6"	MILD	M176/E2	E58/1	E324/B2
RM-7649	MICRO COMPUTER	KAMAN SCIENCES CO	KEM	RB-N	833' -6"	MILD	M176/E2	E58/1	E324/B2
RR-9184A	RADIATION RECORDER	WESTINGHOUSE	PAM	CB CTL RM/1C-09	786' -0"	MILD	M148/C5	E63	E338/G4
RR-9184B	RADIATION RECORDER	WESTINGHOUSE	PAM	CB CTL RM/1C-09	786' -0"	MILD	M148/C4	E63	E338/G4
SV-4300X	SOLENOID VALVE	ASCO	NP831665E	NE CRNR RM	735' -7"	HARSH	M143/D7	E122/12	E316/E2
SV-4302X	SOLENOID VALVE	ASCO	NP831665E	H&V CONTROL VALVE RM	812' -0"	HARSH	M143/D7	E122/12	E322/D4
SV-8772A	SOLENOID VALVE	TARGET ROCK	81K002	TORUS ROOM NORTH	716' -9"	HARSH	M187/E1	E112/19	E316/D8
SV-8772B	SOLENOID VALVE	TARGET ROCK	81K002	TORUS ROOM NORTH	716' -9"	HARSH	M187/E1	E112/19	E316/D8

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-8773A	SOLENOID VALVE	ASCO	NP8321A5E	NW CRNR RM	716' -9"	HARSH	M187/C3	E113/64	E316/F7
SV-8773B	SOLENOID VALVE	ASCO	NP8321A5E	NW CRNR RM	716' -9"	HARSH	M187/C2	E113/64	E316/F7
ZS-8773A	POSITION SWITCH	NAMCO	EA170-41302	NW CRNR RM	716' -9"	HARSH	M187/C3	E113/64	E316/F7
ZS-8773B	POSITION SWITCH	NAMCO	EA170-41302	NW CRNR RM	716' -9"	HARSH	M187/C2	E113/65	E316/F7
1C-218A	HYDROGEN-OXYGEN MONITOR PANEL	COMSIP	K-IV	RB-S	757' -6"	MILD	M181/E7	E122/28	M2/D6
1C-218B	HYDROGEN-OXYGEN MONITOR PANEL	COMSIP	K-IV	RB-N	757' -6"	MILD	M181/E1	E122/28	M2/F6
1C-335	MINICOMPUTER	DIGITAL EQUIPMENT CORP P	PDP11/34A	TSC	757' -6"	MILD		E58/1	E600/H5
1C-338	CRT	CONRAC 5	5211	ADMIN BLDG	786' -0"	MILD		E58/1	E903/D7
1C-339	CRT	CONRAC 5	5211	CB CTL RM	786' -0"	MILD		E58/1	E339/D6
1C-340	DISPLAY GENERATOR	AYDIN 5	5217	ADMIN BLDG	786' -0"	MILD		E58/1	E903/D7
1C-340A	LINE DRIVER	WELTRONIC 8	851-1448	ADMIN BLDG	786' -0"	MILD		E58/1	E903/D7
1C-341	DISPLAY GENERATOR	AYDIN 5	5217	CB CTL RM	786' -0"	MILD		E58/1	E339/D6
1C-341A	LINE DRIVER	WELTRONIC 8	851-1448	CB CTL RM	786' -0"	MILD		E58/1	E339/D6

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2400	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M124/H7	E121/29	E338/D5
HS-2401	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M124/H6	E121/30	E338/D5
HS-2458	HAND SWITCH	GE	CR2940	CB CTL RM/1C-04	786' -0"	MILD	M124/G7	E121/29	E338/D5
HS-2459	HAND SWITCH	GE	CR2940	CB CTL RM/1C-04	786' -0"	MILD	M124/G5	E121/30	E338/D5
HS-2481	HAND SWITCH	GE	CR2940	CB CTL RM/1C-04	786' -0"	MILD	M124/G5	E121/30	E338/D5
HS-2510	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M125/C4	E121/34	E338/D5
HS-2512	HAND SWITCH	GE	SMB	CB CTL RM/1C-04	786' -0"	MILD	M125/D5	E121/40	E338/D5
HS-2516	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M125/B5	E121/33	E338/D5
HS-2517	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M125/F4	E121/33	E338/D5
HS-2700	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M127/G8	E122/3	E338/D5
HS-2701	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M127/G7	E122/5	E338/D5
HS-2740	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M127/G3	E122/14	E338/D5
HS-3704	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M137/G7	E122/9	E338/D5
HS-3705	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M137/G7	E122/9	E338/D5
HS-3728	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M137/D7	E122/9	E338/D5
HS-3729	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M137/D6	E122/9	E338/D5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-4371A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-35	786' -0"	MILD	M143/E5	E122/24	E338/D6
HS-4371B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-35	786' -0"	MILD	M143/F5	E122/24	E338/D6
HS-4371C	HAND SWITCH	GE	CR2940	CB CTL RM/1C-35	786' -0"	MILD	M143/F5	E122/24	E338/D6
HS-4378A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-35	786' -0"	MILD	M143/E5	E122/24	E338/D6
HS-4378B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-35	786' -0"	MILD	M143/E5	E122/24	E338/D6
HS-4412A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M114/F4	E122/11	E338/D5
HS-4413A	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M114/F2	E122/11	E338/D5
HS-4415A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M114/H8	E122/11	E338/D5
HS-4416A	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M114/H8	E122/11	E338/D5
HS-4418A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M114/H8	E122/11	E338/D5
HS-4419A	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M114/H8	E122/11	E338/D5
HS-4420A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M114/H8	E122/11	E338/D5
HS-4421A	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M114/H8	E122/11	E338/D5
HS-4423	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M114/B3	E122/2	E338/D5
HS-4424	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M114/B3	E122/5	E338/D5
HS-4639	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M116/F6	E122/10	E338/D5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-4640	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M116/F7	E122/10	E338/D5
HS-4841	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M112/E3	E111/5	E338/E4
HS-5718A	HAND SWITCH	GE	SBM	CB CTL RM/1C-25A	786' -0"	MILD	M157/E8	E113/90	E338/D4
HS-5718B	HAND SWITCH	GE	SBM	CB CTL RM/1C-25B	786' -0"	MILD	M157/D8	E113/90	E338/D4
MO-2400	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	DRYWELL	775' -11"	HARSH	M124/H7	E121/29	E330/E3
MO-2401	MOTOR OPERATOR	LIMITORQUE	SMB-OO,DC-CLA	STEAM TUNNEL	757' -6"	HARSH	M124/G6	E121/30	E328/E4
MO-2510	MOTOR OPERATED VALVE	LIMITORQUE	SMB-OO, DC-CL	RCIC ROOM	716' -9"	MILD	M125/C4	E121/34	E317/C5
MO-2512	MOTOR OPERATOR	LIMITORQUE	SMB-OO,DC-CLA	STEAM TUNNEL	757' -6"	HARSH	M125/D5	E121/40	E328/E3
MO-2516	MOTOR OPERATOR	LIMITORQUE	SMB-OOO, DC C	TORUS ROOM SOUTH	716' -9"	HARSH	M125/B5	E121/33	E317/E6
MO-2517	MOTOR OPERATOR	LIMITORQUE	SMB-OOO, DC C	RCIC ROOM	716' -9"	HARSH	M125/F4	E121/33	E317/C5
MO-2700	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	DRYWELL	775' -11"	HARSH	M127/F8	E122/3	E330/D5
MO-2701	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M127/F7	E122/5	E321/E6
MO-2740	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	RB-S	757' -6"	MILD	M127/G4	E122/14	E319/F3
MO-4423	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	DRYWELL	757' -6"	HARSH	M114/B3	E122/2	E329/E2
MO-4424	MOTOR OPERATOR	LIMITORQUE	SMB-OO,DC-CLA	STEAM TUNNEL	757' -6"	HARSH	M114/B3	E122/5	E328/E4
MO-4627	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2,AC-CLAS	DRYWELL	742' -9"	HARSH	M116/C2	E120/3	E331/F4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-4628	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLAS	DRYWELL	742' -9"	HARSH	M116/CB	E120/3	E331/C5
MO-4841A	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM NORTH	716' -9"	HARSH	M112/E3	E111/17	E316/E5
MO-4841B	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM NORTH	716' -9"	HARSH	M112/F3	E111/17	E316/E5
PS-4346	PRESSURE SWITCH	STATIC-O-RING	9N-AA45-(X9)-	RB-N	757' -6"	MILD	M143/D5	E122/13	E318/A5
PS-4637	PRESSURE SWITCH	BARKSDALE	B2T M12SS	RB-S/1C-122	757' -6"	MILD	M116/E6	E122/10	E319/E5
PS-4638A	PRESSURE SWITCH	BARKSDALE	PIH-M34055-V	SW CRNR RM/1C-58	716' -9"	MILD	M116/E6	E122/10	E317/D7
PS-4638B	PRESSURE SWITCH	BARKSDALE	PIH-M34055-V	SW CRNR RM/1C-58	716' -9"	MILD	M116/E6	E122/10	E317/D7
SV-3704	SOLENOID VALVE	ASCO	NP831665E	TORUS ROOM SOUTH	716' -9"	HARSH	M137/G7	E122/9	E317/F3
SV-3705	SOLENOID VALVE	ASCO	NP831665E	TORUS ROOM SOUTH	716' -9"	HARSH	M137/G7	E122/9	E317/F3
SV-3728	SOLENOID VALVE	ASCO	NP831665E	TORUS ROOM NORTH	716' -9"	HARSH	M137/D6	E122/9	E316/D7
SV-3729	SOLENOID VALVE	ASCO	NP831665E	TORUS ROOM NORTH	716' -9"	HARSH	M137/D6	E122/9	E316/D7
SV-4371A	SOLENOID VALVE	ASCO	HT831665	RB-S	757' -6"	MILD	M143/E5	E122/24	E324/B5
SV-4371B	SOLENOID VALVE	ASCO	NP831665E	DRYWELL	757' -6"	HARSH	M143/F5	E122/24	E329/B3
SV-4371C	SOLENOID VALVE	ASCO	HT831665	RB-S	759' -0"	MILD	M143/F5	E122/24	E324/B5
SV-4378A	SOLENOID VALVE	ASCO	HT831665	RB-S	759' -0"	MILD	M143/E5	E122/24	E324/B7
SV-4378B	SOLENOID VALVE	ASCO	HT831665	RB-S	759' -0"	MILD	M143/E8	E122/24	E324/B7

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-4412A	SOLENOID VALVE	ASCO	NP8320A183E	DRYWELL	757' -6"	HARSH	M114/F3	E122/11	E329/D3
SV-4412B	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/F3	E122/11	E329/D3
SV-4412C	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/G3	E122/11	E329/D3
SV-4413A	SOLENOID VALVE	ASCO	NP8320A183E	STEAM TUNNEL	757' -6"	HARSH	M114/F2	E122/11	E328/D4
SV-4413B	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/F2	E122/11	E328/D4
SV-4413C	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/F2	E122/11	E328/D4
SV-4415A	SOLENOID VALVE	ASCO	NP8320A183E	DRYWELL	757' -6"	HARSH	M114/C7	E122/11	E329/C3
SV-4415B	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/C7	E122/11	E329/C3
SV-4415C	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/C7	E122/11	E329/C3
SV-4416A	SOLENOID VALVE	ASCO	NP8320A183E	STEAM TUNNEL	757' -6"	HARSH	M114/C8	E122/11	E328/D4
SV-4416B	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/C8	E122/11	E328/D4
SV-4416C	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/C8	E122/11	E328/D4
SV-4418A	SOLENOID VALVE	ASCO	NP8320A183E	DRYWELL	757' -6"	HARSH	M114/C3	E122/11	E329/F3
SV-4418B	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/C3	E122/11	E329/F3
SV-4418C	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/C3	E122/11	E329/F3
SV-4419A	SOLENOID VALVE	ASCO	NP8320A183E	STEAM TUNNEL	757' -6"	HARSH	M114/C2	E122/11	E328/E4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-4419B	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/C2	E122/11	E328/E4
SV-4419C	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/C2	E122/11	E328/E4
SV-4420A	SOLENOID VALVE	ASCO	NP8320A183E	DRYWELL	757' -6"	HARSH	M114/E7	E122/11	E329/E3
SV-4420B	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/E7	E122/11	E329/E3
SV-4420C	SOLENOID VALVE	ASCO	NP8323A36V	DRYWELL	757' -6"	HARSH	M114/E7	E122/11	E329/E3
SV-4421A	SOLENOID VALVE	ASCO	NP8320A183E	STEAM TUNNEL	757' -6"	HARSH	M114/E8	E122/11	E328/E4
SV-4421B	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/E8	E122/11	E328/E4
SV-4421C	SOLENOID VALVE	ASCO	NP8323A36V	STEAM TUNNEL	757' -6"	HARSH	M114/E8	E122/11	E328/E4
SV-4639	SOLENOID VALVE	ASCO	206-832-2RG	DRYWELL	775' -11"	HARSH	M116/F6	E122/10	E330/B5
SV-4640	SOLENOID VALVE	ASCO	HB8302C25RU	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M116/F6	E122/10	E321/E5
SV-5703A	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM SOUTH	716' -9"	HARSH	M157/G7	E113/94	E317/E5
SV-5703B	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM SOUTH	716' -9"	HARSH	M157/G7	E113/94	E317/H7
SV-5704A	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM SOUTH	716' -9"	HARSH	M157/H6	E113/94	E317/E5
SV-5704B	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM SOUTH	716' -9"	HARSH	M157/H6	E113/94	E317/G7
SV-5718A	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM SOUTH	716' -9"	HARSH	M157/B8	E113/94	E317/E5
SV-5718B	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM NORTH	716' -9"	HARSH	M157/B8	E113/94	E316/C7

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SYSTEM: PRIMARY CONTAINMENT ISOL AND NSSS

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-5719A	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM SOUTH	716' -9"	HARSH	M157/B7	E113/94	E317/E5
SV-5719B	SOLENOID VALVE	ASCO	206-832-3RU	TORUS ROOM NORTH	716' -9"	HARSH	M157/A7	E113/94	E316/C7

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SYSTEM: PUMPHOUSE DRAIN SUMP

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-4936A	HAND SWITCH	GE	CR2940-BC301A	PUMPHOUSE	727' -0"	MILD	M146/G5	E111/16A	E347/D4
HS-4936B	HAND SWITCH	GE	CR2940-BC301A	PUMPHOUSE	727' -0"	MILD	M146/G4	E111/16A	E347/D4
LE-4936A		BORG-WARNER	E-4-51-1201	PUMPHOUSE	727' -0"	MILD	M146/F5	E111/16A	E347/C4
LE-4936B		BORG-WARNER	E-4-51-1201	PUMPHOUSE	727' -0"	MILD	M146/F4	E111/16A	E347/D4
LS-4936A		BORG-WARNER	E-4-51-1201	PUMPHOUSE	727' -0"	MILD	M146/F5	E111/16A	E347/D4
LS-4936B		BORG-WARNER	E-4-51-1201	PUMPHOUSE	727' -0"	MILD	M146/F4	E111/16A	E347/D4
1P-132A	PUMP MOTOR	CRANE COMPANY	GA-1K-ISO	PUMPHOUSE	727' -0"	MILD	M146/F5	E111/16A	E347/D4
1P-132B	PUMP MOTOR	CRANE COMPANY	GA-1K-ISO	PUMPHOUSE	727' -0"	MILD	M146/F4	E111/16A	E347/D4

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SYSTEM: REACTOR PROTECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LIS-4592A	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-56	786' -0"	MILD	M115/E6	E121/37	E320/H8
LIS-4592B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-56	786' -0"	MILD	M115/E6	E121/24	E320/H8
LIS-4592C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-55A	757' -6"	MILD	M115/E3	E121/37	M2/E6
LIS-4592D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-55A	757' -6"	MILD	M115/E3	E121/24	M2/E6
PS-1005A	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/E5	E66	M405-1/*
PS-1005B	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/E5	E66	M405-1/*
PS-1005C	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/E6	E66	M405-1/*
PS-1005D	PRESSURE SWITCH	BARKSDALE	B2T M12SS	TURBINE BLDG NORTH	734' -0"	MILD	M103/E6	E66	M405-1/*
PS-1026A	PRESSURE SWITCH	BARKSDALE	TC 9622-3	TURBINE BLDG NORTH	780' -0"	MILD	M106/E7	E44	E308/D6
PS-1026B	PRESSURE SWITCH	BARKSDALE	TC 9622-3	TURBINE BLDG NORTH	780' -0"	MILD	M106/E6	E44	E308/D6
PS-1026C	PRESSURE SWITCH	BARKSDALE	TC 9622-3	TURBINE BLDG NORTH	780' -0"	MILD	M106/E7	E44	E308/C6
PS-1026D	PRESSURE SWITCH	BARKSDALE	TC 9622-3	TURBINE BLDG NORTH	780' -0"	MILD	M106/E6	E44	E308/C6
PS-1096A	PRESSURE SWITCH	BARKSDALE	DIT-M18SS	TURBINE BLDG NORTH	780' -0"	MILD	M103/NS	E122/9	E311/D4
PS-1096B	PRESSURE SWITCH	BARKSDALE	DIT-M18SS	TURBINE BLDG SOUTH	780' -0"	MILD	M103/NS	E122/9	E312/C3
PS-1096C	PRESSURE SWITCH	BARKSDALE	DIT-M18SS	TURBINE BLDG NORTH	780' -0"	MILD	M103/NS	E122/9	E311/D4
PS-1096D	PRESSURE SWITCH	BARKSDALE	DIT-M18SS	TURBINE BLDG SOUTH	780' -0"	MILD	M103/NS	E122/9	E312/C3

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SYSTEM: REACTOR PROTECTION

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PS-4315A	PRESSURE SWITCH	STATIC-O-RING	12N-AA4	RB-S/1C-122	757' -6"	MILD	M143/D6	E66	E319/F6
PS-4315B	PRESSURE SWITCH	STATIC-O-RING	12N-AA4	RB-S/1C-126B	757' -6"	MILD	M143/E6	E66	E319/D5
PS-4315C	PRESSURE SWITCH	STATIC-O-RING	12N-AA4	RB-S/1C-126B	757' -6"	MILD	M143/E6	E66	E319/E4
PS-4315D	PRESSURE SWITCH	STATIC-O-RING	12N-AA4	RB-N/1C-121	757' -6"	MILD	M143/F6	E66	E318/G10
ZS-1076A	POSITION SWITCH	NAMCO	D-2400X-R1	TURBINE BLDG NORTH	757' -6"	MILD	M103/E6	E66	E308/D6
ZS-1076B	POSITION SWITCH	NAMCO	D-2400X-R1	TURBINE BLDG NORTH	757' -6"	MILD	M103/E6	E66	E308/D6
ZS-1076C	POSITION SWITCH	NAMCO	D-2400X-R1	TURBINE BLDG NORTH	757' -6"	MILD	M103/E7	E66	E308/C6
ZS-1076D	POSITION SWITCH	NAMCO	D-2400X-R1	TURBINE BLDG NORTH	757' -6"	MILD	M103/E7	E66	E308/C6
ZS-4412	POSITION SWITCH	NAMCO	EA-740	DRYWELL	761' -4"	HARSH	M114/E3	E122/11	M340/D3
ZS-4413	POSITION SWITCH	NAMCO	EA-740	STEAM TUNNEL	757' -6"	HARSH	M114/E2	E122/11	M268/G2
ZS-4415	POSITION SWITCH	NAMCO	EA-740	DRYWELL	761' -4"	HARSH	M114/D7	E122/11	M340/C3
ZS-4416	POSITION SWITCH	NAMCO	EA-740	STEAM TUNNEL	757' -6"	HARSH	M114/D8	E122/11	E328/D3
ZS-4418	POSITION SWITCH	NAMCO	EA-740	DRYWELL	761' -4"	HARSH	M114/D3	E122/11	M340/F3
ZS-4419	POSITION SWITCH	NAMCO	EA-740	STEAM TUNNEL	757' -6"	HARSH	M114/D2	E122/11	E328/F4
ZS-4420	POSITION SWITCH	NAMCO	EA-740	DRYWELL	761' -4"	HARSH	M114/E7	E122/11	M340/E3
ZS-4421	POSITION SWITCH	NAMCO	EA-740	STEAM TUNNEL	757' -6"	HARSH	M114/E8	E122/11	E328/E4

DUANE ARNOLD EQDS SECONDARY REPORT
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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
E/S-1947	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M119/D4	E121/58	E338/C5
HS-1900	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/G8	E122/2	E338/D5
HS-1901	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/H7	E122/6	E338/D5
HS-1902	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/G7	E121/48	E338/D5
HS-1903A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/G6	E121/60	E338/D5
HS-1903B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/G6	E121/56	E338/D5
HS-1903C	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/G6	E121/56	E338/D5
HS-1904	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/F6	E121/53	E338/D5
HS-1905A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/F6	E121/52	E338/D5
HS-1905B	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/F6	E121/52	E338/D5
HS-1908	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/E8	E122/2	E338/D5
HS-1909	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/E8	E122/4	E338/D5
HS-1912	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/C7	E121/44	E338/D5
HS-1912A	HAND SWITCH	C-H	1025T16224	RB-N	757' -6"	MILD	NS	E121/44	E316/E2
HS-1913	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/C7	E121/43	E338/D5
HS-1913A	HAND SWITCH	C-H	1025T16224	RB-WEST/MCC-1B44	757' -6"	MILD	M119/C7	E121/43A	M2/E7

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-1915	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/B6	E121/41	E338/D5
HS-1920	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/C8	E121/44	E338/D5
HS-1920A	HAND SWITCH	C-H	1025T16224	RB-N	757' -6"	MILD	NS	E121/44	E316/F7
HS-1921	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/C7	E121/43	E338/D5
HS-1921A	HAND SWITCH	C-H	1025T16224	RB-W/MCC 1B-44	716' -9"	MILD	M119/C7	E121/43A	M2/E7
HS-1923	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/B8	E121/41	E338/D5
HS-1932	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/F5	E121/49	E338/D5
HS-1932A	HAND SWITCH	C-H	1025T16224	RB-N	757' -6"	MILD	M119/F5	E121/49	M266/G7
HS-1933	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/F5	E121/59	E338/D5
HS-1934	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/F5	E121/59	E338/D5
HS-1935	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/C5	E121/54	E338/D5
HS-1936	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/E6	E122/7	E338/D5
HS-1937	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/E6	E122/15	E338/D5
HS-1939	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/D4	E121/43	E338/D5
HS-1940	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/E4	E121/51	E338/D5
HS-1941	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/E3	E121/43	E338/D5

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-1949A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/D4	E121/47	E338/D5
HS-1949B	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/C4	E121/47	E338/D5
HS-1963	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M119/D2	E121/58	E338/D5
HS-1967	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M119/E2	E121/50	E338/D5
HS-1970	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/F3	E121/50	E338/D5
HS-1972	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/D3	E122/13	E338/D5
HS-1973	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M119/D2	E122/13	E338/D5
HS-1989	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M119/D7	E121/45	E338/D5
HS-2000	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/G2	E121/48	E338/D5
HS-2001A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/G3	E121/60	E338/D5
HS-2001B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/G3	E121/56	E338/D5
HS-2001C	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/G3	E121/56	E338/D5
HS-2003A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/F4	E121/52	E338/D5
HS-2003B	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/F4	E121/56	E338/D5
HS-2004	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/F4	E121/53	E338/D5
HS-2005	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/G4	E121/49	E338/D5

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2005A	HAND SWITCH	C-H	1025T16224	RB-S/MCC 1B-34	786' -0"	MILD	M120/F5	E121/49	E321/C4
HS-2006	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/F4	E121/59	E338/D5
HS-2007	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/F4	E121/59	E338/D5
HS-2009	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/C4	E121/54	E338/D5
HS-2010	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/D5	E121/45	E338/D5
HS-2010A	HAND SWITCH	C-H	1025T16224	RB-S/MCC 1B-34	786' -0"	MILD	M120/F5	E121/45A	E321/C4
HS-2011	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/C3	E121/44	E338/D5
HS-2011A	HAND SWITCH	C-H	1025T16224	RB-S/MCC 1B-34	786' -0"	MILD	NS	E121/44	E321/C4
HS-2012	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/C3	E121/43	E338/D5
HS-2012A	HAND SWITCH	C-H	1025T16224	RB-S/MCC 1B-34	786' -0"	MILD	M120/C3	E121/43A	E321/C4
HS-2014	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/B3	E121/41	E338/D5
HS-2015	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/C2	E121/43	E338/D5
HS-2015A	HAND SWITCH	C-H	1025T16224	RB-S/MCC 1B-34	786' -0"	MILD	M120/C2	E121/43A	E321/C4
HS-2016	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/C2	E121/44	E338/D5
HS-2016A	HAND SWITCH	C-H	1025T16224	RB-S/MCC 1B-34	786' -0"	MILD	NS	E121/44	E321/C4
HS-2018	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/B2	E121/41	E338/D5

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2029	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/D5	E121/43	E338/D5
HS-2030	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/E5	E121/51	E338/D5
HS-2031	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/E6	E121/43	E338/D5
HS-2035	HAND SWITCH	GE	CR2940	CB CTL RM/1C-04	786' -0"	MILD	M120/E7	E121/56	E338/D5
HS-2036	HAND SWITCH	GE	SBM	CB CTL RM/1C-04	786' -0"	MILD	M120/E8	E121/50	E338/D5
HS-2038	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/F7	E121/50	E338/D5
HS-2044A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/D6	E121/47	E338/D5
HS-2044B	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/D6	E121/47	E338/D5
HS-2051	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/D7	E122/13	E338/D5
HS-2052	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/D7	E122/13	E338/D5
HS-2058	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M120/E1	E121/45	E338/D5
HS-2069	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M120/D3	E121/45	E338/D5
KY-1935	RELAY			CB CTL RM/1C-33	786' -0"	MILD	M119/C5	E121/54	E338/C6
KY-1940	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-44	786' -0"	MILD	M119/E4	E121/51	E338/C6
KY-2009	RELAY			CB CTL RM/1C-43	786' -0"	MILD	M120/C4	E121/54	E338/D6
KY-2080	RELAY			CB CTL RM/1C-43	786' -0"	MILD	M120/E6	E121/54	E338/D6

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-1900	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	DRYWELL	805' -5"	HARSH	M119/G8	E122/2	M330/D4
MO-1901	MOTOR OPERATED VALVE	LIMITORQUE	SMB-O, DC-CLA	RB-N	786' -0"	MILD	M119/H7	E122/6	M249/D6
MO-1902	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLA	RHR VALVE ROOM	757' -6"	HARSH	M119/G7	E121/48	M248/C6
MO-1903	MOTOR OPERATOR	LIMITORQUE	SMB-2, AC-CLA	TORUS ROOM SOUTH	716' -9"	HARSH	M119/G6	E121/60	M266/H8
MO-1904	MOTOR OPERATED VALVE	ELECTRODYNE	TN-24-400	RHR VALVE ROOM	757' -6"	HARSH	M119/E6	E121/53	M268/G7
MO-1905	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-5, AC-CLA	RHR VALVE ROOM	757' -6"	HARSH	M119/F6	E121/52	M268/G7
MO-1908	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLAS	DRYWELL	775' -11"	HARSH	M119/E8	E122/56	M331/D6
MO-1909	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, DC-CLA	RHR VALVE ROOM	757' -6"	HARSH	M119/E8	E122/4	M248/D7
MO-1912	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	NW CRNR RM	716' -9"	HARSH	M119/C7	E121/44	M245/F7
MO-1913	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	NW CRNR RM	716' -9"	HARSH	M119/C7	E121/43	E316/F7
MO-1920	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	NW CRNR RM	716' -9"	HARSH	M119/C8	E121/44	M245/F7
MO-1921	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	NW CRNR RM	732' -0"	HARSH	M119/C7	E121/43	M245/F7
MO-1932	MOTOR OPERATOR	LIMITORQUE	SMB-O, AC-CLAS	TORUS ROOM SOUTH	716' -9"	HARSH	M119/F5	E121/49	M266/G7
MO-1933	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	TORUS ROOM SOUTH	716' -9"	HARSH	M119/F5	E121/59	M266/G7
MO-1934	MOTOR OPERATOR	LIMITORQUE	SMB-2, AC-CLA	TORUS ROOM SOUTH	716' -9"	HARSH	M119/F5	E121/59	M266/G7
MO-1935	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM NORTH	716' -9"	HARSH	M119/C5	E121/54	M256/D3

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-1936	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	TORUS ROOM NORTH	716' -9"	HARSH	M119/D6	E122/7	M246/C8
MO-1937	MOTOR OPERATOR	LIMITORQUE	SMB-000, DC C	TORUS ROOM NORTH	716' -9"	HARSH	M119/D6	E122/15	M246/8C
MO-1939	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	NW CRNR RM	732' -0"	HARSH	M119/D4	E121/43B	M253/C7
MO-1940	MOTOR OPERATOR	LIMITORQUE	SMB-4, AC-CLA	NW CRNR RM	732' -0"	HARSH	M119/E4	E121/51	M256/C2
MO-1941	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	NW CRNR RM	732' -0"	HARSH	M119/E3	E121/43	M253/C7
MO-1949A	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	NW CRNR RM	747' -6"	HARSH	M119/C4	E121/47	E316/E8
MO-1949B	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	NW CRNR RM	747' -6"	HARSH	M119/D4	E121/47	E316/E8
MO-1967	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	NW CRNR RM	732' -0"	HARSH	M119/E2	E121/50	M246/E7
MO-1970	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM NORTH	716' -9"	HARSH	M119/F3	E121/50	M246/E7
MO-1989	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	TORUS ROOM NORTH	716' -9"	HARSH	M119/D7	E121/45	M245/E7
MO-2000	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-2, AC-CLA	RB-S	786' -0"	HARSH	M120/G2	E121/48	M269/F6
MO-2001	MOTOR OPERATOR	LIMITORQUE	SMB-2, AC-CLA	TORUS ROOM NORTH	716' -9"	HARSH	M120/G4	E113/89	M257/D7
MO-2003	MOTOR OPERATOR WITH MOTOR BRAK	LIMITORQUE	SMB-5, AC-CLA	RHR VALVE ROOM	757' -6"	HARSH	M120/G4	E121/52	M248/D7
MO-2004	MOTOR OPERATED VALVE	ELECTRODYNE	TN-24-400	RHR VALVE ROOM	757' -6"	HARSH	M120/F4	E121/53	M248/E7
MO-2005	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	TORUS ROOM NORTH	716' -9"	HARSH	M120/G4	E121/49	E316/D7
MO-2006	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	TORUS ROOM NORTH	716' -9"	HARSH	M120/F4	E121/59	M256/D7

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-2007	MOTOR OPERATOR	LIMITORQUE	SMB-2, AC-CLA	TORUS ROOM NORTH	716' -9"	HARSH	M120/F5	E121/59	M256/D3
MO-2009	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM SOUTH	716' -9"	HARSH	M120/C4	E121/54	M277/D5
MO-2010	MOTOR OPERATOR	LIMITORQUE	SMB-1, AC-CLA	TORUS ROOM NORTH	716' -9"	HARSH	M120/D5	E121/45	E316/C8
MO-2011	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	SE CRNR RM	716' -9"	HARSH	M120/C3	E121/44	M265/F2
MO-2012	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	SE CRNR RM	716' -9"	HARSH	M120/C3	E121/43	E317/E2
MO-2015	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	SE CRNR RM	716' -9"	HARSH	M120/C2	E121/43	E317/E2
MO-2016	MOTOR OPERATOR	LIMITORQUE	SMB-00, AC-CL	SE CRNR RM	716' -9"	HARSH	M120/C2	E121/44	M317/E2
MO-2029	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	SE CRNR RM	731' -4"	HARSH	M120/D5	E121/43B	M277/C3
MO-2030	MOTOR OPERATOR	LIMITORQUE	SMB-4, AC-CLA	SE CRNR RM	731' -4"	HARSH	M120/E5	E121/51	M277/C2
MO-2031	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	SE CRNR RM	731' -4"	HARSH	M120/E7	E121/43	M277/C3
MO-2036	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	SE CRNR RM	731' -4"	HARSH	M120/E8	E121/50	M277/C3
MO-2038	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	TORUS ROOM SOUTH	716' -9"	HARSH	M120/F7	E121/50	M277/D5
MO-2044A	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	SE CRNR RM	747' -0"	HARSH	M120/C6	E121/47	E317/D3
MO-2044B	MOTOR OPERATOR	LIMITORQUE	SMB-000, AC-C	SE CRNR RM	747' -0"	HARSH	M120/C6	E121/47	E317/D3
MO-2069	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	TORUS ROOM SOUTH	716' -9"	HARSH	M120/D3	E121/45	M265/F3
PDIS-1971A	FLOW INDICATING SWITCH	ITT BARTON	289	SE CRNR RM	716' -9"	HARSH	M120/F7	E121/54	E317/E3

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
PDIS-1971B	FLOW INDICATING SWITCH	ITT BARTON	289	NW CRNR RM	716' -9"	HARSH	M120/F7	E121/54	E316/E7
PDIS-4625A	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	NE CRNR RM/1C-57	735' -7"	MILD	M116/A3	E121/56	E316/E2
PDIS-4625B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	NE CRNR RM/1C-57	735' -7"	MILD	M116/A3	E121/56	E316/E2
PDIS-4625C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	NE CRNR RM/1C-57	735' -7"	MILD	M116/A3	E121/56	E316/E2
PDIS-4625D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	NE CRNR RM/1C-57	735' -7"	MILD	M116/A2	E121/56	E316/E2
PDIS-4626A	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	SW CRNR RM/1C-58	716' -9"	MILD	M116/A7	E121/56A	E317/D7
PDIS-4626B	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	SW CRNR RM/1C-58	716' -9"	MILD	M116/A7	E121/56A	E317/D7
PDIS-4626C	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	SW CRNR RM/1C-58	716' -9"	MILD	M116/A7	E121/56A	E317/D7
PDIS-4626D	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	SW CRNR RM/1C-58	716' -9"	MILD	M116/A8	E121/56A	E317/D7
PDIS-4641	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-122	757' -6"	MILD	M116/H3	E121/56	E319/E5
PDIS-4642	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-121	757' -6"	MILD	M116/G3	E121/56A	E318/F4
PDIS-4643	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-S/1C-122	757' -6"	MILD	M116/G3	E121/56	E319/E5
PDIS-4644	DIFFERENTIAL PRESSURE INDICATI	ITT BARTON	288	RB-N/1C-121	757' -6"	MILD	M116/G3	E121/56	E318/F4
PDT-1947	PRESSURE DIFFERENTIAL TRANSMIT	GE	552032HKZZ2	NW CRNR RM/1C-129B	716' -9"	HARSH	M119/C4	E121/57	M1/E7
PDT-2046	PRESSURE DIFFERENTIAL TRANSMIT	GE	552032HKZZ2	SE CRNR RM/1C-129A	716' -9"	HARSH	M120/C5	E121/58	M1/E7
SV-1963	SOLENOID VALVE	ASCO	8320A6	NW CRNR RM	747' -6"	HARSH	M119/D3	E121/58	M246/E8

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SYSTEM: RESIDUAL HEAT REMOVAL

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-1964	SOLENOID VALVE	ASCO	NP8320A173E	TORUS ROOM SOUTH	716' -9"	HARSH	M119/D2	E121/58	M266/D5
SV-1966	SOLENOID VALVE	ASCO	8320A6	NW CRNR RM	747' -6"	HARSH	M119/E3	E121/58	M246/E7
SV-1972	SOLENOID VALVE	TARGET ROCK	72V-001	NW CRNR RM	716' -9"	HARSH	M119/D3	E122/13	E316/E7
SV-1973	SOLENOID VALVE	TARGET ROCK	72V-001	NW CRNR RM	716' -9"	HARSH	M119/D2	E122/13	E316/E7
SV-2033	SOLENOID VALVE	ASCO	8320A6	SE CRNR RM	736' -6"	HARSH	M120/D7	E121/58	E317/D3
SV-2034	SOLENOID VALVE	ASCO	NP8320A173E	TORUS RDOM SOUTH	716' -9"	HARSH	M120/D7	E121/58	M266/D5
SV-2037	SOLENOID VALVE	ASCO	8320A6	SE CRNR RM	731' -4"	HARSH	M120/E7	E121/58	E317/E3
SV-2051	SOLENOID VALVE	TARGET ROCK	72V-001	SE CRNR RM	716' -9"	HARSH	M120/D7	E122/13	E317/E3
SV-2052	SOLENOID VALVE	TARGET ROCK	72V-001	SE CRNR RM	716' -9"	HARSH	M120/D7	E122/13	E317/E3
1P-229A	PUMP MOTOR	GE	5K6336XC213A	SE CRNR RM	716' -9"	HARSH	M120/B3	E121/41	M1/C5
1P-229B	PUMP MDTOR	GE	5K6336XC213A	NW CRNR RM	716' -9"	HARSH	M119/B7	E121/41	M1/F7
1P-229C	PUMP MOTOR	GE	5K6336XC213A	SE CRNR RM	716' -9"	HARSH	M120/B2	E121/41	M1/C5
1P-229D	PUMP MOTOR	GE	5K6336XC213A	NW CRNR RM	716' -9"	HARSH	M119/B8	E121/41	M1/F7

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SYSTEM: RESIDUAL HEAT REMOVAL SERVICE WATER

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-1942	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M113/F8	E121/46	E338/D6
HS-1943A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M113/G8	E121/45	E338/D6
HS-1943B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-03	786' -0"	MILD	M113/G8	E121/45	E338/D6
HS-1959	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M146/B5	E121/42	E338/D6
HS-2059	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M146/B8	E121/42	E338/D6
HS-4924A	HAND SWITCH	GE	SBM	ESS SWITCHGEAR ROOM	786' -0"	MILD	M146/B8	E121/42	E335/E6
HS-4924B	HAND SWITCH	GE	SBM	ESS SWITCHGEAR ROOM	786' -0"	MILD	M146/B5	E121/42	E335/E4
HS-4924C	HAND SWITCH	GE	SBM	ESS SWITCHGEAR ROOM	786' -0"	MILD	M146/B7	E121/42	E335/E6
HS-4924D	HAND SWITCH	GE	SBM	ESS SWITCHGEAR ROOM	786' -0"	MILD	M146/B5	E121/42	E335/E4
HS-4925A	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M146/B8	E121/42	E338/D6
HS-4925B	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M146/B5	E121/42	E338/D6
HS-4925C	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M146/B7	E121/42	E338/D6
HS-4925D	HAND SWITCH	GE	SBM	CB CTL RM/1C-03	786' -0"	MILD	M146/B5	E121/42	E338/D6
MO-1942	MOTOR OPERATOR	LIMITORQUE	SMB-O, AC-CLAS	SE CRNR RM	736' -6"	HARSH	M113/F8	E121/46	M266/E3
MO-1943A	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	SE CRNR RM	736' -6"	HARSH	M113/G8	E121/45	E317/E3
MO-1943B	MOTOR OPERATOR	LIMITORQUE	SMB-OO, AC-CL	TORUS ROOM SOUTH	716' -9"	HARSH	M113/G8	E121/45	E317/F7

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SYSTEM: RESIDUAL HEAT REMOVAL SERVICE WATER

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
MO-1947	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	NW CRNR RM	732' -0"	HARSH	M113/D7	E121/55	E316/E8
MO-2046	MOTOR OPERATOR	LIMITORQUE	SMB-O,AC-CLAS	HPCI ROOM	731' -9"	HARSH	M113/D5	E121/55	E317/D2
SV-1942	SOLENOID VALVE	TARGET ROCK	72V-002	SE CRNR RM	731' -4"	HARSH	M113/F8	E121/46	E317/E3
ZM-1947	POSITION MONITOR	GE	543151AAAZZ	CB CTL RM/1C-18	786' -0"	MILD	M113/D7	E121/58A	E338/C5
ZM-2046	POSITION MONITOR	GE	543151AAAZZ	CB CTL RM/1C-19	786' -0"	MILD	M113/D5	E121/58	E338/D6
ZT-1947	POSITION TRANSMITTER	LIMITORQUE	NONE	NW CRNR RM	732' -0"	HARSH	M113/C7	E121/58A	E316/E8
ZT-2046	POSITION TRANSMITTER	LIMITORQUE	NONE	HPCI ROOM	731' -9"	HARSH	M113/C5	E121/58	M265/D2
1P-22A	PUMP MOTOR	LAYNE & BOWLER	D30841-A	PUMPHOUSE	761' -0"	MILD	M146/A8	E121/42	M15/G7
1P-22B	PUMP MOTOR	LAYNE & BOWLER	D30841-A	PUMPHOUSE	761' -0"	MILD	M146/A8	E121/42	M15/G7
1P-22C	PUMP MOTOR	LAYNE & BOWLER	D30841-A	PUMPHOUSE	761' -0"	MILD	M146/A7	E121/42	M15/G7
1P-22D	PUMP MOTOR	LAYNE & BOWLER	D30841-A	PUMPHOUSE	761' -0"	MILD	M146/A5	E121/42	M15/G7

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SYSTEM: RIVER WATER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS 2910 B	HAND SWITCH	GE	CR2940	INTAKE STR/1C-154B	754' -0"	MILD	M129/F2	E111/21	E348/E6
HSS-2911A	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M129/D7	E111/11	E338/E4
HSS-2911B	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M129/D4	E111/11	E338/E4
HS-2902A	HAND SWITCH	GE	SBM	INTAKE STR	754' -0"	MILD	M129/C7	E111/10	E348/C5
HS-2902B	HAND SWITCH	GE	SBM	INTAKE STR	754' -0"	MILD	M129/C7	E111/10	E348/C5
HS-2903A	HAND SWITCH	GE	SBM	INTAKE STR	754' -0"	MILD	M129/C3	E111/10	E348/B5
HS-2903B	HAND SWITCH	GE	SBM	INTAKE STR	754' -0"	MILD	M129/C3	E111/10	E348/B5
HS-2906A	HAND SWITCH	GE	CR2940-UB203	INTAKE STR	767' -0"	MILD	M129/D8	E111/9	E348/G6
HS-2906B	HAND SWITCH	GE	CR2940-UB203	INTAKE STR	767' -0"	MILD	M129/D2	E111/9	E348/E6
HS-2907A	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M129/D7	E111/11	E338/E4
HS-2907B	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M129/D4	E111/11	E338/E4
HS-2907C	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M129/D6	E111/11	E338/E4
HS-2907D	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M129/D3	E111/11	E338/E4
HS-2908A	HAND SWITCH	GE	SBM	INTAKE STR	767' -0"	MILD	M129/D7	E111/11	E338/E4
HS-2908B	HAND SWITCH	GE	SBM	INTAKE STR	767' -0"	MILD	M129/D4	E111/11	E348
HS-2908C	HAND SWITCH	GE	SBM	INTAKE STR	767' -0"	MILD	M129/D6	E111/11	E348

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SYSTEM: RIVER WATER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-2908D	HAND SWITCH	GE	SBM	INTAKE STR	767' -0"	MILD	M129/D3	E111/11	E348
HS-2910A	HAND SWITCH	GE	CR2940	INTAKE STR/1C-154A	754' -0"	MILD	M129/F8	E111/21	E348/G6
HS-4909A	HAND SWITCH	GE	SBM	CB CTL RM/1C-06	786' -0"	MILD	M146/H6	E111/13	E338/E4
HS-4909B	HAND SWITCH	GE	SBM	PUMPHOUSE	727' -0"	MILD	M146/H6	E111/13	E347/C5
HS-4910A	HAND SWITCH	GE	CR2940	CB CTL RM/1C-06	786' -0"	MILD	M146/H8	E111/13	E338/E4
HS-4910B	HAND SWITCH	GE	CR2940	CB CTL RM/1C-06	786' -0"	MILD	M146/H8	E111/13	E338/E4
HS-4914	HAND SWITCH	GE	CR2940-UA202B	CB CTL RM/1C-06	786' -0"	MILD	M146/F6	E111/13	E338/E4
HS-4915	HAND SWITCH	GE	CR2940-UA202B	CB CTL RM/1C-06	786' -0"	MILD	M146/F7	E111/13	E338/E4
KY-2902A	RELAY	PARAGON	CRIM	INTAKE STR	767' -0"	MILD	M129/C8	E111/10	E348/C7
KY-2902B	RELAY	PARAGON	CRIM	INTAKE STR	767' -0"	MILD	M129/B8	E111/10	E348/C7
KY-2902C	RELAY	AGASTAT	2400	INTAKE STR	767' -0"	MILD	M129/B8	E111/9	E348/C7
KY-2903A	RELAY	PARAGON	CRIM	INTAKE STR	767' -0"	MILD	M129/C2	E111/10	E348/B7
KY-2903B	RELAY	PARAGON	CRIM	INTAKE STR	767' -0"	MILD	M129/B2	E111/10	E348/B7
KY-2903C	RELAY	AGASTAT	2400	INTAKE STR	767' -0"	MILD	M129/B2	E111/9	E348/B7
KY-2908A	RELAY	AGASTAT	7012-PFLL	CB CTL RM/1C-06	786' -0"	MILD	M129/D7	E111/11	E338/E4
KY-2908B	RELAY	AGASTAT	7012-PFLL	CB CTL RM/1C-06	786' -0"	MILD	M129/D4	E111/11	E338/E4

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SYSTEM: RIVER WATER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
KY-2908C	RELAY	AGASTAT	7012-PFLL	CB CTL RM/1C-06	786' -0"	MILD	M129/D6	E111/11	E338/E4
KY-2908D	RELAY	AGASTAT	7012-PFLL	CB CTL RM/1C-06	786' -0"	MILD	M129/D3	E111/11	E338/E4
MO-2902	MOTOR OPERATED VALVE	LIMITORQUE	SMB-000-2	INTAKE STR	754' -0"	MILD	M129/C7	E111/15	E348/F5
MO-2903	MOTOR OPERATED VALVE	LIMITORQUE	SMB-000-2	INTAKE STR	754' -0"	MILD	M129/C3	E111/15	E348/E5
MO-2910A	MOTOR OPERATED VALVE	ZURN INDUSTRIES	MAR-8	INTAKE STR	754' -0"	MILD	M129/F8	E111/21	E348/G6
MO-2910B	MOTOR OPERATED VALVE	ZURN INDUSTRIES	MAR-8	INTAKE STR	754' -0"	MILD	M129/F2	E111/21	E348/E6
PDIS-2902	FLOW INDICATING SWITCH	ITT BARTON	289	INTAKE STR/1C-227A	767' -0"	MILD	M129/B8	E111/10	E348/F6
PDIS-2903	FLOW INDICATING SWITCH	ITT BARTON	289	INTAKE STR/1C-227B	767' -0"	MILD	M129/B3	E111/10	E348/F6
PDS-2910A	DIFF PRESSURE SWITCH	ZURN INDUSTRIES	150	INTAKE STR	754' -0"	MILD	M129/F7	E111/21	E348/G6
PDS-2910B	DIFF PRESSURE SWITCH	ZURN INDUSTRIES	150	INTAKE STR	754' -0"	MILD	M129/F3	E111/21	E348/E6
PS-2902	PRESSURE SWITCH	BARKSDALE	D1T-A80	INTAKE STR	754' -0"	MILD	M129/C7	E111/10	E348/F5
PS-2903	PRESSURE SWITCH	BARKSDALE	D1T-A80	INTAKE STR	754' -0"	MILD	M129/C3	E111/10	E348/E5
SV-4909	SOLENOID VALVE	ASCO	8320A6	PUMPHOUSE	727' -0"	MILD	M146/H6	E111/13	E347/D5
SV-4910A	SOLENOID VALVE	ASCO	8320A6	PUMPHOUSE	727' -0"	MILD	M146/H7	E111/13	E347/D5
SV-4910B	SOLENOID VALVE	ASCO	8320A6	PUMPHOUSE	727' -0"	MILD	M146/H8	E111/13	E347/C5
SV-4914	SOLENOID VALVE	ASCO	8320A6	PUMPHOUSE	727' -0"	MILD	M146/F6	E111/13	E347/C6

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SYSTEM: RIVER WATER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-4915	SOLENOID VALVE	ASCO	8320A6	PUMPHOUSE	727' -0"	MILD	M146/F7	E111/13	E347/C7
ZS-2902	MOTOR OPERATED VALVE	LIMITORQUE	SMB-000-2	INTAKE STR	754' -0"	MILD	M129/C7	E111/15	E348/F5
ZS-2903	MOTOR OPERATED VALVE	LIMITORQUE	SMB-000-2	INTAKE STR	754' -0"	MILD	M129/C3	E111/15	E348/E5
1F-36A	ELECTRIC MOTOR	RELIANCE	P1461403	INTAKE STR	754' -0"	MILD	M129/B6	E111/10	E348/C5
1F-36B	ELECTRIC MOTOR	RELIANCE	P1461403	INTAKE STR	754' -0"	MILD	M129/B4	E111/10	E348/B5
1P-112A	PUMP MOTOR	GOULD PUMPS, INC.	3196MT	INTAKE STR	754' -0"	MILD	M129/D8	E111/9	E348/F6
1P-112B	PUMP MOTOR	GOULD PUMPS, INC.	3196MT	INTAKE STR	754' -0"	MILD	M129/D3	E111/9	E348/E6
1P-117A	PUMP MOTOR	LAYNE & BOWLER PU	M-10	INTAKE STR	767' -0"	MILD	M129/D7	E111/11	E348/C6
1P-117B	PUMP MOTOR	LAYNE & BOWLER PU	M-10	INTAKE STR	767' -0"	MILD	M129/D4	E111/11	E348/B6
1P-117C	PUMP MOTOR	LAYNE & BOWLER PU	M-10	INTAKE STR	767' -0"	MILD	M129/D6	E111/11	E348/C6
1P-117D	PUMP MOTOR	LAYNE & BOWLER PU	M-10	INTAKE STR	767' -0"	MILD	M129/D3	E111/11	E348/B6
1S-85A		GE	5K42F6	INTAKE STR	754' -0"	MILD	M129/E8	E111/21	E348/C5
1S-85B		GE	5K42F6	INTAKE STR	754' -0"	MILD	M129/E2	E111/21	E348/B5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
APRM A1C37	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
APRM B1C37	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
APRM C1C37	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
APRM D1C37	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
APRM E1C37	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
APRM F1C37	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
AR-4381A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D2	E122/28	E338/D4
AR-4381B	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D1	E122/28	E338/E4
AR-4382A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D1	E122/28	E338/E4
AR-4382B	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D1	E122/28	E338/E4
E/I-3724	VOLTAGE/CURRENT CONVERTER	GE	550211EAA-C1P	CB CTL RM/1C-19	786' -0"	MILD	M137/B4	E125/5	E338/D5
E/S-2106	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-19	786' -0"	MILD	M121/E4	E121/9	E338/D5
E/S-2126	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M121/E4	E121/10	E338/C5
E/S-2207	POWER SUPPLY	GE	570	CB CTL RM/1C-18	786' -0"	MILD	M122/F2	E121/25	E338/C5
E/S-2306	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M123/D4	E121/25	E338/C5
E/S-2403	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-19	786' -0"	MILD	M124/G3	E121/38	E338/D5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
E/S-2509	POWER SUPPLY	GE	570	CB CTL RM/1C-19	786' -0"	MILD	M125/C2	E121/38	E338/D5
E/S-2747	POWER SUPPLY	GE	570	CB CTL RM/1C-19	786' -0"	MILD	M127/F5	E120/14	E338/D5
E/S-3707	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-19	786' -0"	MILD	M137/H6	E125/5	E338/D5
E/S-3708	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-19	786' -0"	MILD	M137/E6	E125/5	E338/D5
E/S-4343	POWER SUPPLY	GE	570-06	E SWGR RM/1C-142	757' -6"	MILD	M143/G3	E122/21	E335/D6
E/S-4365A	POWER SUPPLY	GE	570-06	E SWGR RM/1C-142	757' -6"	MILD	M143/F6	E122/21	E335/D6
E/S-4365B	POWER SUPPLY	GE	570-06	CB CTL RM/1C-06	786' -0"	MILD	M143/D5	E122/21	E338/D4
E/S-4408	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/D3	E109/9	E338/C5
E/S-4409	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/B7	E109/9	E338/C5
E/S-4410	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/B3	E109/9	E338/C5
E/S-4411	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/D7	E109/9	E338/C5
E/S-4541	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-19	786' -0"	MILD	M115/G6	E124/2	E338/D5
E/S-4559	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E7	E109/10	E338/C5
E/S-4560	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E3	E109/10	E338/C5
E/S-4561	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E7	E109/10	E338/C5
E/S-4563	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E7	E109/10	E338/C5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
E/S-4564	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E2	E109/10	E338/C5
E/S-4565	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E6	E109/10	E338/C5
E/S-4623	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M116/A3	E124/2	E338/C5
E/S-4624	POWER SUPPLY	GE	570062FAAC1	CB CTL RM/1C-18	786' -0"	MILD	M116/A7	E124/2	E338/C5
FC-4408	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/D2	E109/9	E338/C5
FC-4409	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM	786' -0"	MILD	M114/B8	E109/9	E338/C5
FC-4410	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/B2	E109/9	E338/C5
FC-4411	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/D7	E109/9	E338/C5
FIC-2509	FLOW INDICATING CONTROL	GE	540	CB CTL RM/1C-04	786' -0"	MILD	M125/D4	E121/38	E338/D5
FIC-5828A	FLOW INDICATING CONTROL	GE	540	CB CTL RM/1C-24A	786' -0"	MILD	M158/E5	E113/112	E338/D4
FIC-5828B	FLOW INDICATING CONTROL	GE	540	CB CTL RM/1C-24B	786' -0"	MILD	M158/E5	E113/112	E338/D4
FI-2749	INDICATOR	GE	180	CB CTL RM/1C-19	786' -0"	MILD	M127/G6	E120/14	E338/D5
FI-4408	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M114/D2	E109/9	E338/D5
FI-4409	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M114/B8	E109/9	E338/D5
FI-4410	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M114/B2	E109/9	E338/D5
FI-4411	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M114/D7	E109/9	E338/D5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
FQ-3707	FLOW INTEGRATING INDICATOR	GE	561290AAA-CIP	CB CTL RM/1C-19	786' -0"	MILD	M137/H6	E125/5	E338/D5
FQ-3708	FLOW INTEGRATING INDICATOR	GE	561290AAA-CIP	CB CTL RM/1C-19	786' -0"	MILD	M137/E6	E125/5	E338/D5
FR-3707	PRESSURE RECORDER	GE	531	CB CTL RM/1C-04	786' -0"	MILD	M137/H6	E125/5	E338/D5
FS-5826A	FLOW SWITCH	GE	560	CB CTL RM/1C-24A	786' -0"	MILD	M158/E5	E113/112	E338/D4
FS-5826B	FLOW SWITCH	GE	560	CB CTL RM/1C-24B	786' -0"	MILD	M158/E5	E113/112	E338/D4
FT-2509	FLOW TRANSMITTER	GE	555	RCIC ROOM	716' -9"	MILD	M125/D4	E121/38	E317/C5
FT-3707	FLOW TRANSMITTER	GE	555111BCAA-3A	TORUS ROOM SOUTH	716' -9"	HARSH	M137/H6	E125/5	E317/F3
FT-3708	FLOW TRANSMITTER	GE	555111BCAA-3A	TORUS ROOM NORTH	716' -9"	HARSH	M137/E6	E125/5	E316/D7
FT-4408	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	RB-S/1C-126B	757' -6"	MILD	M114/E3	E109/9	E319/E4
FT-4409	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	RB-S/1C-126B	757' -6"	MILD	M114/C7	E109/9	E319/E4
FT-4410	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	RB-N/1C-126A	757' -6"	MILD	M114/C3	E109/9	E318/C3
FT-4411	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	RB-N/1C-126A	757' -6"	MILD	M114/E7	E109/9	E318/D3
FY-2509		GE	565	CB CTL RM/1C-04	786' -0"	MILD	M125/D4	E121/38	E338/D5
FY-3707	FLOW RELAY	GE	565100AAAC1	CB CTL RM/1C-19	786' -0"	MILD	M137/H6	E125/5	E338/D5
FY-3708	FLOW RELAY	GE	565100AAAC1	CB CTL RM/1C-19	786' -0"	MILD	M137/E6	E125/5	E338/D5
FY-4408	FLOW RELAY	GE	564120AAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/D2	E109/9	E338/C5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
FY-4409	FLOW RELAY	GE	564120AAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/B7	E109/9	E338/C5
FY-4410	FLOW RELAY	GE	564120AAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/B3	E109/9	E338/C5
FY-4411	FLOW RELAY	GE	564120AAAC1	CB CTL RM/1C-18	786' -0"	MILD	M114/D7	E109/9	E338/C5
IRM-4572A	INTERMEDIATE RANGE MONITOR	GE	194X672G8	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
IRM-4572B	INTERMEDIATE RANGE MONITOR	GE	194X672G8	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
IRM-4572C	INTERMEDIATE RANGE MONITOR	GE	194X672G8	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
IRM-4572D	INTERMEDIATE RANGE MONITOR	GE	194X672G8	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
IRM-4572E	INTERMEDIATE RANGE MONITOR	GE	194X672G8	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
IRM-4572F	INTERMEDIATE RANGE MONITOR	GE	194X672G8	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
KS-3706A	TIMER SWITCH	BLISS	HP52A6	CB CTL RM/1C-21	786' -0"	MILD	M137/F7	E125/2	E338/C4
KS-3706B	TIMER SWITCH	BLISS	HP52A6	CB CTL RM/1C-21	786' -0"	MILD	M137/F7	E125/2	E338/C4
KS-3747A	TIMER SWITCH	BLISS	HP52A6	CB CTL RM/1C-21	786' -0"	MILD	M137/B8	E125/2	E338/C4
KS-3747B	TIMER SWITCH	BLISS	HP52A6	CB CTL RM/1C-21	786' -0"	MILD	M137/B8	E125/2	E338/C4
LC-4559	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E7	E109/10	E338/C5
LC-4560	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E2	E109/10	E338/C5
LC-4561	LEVEL CONTROL	GE	563022CAAC1	CB CTL RM/1C-18	786' -0"	MILD	M115/E7	E109/10	E338/C5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LE-3701	LEVEL ELEMENT	DELAVAL GEMS SENS	XM-33353	DRYWELL	742' -9"	HARSH	M137/F8	E125/2	E331/D4
LE-3721	LEVEL ELEMENT	DELAVAL GEMS SENS	XM-33353	DRYWELL	742' -9"	HARSH	M137/B7	E125/2	E331/E5
LITS-4539	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-56	786' -0"	MILD	M115/F7	E843	E320/D4
LITS-4540	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-55	757' -6"	MILD	M115/F3	E842	E318/E6
LITS-4565	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-S/1C-122	757' -6"	MILD	M115/E7	E121/56	E319/A7
LITS-4566	LEVEL INDICATING SWITCH	YARWAY	4418C	RB-N/1C-121	757' -6"	MILD	M115/E3	E121/56	E318/F4
LI-4539	LEVEL INDICATOR	YARWAY	4455	CB CTL RM/1C-05	786' -0"	MILD	M115/F7	E109/10	E338/D5
LI-4540	LEVEL INDICATOR	YARWAY	4455	CB CTL RM/1C-05	786' -0"	MILD	M115/F2	E109/10	E338/D5
LI-4541	INDICATOR	GE	180	CB CTL RM/1C-04	786' -0"	MILD	M115/F6	E124/2	E338/D5
LI-4559	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M115/E7	E109/10	E338/D5
LI-4560	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M115/E2	E109/10	E338/D5
LI-4561	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M115/E7	E109/10	E338/D5
LI-4565	LEVEL INDICATOR	YARWAY	4455	CB CTL RM/1C-03	786' -0"	MILD	M115/E7	E121/57	E338/D5
LPRM-4571A	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571B	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571C	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LPRM-4571D	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571E	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571F	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571G	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571H	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571I	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571J	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571K	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571L	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571M	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571N	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571O	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571P	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571Q	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571R	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571S	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LPRM-4571T	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571U	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LPRM-4571V	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E62	E338/D5
LRS-4559	PRESSURE RECORDER	GE	531	CB CTL RM/1C-05	786' -0"	MILD	M115/E1	E109/10	E338/D5
LRS-4560	PRESSURE RECORDER	GE	531	CB CTL RM/1C-05	786' -0"	MILD	M115/E1	E109/10	E338/D5
LR-4566	LEVEL RECORDER	GE	530	CB CTL RM/1C-03	786' -0"	MILD	M115/E3	E121/56	E338/D5
LSS-3701	LEVEL SELECTOR SWITCH	GE	CR120A28802	RAD BLDG/1C-84	786' -0"	MILD	M137/F8	E125/2	E359/G5
LSS-3721	LEVEL SELECTOR SWITCH	GE	CR120A28802	RAD BLDG/1C-84	786' -0"	MILD	M137/B7	E125/2	E359/G5
LS-3701	LEVEL SWITCH	DELAVAL GEMS SENS	31924	RB-N	757' -6"	HARSH	M137/F8	E125/2	E318/E5
LS-3721	LEVEL SWITCH	DELAVAL GEMS SENS	31924	RB-N	757' -6"	HARSH	M137/B7	E125/2	E318/E5
LT-4541	LEVEL TRANSMITTER	GE	555111BDAA-3P	RB-N/1C-56	786' -0"	MILD	M115/F6	E124/2	E320/D4
LT-4559	LEVEL TRANSMITTER	GE	555111BB AA3P	RB-N/1C-56	786' -0"	MILD	M115/E7	E109/10	E320/D4
LT-4560	LEVEL TRANSMITTER	GE	555111BB AA3P	RB-N/1C-55	757' -6"	MILD	M115/E3	E109/10	E318/E6
LT-4561	LEVEL TRANSMITTER	GE	555111BB AA3P	RB-N/1C-56	786' -0"	MILD	M115/E7	E109/10	E320/D4
PDI-4623	INDICATOR	GE	180	CB CTL RM/1C-04	786' -0"	MILD	M116/A3	E124/2	E338/D5
PDI-4624	INDICATOR	GE	180	CB CTL RM/1C-04	786' -0"	MILD	M116/A7	E124/2	E338/D5

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PDT-4623	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	NE CRNR RM/1C-57	735' -7"	HARSH	M116/A3	E124/2	E316/E2
PDT-4624	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	SW CRNR RM/1C-58	735' -0"	MILD	M116/A7	E124/2	E317/D7
PI-1018	INDICATOR	GE	180	CB CTL RM/1C-07	786' -0"	MILD	M130/G6	E43	E338/E4
PI-1019	INDICATOR	GE	180	CB CTL RM/1C-07	786' -0"	MILD	M103/G7	E43	E338/E4
PI-2106	INDICATOR	GE	180	CB CTL RM/1C-03	786' -0"	MILD	M121/E4	E121/9	E338/D5
PI-2126	INDICATOR	GE	180	CB CTL RM/1C-03	786' -0"	MILD	M121/E4	E121/10	E338/D5
PI-2207	INDICATOR	GE	180	CB CTL RM/1C-03	786' -0"	MILD	M122/F2	E121/26	E338/D5
PI-2306	INDICATOR	GE	180	CB CTL RM/1C-03	786' -0"	MILD	M123/DE	E121/25	E338/D5
PI-2403	INDICATOR	GE	180	CB CTL RM/1C-04	786' -0"	MILD	M124/G3	E121/30	E338/D5
PI-4563	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M115/E7	E109/10	E338/D5
PI-4564	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M115/E2	E109/10	E338/D5
PI-4565	INDICATOR	GE	180	CB CTL RM/1C-05	786' -0"	MILD	M115/E6	E109/10	E338/D5
PR-4384A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D2	E122/21	E338/E4
PR-4385A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D2	E122/21	E338/E4
PR-4542	PRESSURE RECORDER	GE	531	CB CTL RM/1C-05	786' -0"	MILD	M115/G2	E109/9	E338/D5
PT-1018	PRESSURE TRANSMITTER	SCHAEVITZ	501X5A	TB-N/1C-210	757' -6"	MILD	M103/G6	E43	E308/C6

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PT-1019	PRESSURE TRANSMITTER	SCHAEVITZ	501X5A	TB-N/1C-210	757' -6"	MILD	M103/G6	E43	E308/C6
PT-2106	PRESSURE TRANSMITTER	GE	551032EKZZ2	SE CRNR RM/1C-123	716' -9"	HARSH	M121/E3	E121/9	E317/D3
PT-2126	PRESSURE TRANSMITTER	GE	551032EKZZ2	NW CRNR RM/1C-124	716' -9"	HARSH	M121/E4	E121/10	E316/E7
PT-2207	PRESSURE TRANSMITTER	GE	551032GKZZ2	HPCI ROOM/1C-120	716' -9"	HARSH	M122/F2	E121/25	E317/B4
PT-2306	PRESSURE TRANSMITTER	GE	551032GKZZ2	HPCI ROOM/1C-120	716' -9"	HARSH	M123/D4	E121/25	E317/B4
PT-4343	PRESSURE TRANSMITTER	GE	556	RECOMBINER H&V ROOM	757' -6"	MILD	M143/G3	E122/21	E315/B8
PT-4365A	PRESSURE TRANSMITTER	GE	556	RB-S	757' -6"	MILD	M143/F6	E122/21	E319/E5
PT-4365B	PRESSURE TRANSMITTER	GE	556	RB-N	786' -0"	MILD	M143/D5	E122/21	E320/C4
PT-4542	DIFFERENTIAL PRESSURE TRANSMIT	ITT BARTON	368	RB-N/1C-55	757' -6"	MILD	M115/F2	E109/9	E318/E6
PT-4563	PRESSURE TRANSMITTER	GE	551032-GM772	RB-N/1C-56	786' -0"	MILD	M115/E7	E109/10	E320/D4
PT-4564	PRESSURE TRANSMITTER	GE	551032-GM772	RB-N/1C-55	757' -6"	MILD	M115/E2	E109/10	E318/E6
PT-4565	PRESSURE TRANSMITTER	GE	551032-GM772	RB-N/1C-56	786' -0"	MILD	M115/E6	E109/10	E320/D4
RC-4448A	RADIATION CONTROL	GE	238X660G3	CB CTL RM/1C-36	786' -0"	MILD	M114/E1	E64	E338/D5
RC-4448B	RADIATION CONTROL	GE	238X660G3	CB CTL RM/1C-36	786' -0"	MILD	M114/D8	E64	E338/D5
RC-4448C	RADIATION CONTROL	GE	238X660G3	CB CTL RM/1C-36	786' -0"	MILD	M114/C1	E64	E338/D5
RC-4448D	RADIATION CONTROL	GE	238X660G3	CB CTL RM/1C-36	786' -0"	MILD	M114/E8	E64	E338/D5

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RE-4131A	RADIATION ELEMENT	GE	194X927G11	RB-N	833' -6"	MILD	M141/H2	E64	E324/E3
RE-4131B	RADIATION ELEMENT	GE	194X927G11	RB-N	833' -6"	MILD	M141/H2	E64	E324/E3
RE-4448A	RADIATION ELEMENT	GE	237X731G001	STEAM TUNNEL	757' -6"	HARSH	M114/E2	E64	E328/E4
RE-4448B	RADIATION ELEMENT	GE	237X731G001	STEAM TUNNEL	757' -6"	HARSH	M114/D8	E64	E328/E4
RE-4448C	RADIATION ELEMENT	GE	237X731G001	STEAM TUNNEL	757' -6"	HARSH	M114/D2	E64	E328/E4
RE-4448D	RADIATION ELEMENT	GE	237X731G001	STEAM TUNNEL	757' -6"	HARSH	M114/E8	E64	E328/E4
RE-4571L	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571M	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571N	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571O	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571P	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571Q	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571R	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571S	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571T	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4571U	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
RE-4571V	RADIATION ELEMENT	GE		RV	800' -0"	MILD	M115/E5	E62	E369
RE-4572A	RADIATION ELEMENT	GE	112C3144G008	RV	800' -0"	MILD	M115/E5	E61	E369
RE-4572B	RADIATION ELEMENT	GE	112C3144G008	RV	800' -0"	MILD	M115/E5	E62	E369
RE-4572C	RADIATION ELEMENT	GE	112C3144G008	RV	800' -0"	MILD	M115/E5	E61	E369
RE-4572D	RADIATION ELEMENT	GE	112C3144G008	RV	800' -0"	MILD	M115/E5	E61	E369
RE-4572E	RADIATION ELEMENT	GE	112C3144G008	RV	800' -0"	MILD	M115/E5	E61	E369
RE-4572F	RADIATION ELEMENT	GE	112C3144G008	RV	800' -0"	MILD	M115/E5	E61	E369
RE-4573A	RADIATION ELEMENT	GE	112C3144G007	RV	800' -0"	MILD	M115/D5	E61	E369
RE-4573B	RADIATION ELEMENT	GE	112C3144G007	RV	800' -0"	MILD	M115/D5	E61	E369
RE-4573C	RADIATION ELEMENT	GE	112C3144G007	RV	800' -0"	MILD	M115/D5	E61	E369
RE-4573D	RADIATION ELEMENT	GE	112C3144G007	RV	800' -0"	MILD	M115/D5	E61	E369
RE-8101A	AIR MONITOR	NMC	RAK-22IF	RB-S/1C-219A	757' -6"	MILD	M181/G6	E122/28	E319/E6
RE-8101B	AIR MONITOR	NMC	RAK-22IF	RB-N/1C-219B	757' -6"	MILD	M181/G3	E122/28	E318/G6
RE-8102A	AIR MONITOR	NMC	RAK-22IF	RB-S/1C-219A	757' -6"	MILD	M181/G6	E122/28	E319/E6
RE-8102B	AIR MONITOR	NMC	RAK-22IF	RB-N/1C-219B	757' -6"	MILD	M181/G3	E122/28	E318/G6
RE-8103A	AIR MONITOR	NMC	RAK-22IF	RB-S/1C-219A	757' -6"	MILD	M181/G3	E122/28	E319/E6

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RE-8103B	AIR MONITOR	NMC	RAK-22IF	RB-N/1C-219B	757' -6"	MILD	M181/G3	E122/28	E318/G6
RIS-4131A	RADIATION INDICATING SWITCH	GE	129B2802	CB CTL RM/1C-10	786' -0"	MILD	M141/H2	E64	E338/C4
RIS-4131B	RADIATION INDICATING SWITCH	GE	129B2802	CB CTL RM/1C-10	786' -0"	MILD	M141/H2	E64	E338/C4
RIT-8101A	AIR MONITOR	NMC	RAK-22IF	RB-S/1C-219A	757' -6"	MILD	M181/G6	E122/28	E319/E6
RIT-8101B	AIR MONITOR	NMC	RAK-22IF	RB-N/1C-219B	757' -6"	MILD	M181/G3	E122/28	E318/G6
RIT-8102A	AIR MONITOR	NMC	RAK-22IF	RB-S/1C-219A	757' -6"	MILD	M181/G6	E122/28	E319/E6
RIT-8102B	AIR MONITOR	NMC	RAK-22IF	RB-N/1C-219B	757' -6"	MILD	M181/G3	E122/28	E318/G6
RIT-8103A	AIR MONITOR	NMC	RAK-22IF	RB-S/1C-219A	757' -6"	MILD	M181/G6	E122/28	E319/E6
RIT-8103B	AIR MONITOR	NMC	RAK-22IF	RB-N/1C-219B	757' -6"	MILD	M181/G3	E122/28	E318/G6
RR-4131	RADIATION RECORDER	GE	521	CB CTL RM/1C-02	786' -0"	MILD	M141/H2	E64	E338/C4
RR-4379A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/E2	E122/28	E338/E4
RR-4379B	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/E1	E122/28	E338/D4
RR-4448A	RADIATION RECORDER	GE	521	CB CTL RM/1C-02	786' -0"	MILD	M114/E1	E64	E338/C4
RR-4448B	RADIATION RECORDER	GE	521	CB CTL RM/1C-02	786' -0"	MILD	M114/E2	E64	E338/C4
RR-7606A	RADIATION RECORDER	HONEYWELL	37303-6020-02	RB-N/1C-183	757' -6"	MILD	M176/A3	E113/11	E318/G2
RR-7606B	RADIATION RECORDER	HONEYWELL	37303-6020-02	RB-N	757' -6"	MILD	M176/A3	E113/11	E318/G3

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SRM-4573A	STARTUP RANGE MONITOR	GE	194X400G17	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
SRM-4573B	STARTUP RANGE MONITOR	GE	194X400G17	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
SRM-4573C	STARTUP RANGE MONITOR	GE	194X400G17	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
SRM-4573D	STARTUP RANGE MONITOR	GE	194X400G17	CB CTL RM/1C-36	786' -0"	MILD	M115/D4	E61	E338/D5
TDS-4451	TEMPERATURE DIFFERENTIAL SWITC	RI 8	86UTFF	CB CTL RM/1C-21	786' -0"	MILD	M114/G1	E124/6	E338/C4
TE-2265	TEMPERATURE ELEMENT	NECI	N145C3023	HPCI ROOM	716' -9"	HARSH	M122/A2	E124/7	M660/C3
TE-3724	TEMPERATURE ELEMENT	NECI	N145C3044	DRYWELL	742' -9"	HARSH	M137/B7	E125/5	E331/E5
TE-4328A	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	TORUS ROOM NORTH	716' -9"	HARSH	M143/C5	E122/18	E316/F5
TE-4328B	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	TORUS ROOM NORTH	716' -9"	HARSH	M143/C5	E122/18	E316/B2
TE-4328C	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	TORUS ROOM SOUTH	716' -9"	HARSH	M143/C5	E122/18	E317/G5
TE-4328D	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	TORUS ROOM SOUTH	716' -9"	HARSH	M143/C5	E122/18	E317/H8
TE-4328E	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	742' -9"	HARSH	M143/D6	E122/20	E331/C3
TE-4328F	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	742' -9"	HARSH	M143/D6	E122/20	E331/F6
TE-4328G	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	757' -6"	HARSH	M143/D6	E122/20	E329/B4
TE-4328H	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	757' -6"	HARSH	M143/D6	E122/20	E329/G4
TE-4328J	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	761' -4"	HARSH	M143/E6	E122/20	E330/E2

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TE-4328K	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	761' -4"	HARSH	M143/E6	E122/20	E330/E6
TE-4328L	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-405-0-00	DRYWELL	761' -4"	HARSH	M143/E6	E122/20	E330/F4
TE-4328M	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8197-10-S	DRYWELL	742' -9"	HARSH	M143/D6	E122/20	E331/D4
TE-4386A	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	TORUS ROOM NORTH	716' -9"	HARSH	M143/C5	E122/18	E316/F5
TE-4386B	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	TORUS ROOM NORTH	716' -9"	HARSH	M143/C5	E122/18	E316/B2
TE-4386C	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	TORUS ROOM SOUTH	716' -9"	HARSH	M143/C5	E122/18	E317/G5
TE-4386D	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	TORUS ROOM SOUTH	716' -9"	HARSH	M143/C5	E122/18	E317/H8
TE-4386E	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	742' -9"	HARSH	M143/D6	E122/20	E331/C3
TE-4386F	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	742' -9"	HARSH	M143/D6	E122/20	E331/F6
TE-4386G	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	757' -6"	HARSH	M143/D6	E122/20	E329/B4
TE-4386H	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	757' -6"	HARSH	M143/D6	E122/20	E329/G4
TE-4386J	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	761' -4"	HARSH	M143/E6	E122/20	E330/D2
TE-4386K	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	761' -4"	HARSH	M143/E6	E122/20	E330/D6
TE-4386L	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	761' -4"	HARSH	M143/E6	E122/20	E330/F5
TE-4386M	TEMPERATURE ELEMENT	LEEDS & NORTHRUP	8920-404-00-3	DRYWELL	761' -9"	HARSH	M143/D6	E122/20	E331/D4
TE-4400	TEMPERATURE ELEMENT	GENERAL ELECTRIC	P/N 133D9679	DRYWELL	761' -2"	HARSH	M114/E4	E121/2	E330/C4

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TE-4401	TEMPERATURE ELEMENT	GENERAL ELECTRIC	P/N 133D9679	DRYWELL	761' -2"	HARSH	M114/E4	E121/2	E330/C3
TE-4402	TEMPERATURE ELEMENT	GENERAL ELECTRIC	P/N 133D9679	DRYWELL	773' -9"	HARSH	M114/E6	E121/2	E330/C4
TE-4403	TEMPERATURE ELEMENT	NECI	136B3184	DRYWELL	773' -9"	HARSH	M114/E6	E121/2	E330/C4
TE-4404	TEMPERATURE ELEMENT	NECI	136B3184	DRYWELL	773' -9"	HARSH	M114/D5	E121/2	E330/F4
TE-4405	TEMPERATURE ELEMENT	GENERAL ELECTRIC	P/N 133D9679	DRYWELL	773' -9"	HARSH	M114/D4	E121/2	E330/F4
TE-4406	TEMPERATURE ELEMENT	GENERAL ELECTRIC	P/N 133D9679	DRYWELL	773' -9"	HARSH	M114/E6	E121/2	E330/F3
TE-4407	TEMPERATURE ELEMENT	GENERAL ELECTRIC	P/N 133D9679	DRYWELL	773' -9"	HARSH	M114/E6	E121/2	E330/E3
TE-4447	TEMPERATURE ELEMENT	NECI	N145C3023	STEAM TUNNEL	757' -6"	HARSH	M114/G3	E124/7	E328/F2
TE-4451A	TEMPERATURE ELEMENT	NECI	N145C3023	STEAM TUNNEL	757' -6"	HARSH	M114/G2	E124/6	E328/D3
TE-4451B	TEMPERATURE ELEMENT	NECI	N145C3023	STEAM TUNNEL	757' -6"	HARSH	M114/G2	E124/6	E328/F4
TIS-3724	TEMPERATURE INDICATING SWITCH	GE	195	CB CTL RM/1C-04	786' -0"	MILD	M137/B4	E125/5	E338/D5
TI-4328	TEMPERATURE INDICATOR	LEEDS & NORTHRUP	900	E SWGR RM/1C-142	757' -6"	MILD	M143/F6	E122/20	E335/D6
TR-4383A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D2	E122/20	E338/E4
TR-4383B	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D1	E122/20	E338/E4
TR-4383C	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/E1	E122/20	E338/E4
TR-4386A	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D2	E122/20	E338/E4

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TR-4386B	RADIATION RECORDER	HONEYWELL	37303-6020-02	CB CTL RM/1C-29	786' -0"	MILD	M143/D1	E122/20	E338/E4
TR-4400	TEMPERATURE RECORDER	GE H	HG	CB CTL RM/1C-21	786' -0"	MILD	M114/D4	E121/2	E338/D5
TS-2265		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M122/A2	E124/7	E338/C4
TS-2453		TRANSMATION	610A	CB CTL RM/1C-04	786' -0"	MILD	M124/C7	E124/7	E338/D5
TS-4447		TRANSMATION	610A	CB CTL RM/1C-21	786' -0"	MILD	M114/G2	E124/7	E338/C4
TT-4386A	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/C5	E122/18	E335/D6
TT-4386B	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/C5	E122/18	E335/D6
TT-4386C	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/C5	E122/18	E335/D6
TT-4386D	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/C5	E122/18	E335/D6
TT-4386E	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386F	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386G	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386H	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386I	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	ESS SWITCHGEAR ROOM	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386J	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386K	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6

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TT-4386L	TEMPERATURE TRANSMITTER	HONEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
TT-4386M	TEMPERATURE TRANSMITTER	HDNEYWELL	39521-4010-91	E SWGR RM/1C-142	757' -6"	MILD	M143/F5	E122/20	E335/D6
ZS-1906A	POSITION SWITCH	NAMCO	EA-740	DRYWELL	757' -6"	HARSH	M119/F7	E121/58A	E329/C5
ZS-1906B	POSITION SWITCH	NAMCO	EA-740	DRYWELL	757' -6"	HARSH	M119/E7	E121/58A	E329/C5
ZS-1972	SOLENOID VALVE INTEGRAL LIMIT	TARGET ROCK	72V001 (ZS)	NW CRNR RM	716' -9"	HARSH	M119/D3	E122/13	E316/E8
ZS-1973	SOLENOID VALVE INTEGRAL LIMIT	TARGET ROCK	72V001 (ZS)	NW CRNR RM	716' -9"	HARSH	M119/D2	E122/13	E316/E8
ZS-2002A	POSITION SWITCH	NAMCO	EA-740	DRYWELL	757' -6"	HARSH	M120/F3	E121/58	E329/F5
ZS-2002B	POSITION SWITCH	NAMCO	EA-740	DRYWELL	757' -6"	HARSH	M120/E3	E121/58	E329/F5
ZS-2051	SOLENOID VALVE INTEGRAL LIMIT	TARGET ROCK	72V001 (ZS)	SE CRNR RM	716' -9"	HARSH	M120/D7	E122/13	E317/D3
ZS-2052	SOLENOID VALVE INTEGRAL LIMIT	TARGET ROCK	72V001 (ZS)	SE CRNR RM	716' -9"	HARSH	M120/D8	E122/13	E317/D3
ZS-2211	POSITION SWITCH	NAMCO	SAI-31	HPCI ROOM	716' -9"	HARSH	M122/D2	E121/26	E317/C3
ZS-2212	POSITION SWITCH	NAMCO	SAI-31	HPCI ROOM	716' -9"	HARSH	M122/D2	E121/26	E317/C3
ZS-2234	POSITION SWITCH	NAMCO	SAI-131	HPCI ROOM	716' -9"	HARSH	M122/C5	E121/26	E317/A3
ZS-2235	POSITION SWITCH	NAMCO	SAI-131	HPCI ROOM	716' -9"	HARSH	M122/C6	E121/26	E317/A3
ZS-2435	POSITION SWITCH	NAMCO	SAI-131	RCIC ROOM	716' -9"	HARSH	M124/B5	E121/39	M405/B6
ZS-2436	POSITION SWITCH	NAMCO	SAI-131	RCIC ROOM	716' -9"	HARSH	M124/B5	E121/39	M405/B6

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
ZS-3704	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M137/H7	E122/9	E317/F4
ZS-3705	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M137/H7	E122/9	E317/F4
ZS-3728	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM NORTH	716' -9"	HARSH	M137/D7	E122/9	E316/D6
ZS-3729	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM NORTH	716' -9"	HARSH	M137/D7	E122/9	E316/D6
ZS-4300	POSITION SWITCH	MICRO SWITCH	OPD-AR	NE CRNR RM	735' -7"	MILD	M143/C7	E122/12	E316/E2
ZS-4301	POSITION SWITCH	MICRO SWITCH	OPD-AR	NE CRNR RM	735' -7"	HARSH	M143/C8	E122/13	E316/E2
ZS-4302	POSITION SWITCH	MICRO SWITCH	OPD-AR	RB-N	812' -0"	MILD	M143/D7	E122/12	E322/D3
ZS-4303	POSITION SWITCH	MICRO SWITCH	OPD-AR	H&V CONTROL VALVE RM	812' -0"	HARSH	M143/D7	E122/13	E322/D3
ZS-4304	POSITION SWITCH	MICRO SWITCH	OPD-AR	NE CRNR RM	735' -7"	HARSH	M143/A7	E122/23	E316/E3
ZS-4305	POSITION SWITCH	MICRO SWITCH	OPD-AR	NE CRNR RM	735' -7"	HARSH	M143/B7	E122/23	E316/E2
ZS-4306	POSITION SWITCH	MICRO SWITCH	OPD-AR	RHR VALVE ROOM	757' -6"	HARSH	M143/E2	E122/13	E318/E6
ZS-4307	POSITION SWITCH	MICRO SWITCH	OPD-AR	RHR VALVE ROOM	757' -6"	HARSH	M143/E3	E122/12	E318/E6
ZS-4308	POSITION SWITCH	MICRO SWITCH	OPD-AR	RHR VALVE ROOM	757' -6"	HARSH	M143/E3	E122/12	E318/C6
ZS-4309	POSITION SWITCH	NAMCO	SAI-31	NE CRNR RM	735' -7"	HARSH	M143/C7	E122/12	E316/E2
ZS-4310	POSITION SWITCH	NAMCO	SAI-31	H&V CONTROL VALVE RM	812' -0"	HARSH	M143/D7	E122/12	E322/D4
ZS-4311	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	RHR VALVE ROOM	757' -6"	HARSH	M143/F3	E122/13	E319/G7

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ZS-4312	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	RHR VALVE ROOM	757' -6"	HARSH	M143/F3	E122/12	E318/D7
ZS-4313	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	RHR VALVE ROOM	757' -6"	HARSH	M143/F3	E122/12	E319/G7
ZS-4639	POSITION SWITCH	NAMCO	EA-740	DRYWELL	775' -11"	HARSH	M116/F6	E122/10	E330/B5
ZS-4640	POSITION SWITCH	NAMCO	SAI-131	RWCU HEAT EXCH ROOM	786' -0"	HARSH	M116/F7	E122/10	E321/E5
ZS-5703A	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M157/H7	E113/94	E317/E5
ZS-5703B	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M157/G7	E113/94	E317/H7
ZS-5704A	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M157/G6	E113/94	E317/E5
ZS-5704B	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M157/G6	E113/94	E317/G7
ZS-5718A	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M157/C8	E113/94	E317/E5
ZS-5718B	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM NORTH	716' -9"	HARSH	M157/A8	E113/94	E316/C7
ZS-5719A	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM SOUTH	716' -9"	HARSH	M157/B7	E113/94	E317/E5
ZS-5719B	POSITION SWITCH	MICRO SWITCH	DTF2-2RN-RH	TORUS ROOM NORTH	716' -9"	HARSH	M157/A7	E113/94	E316/C7
ZS-5817A	POSITION SWITCH	MICRO SWITCH	OPD-AR	H&V ROOM	796' -0"	MILD	M158/E2	E113/11	E320/G3
ZS-5817B	POSITION SWITCH	MICRO SWITCH	OPD-AR	H&V ROOM	796' -0"	MILD	M158/D2	E113/11	E320/G3
ZS-5825A	POSITION SWITCH	MICRO SWITCH	OPD-AR	SGT ROOM	786' -0"	HARSH	M158/F6	E113/11	E315/G5
ZS-5825B	POSITION SWITCH	MICRO SWITCH	OPD-AR	SGT ROOM	786' -0"	HARSH	M158/D6	E113/11	E315/F5

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
ZS-7602A	POSITION SWITCH	MICRO SWITCH	OPD-AR	SGT ROOM	786' -0"	HARSH	M176/A4	E113/64	E315/G3
ZS-7602B	POSITION SWITCH	MICRO SWITCH	OPD-AR	SGT ROOM	786' -0"	HARSH	M176/A4	E113/64	E315/G3
ZS-7604U	POSITION SWITCH	MICRO SWITCH	OPD-AR	H&V ROOM	796' -0"	MILD	M176/B4	E113/54	E320/G3
ZS-7604V	POSITION SWITCH	MICRO SWITCH	OPD-AR	H&V ROOM	796' -0"	MILD	M176/B3	E113/57	E320/G3
ZS-7610A	POSITION SWITCH	MICRO SWITCH L	LATER	RB-N	8'2-0	MILD	M176/E3	E113/64	E322/F2
ZS-7610B	POSITION SWITCH	MICRO SWITCH L	LATER	RB-N	812' -0"	MILD	M176/E3	E113/64	E322/F2
ZS-7612A	POSITION SWITCH	MICRO SWITCH L	LATER	RB-N	812' -0"	MILD	M176/F3	E113/64	E322/F2
ZS-7612B	POSITION SWITCH	MICRO SWITCH L	LATER	RB-N	812' -0"	MILD	M176/F3	E113/64	E322/F2
ZS-7630A	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	757' -6"	MILD	M176/H7	E113/64	E319/G8
ZS-7630B	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	757' -6"	MILD	M176/G7	E113/64	E319/G8
ZS-7631A	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	812' -0"	MILD	M176/H6	E113/64	E323/E3
ZS-7631B	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	812' -0"	MILD	M176/G7	E113/64	E323/E3
ZS-7632A	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	812' -0"	MILD	M176/H4	E113/64	E323/F3
ZS-7632B	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	812' -0"	MILD	M176/G4	E113/64	E323/F3
ZS-7633A	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	812' -0"	MILD	M176/H4	E113/64	E323/G3
ZS-7633B	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	812' -0"	MILD	M176/G5	E113/64	E323/G3

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
ZS-7634A	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	757' -6"	MILD	M176/H4	E113/64	E319/D8
ZS-7634B	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	757' -6"	MILD	M176/G4	E113/64	E319/D8
ZS-7636A	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	757' -6"	MILD	M176/C6	E113/64	E319/D8
ZS-7636B	POSITION SWITCH	MICRO SWITCH	BZE6-2RN	RB-S	757' -6"	MILD	M176/D6	E113/64	E319/D8
ZS-7641A	POSITION SWITCH	MICRO SWITCH	OPD-AR	RAD BLDG	786' -0"	MILO	M176/H8	E113/64	E359/G8
ZS-7641B	POSITION SWITCH	MICRO SWITCH	OPD-AR	RAD BLDG	786' -0"	MILD	M176/G8	E113/64	E359/F8
1C77A	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
1C77B	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
1C77C	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
1C77D	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
1C77E	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4
1C77F	AVERAGE POWER RANGE MONITOR	GE		CB CTL RM	786' -0"	MILD	NS	E62	E338/D4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-3225A	HAND SWITCH	ONAN	DJA-MS/1T	DG ROOM	757' -6"	MILD	M132/E8	E80	M2/B3
HS-3225B	HAND SWITCH	ONAN	DJA-MS/1T	DG ROOM	757' -6"	MILD	M132/H8	E80	M2/B3
HS-3233A	HAND SWITCH	GE	CR2940 U301	DG ROOM	757' -6"	MILD	M132/G6	E80	M2/B3
HS-3233B	HAND SWITCH	GE	CR2940 U301	DG ROOM	757' -6"	MILO	M132/D6	E80	M2/B3
LS-3208A	LEVEL SWITCH	COLT INDUSTRIES	80	DG ROOM	757' -6"	MILD	M132/F4	E106/5	E310/B3
LS-3208B	LEVEL SWITCH	COLT INDUSTRIES	80	DG ROOM	757' -6"	MILD	M132/F4	E106/5	E310/B3
LS-3210A	LEVEL SWITCH	COLT INDUSTRIES	80	DG ROOM	757' -6"	MILD	M132/C4	E106/5	E310/B4
LS-3210B	LEVEL SWITCH	COLT INDUSTRIES	80	DG ROOM	757' -6"	MILD	M132/C4	E106/5	E310/B4
PS-3241A	PRESSURE SWITCH	COLT INDUSTRIES	2584-B1	DG ROOM	757' -6"	MILD	M132/NS	E80	M2/B3
PS-3241B	PRESSURE SWITCH	COLT INDUSTRIES	2584-B1	DG ROOM	757' -6"	MILD	M132/NS	E80	M2/B3
PS-3242A	PRESSURE SWITCH	COLT INDUSTRIES	2584-B1	DG ROOM/1C-91	757' -6"	MILD	M132/G1	E80	E310/C3
PS-3242B	PRESSURE SWITCH	COLT INDUSTRIES	2584-B1	DG ROOM/1C-92	757' -6"	MILD	M132/A7	E80	E310/C2
SS-3236A	SPEED SWITCH	WESTINGHOUSE		DG ROOM	757' -6"	MILD	M132/H1	E80	M2/B3
SS-3236B	SPEED SWITCH	WESTINGHOUSE		DG ROOM	757' -6"	MILD	M132/A8	E80	M2/B3
SS-3237A	SPEED SWITCH	WESTINGHOUSE		DG ROOM	757' -6"	MILD	M132/C1	E80	M2/B3
SS-3237B	SPEED SWITCH	WESTINGHOUSE		DG ROOM	757' -6"	MILD	M132/A5	E80	M2/B3

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SYSTEM: STANDBY AC POWER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
TS-3226	TEMPERATURE SWITCH	FENWAL	27020	DG ROOM	757' -6"	MILD	M132/G3	E106/5	E310/C4
TS-3227	TEMPERATURE SWITCH	FENWAL	27020	DG ROOM	757' -6"	MILD	M132/D3	E106/5	E310/C4
1A3	4160 VOLT SWITCHGEAR	GE	HFA-511	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E5	M2/F5
1A4	4160 VOLT SWITCHGEAR	GE	HFA-511	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E5	M2/F6
1B20	MOTOR CONTROL CENTER	ITE IMPERIAL	47855-B1	INTAKE STR	767' -0"	MILD	N/A	E24	M17/E7
1B21	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	INTAKE STR	767' -0"	MILD	N/A	E105/30	M17/E7
1B3	MOTOR CONTROL CENTER	ITE IMPERIAL	47844-A	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E24	M2/F5
1B32	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E105/12	M2/G5
1B34	MOTOR CONTROL CENTER	ALLIS-CHALMERS	MARK 1	RB-S	757' -6"	MILD	N/A	E105/14	E321/B4
1B34A	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	RB-S	786' -0"	MILD	N/A	E105/15A	M3/C6
1B36	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	PUMPHOUSE	761' -0"	MILD	N/A	E105/34	E347/G6
1B37	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	RB-S	757' -6"	MILD	N/A	E105/38	E321/B5
1B4	MOTOR CONTROL CENTER	ITE IMPERIAL	47844-B	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E24	M2/F6
1B42	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E105/16	M2/G5
1B44	MOTOR CONTROL CENTER	ALLIS-CHALMERS	MARK 1	RB-N	757' -6"	MILD	N/A	E105/18	M2/E7
1B44A	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	RB-N	757' -6"	MILD	N/A	E105/19A	M2/E7

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SYSTEM: STANDBY AC POWER SUPPLY

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1B46	MOTOR CONTROL CENTER	ALLIS-CHALMERS	MARK 1	PUMPHOUSE	761' -0"	MILD	N/A	E105/35	E347/F7
1B9	MOTOR CONTROL CENTER	ITE IMPERIAL	47855-A3	INTAKE STR	767' -0"	MILD	N/A	E24	M17/E7
1B91	MOTOR CONTROL CENTER	ALLIS-CHALMERS	VALUELINE	INTAKE STR	767' -0"	MILD	N/A	E105/31	M17/E7
1G-21	GENERATOR	COLT INDUSTRIES	50-44-24	DG ROOM	757' -6"	MILD	M132/M2	E27	M2/C3
1G-31	GENERATOR	COLT INDUSTRIES	50-44-24	DG ROOM	757' -6"	MILD	M132/M2	E27	M2/C3
1P-44A	PUMP MOTOR	CRANE CO.	GA-1K-150	OUTSIDE TB	757' -6"	MILD	M132/A2	E106/5	E354/D3
1P-44B	PUMP MOTOR	CRANE CO.	GA-1K-150	DG ROOM	757' -6"	MILD	M132/A3	E106/5	E354/D4
1X20	LOAD CENTER TRANSFORMER	ITE	47855	INTAKE STR	767' -0"	MILD	N/A	E24	M17/E7
1X31	LOAD CENTER TRANSFORMER	ITE IMPERIAL	46787	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E24	M2/G5
1X41	LOAD CENTER TRANSFORMER	ITE IMPERIAL	46787	ESS SWITCHGEAR ROOM	757' -6"	MILD	N/A	E24	M405-2/*
1X91	LOAD CENTER TRANSFORMER	ITE	47855	INTAKE STR	767' -0"	MILD	N/A	E24	M2/G5
1Y-30	RPS DISTRIBUTION PANEL	GE C	CR105P002	E SWGR RM	757' -6"	MILD	N/A	E29	E335/D2

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SYSTEM: STANDBY DIESEL GEN ROOM VENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-7000A	HAND SWITCH	GE	CR2940 US203E	CB CTL RM/1C-23A	786' -0"	MILD	M170/G6	E113/52	E338/E4
HS-7000B	HAND SWITCH	GE	CR2940 US203E	CB CTL RM/1C-23B	786' -0"	MILD	M170/E7	E113/52	E338/E4
HS-7003A	HAND SWITCH	GE	CR2940-US203E	DG ROOM/1C-151	757' -6"	MILD	M170/H6	E113/52	E310/G6
HS-7003B	HAND SWITCH	GE	CR2940-US203E	DG ROOM/1C-152	757' -6"	MILD	M170/E5	E113/52	E310/F6
SV-7000A	SOLENOID VALVE	JOHNSON CONTROLS	V-24	DG ROOM/1C-151	757' -6"	MILD	M170/G7	E113/52	E310/G6
SV-7000B	SOLENOID VALVE	JOHNSON CONTROLS	V-24	DG ROOM/1C-152	757' -6"	MILD	M170/E7	E113/52	E310/F6
SV-7001A	SOLENOID VALVE	JOHNSON CONTROLS	V-24	DG ROOM	757' -6"	MILD	M170/G7	E113/52	E310/G6
SV-7001B	SOLENOID VALVE	JOHNSON CONTROLS	V-24	DG ROOM	757' -6"	MILD	M170/E5	E113/52	E310/F6
SV-7002A	SOLENOID VALVE	JOHNSON CONTROLS	V-24	DG ROOM/1C-151	757' -6"	MILD	M170/G7	E113/52	E310/G6
SV-7002B	SOLENOID VALVE	JOHNSON CONTROLS	V-24	DG ROOM/1C-152	757' -6"	MILD	M170/E5	E113/52	E310/F6
1V-SF-20	FAN MOTOR	JOY	SF-31060, SER	DG ROOM	757' -6"	MILD	M170/G7	E113/52	M625/C3
1V-SF-21	FAN MOTOR	JOY	SF-3160-1, SE	DG ROOM	757' -6"	MILD	M170/E8	E113/52	M625/C3

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
CU-5835A1	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N3455	786' -0"	HARSH	M158/F4	E113/97	E315/G5
CU-5835A2	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N3455	786' -0"	HARSH	M158/F4	E113/97	E315/G5
CU-5835B1	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N4446	786' -0"	HARSH	M158/B4	E113/97	E315/F6
CU-5835B2	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N4446	786' -0"	HARSH	M158/B4	E113/97	E315/F6
CU-5837A1	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N3455	786' -0"	HARSH	M158/F4	E113/97	E315/G6
CU-5837A2	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N3455	786' -0"	HARSH	M158/F4	E113/97	E315/G6
CU-5837B1	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N4446	786' -0"	HARSH	M158/B4	E113/97	E315/F6
CU-5837B2	CONTROL UNIT	FENWAL	35003-0	SGT ROOM/1N4446	786' -0"	HARSH	M158/B4	E113/97	E315/F6
DPS-5803A	DIFFERENTIAL PRESSURE SWITCH	DWYER	1600	SGT ROOM	786' -0"	MILD	M158/G6	E113/13	E315/G6
DPS-5803B	DIFFERENTIAL PRESSURE SWITCH	DWYER	1600	SGT ROOM	786' -0"	MILD	M158/C6	E113/13	E315/F6
DPS-7637A	DIFF PRESSURE SWITCH	WESTINGHOUSE	1637-25	RB-N	812' -0"	MILD	M176/C2	E113/64	E322/F2
DPS-7637B	DIFF PRESSURE SWITCH	WESTINGHOUSE	1637-25	RB-N	812' -0"	MILD	M176/C2	E113/64	E322/F2
DPT-7600A	FLOW TRANSMITTER	GE	554	OFFGAS STACK	740' -0"	MILD	M176/G2	E113/14	E370/E3
DPT-7600B	FLOW TRANSMITTER	GE	554	OFFGAS STACK	740' -0"	MILD	M176/G2	E113/14	E370/E3
DTIC-5805A	FLOW INDICATING CONTROL	GE	540	CB CTL RM/1C-24A	786' -0"	MILD	M158/G4	E113/113	E338/D4
DTIC-5805B	FLOW INDICATING CONTROL	GE	540	CB CTL RM/1C-24B	786' -0"	MILD	M158/G4	E113/113	E338/D4

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
DTT-5805A	DIFFERENTIAL TEMP TRANSMITTER	GE	678	SGT ROOM/1C-158	786' -0"	MILD	M158/G4	E113/113	E315/G6
DTT-5805B	DIFFERENTIAL TEMP TRANSMITTER	GE	567	SGT ROOM/1C-159	786' -0"	MILD	M158/C4	E113/113	E315/F6
EC-5805A		HALMAR	ZF34825CDI	SGT ROOM/1C-170	786' -0"	MILD	M158/H5	E113/13	E315/G6
EC-5805B	ELECTRIC HEATER CONTACTOR	HALMAR	ZF34825CEI	SGT ROOM/1C-171	786' -0"	MILD	M158/C5	E113/13	E315/F6
E/PC-5816A		JOHNSON CONTROLS	N-6810	SGT ROOM/1C-158	786' -0"	MILD	M158/F2	E113/112	E315/G6
E/PC-5816B		JOHNSON CONTROLS	N-6810	SGT ROOM/1C-159	786' -0"	MILD	M158/C2	E113/112	E315/F6
E/PC-7600A		JOHNSON CONTROLS	N-6810	OFFGAS STACK	740' -0"	MILD	M176/C4	E113/57	E370/E3
E/PC-7600B		JOHNSON CONTROLS	N-6810	OFFGAS STACK	740' -0"	MILD	M176/C4	E113/57	E370/F3
FS-7600A	FLOW SWITCH	GE	560	OFFGAS STACK	740' -0"	MILD	M176/G2	E113/15	E370/E3
FS-7600B	FLOW SWITCH	GE	560	OFFGAS STACK	740' -0"	MILD	M176/G1	E113/15	E370/F3
FT-5829A	FLOW TRANSMITTER	GE	554	SGT ROOM	786' -0"	MILD	M158/E7	E113/112	E315/G6
FT-5829B	FLOW TRANSMITTER	GE	554	SGT ROOM	786' -0"	MILD	M158/D7	E113/112	E315/G7
HS-5801A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24A	786' -0"	MILD	M158/H7	E113/11	E338/D4
HS-5801B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24B	786' -0"	MILD	M158/C7	E113/11	E338/D4
HS-5805A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24A	786' -0"	MILD	M158/H5	E113/15	E338/D4
HS-5805B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24B	786' -0"	MILD	M158/D5	E113/15	E338/D4

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
HS-5814A	HAND SWITCH	GE	SB1	CB CTL RM/1C-24A	786' -0"	MILD	M158/G3	E113/11	E338/D4
HS-5814B	HAND SWITCH	GE	SB1	CB CTL RM/1C-24B	786' -0"	MILD	M158/C3	E113/11	E338/D4
HS-5815A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24A	786' -0"	MILD	M158/G3	E113/11	E338/D4
HS-5815B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24B	786' -0"	MILD	M158/C3	E113/11	E338/D4
HS-5816A	HAND SWITCH	GE	CR2940-UB203E	CB CTL RM/1C-24A	786' -0"	MILD	M158/G2	E113/11	E338/D4
HS-5816B	HAND SWITCH	GE	CR2940-UB203E	CB CTL RM/1C-24B	786' -0"	MILD	M158/C2	E113/11	E338/D4
HS-5817A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24A	786' -0"	MILD	M158/F3	E113/11	E338/D4
HS-5817B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24B	786' -0"	MILD	M158/D2	E113/11	E338/D4
HS-5825A	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24A	786' -0"	MILD	M158/F6	E113/11	E338/D4
HS-5825B	HAND SWITCH	GE	CR2940-UB202A	CB CTL RM/1C-24B	786' -0"	MILD	M158/D6	E113/11	E338/D4
HS-5839A	HAND SWITCH	GE	CR2940-UB203E	CB CTL RM/1C-158	786' -0"	MILD	M158/G2	E113/11	E315/G6
HS-5839B	HAND SWITCH	GE	CR2940-UB203E	CB CTL RM/1C-159	786' -0"	MILD	M158/C2	E113/11	E315/F6
HS-7600A	HAND SWITCH	GE	SBM	CB CTL RM/1C-24A	786' -0"	MILD	M176/F2	E113/15	E338/D4
HS-7600B	HAND SWITCH	GE	SBM	CB CTL RM/1C-24B	786' -0"	MILD	M176/F1	E113/15	E338/D4
HS-7601A	HAND SWITCH	GE	CR2940-UB203E	OFFGAS STACK/1C-164A	740' -0"	MILD	M176/F2	E113/15	E370/E4
HS-7601B	HAND SWITCH	GE	CR2940-UB203E	OFFGAS STACK/1C-164B	740' -0"	MILD	M176/F1	E113/15	E370/F3

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
LR-5830A	LEVEL RECORDER	WESTINGHOUSE	WL	CB CTL RM/1C-24A	786' -0"	MILD	M158/H3	E113/18	E338/D4
LR-5830B	LEVEL RECORDER	WESTINGHOUSE	WL	CB CTL RM/1C-24B	786' -0"	MILD	M158/D3	E113/18	E338/D4
PB-5831A	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-24A	786' -0"	MILD	M158/H3	E113/98	E338/D4
PB-5831B	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-24B	786' -0"	MILD	M158/D3	E113/98	E338/D4
PB-5837A	PUSH BUTTON	GE	CR2040U201	CB CTL RM/1C-24A	786' -0"	MILD	M158/F4	E113/98	E338/D4
PB-5837B	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-24B	786' -0"	MILD	M158/B4	E113/98	E338/D4
PB-5838A	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-24A	786' -0"	MILD	M158/F4	E113/98	E338/D4
PB-5838B	PUSH BUTTON	GE	CR2940U201	CB CTL RM/1C-24B	786' -0"	MILD	M158/B4	E113/98	E338/D4
P/ER-7600A	PNEUMATIC TO ELECTRIC RELAY	GE	6-271	OFFGAS STACK	740' -0"	MILD	M176/F2	E113/15	E370/F3
P/ER-7600B	PNEUMATIC TO ELECTRIC RELAY	GE	6-271	OFFGAS STACK	740' -0"	MILD	M176/F1	E113/15	E370/F3
RE-7606A	RADIATION ELEMENT	NMC	GA-2T0	A CRD RR	771' -10"	MILD	M176/A3	E113/11	E318/G2
RE-7606B	RADIATION ELEMENT	NMC	GA-2T0	A CRO RR	771' -10"	MILD	M176/A3	E113/11	E318/G2
RIM-7606A	RADIATION INDICATOR	NMC	GA-2TMO	RB-N/1C-183	757' -6"	MILD	M176/A3	E113/11	E318/G2
RIM-7606B	RADIATION INDICATOR	NMC	GA-2TMO	RB-N/1C-184	757' -6"	MILD	M176/A3	E113/11	E318/G3
SQ-5829A		GE	565	SGT ROOM/1C-158	786' -0"	MILD	M158/E6	E113/112	E315/G6
SQ-5829B		GE	565	SGT ROOM/1C-159	786' -0"	MILD	M158/E6	E113/112	E315/F6

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-5801A	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M158/G7	E113/11	E315/G6
SV-5801B	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M158/C7	E113/11	E315/F6
SV-5815A	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M158/G3	E113/11	E315/G4
SV-5815B	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M158/C3	E113/11	E315/F4
SV-5817A	SOLENOID VALVE	ASCO	HT831665	H&V ROOM	796' -0"	MILD	M158/F2	E113/11	E320/G3
SV-5817B	SOLENOID VALVE	ASCO	HT831665	H&V ROOM	796' -0"	MILD	M158/D1	E113/11	E320/G3
SV-5825A	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M158/E6	E113/11	E315/G6
SV-5825B	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M158/D6	E113/11	E315/F6
SV-5837A	SOLENOID VALVE	ASCO	HT831665	H&V ROOM	796' -0"	MILD	M158/F4	E113/98	E320/G4
SV-5837B	SOLENOID VALVE	ASCO	HT831665	H&V ROOM	796' -0"	MILD	M158/B4	E113/98	E320/G4
SV-7600A	SOLENOID VALVE	ASCO	FT8321A5	OFFGAS STACK	740' -0"	MILD	M176/F1	E113/54	E370/F3
SV-7600B	SOLENOID VALVE	ASCO	FT8321A5	OFFGAS STACK	740' -0"	MILD	M176/F2	E113/54	E370/F3
SV-7602A	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M176/A4	E113/64	E315/G3
SV-7602B	SOLENOID VALVE	ASCO	HT831665	SGT ROOM	786' -0"	HARSH	M176/A4	E113/64	E315/G3
SV-7605A	SOLENOID VALVE	ASCO	NP831665E	HPCI ROOM	731' -9"	HARSH	M176/A5	E113/64	E317/B4
SV-7605B	SOLENOID VALVE	ASCO	NP831665E	HPCI ROOM	731' -9"	HARSH	M176/A5	E113/64	E317/B4

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-7607A	SOLENOID VALVE	ASCO	FT8321A5	RB-N	796' -0"	MILD	M176/C4	E113/57	E320/G2
SV-7607B	SOLENOID VALVE	ASCO	FT8321A5	RB-N	796' -0"	MILD	M176/C4	E113/57	E320/G2
SV-7610A	SOLENOID VALVE	ASCO	FT8321A5	RB-N	812' -0"	MILD	M176/D2	E113/64	E322/F2
SV-7610B	SOLENOID VALVE	ASCO	FT8321A5	RB-N	812' -0"	MILD	M176/C2	E113/64	E322/F2
SV-7612A	SOLENOID VALVE	ASCO	FT8321A5	RB-N	812' -0"	MILD	M176/E4	E113/64	E322/F2
SV-7612B	SOLENOID VALVE	ASCO	FT8321A5	RB-N	812' -0"	MILD	M176/E4	E113/64	E322/G2
SV-7630A	SOLENOID VALVE	ASCO	FT8321A5	RB-N	757' -6"	MILD	M176/H8	E113/64	E319/G8
SV-7630B	SOLENOID VALVE	ASCO	FT8321A5	RB-N	757' -6"	MILD	M176/G8	E113/64	E319/G8
SV-7631A	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/H7	E113/64	E323/E3
SV-7631B	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/G7	E113/64	E323/E3
SV-7632A	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/H6	E113/64	E323/F4
SV-7632B	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/G7	E113/64	E323/F4
SV-7633A	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/H4	E113/64	E323/G4
SV-7633B	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/G5	E113/64	E323/G3
SV-7634A	SOLENOID VALVE	ASCO	FT8321A5	RB-S	757' -6"	MILD	M176/H3	E113/64	E319/D8
SV-7634B	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/G4	E113/64	E319/D8

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
SV-7636A	SOLENOID VALVE	ASCO	8317A29	RB-S	757' -6"	MILD	M176/H2	E113/64	E319/D8
SV-7636B	SOLENOID VALVE	ASCO	8317A29	RB-S	757' -6"	MILD	M176/G3	E113/64	E319/D8
SV-7637A	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/D3	E113/65	E322/F2
SV-7637B	SOLENOID VALVE	ASCO	FT8321A5	RB-S	812' -0"	MILD	M176/C3	E113/65	E322/F2
SV-7639A	SOLENOID VALVE	ASCO	NP8321A5E	RADWASTE TANK ROOM	786' -0"	MILD	M176/C6	E113/65	E317/B7
SV-7639B	SOLENOID VALVE	ASCO	NP8321A5E	RADWASTE TANK ROOM	786' -0"	MILD	M176/C6	E113/65	E317/B7
SV-7641A	SOLENOID VALVE	ASCO	FT8321A5	RAD BLDG	786' -0"	MILD	M176/F4	E113/65	E359/F8
SV-7641B	SOLENOID VALVE	ASCO	FT8321A5	RAD BLDG	786' -0"	MILD	M176/F4	E113/65	E359/F8
TE-5805A	TEMPERATURE SWITCH	INDUSTRIAL ENG. EQUIPMENT	CT32-23	SGT ROOM	786' -0"	HARSH	M158/G5	E113/13	M647/G6
TE-5805B	TEMPERATURE SWITCH	INDUSTRIAL ENG. EQUIPMENT	CT32-23	SGT RDOM	786' -0"	HARSH	M158/C5	E113/13	M647/F6
TE-5805U	TEMPERATURE ELEMENT	GULTON INDUSTRIES	TCA-0646	SGT ROOM	786' -0"	HARSH	M158/G5	E113/113	E315/G5
TE-5805V	TEMPERATURE ELEMENT	GULTON INDUSTRIES	TCA-0646	SGT ROOM	786' -0"	HARSH	M158/G4	E113/114	E315/G4
TE-5805W	TEMPERATURE ELEMENT	GULTON INDUSTRIES	TCA-0646	SGT ROOM	786' -0"	HARSH	M158/C5	E113/113	E315/F5
TE-5805X	TEMPERATURE ELEMENT	GULTON INDUSTRIES	TCA-0646	SGT ROOM	786' -0"	HARSH	M158/C4	E113/114	E315/F4
TI-5805A	INDICATOR	GE	180	CB CTL RM/1C-24A	786' -0"	MILD	M158/G5	E113/113	E338/D4
TI-5805B	INDICATOR	GE	180	CB CTL RM/1C-24B	786' -0"	MILD	M158/C5	E113/15	E338/D4

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PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RON- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
TI-5822A	TEMPERATURE INDICATOR	METER WESTON	2031	SGT ROOM/1C-158	786' -0"	MILD	M158/G4	E113/113	E315/G6
TI-5822B	TEMPERATURE INDICATOR	METER WESTON	2031	SGT ROOM/1C-159	786' -0"	MILD	M158/C4	E113/113	E315/F6
TI-5838A	INDICATOR	GE	180	CB CTL RM/1C-24A	786' -0"	MILD	M158/G4	E113/113	E338/D4
TI-5838B	INDICATOR	GE	180	CB CTL RM/1C-24B	786' -0"	MILD	M158/C4	E113/113	E338/D4
TS-5805A	FLOW SWITCH	GE	560	CB CTL RM	786' -0"	MILD	M158/H4	E113/113	E338/D4
TS-5805B	FLOW SWITCH	GE	560	CB CTL RM	786' -0"	MILD	M158/D4	E113/113	E338/D4
TS-5808A	TEMPERATURE SWITCH	PENN	A-19ABB-6	SGT ROOM	786' -0"	HARSH	M158/G5	E113/13	E315/G5
TS-5808B	TEMPERATURE SWITCH	PENN	A-19ABB-6	SGT ROOM	786' -0"	HARSH	M158/C5	E113/13	E315/F5
TS-5836A	TEMPERATURE SWITCH	INDUSTRIAL ENG. EQUIPMENT	CT32-23	SGT ROOM	786' -0"	HARSH	M158/G5	E113/13	M647/G6
TS-5836B	TEMPERATURE SWITCH	INDUSTRIAL ENG. EQUIPMENT	CT32-23	SGT ROOM	786' -0"	HARSH	M158/C5	E113/13	M647/F6
TT-5805A	TEMPERATURE TRANSMITTER	GE	550	SGT ROOM/1C-158	786' -0"	MILD	M158/G6	E113/13	E315/G6
TT-5805B	TEMPERATURE TRANSMITTER	GE	550	SGT ROOM/1C-159	786' -0"	MILD	M158/C6	E113/13	E315/F6
TT-5838A	TEMPERATURE TRANSMITTER	GE	550	SGT ROOM/1C-158	786' -0"	MILD	M158/G4	E113/113	E315/G6
TT-5838B	TEMPERATURE TRANSMITTER	GE	550	SGT ROOM/1C-159	786' -0"	MILD	M158/C4	E113/113	E315/F6
1S-1061A	HEATER	INDUSTRIAL ENG. EQUIPMENT	PENWALT CVI A-7075900	SGT ROOM	786' -0"	HARSH	M158/G5	E113/13	E315/G5
1S-1061B	HEATER	INDUSTRIAL ENG. EQUIPMENT	PENWALT CVI A-7075900	SGT ROOM	786' -0"	HARSH	M158/C5	E113/13	E315/F5

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SYSTEM: STANDBY GAS TREATMENT

PLANT-ID	GENERIC NAME	MANUFACTURER	MODEL	LOCATION	ELEV	ENVI- RDN- MENT	P&ID/LOC	ELECT SCHEME DWG/SH	LAYOUT/ LOC
1V-EF-15A	FAN MOTOR	LOUIS-ALLIS COMPA	COG4B TYPE 19236S-3	SGT ROOM	786' -0"	HARSH	M158/G2	E113/11	E315/G3
1V-EF-15B	FAN MOTOR	LOUIS-ALLIS COMPA	COG4B TYPE 19236S-3	SGT ROOM	786' -0"	HARSH	M158/C2	E113/16	E315/F3
1V-EF-18A		JOHNSON CONTROLS	N-6810	OFFGAS STACK	740' -0"	MILD	M176/G2	E133/15	E370/F3
1V-EF-18B		JOHNSON CONTROLS	N-6810	OFFGAS STACK	740' -0"	MILD	M176/G2	E113/15	E370/F3

GENERAL NOTES

GENERAL NOTES

1. This component is associated with safety display instrumentation. Finalization of safety display instrumentation is being pursued as expeditiously as possible. Iowa Electric has developed a schedule for resolution of safety display instrumentation concerns based on implementation of the revised emergency procedures at the time of the fall 1982 refueling outage. This will allow the final list of safety display instruments which must be environmentally qualified to be completed by January 1, 1983. A component evaluation sheet demonstrating environmental qualification or identifying an action item for each component on the final list will be completed by March 1, 1983. Resolution of all action items identified will be complete by the spring 1984 refueling outage based on the availability of qualified components.
2. This component is part of the HPCI system. In the initial response, the purpose and functioning of the HPCI system were analyzed and it was concluded that radiation qualification is not required. For additional discussion, see Section III of this report.
3. Deleted
4. This component is in an area which is harsh for radiation only. The required radiation dose specified is the maximum dose which could be received over the required operating time. In qualifying the component for this integrated radiation dose, the qualification requirements for operating time are also met.
5. Deleted
6. See attached Figures 1 and 2 for required drywell temperature and pressure conditions as a function of time. In addition, equipment located in the drywell is also required to be qualified to a peak temperature of 324 F.
7. This equipment is in a location in which the pressure, temperature, and humidity conditions do not significantly change post-accident and is therefore classified as mild for these parameters. Post-accident environmental qualification for pressure, temperature, and humidity is not required.

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8. This component performs its intended function immediately following an accident and, therefore, needs only to be qualified for one hour (includes margin).
9. This component has been tested at temperatures higher than the setpoint of the associated instrumentation. The component will perform its function prior to exceeding the qualification test value. Therefore, qualification testing to higher values will not enhance the ability of the component to perform its function at its setpoint value.
10. Deleted
11. Deleted
12. Qualification analysis in this case is engineering judgement based on a knowledge of the equipment's subcomponents, function, principle of operation, and input from the manufacturer. More detailed documentation is being pursued for incorporation into a formal analytical report.
13. Deleted

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DRYWELL TEMPERATURE RESPONSE

(From DAEC FSAR Figure 14.6-7)

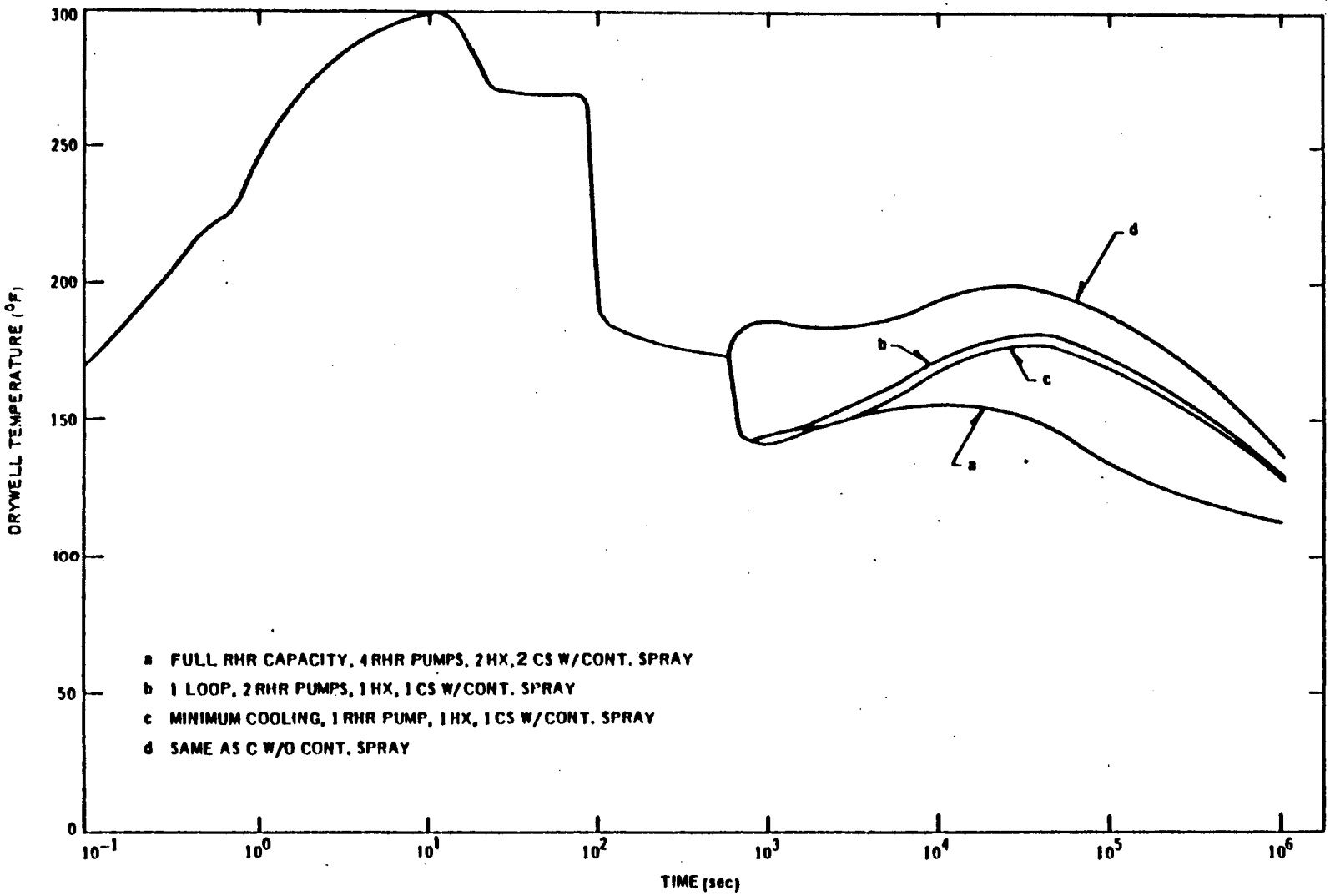


Figure .1

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CONTAINMENT PRESSURE RESPONSE

(From DAEC FSAR Figure 14.6-6)

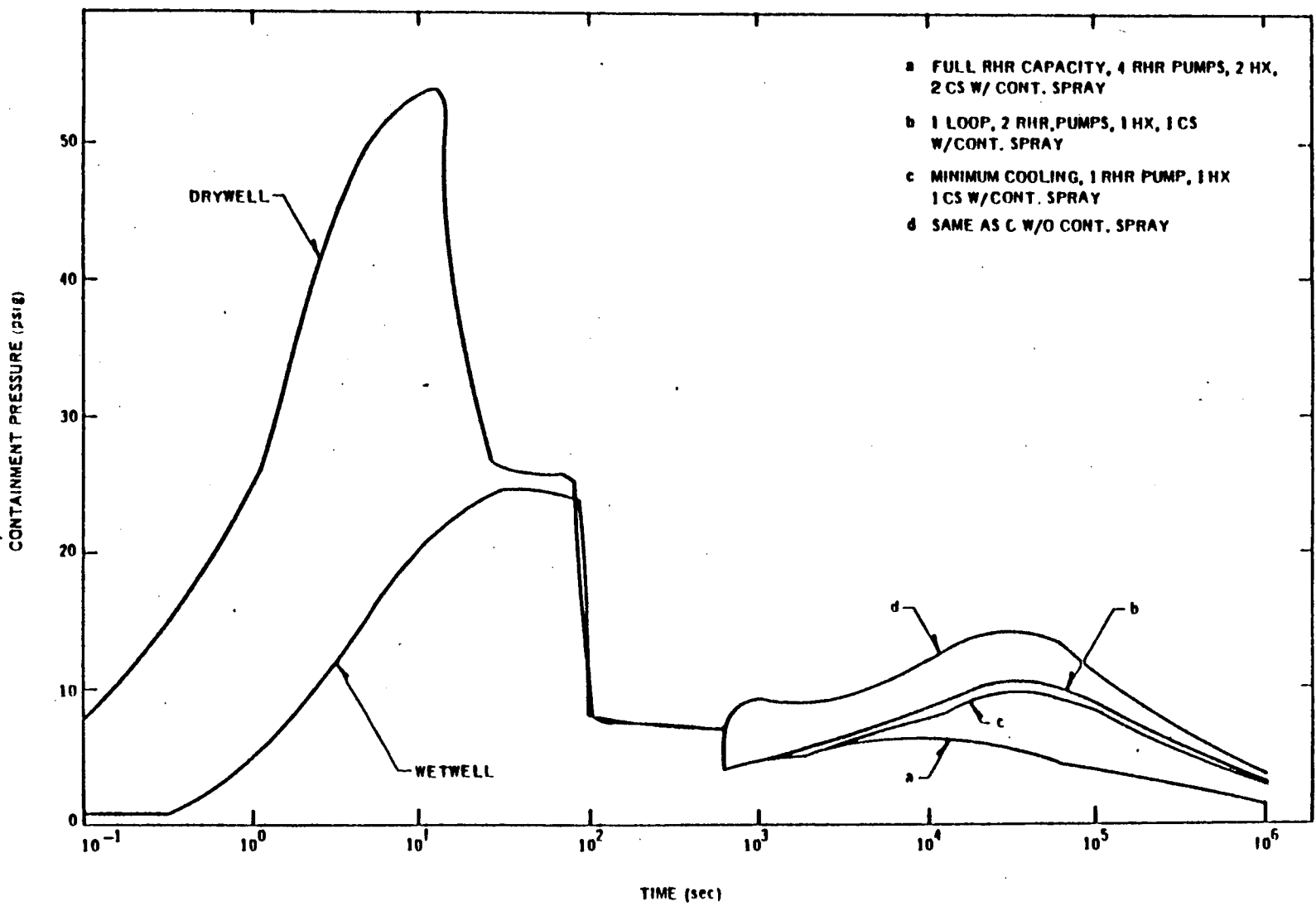


Figure - 2

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EQUIPMENT QUALIFICATION SUMMARY SHEET CROSS-INDEX

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
APRM A1C37	G080-99-001	GE		MILD
APRM B1C37	G080-99-002	GE		MILD
APRM C1C37	G080-99-003	GE		MILD
APRM D1C37	G080-99-004	GE		MILD
APRM E1C37	G080-99-005	GE		MILD
APRM F1C37	G080-99-006	GE		MILD
AR-4381A	H260-01-006	HONEYWELL	37303-6020-0222-000-610-00	MILD
AR-4381B	H260-01-001	HONEYWELL	37303-6020-0222-000-610-00	MILD
AR-4382A	H260-01-007	HONEYWELL	37303-6020-0222-000-610-00	MILD
AR-4382B	H260-01-008	HONEYWELL	37303-6020-0222-000-610-00	MILD
CABLE-COAX-BIW	B365-01-001	BOSTON INSULATED WIRE	RG-6A/U, 59B/U	HARSH
CABLE-COAX-RAY	R098-01-001	RAYCHEM	NA	HARSH
CABLE-COAX1-ROC	R352-02-001	ROCKBESTOS	RSS-6-104, 109\$CELLULAR DIE*	HARSH
CABLE-COAX2-ROC	R352-03-001	ROCKBESTOS	RSS-6-104, 109\$SOLID DIELEC*	HARSH
CABLE-CONTROL-A/E	A385-01-002	ANACONDA ERICSON	NA	HARSH
CABLE-CONTROL-OKO	0004-02-003	OKONITE	NA	HARSH
CABLE-CONTROL-ROC	R352-01-002	ROCKBESTOS	FIREWALL III, EP	HARSH
CABLE-INSTR-A/E	A385-01-003	ANACONDA ERICSON	NA	HARSH
CABLE-INSTR-OKO	0004-02-001	OKONITE	NA	HARSH
CABLE-INSTR-ROC	R352-01-003	ROCKBESTOS	FIREWALL III, EP	HARSH
CABLE-POWER-A/E	A385-01-001	ANACONDA ERICSON	NA	HARSH
CABLE-POWER-KER	K080-01-001	KERITE	HT WITH NS JACKET	HARSH
CABLE-POWER-OKO	0004-02-002	OKONITE	NA	HARSH
CABLE-POWER-ROC	R352-01-001	ROCKBESTOS	FIREWALL III, EP	HARSH
CS-6132A	D026-01-001	DAZIC	CI2120	MILD
CS-6132B	D026-01-002	DAZIC	CI2120	MILD
CS-6132C	D026-01-003	DAZIC	CI2120	MILD
CU-5835A1	F081-02-001	FENWAL	35003-0	HARSH
CU-5835A2	F081-02-002	FENWAL	35003-0	HARSH
CU-5835B1	F081-02-003	FENWAL	35003-0	HARSH
CU-5835B2	F081-02-004	FENWAL	35003-0	HARSH
CU-5837A1	F081-02-005	FENWAL	35003-0	HARSH
CU-5837A2	F081-02-006	FENWAL	35003-0	HARSH
CU-5837B1	F081-02-007	FENWAL	35003-0	HARSH
CU-5837B2	F081-02-008	FENWAL	35003-0	HARSH
CU-7327A	F081-02-009	FENWAL	35003-0	MILD
CU-7327B	F081-02-010	FENWAL	35003-0	MILD
CU-7329A	F081-02-011	FENWAL	35003-0	MILD
CU-7329B	F081-02-012	FENWAL	35003-0	MILD
DPS-5803A	D295-01-001	DWYER	1600	MILD
DPS-5803B	D295-01-002	DWYER	1600	MILD
DPS-7304A	D295-02-001	DWYER	1636-25	MILD
DPS-7304B	D295-02-002	DWYER	1636-25	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
DPS-7637A	W120-04-001	WESTINGHOUSE	1637-25	MILD
DPS-7637B	W120-04-002	WESTINGHOUSE	1637-25	MILD
DPT-7600A	G080-61-001	GE	554	MILD
DPT-7600B	G080-61-002	GE	554	MILD
DTIC-5805A	G080-54-001	GE	540	MILD
DTIC-5805B	G080-54-002	GE	540	MILD
DTT-5805A	G080-81-001	GE	678	MILD
DTT-5805B	G080-75-001	GE	567	MILD
EC-5805A	H052-01-001	HALMAR	ZF34825CD1	MILD
EC-5805B	H052-02-001	HALMAR	ZF34825CE1	MILD
EC-7304A	P023-01-001	PACIFIC CHROMALOX	3C5CR-025-3480	MILD
EC-7304B	P023-01-002	PACIFIC CHROMALOX	3C5CR-025-3480	MILD
E/I-3724	G080-58-001	GE	550211EAA-C1PPN	MILD
E/PC-5816A	J073-01-001	JOHNSON CONTROLS	N-6810	MILD
E/PC-5816B	J073-01-002	JOHNSON CONTROLS	N-6810	MILD
E/PC-7320A	J073-01-003	JOHNSON CONTROLS	N-6810	MILD
E/PC-7320B	J073-01-004	JOHNSON CONTROLS	N-6810	MILD
E/PC-7600A	J073-01-005	JOHNSON CONTROLS	N-6810	MILD
E/PC-7600B	J073-01-006	JOHNSON CONTROLS	N-6810	MILD
E/S-1947	G080-79-001	GE	570062FAAC1	MILD
E/S-2106	G080-79-002	GE	570062FAAC1	MILD
E/S-2126	G080-79-003	GE	570062FAAC1	MILD
E/S-2207	G080-76-001	GE	570	MILD
E/S-2257	G080-78-001	GE	570062BAA1	MILD
E/S-2306	G080-79-004	GE	570062FAAC1	MILD
E/S-2309	G080-53-001	GE	54C	MILD
E/S-2403	G080-79-005	GE	570062FAAC1	MILD
E/S-2509	G080-76-002	GE	570	MILD
E/S-2725	G080-34-001	GE	145C3016-PO01	MILD
E/S-2747	G080-76-003	GE	570	MILD
E/S-2748	G080-34-002	GE	145C3016-PO01	MILD
E/S-3707	G080-79-020	GE	570062FAAC1	MILD
E/S-3708	G080-79-006	GE	570062FAAC1	MILD
E/S-4343	G080-77-001	GE	570-06	MILD
E/S-4365A	G080-77-002	GE	570-06	MILD
E/S-4365B	G080-77-003	GE	570-06	MILD
E/S-4408	G080-79-007	GE	570062FAAC1	MILD
E/S-4409	G080-79-008	GE	570062FAAC1	MILD
E/S-4410	G080-79-009	GE	570062FAAC1	MILD
E/S-4411	G080-79-010	GE	570062FAAC1	MILD
E/S-4541	G080-79-011	GE	570062FAAC1	MILD
E/S-4559	G080-79-012	GE	570062FAAC1	MILD
E/S-4560	G080-79-013	GE	570062FAAC1	MILD
E/S-4561	G080-79-014	GE	570062FAAC1	MILD
E/S-4563	G080-79-015	GE	570062FAAC1	MILD
E/S-4564	G080-79-016	GE	570062FAAC1	MILD
E/S-4565	G080-79-017	GE	570062FAAC1	MILD

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
E/S-4599A	A001-01-001			MILD
E/S-4599B	A001-01-002			MILD
E/S-4623	G080-79-018	GE	570062FAAC1	MILD
E/S-4624	G080-79-019	GE	570062FAAC1	MILD
FC-4408	G080-71-001	GE	563022CAAC1	MILD
FC-4409	G080-71-002	GE	563022CAAC1	MILD
FC-4410	G080-71-003	GE	563022CAAC1	MILD
FC-4411	G080-71-004	GE	563022CAAC1	MILD
FIC-2309	G080-41-001	GE	45001	MILD
FIC-2509	G080-54-003	GE	540	MILD
FIC-5828A	G080-54-004	GE	540	MILD
FIC-5828B	G080-54-005	GE	540	MILD
FIC-7320A	G080-55-001	GE	540-01	MILD
FIC-7320B	G080-55-002	GE	540-01	MILD
FIS-2111	I204-04-001	ITT BARTON	289	HARSH
FIS-2131	I204-04-002	ITT BARTON	289	HARSH
FI-2749	G080-35-001	GE	180	MILD
FI-4408	G080-35-002	GE	180	MILD
FI-4409	G080-35-003	GE	180	MILD
FI-4410	G080-35-004	GE	180	MILD
FI-4411	G080-35-005	GE	180	MILD
FM-8408A	S223-01-001	S.K. INSTRUMENT	20-9651-8550	HARSH
FM-8408B	S223-01-002	S.K. INSTRUMENT	20-9651-8550	HARSH
FM-8408C	S223-01-003	S.K. INSTRUMENT	20-9651-8550	HARSH
FM-8408D	S223-01-004	S.K. INSTRUMENT	20-9651-8550	HARSH
FQ-3707	G080-70-001	GE	561290AAA-CIPYE	MILD
FQ-3708	G080-70-002	GE	561290AAA-CIPYE	MILD
FR-3707	G080-52-001	GE	531	MILD
FS-2310	I204-04-003	ITT BARTON	289	MILD
FS-2749A	G080-69-001	GE	560	MILD
FS-2749B	G080-69-002	GE	560	MILD
FS-5826A	G080-69-003	GE	560	MILD
FS-5826B	G080-69-004	GE	560	MILD
FS-6924A	C753-01-001	CUSTOM COMPONENT SWITCHES	642D	MILD
FS-6924B	C753-01-002	CUSTOM COMPONENT SWITCHES	642D	MILD
FS-6925A	C753-01-003	CUSTOM COMPONENT SWITCHES	642D	MILD
FS-6925B	C753-01-004	CUSTOM COMPONENT SWITCHES	642D	MILD
FS-7321A	G080-69-005	GE	560	MILD
FS-7321B	G080-69-006	GE	560	MILD
FS-7600A	G080-69-007	GE	560	MILD
FS-7600B	G080-69-008	GE	560	MILD
FT-2309	G080-63-001	G.E.	555-111BCAA3PDG	MILD
FT-2509	G080-62-001	GE	555	MILD
FT-2725	G080-63-002	G.E.	555-111BCAA3PDG	MILD
FT-3707	G080-66-001	GE	555111BCAA-3ABA	HARSH
FT-3708	G080-66-002	GE	555111BCAA-3ABA	HARSH
FT-4408	I204-05-001	ITT BARTON	368	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
FT-4409	I204-05-002	ITT BARTON	368	MILD
FT-4410	I204-05-003	ITT BARTON	368	MILD
FT-4411	I204-05-004	ITT BARTON	368	MILD
FT-5829A	G080-61-003	GE	554	MILD
FT-5829B	G080-61-004	GE	554	MILD
FT-7320A	G080-61-005	GE	554	MILD
FT-7320B	G080-61-006	GE	554	MILD
FY-2309	G080-73-001	GE	565	MILD
FY-2509	G080-73-002	GE	565	MILD
FY-2725	G080-73-003	GE	565	MILD
FY-2747	G080-73-004	GE	565	MILD
FY-2748	G080-73-010	GE	565	MILD
FY-2749	G080-73-009	GE	565	MILD
FY-3707	G080-74-001	GE	565100AAAC1	MILD
FY-3708	G080-74-002	GE	565100AAAC1	MILD
FY-4408	G080-72-001	GE	564120AAAC1	MILD
FY-4409	G080-72-002	GE	564120AAAC1	MILD
FY-4410	G080-72-003	GE	564120AAAC1	MILD
FY-4411	G080-72-004	GE	564120AAAC1	MILD
HS 2910 B	G080-06-069	GE	CR2940	MILD
HSS-2911A	G080-29-001	GE	SBM	MILD
HSS-2911B	G080-29-002	GE	SBM	MILD
HS-1804A	G080-06-001	GE	CR2940	MILD
HS-1804B	G080-06-002	GE	CR2940	MILD
HS-1900	G080-29-003	GE	SBM	MILD
HS-1901	G080-29-004	GE	SBM	MILD
HS-1902	G080-29-005	GE	SBM	MILD
HS-1903A	G080-06-003	GE	CR2940	MILD
HS-1903B	G080-06-004	GE	CR2940	MILD
HS-1903C	G080-06-005	GE	CR2940	MILD
HS-1904	G080-29-006	GE	SBM	MILD
HS-1905A	G080-29-007	GE	SBM	MILD
HS-1905B	G080-29-008	GE	SBM	MILD
HS-1908	G080-29-009	GE	SBM	MILD
HS-1909	G080-29-010	GE	SBM	MILD
HS-1912	G080-06-006	GE	CR2940	MILD
HS-1912A	C770-01-009	C-H	1025T16224	MILD
HS-1913	G080-06-008	GE	CR2940	MILD
HS-1913A	C770-01-001	C-H	1025T16224	MILD
HS-1915	G080-29-011	GE	SBM	MILD
HS-1920	G080-29-012	GE	SBM	MILD
HS-1920A	C770-01-007	C-H	1025T16224	MILD
HS-1921	G080-29-013	GE	SBM	MILD
HS-1921A	C770-01-002	C-H	1025T16224	MILD
HS-1923	G080-29-014	GE	SBM	MILD
HS-1932	G080-06-010	GE	CR2940	MILD
HS-1932A	C770-01-008	C-H	1025T16224	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
HS-1933	G080-29-015	GE	SBM	MILD
HS-1934	G080-29-016	GE	SBM	MILD
HS-1935	G080-29-017	GE	SBM	MILD
HS-1936	G080-06-012	GE	CR2940	MILD
HS-1937	G080-29-018	GE	SBM	MILD
HS-1939	G080-06-013	GE	CR2940	MILD
HS-1940	G080-29-019	GE	SBM	MILD
HS-1941	G080-29-020	GE	SBM	MILD
HS-1942	G080-06-014	GE	CR2940	MILD
HS-1943A	G080-06-015	GE	CR2940	MILD
HS-1943B	G080-06-016	GE	CR2940	MILD
HS-1949A	G080-29-021	GE	SBM	MILD
HS-1949B	G080-29-022	GE	SBM	MILD
HS-1959	G080-29-023	GE	SBM	MILD
HS-1963	G080-29-024	GE	SBM	MILD
HS-1967	G080-29-025	GE	SBM	MILD
HS-1970	G080-29-026	GE	SBM	MILD
HS-1972	G080-29-027	GE	SBM	MILD
HS-1973	G080-29-028	GE	SBM	MILD
HS-1989	G080-06-017	GE	CR2940	MILD
HS-2000	G080-29-029	GE	SBM	MILD
HS-2001A	G080-06-018	GE	CR2940	MILD
HS-2001B	G080-06-019	GE	CR2940	MILD
HS-2001C	G080-06-020	GE	CR2940	MILD
HS-2003A	G080-29-030	GE	SBM	MILD
HS-2003B	G080-29-031	GE	SBM	MILD
HS-2004	G080-29-032	GE	SBM	MILD
HS-2005	G080-06-021	GE	CR2940	MILD
HS-2005A	C770-01-003	C-H	1025T16224	MILD
HS-2006	G080-29-033	GE	SBM	MILD
HS-2007	G080-29-034	GE	SBM	MILD
HS-2009	G080-29-035	GE	SBM	MILD
HS-2010	G080-29-036	GE	SBM	MILD
HS-2010A	C770-01-004	C-H	1025T16224	MILD
HS-2011	G080-06-022	GE	CR2940	MILD
HS-2011A	C770-01-010	C-H	1025T16224	MILD
HS-2012	G080-06-024	GE	CR2940	MILD
HS-2012A	C770-01-005	C-H	1025T16224	MILD
HS-2014	G080-29-037	GE	SBM	MILD
HS-2015	G080-06-025	GE	CR2940	MILD
HS-2015A	C770-01-006	C-H	1025T16224	MILD
HS-2016	G080-06-026	GE	CR2940	MILD
HS-2016A	C770-01-011	C-H	1025T16224	MILD
HS-2018	G080-29-038	GE	SBM	MILD
HS-2029	G080-29-039	GE	SBM	MILD
HS-2030	G080-29-040	GE	SBM	MILD
HS-2031	G080-06-028	GE	CR2940	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
HS-2035	G080-06-029	GE	CR2940	MILD
HS-2036	G080-29-041	GE	SBM	MILD
HS-2038	G080-29-042	GE	SBM	MILD
HS-2039A	G080-29-043	GE	SBM	MILD
HS-2039B	G080-29-044	GE	SBM	MILD
HS-2044A	G080-29-045	GE	SBM	MILD
HS-2044B	G080-29-046	GE	SBM	MILD
HS-2051	G080-06-030	GE	CR2940	MILD
HS-2052	G080-06-031	GE	CR2940	MILD
HS-2058	G080-29-047	GE	SBM	MILD
HS-2059	G080-29-048	GE	SBM	MILD
HS-2069	G080-06-032	GE	CR2940	MILD
HS-2077	G080-29-049	GE	SBM	MILD
HS-2078	G080-29-050	GE	SBM	MILD
HS-2080	G080-29-051	GE	SBM	MILD
HS-2081	G080-29-052	GE	SBM	MILD
HS-2100	G080-29-053	GE	SBM	MILD
HS-2103	G080-29-054	GE	SBM	MILD
HS-2104	G080-29-055	GE	SBM	MILD
HS-2112	G080-29-056	GE	SBM	MILD
HS-2115	G080-29-057	GE	SBM	MILD
HS-2117	G080-29-058	GE	SBM	MILD
HS-2120	G080-06-033	GE	CR2940	MILD
HS-2123	G080-29-059	GE	SBM	MILD
HS-2124	G080-29-060	GE	SBM	MILD
HS-2132	G080-29-061	GE	SBM	MILD
HS-2135	G080-29-062	GE	SBM	MILD
HS-2137	G080-29-063	GE	SBM	MILD
HS-2146	G080-06-034	GE	CR2940	MILD
HS-2147	G080-06-035	GE	CR2940	MILD
HS-2202	G080-06-036	GE	CR2940	MILD
HS-2206	G080-29-064	GE	SBM	MILD
HS-2211	G080-29-065	GE	SBM	MILD
HS-2212	G080-29-066	GE	SBM	MILD
HS-2219	G080-29-067	GE	SBM	MILD
HS-2221	G080-29-068	GE	SBM	MILD
HS-2222	G080-29-069	GE	SBM	MILD
HS-2234	G080-06-037	GE	CR2940	MILD
HS-2235	G080-06-038	GE	CR2940	MILD
HS-2238	G080-29-070	GE	SBM	MILD
HS-2239	G080-29-071	GE	SBM	MILD
HS-2247	G080-06-039	GE	CR2940	MILD
HS-2253	G080-06-040	GE	CR2940	MILD
HS-2256	G080-29-072	GE	SBM	MILD
HS-2257	G080-06-041	GE	CR2940	MILD
HS-2258	G080-06-042	GE	CR2940	MILD
HS-2259	G080-29-073	GE	SBM	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
HS-2267A	G080-06-043	GE	CR2940	MILD
HS-2267B	G080-06-044	GE	CR2940	MILD
HS-2273	B371-01-001	BOURNS		MILD
HS-2299	G080-29-074	GE	SBM	MILD
HS-2300	G080-29-075	GE	SBM	MILD
HS-2311	G080-29-076	GE	SBM	MILD
HS-2312	G080-29-077	GE	SBM	MILD
HS-2315	G080-29-078	GE	SBM	MILD
HS-2316	G080-29-079	GE	SBM	MILD
HS-2318	G080-29-080	GE	SBM	MILD
HS-2321	G080-29-081	GE	SBM	MILD
HS-2322	G080-29-082	GE	SBM	MILD
HS-2400	G080-29-083	GE	SBM	MILD
HS-2401	G080-29-084	GE	SBM	MILD
HS-2449A	G080-06-045	GE	CR2940	MILD
HS-2449B	G080-06-046	GE	CR2940	MILD
HS-2458	G080-06-047	GE	CR2940	MILD
HS-2459	G080-06-048	GE	CR2940	MILD
HS-2481	G080-06-049	GE	CR2940	MILD
HS-2510	G080-29-085	GE	SBM	MILD
HS-2512	G080-31-001	GE	SMB	MILD
HS-2516	G080-29-086	GE	SBM	MILD
HS-2517	G080-29-087	GE	SBM	MILD
HS-2700	G080-29-088	GE	SBM	MILD
HS-2701	G080-29-089	GE	SBM	MILD
HS-2740	G080-29-090	GE	SBM	MILD
HS-2902A	G080-29-091	GE	SBM	MILD
HS-2902B	G080-29-092	GE	SBM	MILD
HS-2903A	G080-29-093	GE	SBM	MILD
HS-2903B	G080-29-094	GE	SBM	MILD
HS-2906A	G080-14-001	GE	CR2940-UB203	MILD
HS-2906B	G080-22-001	GE	CR2940-UB203	MILD
HS-2907A	G080-29-095	GE	SBM	MILD
HS-2907B	G080-29-096	GE	SBM	MILD
HS-2907C	G080-29-097	GE	SBM	MILD
HS-2907D	G080-29-098	GE	SBM	MILD
HS-2908A	G080-29-099	GE	SBM	MILD
HS-2908B	G080-29-100	GE	SBM	MILD
HS-2908C	G080-29-102	GE	SBM	MILD
HS-2908D	G080-29-103	GE	SBM	MILD
HS-2910A	G080-06-050	GE	CR2940	MILD
HS-3225A	0050-01-001	ONAN	DJA-MS/1T	MILD
HS-3225B	0050-01-002	ONAN	DJA-MS/1T	MILD
HS-3233A	G080-08-001	GE	CR2940 U301	MILD
HS-3233B	G080-08-002	GE	CR2940 U301	MILD
HS-3704	G080-29-104	GE	SBM	MILD
HS-3705	G080-29-105	GE	SBM	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
HS-3728	G080-29-106	GE	SBM	MILD
HS-3729	G080-29-107	GE	SBM	MILD
HS-4371A	G080-06-051	GE	CR2940	MILD
HS-4371B	G080-06-052	GE	CR2940	MILD
HS-4371C	G080-06-053	GE	CR2940	MILD
HS-4378A	G080-06-054	GE	CR2940	MILD
HS-4378B	G080-06-055	GE	CR2940	MILD
HS-4400	G080-06-056	GE	CR2940	MILD
HS-4402	G080-06-057	GE	CR2940	MILD
HS-4405	G080-06-058	GE	CR2940	MILD
HS-4406	G080-06-059	GE	CR2940	MILD
HS-4412A	G080-29-108	GE	SBM	MILD
HS-4413A	G080-29-109	GE	SBM	MILD
HS-4415A	G080-29-110	GE	SBM	MILD
HS-4416A	G080-29-111	GE	SBM	MILD
HS-4418A	G080-29-112	GE	SBM	MILD
HS-4419A	G080-29-113	GE	SBM	MILD
HS-4420A	G080-29-114	GE	SBM	MILD
HS-4421A	G080-29-115	GE	SBM	MILD
HS-4423	G080-29-116	GE	SBM	MILD
HS-4424	G080-29-117	GE	SBM	MILD
HS-4639	G080-29-118	GE	SBM	MILD
HS-4640	G080-29-119	GE	SBM	MILD
HS-4841	G080-29-120	GE	SBM	MILD
HS-4909A	G080-29-121	GE	SBM	MILD
HS-4909B	G080-29-122	GE	SBM	MILD
HS-4910A	G080-06-060	GE	CR2940	MILD
HS-4910B	G080-06-061	GE	CR2940	MILD
HS-4914	G080-11-001	GE	CR2940-UA202B	MILD
HS-4915	G080-21-001	GE	CR2940-UA202B	MILD
HS-4924A	G080-29-123	GE	SBM	MILD
HS-4924B	G080-29-124	GE	SBM	MILD
HS-4924C	G080-29-125	GE	SBM	MILD
HS-4924D	G080-29-126	GE	SBM	MILD
HS-4925A	G080-29-127	GE	SBM	MILD
HS-4925B	G080-29-128	GE	SBM	MILD
HS-4925C	G080-29-129	GE	SBM	MILD
HS-4925D	G080-29-130	GE	SBM	MILD
HS-4927A	G080-06-062	GE	CR2940	MILD
HS-4927B	G080-06-063	GE	CR2940	MILD
HS-4928A	G080-29-131	GE	SBM	MILD
HS-4928B	G080-29-132	GE	SBM	MILD
HS-4936A	G080-10-001	GE	CR2940-BC301A	MILD
HS-4936B	G080-10-002	GE	CR2940-BC301A	MILD
HS-5718A	G080-29-133	GE	SBM	MILD
HS-5718B	G080-29-134	GE	SBM	MILD
HS-5801A	G080-12-001	GE	CR2940-UB202A	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
HS-5801B	G080-12-002	GE	CR2940-UB202A	MILD
HS-5805A	G080-12-003	GE	CR2940-UB202A	MILD
HS-5805B	G080-12-004	GE	CR2940-UB202A	MILD
HS-5814A	G080-30-001	GE	SB1	MILD
HS-5814B	G080-30-002	GE	SB1	MILD
HS-5815A	G080-12-005	GE	CR2940-UB202A	MILD
HS-5815B	G080-12-006	GE	CR2940-UB202A	MILD
HS-5816A	G080-16-001	GE	CR2940-UB203E	MILD
HS-5816B	G080-16-002	GE	CR2940-UB203E	MILD
HS-5817A	G080-12-007	GE	CR2940-UB202A	MILD
HS-5817B	G080-12-008	GE	CR2940-UB202A	MILD
HS-5825A	G080-12-009	GE	CR2940-UB202A	MILD
HS-5825B	G080-12-010	GE	CR2940-UB202A	MILD
HS-5839A	G080-16-003	GE	CR2940-UB203E	MILD
HS-5839B	G080-16-004	GE	CR2940-UB203E	MILD
HS-6102	G080-06-064	GE	CR2940	MILD
HS-6104A	G080-20-001	GE	CR2940-US203E	MILD
HS-6104B	G080-20-002	GE	CR2940-US203E	MILD
HS-6104U	G080-20-003	GE	CR2940-US203E	MILD
HS-6104V	G080-20-004	GE	CR2940-US203E	MILD
HS-6113A	G080-20-005	GE	CR2940-US203E	MILD
HS-6113B	G080-20-006	GE	CR2940-US203E	MILD
HS-6113U	G080-20-007	GE	CR2940-US203E	MILD
HS-6113V	G080-20-008	GE	CR2940-US203E	MILD
HS-6131	G080-12-011	GE	CR2940-UB202A	MILD
HS-6132A	G080-12-012	GE	CR2940-UB202A	MILD
HS-6132B	G080-12-013	GE	CR2940-UB202A	MILD
HS-6132C	G080-12-014	GE	CR2940-UB202A	MILD
HS-6924A	G080-29-135	GE	SBM	MILD
HS-6924B	G080-29-136	GE	SBM	MILD
HS-6924U	G080-15-001	GE	CR2940-UB203A	MILD
HS-6924V	G080-15-002	GE	CR2940-UB203A	MILD
HS-6924X	G080-19-001	GE	CR2940-UN200D	MILD
HS-6924Y	G080-19-002	GE	CR2940-UN200D	MILD
HS-7000A	G080-07-001	GE	CR2940 US203E	MILD
HS-7000B	G080-07-002	GE	CR2940 US203E	MILD
HS-7003A	G080-20-009	GE	CR2940-US203E	MILD
HS-7003B	G080-23-001	GE	CR2940-US203E	MILD
HS-7108A	G080-12-015	GE	CR2940-UB202A	MILD
HS-7108B	G080-12-016	GE	CR2940-UB202A	MILD
HS-7116	G080-13-001	GE	CR2940-UB202D	MILD
HS-7119	G080-13-002	GE	CR2940-UB202D	MILD
HS-7301A	G080-15-003	GE	CR2940-UB203A	MILD
HS-7301B	G080-15-004	GE	CR2940-UB203A	MILD
HS-7304A	G080-12-017	GE	CR2940-UB202A	MILD
HS-7304B	G080-12-018	GE	CR2940-UB202A	MILD
HS-7318A	G080-12-019	GE	CR2940-UB202A	MILD

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
HS-7318B	G080-12-020	GE	CR2940-UB202A	MILD
HS-7319A	G080-12-021	GE	CR2940-UB202A	MILD
HS-7319B	G080-12-022	GE	CR2940-UB202A	MILD
HS-7322A	G080-12-023	GE	CR2940-UB202A	MILD
HS-7322B	G080-12-024	GE	CR2940-UB202A	MILD
HS-7328A	G080-01-001	GE	CR2940-UB202D	MILD
HS-7328B	G080-13-003	GE	CR2940-UB202D	MILD
HS-7538A	G080-18-001	GE	CR2940-UB2037	MILD
HS-7538B	G080-18-002	GE	CR2940-UB2037	MILD
HS-7600A	G080-29-137	GE	SBM	MILD
HS-7600B	G080-29-138	GE	SBM	MILD
HS-7601A	G080-16-005	GE	CR2940-UB203E	MILD
HS-7601B	G080-16-006	GE	CR2940-UB203E	MILD
HS-7714A	G080-13-004	GE	CR2940-UB202D	MILD
HS-7714B	G080-13-005	GE	CR2940-UB202D	MILD
HS-8401A	G080-29-139	GE	SBM	MILD
HS-8401B	G080-29-140	GE	SBM	MILD
HS-8401C	G080-29-141	GE	SBM	MILD
HS-8401D	G080-29-142	GE	SBM	MILD
HS-8402A	G080-29-143	GE	SBM	MILD
HS-8402B	G080-29-144	GE	SBM	MILD
HS-8402C	G080-29-145	GE	SBM	MILD
HS-8402D	G080-29-146	GE	SBM	MILD
HS-8403A	G080-06-065	GE	CR2940	MILD
HS-8403B	G080-06-066	GE	CR2940	MILD
HS-8403C	G080-06-067	GE	CR2940	MILD
HS-8403D	G080-06-068	GE	CR2940	MILD
HS-8410	G080-29-147	GE	SBM	MILD
HS-8413	G080-29-148	GE	SBM	MILD
HS-8417A	G080-29-149	GE	SBM	MILD
HS-8417B	G080-29-150	GE	SBM	MILD
HS-8417C	G080-29-151	GE	SBM	MILD
HS-8417D	G080-29-152	GE	SBM	MILD
HS-8418	G080-29-153	GE	SBM	MILD
HS-8772A	G080-17-001	GE	CR2940-UB203F	MILD
HS-8772B	G080-17-002	GE	CR2940-UB203F	MILD
HS-8773A	G080-15-005	GE	CR2940-UB203A	MILD
HS-8773B	G080-15-006	GE	CR2940-UB203A	MILD
INSTRUMENT CABLE	V115-02-001	VICTOREEN	878-1-9	HARSH
IRM-4572A	G080-37-001	GE	194X672G8	MILD
IRM-4572B	G080-37-002	GE	194X672G8	MILD
IRM-4572C	G080-37-003	GE	194X672G8	MILD
IRM-4572D	G080-37-004	GE	194X672G8	MILD
IRM-4572E	G080-37-005	GE	194X672G8	MILD
IRM-4572F	G080-37-006	GE	194X672G8	MILD
JX-101A	G080-88-001	GE	NS03	HARSH
JX-101B	G080-88-002	GE	NS03	HARSH

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
JX-103	G080-90-001	GE	NS02-II	HARSH
JX-104A	G080-84-001	GE	NS04	HARSH
JX-104B	G080-84-002	GE	NS04	HARSH
JX-104C	G080-84-003	GE	NS04	HARSH
JX-104D	G080-84-004	GE	NS04	HARSH
JX-105A	G080-89-001	GE	NS02-I	HARSH
JX-105B	G080-89-002	GE	NS02-I	HARSH
JX-105C	G080-89-003	GE	NS02-I	HARSH
JX-105D	G080-89-004	GE	NS02-I	HARSH
KS-2524A	E020-01-001	EAGLE SIGNAL	HP57A607	MILD
KS-2524B	E020-01-002	EAGLE SIGNAL	HP57A607	MILD
KS-2525A	E020-01-003	EAGLE SIGNAL	HP57A607	MILD
KS-2525B	E020-01-004	EAGLE SIGNAL	HP57A607	MILD
KS-3706A	B323-01-001	BLISS	HP52A6	MILD
KS-3706B	B323-01-002	BLISS	HP52A6	MILD
KS-3747A	B323-01-003	BLISS	HP52A6	MILD
KS-3747B	B323-01-004	BLISS	HP52A6	MILD
KY-1935	A001-02-001			MILD
KY-1940	G080-99-007	GE		MILD
KY-2009	A001-02-002			MILD
KY-2080	A001-02-003			MILD
KY-2902A	P062-01-001	PARAGON	CRIM	MILD
KY-2902B	P062-01-002	PARAGON	CRIM	MILD
KY-2902C	A109-01-001	AGASTAT	2400	MILD
KY-2903A	P062-01-003	PARAGON	CRIM	MILD
KY-2903B	P062-01-004	PARAGON	CRIM	MILD
KY-2903C	A109-01-002	AGASTAT	2400	MILD
KY-2908A	A109-02-001	AGASTAT	7012-PFLL	MILD
KY-2908B	A109-02-002	AGASTAT	7012-PFLL	MILD
KY-2908C	A109-02-003	AGASTAT	7012-PFLL	MILD
KY-2908D	A109-02-004	AGASTAT	7012-PFLL	MILD
KY-4400A	G080-04-001	GE	CR2820 B414AA41	MILD
KY-4400B	G080-04-002	GE	CR2820 B414AA41	MILD
LC-4559	G080-71-005	GE	563022CAAC1	MILD
LC-4560	G080-71-006	GE	563022CAAC1	MILD
LC-4561	G080-71-007	GE	563022CAAC1	MILD
LC-7328A	S345-01-001	SQUARE D	DG-253	MILD
LC-7328B	S345-01-002	SQUARE D	DG-253	MILD
LE-3701	D093-01-001	DELAVAL GEMS SENSORS	XM-33353	HARSH
LE-3721	D093-01-002	DELAVAL GEMS SENSORS	XM-33353	HARSH
LE-4936A	B350-01-003	BORG-WARNER	E-4-51-1201	MILD
LE-4936B	B350-01-004	BORG-WARNER	E-4-51-1201	MILD
LIS-4531	Y010-02-001	YARWAY	4418C	MILD
LIS-4532	Y010-02-002	YARWAY	4418C	MILD
LIS-4533	Y010-02-003	YARWAY	4418C	MILD
LIS-4534	Y010-02-004	YARWAY	4418C	MILD
LIS-4535	Y010-02-017	YARWAY	4418C	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
LIS-4536	Y010-02-005	YARWAY	4418C	MILD
LIS-4537	Y010-02-007	YARWAY	4418C	MILD
LIS-4538	Y010-02-008	YARWAY	4418C	MILD
LIS-4561	Y010-02-009	YARWAY	4418C	MILD
LIS-4562	Y010-02-010	YARWAY	4418C	MILD
LIS-4592A	I204-03-001	ITT BARTON	288	MILD
LIS-4592B	I204-03-002	ITT BARTON	288	MILD
LIS-4592C	I204-03-003	ITT BARTON	288	MILD
LIS-4592D	I204-03-004	ITT BARTON	288	MILD
LITS-4539	Y010-02-011	YARWAY	4418C	MILD
LITS-4540	Y010-02-012	YARWAY	4418C	MILD
LITS-4565	Y010-02-013	YARWAY	4418C	MILD
LITS-4566	Y010-02-014	YARWAY	4418C	MILD
LI-4396A	A001-03-001			MILD
LI-4396B	A001-03-002			MILD
LI-4397A	A001-03-003			MILD
LI-4397B	A001-03-004			MILD
LI-4539	Y010-05-001	YARWAY	4455	MILD
LI-4540	Y010-05-002	YARWAY	4455	MILD
LI-4541	G080-35-006	GE	180	MILD
LI-4559	G080-35-007	GE	180	MILD
LI-4560	G080-35-008	GE	180	MILD
LI-4561	G080-35-009	GE	180	MILD
LI-4565	Y010-05-003	YARWAY	4455	MILD
LPRM-4571A	G080-99-008	GE		MILD
LPRM-4571B	G080-99-009	GE		MILD
LPRM-4571C	G080-99-010	GE		MILD
LPRM-4571D	G080-99-011	GE		MILD
LPRM-4571E	G080-99-012	GE		MILD
LPRM-4571F	G080-99-013	GE		MILD
LPRM-4571G	G080-99-014	GE		MILD
LPRM-4571H	G080-99-015	GE		MILD
LPRM-4571I	G080-99-016	GE		MILD
LPRM-4571J	G080-99-017	GE		MILD
LPRM-4571K	G080-99-018	GE		MILD
LPRM-4571L	G080-99-019	GE		MILD
LPRM-4571M	G080-99-020	GE		MILD
LPRM-4571N	G080-99-021	GE		MILD
LPRM-4571O	G080-99-022	GE		MILD
LPRM-4571P	G080-99-023	GE		MILD
LPRM-4571Q	G080-99-024	GE		MILD
LPRM-4571R	G080-99-025	GE		MILD
LPRM-4571S	G080-99-026	GE		MILD
LPRM-4571T	G080-99-027	GE		MILD
LPRM-4571U	G080-99-028	GE		MILD
LPRM-4571V	G080-99-029	GE		MILD
LRS-4559	G080-52-002	GE	531	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
LRS-4560	G080-52-003	GE	531	MILD
LR-4396A	A001-04-001			MILD
LR-4396B	A001-04-002			MILD
LR-4566	G080-51-001	GE	530	MILD
LR-5830A	W120-02-001	WESTINGHOUSE	WL	MILD
LR-5830B	W120-02-002	WESTINGHOUSE	WL	MILD
LSS-3701	G080-02-001	GE	CR120A28802	MILD
LSS-3721	G080-02-002	GE	CR120A28802	MILD
LS-1861A	M040-01-001	MAGNETROL	SL5.0-751	MILD
LS-1861B	M040-01-002	MAGNETROL	SL5.0-751	MILD
LS-1861C	M040-01-003	MAGNETROL	SL5.0-751	MILD
LS-1861D	M040-01-004	MAGNETROL	SL5.0-751	MILD
LS-2206	R290-01-001	ROBERT SHAW	82938-G-1	MILD
LS-2219	R290-01-002	ROBERT SHAW	82938-G-1	MILD
LS-2222A	R290-02-001	ROBERT SHAW	83841-A2	MILD
LS-2222B	R290-02-002	ROBERT SHAW	83841-A2	MILD
LS-2319	R290-02-003	ROBERT SHAW	83841-A2	MILD
LS-2320	R290-02-004	ROBERT SHAW	83841-A2	MILD
LS-3208A	C470-03-001	COLT INDUSTRIES	80	MILD
LS-3208B	C470-03-002	COLT INDUSTRIES	80	MILD
LS-3210A	C470-03-003	COLT INDUSTRIES	80	MILD
LS-3210B	C470-03-004	COLT INDUSTRIES	80	MILD
LS-3701	D093-02-001	DELAVAL GEMS SENSORS	31924	HARSH
LS-3721	D093-02-002	DELAVAL GEMS SENSORS	31924	HARSH
LS-4936A	B350-01-001	BORG-WARNER	E-4-51-1201	MILD
LS-4936B	B350-01-002	BORG-WARNER	E-4-51-1201	MILD
LS-5218	B008-01-001	B/W CONTROL-TERS GROUP	E-IF/SO-201	MILD
LS-5219	B008-01-002	B/W CONTROL-TERS GROUP	E-IF/SO-201	MILD
LT-4396A	I204-01-007	ITT BARTON	763	HARSH
LT-4396B	I204-01-008	ITT BARTON	763	HARSH
LT-4396C	I204-01-005	ITT BARTON	763	MILD
LT-4396D	I204-01-006	ITT BARTON	763	MILD
LT-4397A	I204-02-005	ITT BARTON	764	HARSH
LT-4397B	I204-02-006	ITT BARTON	764	HARSH
LT-4541	G080-67-001	GE	555111BDAA-3PDF	MILD
LT-4559	G080-64-001	GE	555111BB AA3PDE	MILD
LT-4560	G080-64-002	GE	555111BB AA3PDE	MILD
LT-4561	G080-64-003	GE	555111BB AA3PDE	MILD
LY-4396A	B045-01-001	BAILEY METER	752210-AAAE1	MILD
LY-4396B	B045-01-002	BAILEY METER	752210-AAAE1	MILD
L/R-7315A	W120-03-001	WESTINGHOUSE	WL-3573A45-GO1	MILD
L/R-7315B	W120-03-002	WESTINGHOUSE	WL-3573A45-GO1	MILD
MO-1900	L200-02-001	LIMITORQUE	SMB-00, AC-CLASS H	HARSH
MO-1901	L200-12-001	LIMITORQUE	SMB-0, DC-CLASS B	MILD
MO-1902	L200-21-001	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-1903	L200-20-005	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-1904	E153-01-001	ELECTRODYNE	TN-24-400	HARSH

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
MO-1905	L200-09-001	LIMITORQUE	SMB-5, AC-CLASS B	HARSH
MO-1908	L200-17-001	LIMITORQUE	SMB-2, AC-CLASS H	HARSH
MO-1909	L200-19-001	LIMITORQUE	SMB-2, DC-CLASS B	HARSH
MO-1912	L200-10-001	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1913	L200-10-002	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1920	L200-10-003	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1921	L200-10-004	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1932	L200-01-002	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-1933	L200-10-005	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1934	L200-20-001	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-1935	L200-03-001	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-1936	L200-10-006	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1937	L200-14-002	LIMITORQUE	SMB-000, DC CLASS B	HARSH
MO-1939	L200-01-003	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-1940	L200-08-001	LIMITORQUE	SMB-4, AC-CLASS B	HARSH
MO-1941	L200-01-004	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-1942	L200-01-005	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-1943A	L200-10-015	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1943B	L200-10-016	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-1947	L200-01-014	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-1949A	L200-03-003	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-1949B	L200-03-004	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-1967	L200-03-005	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-1970	L200-03-006	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-1989	L200-01-006	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2000	L200-21-003	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-2001	L200-06-001	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-2003	L200-09-002	LIMITORQUE	SMB-5, AC-CLASS B	HARSH
MO-2004	E 153-01-002	ELECTRODYNE	TN-24-400	HARSH
MO-2005	L200-01-008	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2006	L200-10-014	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2007	L200-20-002	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-2009	L200-03-007	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2010	L200-05-001	LIMITORQUE	SMB-1, AC-CLASS B	HARSH
MO-2011	L200-10-008	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2012	L200-10-009	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2015	L200-10-010	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2016	L200-10-011	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2029	L200-01-009	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2030	L200-08-005	LIMITORQUE	SMB-4, AC-CLASS B	HARSH
MO-2031	L200-01-010	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2036	L200-03-008	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2038	L200-03-009	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2039A	L200-03-010	LIMITORQUE	SMB-000, AC-CLASS B	MILD
MO-2039B	L200-03-011	LIMITORQUE	SMB-000, AC-CLASS B	MILD
MO-2044A	L200-03-012	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2044B	L200-03-013	LIMITORQUE	SMB-000, AC-CLASS B	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
MO-2046	L200-01-015	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2069	L200-01-011	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2077	L200-03-014	LIMITORQUE	SMB-000, AC-CLASS B	MILD
MO-2078	L200-03-015	LIMITORQUE	SMB-000, AC-CLASS B	MILD
MO-2100	L200-10-017	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2104	L200-03-016	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2112	L200-05-002	LIMITORQUE	SMB-1, AC-CLASS B	HARSH
MO-2115	L200-22-002	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2117	L200-21-005	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-2120	L200-10-013	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2124	L200-03-017	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2132	L200-05-003	LIMITORQUE	SMB-1, AC-CLASS B	HARSH
MO-2135	L200-22-001	LIMITORQUE	SMB-0, AC-CLASS B	HARSH
MO-2137	L200-21-006	LIMITORQUE	SMB-2, AC-CLASS B	HARSH
MO-2146	L200-10-018	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2147	L200-10-019	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2202	L200-16-002	LIMITORQUE	SMB-2, AC-CLASS H	MILD
MO-2238	L200-17-003	LIMITORQUE	SMB-2, AC-CLASS H	HARSH
MO-2239	L200-18-001	LIMITORQUE	SMB-3, DC-CLASS B	HARSH
MO-2247	L200-15-001	LIMITORQUE	SMB-000, DC-CLASS H	MILD
MO-2290A	L200-03-019	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2290B	L200-03-020	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-2300	L200-13-001	LIMITORQUE	SMB-00, DC-CLASS B	MILD
MO-2311	L200-07-002	LIMITORQUE	SMB-3, DC-CLASS B	MILD
MO-2312	L200-07-001	LIMITORQUE	SMB-3, DC-CLASS B	HARSH
MO-2315	L200-07-003	LIMITORQUE	SMB-3, DC-CLASS B	MILD
MO-2316	L200-12-002	LIMITORQUE	SMB-0, DC-CLASS B	MILD
MO-2318	L200-12-003	LIMITORQUE	SMB-0, DC-CLASS B	MILD
MO-2321	L200-13-002	LIMITORQUE	SMB-00, DC-CLASS B	HARSH
MO-2322	L200-13-003	LIMITORQUE	SMB-00, DC-CLASS B	MILD
MO-2400	L200-02-023	LIMITORQUE	SMB-00, AC-CLASS H	HARSH
MO-2401	L200-13-004	LIMITORQUE	SMB-00, DC-CLASS B	HARSH
MO-2510	L200-11-001	LIMITORQUE	SMB-00, DC-CLASS H	MILD
MO-2512	L200-13-005	LIMITORQUE	SMB-00, DC-CLASS B	HARSH
MO-2516	L200-14-003	LIMITORQUE	SMB-000, DC CLASS B	HARSH
MO-2517	L200-14-001	LIMITORQUE	SMB-000, DC CLASS B	HARSH
MO-2700	L200-02-027	LIMITORQUE	SMB-00, AC-CLASS H	HARSH
MO-2701	L200-10-020	LIMITORQUE	SMB-00, AC-CLASS B	HARSH
MO-2740	L200-10-012	LIMITORQUE	SMB-00, AC-CLASS B	MILD
MO-2902	L200-04-001	LIMITORQUE	SMB-000-2	MILD
MO-2903	L200-04-003	LIMITORQUE	SMB-000-2	MILD
MO-2910A	Z010-01-001	ZURN INDUSTRIES	MAR-8	MILD
MO-2910B	Z010-01-002	ZURN INDUSTRIES	MAR-8	MILD
MO-4320A	L200-03-023	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-4320B	L200-03-024	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-4323A	L200-02-029	LIMITORQUE	SMB-00, AC-CLASS H	MILD
MO-4323B	L200-02-030	LIMITORQUE	SMB-00, AC-CLASS H	MILD

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
MO-4423	L200-02-031	LIMITORQUE	SMB-00, AC-CLASS H	HARSH
MO-4424	L200-13-007	LIMITORQUE	SMB-00,DC-CLASS B	HARSH
MO-4627	L200-17-004	LIMITORQUE	SMB-2,AC-CLASS H	HARSH
MO-4628	L200-17-005	LIMITORQUE	SMB-2,AC-CLASS H	HARSH
MO-4841A	L200-03-025	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-4841B	L200-03-026	LIMITORQUE	SMB-000, AC-CLASS B	HARSH
MO-8401A	L200-23-001	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8401B	L200-23-002	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8401C	L200-23-003	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8401D	L200-23-004	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8402A	L200-23-005	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8402B	L200-23-006	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8402C	L200-23-007	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8402D	L200-23-008	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8403A	L200-23-009	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8403B	L200-23-010	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8403C	L200-23-011	LIMITORQUE	SB-000, AC-CLASS H	HARSH
MO-8403D	L200-23-012	LIMITORQUE	SB-000, AC-CLASS H	HARSH
OT-7304A	C251-02-001	CHANNEL MASTER	CFEI-74C	MILD
OT-7304B	C251-02-002	CHANNEL MASTER	CFEI-74C	MILD
PB-5831A	G080-05-001	GE	CR2940U201	MILD
PB-5831B	G080-05-002	GE	CR2940U201	MILD
PB-5837A	G080-03-001	GE	CR2040U201	MILD
PB-5837B	G080-05-003	GE	CR2940U201	MILD
PB-5838A	G080-05-004	GE	CR2940U201	MILD
PB-5838B	G080-05-005	GE	CR2940U201	MILD
PB-7316A	G080-09-001	GE	CR2940U201	MILD
PB-7316B	G080-09-002	GE	CR2940U201	MILD
PB-7328A	G080-09-003	GE	CR2940U201	MILD
PB-7328B	G080-09-004	GE	CR2940U201	MILD
PB-7329A	G080-09-005	GE	CR2940U201	MILD
PB-7329B	G080-09-006	GE	CR2940U201	MILD
PDIS-1971A	I204-04-004	ITT BARTON	289	HARSH
PDIS-1971B	I204-04-005	ITT BARTON	289	HARSH
PDIS-2244	I204-03-005	ITT BARTON	288	MILD
PDIS-2245	I204-03-006	ITT BARTON	288	MILD
PDIS-2441	I204-03-007	ITT BARTON	288	MILD
PDIS-2442	I204-03-008	ITT BARTON	288	MILD
PDIS-2902	I204-04-006	ITT BARTON	289	MILD
PDIS-2903	I204-04-007	ITT BARTON	289	MILD
PDIS-4304	I204-06-001	ITT BARTON	288A	HARSH
PDIS-4305	I204-06-002	ITT BARTON	288A	HARSH
PDIS-4432A	I204-03-009	ITT BARTON	288	MILD
PDIS-4432B	I204-03-010	ITT BARTON	288	MILD
PDIS-4432C	I204-03-011	ITT BARTON	288	MILD
PDIS-4432D	I204-03-012	ITT BARTON	288	MILD
PDIS-4434A	I204-03-013	ITT BARTON	288	MILD

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
PDIS-4434B	I204-03-014	ITT BARTON	288	MILD
PDIS-4434C	I204-03-015	ITT BARTON	288	MILD
PDIS-4434D	I204-03-016	ITT BARTON	288	MILD
PDIS-4436A	I204-03-017	ITT BARTON	288	MILD
PDIS-4436B	I204-03-018	ITT BARTON	288	MILD
PDIS-4436C	I204-03-019	ITT BARTON	288	MILD
PDIS-4436D	I204-03-020	ITT BARTON	288	MILD
PDIS-4438A	I204-03-021	ITT BARTON	288	MILD
PDIS-4438B	I204-03-022	ITT BARTON	288	MILD
PDIS-4438C	I204-03-023	ITT BARTON	288	MILD
PDIS-4438D	I204-03-024	ITT BARTON	288	MILD
PDIS-4625A	I204-03-025	ITT BARTON	288	MILD
PDIS-4625B	I204-03-026	ITT BARTON	288	MILD
PDIS-4625C	I204-03-027	ITT BARTON	288	MILD
PDIS-4625D	I204-03-028	ITT BARTON	288	MILD
PDIS-4626A	I204-03-029	ITT BARTON	288	MILD
PDIS-4626B	I204-03-030	ITT BARTON	288	MILD
PDIS-4626C	I204-03-031	ITT BARTON	288	MILD
PDIS-4626D	I204-03-032	ITT BARTON	288	MILD
PDIS-4641	I204-03-033	ITT BARTON	288	MILD
PDIS-4642	I204-03-034	ITT BARTON	288	MILD
PDIS-4643	I204-03-035	ITT BARTON	288	MILD
PDIS-4644	I204-03-036	ITT BARTON	288	MILD
PDI-4623	G080-35-010	GE	180	MILD
PDI-4624	G080-35-011	GE	180	MILD
PDS-2910A	Z010-02-002	ZURN INDUSTRIES	150	MILD
PDS-2910B	Z010-02-001	ZURN INDUSTRIES	150	MILD
PDT-1947	G080-48-001	GE	552032HKZZ2	HARSH
PDT-2046	G080-48-002	GE	552032HKZZ2	HARSH
PDT-4623	I204-05-006	ITT BARTON	368	HARSH
PDT-4624	I204-05-007	ITT BARTON	368	MILD
PI-1018	G080-35-012	GE	180	MILD
PI-1019	G080-35-013	GE	180	MILD
PI-2106	G080-35-014	GE	180	MILD
PI-2126	G080-35-015	GE	180	MILD
PI-2207	G080-35-016	GE	180	MILD
PI-2306	G080-35-017	GE	180	MILD
PI-2403	G080-35-018	GE	180	MILD
PI-4398A	A001-05-001			MILD
PI-4398B	A001-05-002			MILD
PI-4399A	A001-05-003			MILD
PI-4399B	A001-05-004			MILD
PI-4563	G080-35-019	GE	180	MILD
PI-4564	G080-35-020	GE	180	MILD
PI-4565	G080-35-021	GE	180	MILD
PI-4599A	A001-05-005			MILD
PI-4599B	A001-05-006			MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
PR-4384A	H260-01-009	HONEYWELL	37303-6020-0222-000-610-00	MILD
PR-4385A	H260-01-010	HONEYWELL	37303-6020-0222-000-610-00	MILD
PR-4398A	A001-06-001			MILD
PR-4398B	A001-06-002			MILD
PR-4542	G080-52-004	GE	531	MILD
PR-4599A	A001-06-003			MILD
PR-4599B	A001-06-004			MILD
PS-1005A	B069-01-002	BARKSDALE	B2T M12SS	MILD
PS-1005B	B069-01-003	BARKSDALE	B2T M12SS	MILD
PS-1005C	B069-01-004	BARKSDALE	B2T M12SS	MILD
PS-1005D	B069-01-005	BARKSDALE	B2T M12SS	MILD
PS-1014	B069-01-006	BARKSDALE	B2T M12SS	MILD
PS-1015	B069-01-007	BARKSDALE	B2T M12SS	MILD
PS-1016	B069-01-008	BARKSDALE	B2T M12SS	MILD
PS-1017	B069-01-009	BARKSDALE	B2T M12SS	MILD
PS-1026A	B069-08-001	BARKSDALE	TC 9622-3	MILD
PS-1026B	B069-08-002	BARKSDALE	TC 9622-3	MILD
PS-1026C	B069-08-003	BARKSDALE	TC 9622-3	MILD
PS-1026D	B069-08-004	BARKSDALE	TC 9622-3	MILD
PS-1096A	B069-03-001	BARKSDALE	DIT-M18SS	MILD
PS-1096B	B069-03-002	BARKSDALE	DIT-M18SS	MILD
PS-1096C	B069-03-003	BARKSDALE	DIT-M18SS	MILD
PS-1096D	B069-03-004	BARKSDALE	DIT-M18SS	MILD
PS-1917A	S382-03-001	STATIC-O-RING	5N-AA3	HARSH
PS-1917B	S382-02-001	STATIC-O-RING	12N-AA5	HARSH
PS-1925A	S382-03-002	STATIC-O-RING	5N-AA3	HARSH
PS-1925B	S382-02-002	STATIC-O-RING	12N-AA5	HARSH
PS-2023A	S382-03-003	STATIC-O-RING	5N-AA3	HARSH
PS-2023B	S382-02-003	STATIC-O-RING	12N-AA5	HARSH
PS-2024A	S382-03-004	STATIC-O-RING	5N-AA3	HARSH
PS-2024B	S382-02-012	STATIC-O-RING	12N-AA5	HARSH
PS-2107A	S382-03-006	STATIC-O-RING	5N-AA3	HARSH
PS-2107B	S382-03-007	STATIC-O-RING	5N-AA3	HARSH
PS-2127A	S382-03-008	STATIC-O-RING	5N-AA3	HARSH
PS-2127B	S382-03-009	STATIC-O-RING	5N-AA3	HARSH
PS-2215A	S382-04-001	STATIC-O-RING	6N-AA2	MILD
PS-2215B	S382-04-002	STATIC-O-RING	6N-AA2	MILD
PS-2215C	S382-04-003	STATIC-O-RING	6N-AA2	MILD
PS-2215D	S382-04-004	STATIC-O-RING	6N-AA2	MILD
PS-2233A	S382-03-010	STATIC-O-RING	5N-AA3	MILD
PS-2233B	S382-03-011	STATIC-O-RING	5N-AA3	MILD
PS-2246A	B069-01-010	BARKSDALE	B2T M12SS	MILD
PS-2246B	B069-01-011	BARKSDALE	B2T M12SS	MILD
PS-2246C	B069-01-012	BARKSDALE	B2T M12SS	MILD
PS-2246D	B069-01-013	BARKSDALE	B2T M12SS	MILD
PS-2288	S382-04-005	STATIC-O-RING	6N-AA2	MILD
PS-2304A	S382-04-006	STATIC-O-RING	6N-AA2	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
PS-2304B	S382-04-007	STATIC-O-RING	6N-AA2	MILD
PS-2324	B069-01-038	BARKSDALE	B2T M12SS	MILD
PS-2443A	B069-01-014	BARKSDALE	B2T M12SS	MILD
PS-2443B	B069-01-015	BARKSDALE	B2T M12SS	MILD
PS-2443C	B069-01-016	BARKSDALE	B2T M12SS	MILD
PS-2443D	B069-01-017	BARKSDALE	B2T M12SS	MILD
PS-2902	B069-04-003	BARKSDALE	D1T-A80	MILD
PS-2903	B069-04-004	BARKSDALE	D1T-A80	MILD
PS-3241A	C470-01-001	COLT INDUSTRIES	2584-B1	MILD
PS-3241B	C470-01-002	COLT INDUSTRIES	2584-B1	MILD
PS-3242A	C470-01-003	COLT INDUSTRIES	2584-B1	MILD
PS-3242B	C470-01-004	COLT INDUSTRIES	2584-B1	MILD
PS-4310A	S382-02-004	STATIC-O-RING	12N-AA5	MILD
PS-4310B	S382-02-005	STATIC-O-RING	12N-AA5	MILD
PS-4311A	S382-02-006	STATIC-O-RING	12N-AA5	MILD
PS-4311B	S382-02-007	STATIC-O-RING	12N-AA5	MILD
PS-4312A	S382-02-008	STATIC-O-RING	12N-AA5	MILD
PS-4312B	S382-02-009	STATIC-O-RING	12N-AA5	MILD
PS-4313A	S382-02-010	STATIC-O-RING	12N-AA5	MILD
PS-4313B	S382-02-011	STATIC-O-RING	12N-AA5	MILD
PS-4315A	S382-01-001	STATIC-O-RING	12N-AA4	MILD
PS-4315B	S382-01-002	STATIC-O-RING	12N-AA4	MILD
PS-4315C	S382-01-003	STATIC-O-RING	12N-AA4	MILD
PS-4315D	S382-01-004	STATIC-O-RING	12N-AA4	MILD
PS-4346	S382-07-004	STATIC-O-RING	9N-AA45-(X9)-TT	MILD
PS-4348	I204-04-008	ITT BARTON	289	HARSH
PS-4365A	B069-04-001	BARKSDALE	D1T-A80	MILD
PS-4365B	B069-04-002	BARKSDALE	D1T-A80	MILD
PS-4400A	P381-01-001	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4400B	P381-01-002	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4400C	P381-01-003	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4401A	P381-01-004	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4401B	P381-01-005	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4401C	P381-01-006	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4402A	P381-01-007	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4402B	P381-01-008	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4402C	P381-01-009	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4403A	P381-01-010	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4403B	P381-01-011	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4403C	P381-01-012	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4404A	P381-01-013	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4404B	P381-01-014	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4404C	P381-01-015	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4405A	P381-01-016	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4405B	P381-01-017	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4405C	P381-01-018	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4406A	P381-01-019	PRESSURE CONTROLS	A-17-1N	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
PS-4406B	P381-01-020	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4406C	P381-01-021	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4407A	P381-01-022	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4407B	P381-01-023	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4407C	P381-01-024	PRESSURE CONTROLS	A-17-1N	HARSH
PS-4529	B069-01-018	BARKSDALE	B2T M12SS	MILD
PS-4530	B069-01-019	BARKSDALE	B2T M12SS	MILD
PS-4543	B069-01-020	BARKSDALE	B2T M12SS	MILD
PS-4544	B069-01-021	BARKSDALE	B2T M12SS	MILD
PS-4545	B069-01-022	BARKSDALE	B2T M12SS	MILD
PS-4546	B069-01-023	BARKSDALE	B2T M12SS	MILD
PS-4547	B069-01-024	BARKSDALE	B2T M12SS	MILD
PS-4548	B069-01-025	BARKSDALE	B2T M12SS	MILD
PS-4549	B069-01-026	BARKSDALE	B2T M12SS	MILD
PS-4550	B069-01-027	BARKSDALE	B2T M12SS	MILD
PS-4551	B069-01-028	BARKSDALE	B2T M12SS	MILD
PS-4552	B069-01-029	BARKSDALE	B2T M12SS	MILD
PS-4555	B069-01-030	BARKSDALE	B2T M12SS	MILD
PS-4556	B069-01-031	BARKSDALE	B2T M12SS	MILD
PS-4557	B069-01-032	BARKSDALE	B2T M12SS	MILD
PS-4558	B069-01-033	BARKSDALE	B2T M12SS	MILD
PS-4593A	S382-07-001	STATIC-O-RING	9N-AA45-(X9)-TT	MILD
PS-4593B	S382-07-005	STATIC-O-RING	9N-AA45-(X9)-TT	MILD
PS-4593C	S382-07-002	STATIC-O-RING	9N-AA45-(X9)-TT	MILD
PS-4593D	S382-07-003	STATIC-O-RING	9N-AA45-(X9)-TT	MILD
PS-4637	B069-01-001	BARKSDALE	B2T M12SS	MILD
PS-4638A	B069-07-001	BARKSDALE	PIH-M34055-V	MILD
PS-4638B	B069-07-002	BARKSDALE	PIH-M34055-V	MILD
PS-7333A	U075-01-001	UNITED ELECTRIC CONTROLS	270	MILD
PS-7333B	U075-01-002	UNITED ELECTRIC CONTROLS	270	MILD
PS-7334A	U075-01-003	UNITED ELECTRIC CONTROLS	270	MILD
PS-7334B	U075-01-004	UNITED ELECTRIC CONTROLS	270	MILD
PS-7335A	M235-01-001	MERCOND CORP.	DA7031-153	MILD
PS-7335B	M235-01-002	MERCOND CORP.	DA7031-153	MILD
PS-8404A	B069-09-001	BARKSDALE	P1H-M85SS-V	HARSH
PS-8404B	B069-09-002	BARKSDALE	P1H-M85SS-V	HARSH
PS-8404C	B069-09-003	BARKSDALE	P1H-M85SS-V	HARSH
PS-8404D	B069-09-004	BARKSDALE	P1H-M85SS-V	HARSH
PS-8415A	B069-01-034	BARKSDALE	B2T M12SS	MILD
PS-8415B	B069-01-035	BARKSDALE	B2T M12SS	MILD
PS-8415C	B069-01-036	BARKSDALE	B2T M12SS	MILD
PS-8415D	B069-01-037	BARKSDALE	B2T M12SS	MILD
PT-1018	S052-01-001	SCHAEVITZ	501X5A	MILD
PT-1019	S052-01-002	SCHAEVITZ	501X5A	MILD
PT-2106	G080-59-002	GE	551032EKZZ2	HARSH
PT-2126	G080-59-001	GE	551032EKZZ2	HARSH
PT-2207	G080-49-002	GE	551032GKZZ2	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
PT-2306	G080-49-001	GE	551032GKZZ2	HARSH
PT-4343	G080-68-001	GE	556	MILD
PT-4365A	G080-68-002	GE	556	MILD
PT-4365B	G080-68-003	GE	556	MILD
PT-4398A	I204-02-001	ITT BARTON	764	HARSH
PT-4398B	I204-02-002	ITT BARTON	764	HARSH
PT-4399A	I204-01-001	ITT BARTON	763	MILD
PT-4399B	I204-01-002	ITT BARTON	763	MILD
PT-4542	I204-05-005	ITT BARTON	368	MILD
PT-4563	G080-60-003	GE	551032-GM772	MILD
PT-4564	G080-60-001	GE	551032-GM772	MILD
PT-4565	G080-60-002	GE	551032-GM772	MILD
PT-4599A	I204-01-003	ITT BARTON	763	MILD
PT-4599B	I204-01-004	ITT BARTON	763	MILD
P/ER-7334A	P129-04-001	PENN	P47BA-6	MILD
P/ER-7334B	P129-04-002	PENN	P47BA-6	MILD
P/ER-7600A	G080-80-001	GE	6-271	MILD
P/ER-7600B	G080-80-002	GE	6-271	MILD
RC-4448A	G080-40-001	GE	238X660G3	MILD
RC-4448B	G080-40-002	GE	238X660G3	MILD
RC-4448C	G080-40-003	GE	238X660G3	MILD
RC-4448D	G080-40-004	GE	238X660G3	MILD
RE-4131A	G080-38-001	GE	194X927G11	MILD
RE-4131B	G080-38-002	GE	194X927G11	MILD
RE-4175	K020-02-001	KAMAN SCIENCES CORP K	KMG-HRH	MILD
RE-4176	K020-01-002	KAMAN SCIENCES CORP K	KMG-HRN	MILD
RE-4448A	G080-91-001	GE	237X731G001	HARSH
RE-4448B	G080-91-002	GE	237X731G001	HARSH
RE-4448C	G080-91-003	GE	237X731G001	HARSH
RE-4448D	G080-91-004	GE	237X731G001	HARSH
RE-4571A	G080-87-001	GE		MILD
RE-4571B	G080-87-002	GE		MILD
RE-4571C	G080-87-003	GE		MILD
RE-4571D	G080-87-004	GE		MILD
RE-4571E	G080-87-005	GE		MILD
RE-4571F	G080-87-006	GE		MILD
RE-4571G	G080-87-007	GE		MILD
RE-4571H	G080-87-008	GE		MILD
RE-4571I	G080-87-009	GE		MILD
RE-4571J	G080-87-010	GE		MILD
RE-4571K	G080-87-011	GE		MILD
RE-4571L	G080-87-012	GE		MILD
RE-4571M	G080-87-013	GE		MILD
RE-4571N	G080-87-014	GE		MILD
RE-4571O	G080-87-022	GE		MILD
RE-4571P	G080-87-015	GE		MILD
RE-4571Q	G080-87-016	GE		MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
RE-4571R	G080-87-017	GE		MILD
RE-4571S	G080-87-018	GE		MILD
RE-4571T	G080-87-019	GE		MILD
RE-4571U	G080-87-020	GE		MILD
RE-4571V	G080-87-021	GE		MILD
RE-4572A	G080-85-001	GE	112C3144G008	MILD
RE-4572B	G080-85-002	GE	112C3144G008	MILD
RE-4572C	G080-85-003	GE	112C3144G008	MILD
RE-4572D	G080-85-004	GE	112C3144G008	MILD
RE-4572E	G080-85-005	GE	112C3144G008	MILD
RE-4572F	G080-85-006	GE	112C3144G008	MILD
RE-4573A	G080-86-001	GE	112C3144G007	MILD
RE-4573B	G080-86-002	GE	112C3144G007	MILD
RE-4573C	G080-86-003	GE	112C3144G007	MILD
RE-4573D	G080-86-004	GE	112C3144G007	MILD
RE-5945	K020-01-001	KAMAN SCIENCES CORP K	KMG-HRN	MILD
RE-5946	K020-02-002	KAMAN SCIENCES CORP K	KMG-HRH	MILD
RE-6101A	N003-05-001	NMC	GA-2TO	MILD
RE-6101B	N003-05-002	NMC	GA-2TO	MILD
RE-7606A	N003-05-003	NMC	GA-2TO	MILD
RE-7606B	N003-05-004	NMC	GA-2TO	MILD
RE-7644	K020-02-003	KAMAN SCIENCES CORP K	KMG-HRH	MILD
RE-7645	K020-03-001	KAMAN SCIENCES CORP K	KMPIG-HRN	MILD
RE-7646	K020-02-004	KAMAN SCIENCES CORP K	KMG-HRH	MILD
RE-7647	K020-03-002	KAMAN SCIENCES CORP K	KMPIG-HRN	MILD
RE-7648	K020-02-005	KAMAN SCIENCES CORP K	KMG-HRH	MILD
RE-7649	K020-03-003	KAMAN SCIENCES CORP K	KMPIG-HRN	MILD
RE-8101A	N003-01-001	NMC	RAK-22IF	MILD
RE-8101B	N003-01-002	NMC	RAK-22IF	MILD
RE-8102A	N003-01-003	NMC	RAK-22IF	MILD
RE-8102B	N003-01-004	NMC	RAK-22IF	MILD
RE-8103A	N003-01-005	NMC	RAK-22IF	MILD
RE-8103B	N003-01-006	NMC	RAK-22IF	MILD
RE-9184A	V115-01-002	VICTOREEN	877-1	HARSH
RE-9184B	V115-01-004	VICTOREEN	877-1	HARSH
RE-9185A	V115-01-006	VICTOREEN	877-1	HARSH
RE-9185B	V115-01-008	VICTOREEN	877-1	HARSH
RIM-6101A	N003-02-003	NMC	GA-2TMO	MILD
RIM-6101B	N003-02-004	NMC	GA-2TMO	MILD
RIM-7606A	N003-02-005	NMC	GA-2TMO	MILD
RIM-7606B	N003-02-006	NMC	GA-2TMO	MILD
RIM-9184A	V115-03-001	VICTOREEN 8	867A	MILD
RIM-9184B	V115-03-002	VICTOREEN 8	867A	MILD
RIM-9185A	V115-03-003	VICTOREEN 8	867A	MILD
RIM-9185B	V115-03-004	VICTOREEN 8	867A	MILD
RIS-4131A	G080-33-001	GE	129B2802	MILD
RIS-4131B	G080-33-002	GE	129B2802	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
RIT-8101A	N003-01-007	NMC	RAK-22IF	MILD
RIT-8101B	N003-01-008	NMC	RAK-22IF	MILD
RIT-8102A	N003-01-009	NMC	RAK-22IF	MILD
RIT-8102B	N003-01-010	NMC	RAK-22IF	MILD
RIT-8103A	N003-01-011	NMC	RAK-22IF	MILD
RIT-8103B	N003-01-012	NMC	RAK-22IF	MILD
RM-4175	K020-04-001	KAMAN SCIENCES CORP K	KEM	MILD
RM-4176	K020-04-002	KAMAN SCIENCES CORP K	KEM	MILD
RM-5945	K020-04-003	KAMAN SCIENCES CORP K	KEM	MILD
RM-5946	K020-04-004	KAMAN SCIENCES CORP K	KEM	MILD
RM-7644	K020-04-005	KAMAN SCIENCES CORP K	KEM	MILD
RM-7645	K020-04-006	KAMAN SCIENCES CORP K	KEM	MILD
RM-7646	K020-04-007	KAMAN SCIENCES CORP K	KEM	MILD
RM-7647	K020-04-008	KAMAN SCIENCES CORP K	KEM	MILD
RM-7648	K020-04-009	KAMAN SCIENCES CORP K	KEM	MILD
RM-7649	K020-04-010	KAMAN SCIENCES CORP K	KEM	MILD
RR-4131	G080-50-001	GE	521	MILD
RR-4379A	H260-01-004	HONEYWELL	37303-6020-0222-000-610-00	MILD
RR-4379B	H260-01-005	HONEYWELL	37303-6020-0222-000-610-00	MILD
RR-4448A	G080-50-002	GE	521	MILD
RR-4448B	G080-50-003	GE	521	MILD
RR-7606A	H260-01-002	HONEYWELL	37303-6020-0222-000-610-00	MILD
RR-7606B	H260-01-003	HONEYWELL	37303-6020-0222-000-610-00	MILD
RR-9184A	W120-06-001	WESTINGHOUSE	PAM	MILD
RR-9184B	W120-06-002	WESTINGHOUSE	PAM	MILD
SPLICING KITS	R098-02-001	RAYCHEM	WCSF-N	HARSH
SQ-5829A	G080-73-005	GE	565	MILD
SQ-5829B	G080-73-006	GE	565	MILD
SQ-7321A	G080-73-007	GE	565	MILD
SQ-7321B	G080-73-008	GE	565	MILD
SRM-4573A	G080-36-001	GE	194X400G17	MILD
SRM-4573B	G080-36-002	GE	194X400G17	MILD
SRM-4573C	G080-36-003	GE	194X400G17	MILD
SRM-4573D	G080-36-004	GE	194X400G17	MILD
SS-3236A	W120-01-001	WESTINGHOUSE		MILD
SS-3236B	W120-01-002	WESTINGHOUSE		MILD
SS-3237A	W120-01-003	WESTINGHOUSE		MILD
SS-3237B	W120-01-004	WESTINGHOUSE		MILD
SV-1804A	A499-34-010	ASCO	8320A6	MILD
SV-1804B	A499-34-011	ASCO	8320A6	MILD
SV-1840A	A499-34-012	ASCO	8320A6	MILD
SV-1840B	A499-34-013	ASCO	8320A6	MILD
SV-1855	A499-11-001	ASCO	HVA-90-405	MILD
SV-1856	A499-11-002	ASCO	HVA-90-405	MILD
SV-1868	A499-41-001	ASCO	8323-22	MILD
SV-1869	A499-41-002	ASCO	8323-22	MILD
SV-1942	T020-04-001	TARGET ROCK	72V-002	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
SV-1956A	A499-29-001	ASCO	8300A203U	MILD
SV-1956B	A499-29-002	ASCO	8300A203U	MILD
SV-1963	A499-34-006	ASCO	8320A6	HARSH
SV-1964	A499-03-001	ASCO	NP8320A173E	HARSH
SV-1966	A499-34-007	ASCO	8320A6	HARSH
SV-1972	T020-01-003	TARGET ROCK	72V-001	HARSH
SV-1973	T020-01-004	TARGET ROCK	72V-001	HARSH
SV-2033	A499-34-008	ASCO	8320A6	HARSH
SV-2034	A499-03-002	ASCO	NP8320A173E	HARSH
SV-2037	A499-34-009	ASCO	8320A6	HARSH
SV-2051	T020-01-005	TARGET ROCK	72V-001	HARSH
SV-2052	T020-01-006	TARGET ROCK	72V-001	HARSH
SV-2080	A499-02-028	ASCO	FT8321A5	MILD
SV-2081	A499-02-029	ASCO	FT8321A5	MILD
SV-2206	A499-22-001	ASCO	206-832-3RU	MILD
SV-2211	A499-22-002	ASCO	206-832-3RU	MILD
SV-2212	A499-22-003	ASCO	206-832-3RU	MILD
SV-2219	T020-01-007	TARGET ROCK	72V-001	MILD
SV-2234	A499-22-004	ASCO	206-832-3RU	MILD
SV-2235	A499-22-005	ASCO	206-832-3RU	MILD
SV-2259	S212-01-001	SKINNER	L20B5150	MILD
SV-3704	A499-12-001	ASCO	NP831665E	HARSH
SV-3705	A499-12-002	ASCO	NP831665E	HARSH
SV-3728	A499-12-003	ASCO	NP831665E	HARSH
SV-3729	A499-12-004	ASCO	NP831665E	HARSH
SV-4129A	A499-26-001	ASCO	8030A71	MILD
SV-4129B	A499-25-001	ASCO	8030A17	MILD
SV-4300	A499-01-021	ASCO	HT831665	MILD
SV-4300X	A499-12-008	ASCO	NP831665E	HARSH
SV-4301	A499-01-022	ASCO	HT831665	MILD
SV-4302	A499-01-013	ASCO	HT831665	MILD
SV-4302X	A499-12-009	ASCO	NP831665E	HARSH
SV-4303	A499-05-001	ASCO	831665	HARSH
SV-4304	A499-01-023	ASCO	HT831665	MILD
SV-4305	A499-01-024	ASCO	HT831665	MILD
SV-4306	A499-05-002	ASCO	831665	HARSH
SV-4307	A499-05-003	ASCO	831665	HARSH
SV-4308	A499-05-004	ASCO	831665	HARSH
SV-4309	A499-05-008	ASCO	831665	HARSH
SV-4310	A499-12-010	ASCO	NP831665E	HARSH
SV-4311	A499-05-005	ASCO	831665	HARSH
SV-4312	A499-05-006	ASCO	831665	HARSH
SV-4313	A499-05-007	ASCO	831665	HARSH
SV-4331A	T020-06-001	TARGET ROCK	72V-004	HARSH
SV-4331B	T020-06-002	TARGET ROCK	72V-004	HARSH
SV-4332A	T020-06-003	TARGET ROCK	72V-004	HARSH
SV-4332B	T020-06-004	TARGET ROCK	72V-004	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
SV-4333A	TO20-06-005	TARGET ROCK	72V-004	HARSH
SV-4333B	TO20-06-006	TARGET ROCK	72V-004	HARSH
SV-4334A	TO20-06-007	TARGET ROCK	72V-004	HARSH
SV-4334B	TO20-06-008	TARGET ROCK	72V-004	HARSH
SV-4371A	A499-01-026	ASCO	HT831665	MILD
SV-4371B	A499-12-005	ASCO	NP831665E	HARSH
SV-4371C	A499-01-027	ASCO	HT831665	MILD
SV-4378A	A499-01-028	ASCO	HT831665	MILD
SV-4378B	A499-01-029	ASCO	HT831665	MILD
SV-4400	A613-01-001	AUTOMATIC VALVE CO.	C5450-5	HARSH
SV-4402	A613-01-002	AUTOMATIC VALVE CO.	C5450-5	HARSH
SV-4405	A613-01-003	AUTOMATIC VALVE CO.	C5450-5	HARSH
SV-4406	A613-01-004	AUTOMATIC VALVE CO.	C5450-5	HARSH
SV-4412A	A499-15-003	ASCO	NP8320A183E	HARSH
SV-4412B	A499-18-009	ASCO	NP8323A36V	HARSH
SV-4412C	A499-18-001	ASCO	NP8323A36V	HARSH
SV-4413A	A499-15-004	ASCO	NP8320A183E	HARSH
SV-4413B	A499-18-010	ASCO	NP8323A36V	HARSH
SV-4413C	A499-18-002	ASCO	NP8323A36V	HARSH
SV-4415A	A499-15-005	ASCO	NP8320A183E	HARSH
SV-4415B	A499-18-011	ASCO	NP8323A36V	HARSH
SV-4415C	A499-18-003	ASCO	NP8323A36V	HARSH
SV-4416A	A499-15-006	ASCO	NP8320A183E	HARSH
SV-4416B	A499-18-012	ASCO	NP8323A36V	HARSH
SV-4416C	A499-18-004	ASCO	NP8323A36V	HARSH
SV-4418A	A499-15-007	ASCO	NP8320A183E	HARSH
SV-4418B	A499-18-013	ASCO	NP8323A36V	HARSH
SV-4418C	A499-18-005	ASCO	NP8323A36V	HARSH
SV-4419A	A499-15-008	ASCO	NP8320A183E	HARSH
SV-4419B	A499-18-014	ASCO	NP8323A36V	HARSH
SV-4419C	A499-18-006	ASCO	NP8323A36V	HARSH
SV-4420A	A499-15-009	ASCO	NP8320A183E	HARSH
SV-4420B	A499-18-015	ASCO	NP8323A36V	HARSH
SV-4420C	A499-18-007	ASCO	NP8323A36V	HARSH
SV-4421A	A499-15-010	ASCO	NP8320A183E	HARSH
SV-4421B	A499-18-016	ASCO	NP8323A36V	HARSH
SV-4421C	A499-18-008	ASCO	NP8323A36V	HARSH
SV-4639	A499-07-001	ASCO	206-832-2RG	HARSH
SV-4640	A499-04-002	ASCO	HB8302C25RU	HARSH
SV-4909	A499-34-001	ASCO	8320A6	MILD
SV-4910A	A499-34-002	ASCO	8320A6	MILD
SV-4910B	A499-34-003	ASCO	8320A6	MILD
SV-4914	A499-34-004	ASCO	8320A6	MILD
SV-4915	A499-34-005	ASCO	8320A6	MILD
SV-5703A	A499-22-007	ASCO	206-832-3RU	HARSH
SV-5703B	A499-22-008	ASCO	206-832-3RU	HARSH
SV-5704A	A499-22-009	ASCO	206-832-3RU	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
SV-5704B	A499-22-010	ASCO	206-832-3RU	HARSH
SV-5718A	A499-22-011	ASCO	206-832-3RU	HARSH
SV-5718B	A499-22-012	ASCO	206-832-3RU	HARSH
SV-5719A	A499-22-013	ASCO	206-832-3RU	HARSH
SV-5719B	A499-22-014	ASCO	206-832-3RU	HARSH
SV-5801A	A499-01-007	ASCO	HT831665	HARSH
SV-5801B	A499-01-008	ASCO	HT831665	HARSH
SV-5815A	A499-01-001	ASCO	HT831665	HARSH
SV-5815B	A499-01-002	ASCO	HT831665	HARSH
SV-5817A	A499-01-003	ASCO	HT831665	MILD
SV-5817B	A499-01-004	ASCO	HT831665	MILD
SV-5825A	A499-01-005	ASCO	HT831665	HARSH
SV-5825B	A499-01-006	ASCO	HT831665	HARSH
SV-5837A	A499-01-009	ASCO	HT831665	MILD
SV-5837B	A499-01-010	ASCO	HT831665	MILD
SV-6107A	A499-02-021	ASCO	FT8321A5	MILD
SV-6107B	A499-02-022	ASCO	FT8321A5	MILD
SV-6109A	A499-28-001	ASCO	8221A1	MILD
SV-6109B	A499-02-025	ASCO	FT8321A5	MILD
SV-6110A	A499-02-019	ASCO	FT8321A5	MILD
SV-6110B	A499-02-020	ASCO	FT8321A5	MILD
SV-6113A	JO73-03-001	JOHNSON CONTROLS	V-24	MILD
SV-6113B	JO73-03-002	JOHNSON CONTROLS	V-24	MILD
SV-6127A	A499-02-026	ASCO	FT8321A5	MILD
SV-6127B	A499-02-027	ASCO	FT8321A5	MILD
SV-7000A	JO73-03-009	JOHNSON CONTROLS	V-24	MILD
SV-7000B	JO73-03-010	JOHNSON CONTROLS	V-24	MILD
SV-7001A	JO73-03-012	JOHNSON CONTROLS	V-24	MILD
SV-7001B	JO73-03-011	JOHNSON CONTROLS	V-24	MILD
SV-7002A	JO73-03-013	JOHNSON CONTROLS	V-24	MILD
SV-7002B	JO73-03-014	JOHNSON CONTROLS	V-24	MILD
SV-7301A	A499-02-034	ASCO	FT8321A5	MILD
SV-7301B	A499-02-035	ASCO	FT8321A5	MILD
SV-7318A	A499-06-001	ASCO	HT-8300B9U	MILD
SV-7318B	A499-06-002	ASCO	HT-8300B9U	MILD
SV-7322A	A499-02-030	ASCO	FT8321A5	MILD
SV-7322B	A499-02-031	ASCO	FT8321A5	MILD
SV-7328A	A499-01-030	ASCO	HT831665	MILD
SV-7328B	A499-01-031	ASCO	HT831665	MILD
SV-7333A	A499-27-001	ASCO	8210B27	MILD
SV-7333B	A499-27-002	ASCO	8210B27	MILD
SV-7334A	A499-27-003	ASCO	8210B27	MILD
SV-7334B	A499-27-004	ASCO	8210B27	MILD
SV-7536	JO73-03-003	JOHNSON CONTROLS	V-24	MILD
SV-7537	JO73-03-004	JOHNSON CONTROLS	V-24	MILD
SV-7538A	JO73-03-005	JOHNSON CONTROLS	V-24	MILD
SV-7538B	JO73-03-006	JOHNSON CONTROLS	V-24	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
SV-7539A	JO73-03-007	JOHNSON CONTROLS	V-24	MILD
SV-7539B	JO73-03-008	JOHNSON CONTROLS	V-24	MILD
SV-7600A	A499-02-017	ASCO	FT8321A5	MILD
SV-7600B	A499-02-018	ASCO	FT8321A5	MILD
SV-7602A	A499-01-011	ASCO	HT831665	HARSH
SV-7602B	A499-01-012	ASCO	HT831665	HARSH
SV-7605A	A499-12-006	ASCO	NP831665E	HARSH
SV-7605B	A499-12-007	ASCO	NP831665E	HARSH
SV-7607A	A499-02-032	ASCO	FT8321A5	MILD
SV-7607B	A499-02-033	ASCO	FT8321A5	MILD
SV-7610A	A499-02-001	ASCO	FT8321A5	MILD
SV-7610B	A499-02-002	ASCO	FT8321A5	MILD
SV-7612A	A499-02-003	ASCO	FT8321A5	MILD
SV-7612B	A499-02-004	ASCO	FT8321A5	MILD
SV-7630A	A499-02-012	ASCO	FT8321A5	MILD
SV-7630B	A499-02-013	ASCO	FT8321A5	MILD
SV-7631A	A499-02-014	ASCO	FT8321A5	MILD
SV-7631B	A499-02-015	ASCO	FT8321A5	MILD
SV-7632A	A499-02-005	ASCO	FT8321A5	MILD
SV-7632B	A499-02-006	ASCO	FT8321A5	MILD
SV-7633A	A499-02-007	ASCO	FT8321A5	MILD
SV-7633B	A499-02-008	ASCO	FT8321A5	MILD
SV-7634A	A499-02-009	ASCO	FT8321A5	MILD
SV-7634B	A499-02-016	ASCO	FT8321A5	MILD
SV-7636A	A499-33-001	ASCO	8317A29	MILD
SV-7636B	A499-33-002	ASCO	8317A29	MILD
SV-7637A	A499-02-010	ASCO	FT8321A5	MILD
SV-7637B	A499-02-011	ASCO	FT8321A5	MILD
SV-7639A	A499-16-003	ASCO	NP8321A5E	MILD
SV-7639B	A499-16-004	ASCO	NP8321A5E	MILD
SV-7641A	A499-02-023	ASCO	FT8321A5	MILD
SV-7641B	A499-02-024	ASCO	FT8321A5	MILD
SV-8101A	TO20-05-001	TARGET ROCK	72V-003	HARSH
SV-8101B	TO20-05-002	TARGET ROCK	72V-003	HARSH
SV-8102A	TO20-05-003	TARGET ROCK	72V-003	HARSH
SV-8102B	TO20-05-004	TARGET ROCK	72V-003	HARSH
SV-8103A	TO20-05-005	TARGET ROCK	72V-003	HARSH
SV-8103B	TO20-05-006	TARGET ROCK	72V-003	HARSH
SV-8104A	TO20-05-007	TARGET ROCK	72V-003	HARSH
SV-8104B	TO20-05-008	TARGET ROCK	72V-003	HARSH
SV-8105A	TO20-05-009	TARGET ROCK	72V-003	HARSH
SV-8105B	TO20-05-010	TARGET ROCK	72V-003	HARSH
SV-8106A	TO20-05-011	TARGET ROCK	72V-003	HARSH
SV-8106B	TO20-05-012	TARGET ROCK	72V-003	HARSH
SV-8107A	TO20-05-013	TARGET ROCK	72V-003	HARSH
SV-8107B	TO20-05-014	TARGET ROCK	72V-003	HARSH
SV-8108A	TO20-05-015	TARGET ROCK	72V-003	HARSH

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
SV-8108B	T020-05-016	TARGET ROCK	72V-003	HARSH
SV-8109A	T020-05-017	TARGET ROCK	72V-003	HARSH
SV-8109B	T020-05-018	TARGET ROCK	72V-003	HARSH
SV-8110A	T020-05-019	TARGET ROCK	72V-003	HARSH
SV-8110B	T020-05-020	TARGET ROCK	72V-003	HARSH
SV-8114A	A535-01-001	ATKOMATIC	31840	MILD
SV-8114B	A535-01-002	ATKOMATIC	31840	MILD
SV-8115A	A535-01-003	ATKOMATIC	31840	MILD
SV-8115B	A535-01-004	ATKOMATIC	31840	MILD
SV-8116A	A535-01-005	ATKOMATIC	31840	MILD
SV-8116B	A535-01-006	ATKOMATIC	31840	MILD
SV-8117A	A535-01-007	ATKOMATIC	31840	MILD
SV-8117B	A535-01-008	ATKOMATIC	31840	MILD
SV-8117C	A535-02-001	ATKOMATIC	32840-WP	MILD
SV-8117D	A535-02-002	ATKOMATIC	32840-WP	MILD
SV-8772A	T020-03-002	TARGET ROCK	81K002	HARSH
SV-8772B	T020-03-001	TARGET ROCK	81K002	HARSH
SV-8773A	A499-16-001	ASCO	NP8321A5E	HARSH
SV-8773B	A499-16-002	ASCO	NP8321A5E	HARSH
TDS-2085A	A001-09-001			MILD
TDS-2085B	A001-09-002			MILD
TDS-2260A	T287-01-001	TRANSMATION	610A	MILD
TDS-2260B	T287-01-002	TRANSMATION	610A	MILD
TDS-2445A	T287-02-001	TRANSMATION	630A	MILD
TDS-2445B	T287-02-002	TRANSMATION	630A	MILD
TDS-2521A	T287-02-003	TRANSMATION	630A	MILD
TDS-2521B	T287-02-004	TRANSMATION	630A	MILD
TDS-2521C	T287-02-005	TRANSMATION	630A	MILD
TDS-2521D	T287-02-006	TRANSMATION	630A	MILD
TDS-2743A	T287-02-007	TRANSMATION	630A	MILD
TDS-2743B	T287-02-008	TRANSMATION	630A	MILD
TDS-2743C	T287-02-009	TRANSMATION	630A	MILD
TDS-2743D	T287-02-010	TRANSMATION	630A	MILD
TDS-2743E	T287-02-011	TRANSMATION	630A	MILD
TDS-2743F	T287-02-012	TRANSMATION	630A	MILD
TDS-4451	R344-01-001	RI 8	86UTFF	MILD
TERMINAL BLOCKS	A000-02-001	AMERACE CORP	NQB108	HARSH
TE-2082A	N070-02-025	NECI	N145C3023	MILD
TE-2082B	N070-02-027	NECI	N145C3023	MILD
TE-2083A	N070-02-030	NECI	N145C3023	MILD
TE-2083B	N070-02-026	NECI	N145C3023	MILD
TE-2084A	N070-02-028	NECI	N145C3023	MILD
TE-2084B	N070-02-029	NECI	N145C3023	MILD
TE-2262A	N070-02-001	NECI	N145C3023	HARSH
TE-2262B	N070-02-002	NECI	N145C3023	HARSH
TE-2263A	N070-02-003	NECI	N145C3023	HARSH
TE-2263B	N070-02-004	NECI	N145C3023	HARSH

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
TE-2264A	N070-02-005	NECI	N145C3023	HARSH
TE-2264B	N070-02-006	NECI	N145C3023	HARSH
TE-2265	N070-02-035	NECI	N145C3023	HARSH
TE-2446A	N070-02-007	NECI	N145C3023	MILD
TE-2446B	N070-02-008	NECI	N145C3023	MILD
TE-2447A	N070-02-009	NECI	N145C3023	MILD
TE-2447B	N070-02-010	NECI	N145C3023	MILD
TE-2451A	N070-02-011	NECI	N145C3023	MILD
TE-2451B	N070-02-012	NECI	N145C3023	MILD
TE-2453	N070-02-031	NECI	N145C3023	HARSH
TE-2522A	N070-02-013	NECI	N145C3023	HARSH
TE-2522B	N070-02-014	NECI	N145C3023	HARSH
TE-2522C	N070-02-015	NECI	N145C3023	HARSH
TE-2522D	N070-02-016	NECI	N145C3023	HARSH
TE-2523A	N070-02-017	NECI	N145C3023	HARSH
TE-2523B	N070-02-018	NECI	N145C3023	HARSH
TE-2523C	N070-02-019	NECI	N145C3023	HARSH
TE-2523D	N070-02-020	NECI	N145C3023	HARSH
TE-2526A	N070-02-021	NECI	N145C3023	HARSH
TE-2526B	N070-02-022	NECI	N145C3023	HARSH
TE-2526C	N070-02-023	NECI	N145C3023	HARSH
TE-2526D	N070-02-024	NECI	N145C3023	HARSH
TE-2742A	P427-01-001	PYCO	02-9039-08-6	HARSH
TE-2742B	P427-01-002	PYCO	02-9039-08-6	HARSH
TE-2742C	P427-01-003	PYCO	02-9039-08-6	HARSH
TE-2742D	P427-01-004	PYCO	02-9039-08-6	HARSH
TE-2742E	P427-01-005	PYCO	02-9039-08-6	HARSH
TE-2742F	P427-01-006	PYCO	02-9039-08-6	HARSH
TE-2743A	P427-01-018	PYCO	02-9039-08-6	HARSH
TE-2743B	P427-01-007	PYCO	02-9039-08-6	HARSH
TE-2743C	P427-01-008	PYCO	02-9039-08-6	HARSH
TE-2743D	P427-01-009	PYCO	02-9039-08-6	HARSH
TE-2743E	P427-01-010	PYCO	02-9039-08-6	HARSH
TE-2743F	P427-01-011	PYCO	02-9039-08-6	HARSH
TE-2744A	P427-01-012	PYCO	02-9039-08-6	HARSH
TE-2744B	P427-01-013	PYCO	02-9039-08-6	HARSH
TE-2744C	P427-01-014	PYCO	02-9039-08-6	HARSH
TE-2744D	P427-01-015	PYCO	02-9039-08-6	HARSH
TE-2744E	P427-01-016	PYCO	02-9039-08-6	HARSH
TE-2744F	P427-01-017	PYCO	02-9039-08-6	HARSH
TE-3724	N070-07-001	NECI	N145C3044	HARSH
TE-4328A	L130-01-001	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328B	L130-01-002	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328C	L130-01-003	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328D	L130-01-004	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328E	L130-01-005	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328F	L130-01-006	LEEDS & NORTHRUP	8197-10-S	HARSH

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
TE-4328G	L130-01-007	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328H	L130-01-008	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328J	L130-01-009	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328K	L130-01-010	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4328L	L130-05-001	LEEDS & NORTHRUP	8920-405-0-00-5	HARSH
TE-4328M	L130-01-012	LEEDS & NORTHRUP	8197-10-S	HARSH
TE-4386A	L130-02-001	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386B	L130-02-002	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386C	L130-02-003	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386D	L130-02-004	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386E	L130-02-005	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386F	L130-02-006	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386G	L130-02-007	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386H	L130-02-008	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386J	L130-02-009	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386K	L130-02-010	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386L	L130-02-011	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4386M	L130-02-012	LEEDS & NORTHRUP	8920-404-00-3-21	HARSH
TE-4400	G080-92-001	GENERAL ELECTRIC	P/N 133D9679	HARSH
TE-4401	G080-92-002	GENERAL ELECTRIC	P/N 133D9679	HARSH
TE-4402	G080-92-003	GENERAL ELECTRIC	P/N 133D9679	HARSH
TE-4403	N070-08-001	NECI	136B3184	HARSH
TE-4404	N070-08-002	NECI	136B3184	HARSH
TE-4405	G080-92-004	GENERAL ELECTRIC	P/N 133D9679	HARSH
TE-4406	G080-92-005	GENERAL ELECTRIC	P/N 133D9679	HARSH
TE-4407	G080-92-006	GENERAL ELECTRIC	P/N 133D9679	HARSH
TE-4443A	R369-01-001	ROSEMOUNT	104MA23ABBB	HARSH
TE-4443B	R369-01-002	ROSEMOUNT	104MA23ABBB	HARSH
TE-4443C	R369-01-003	ROSEMOUNT	104MA23ABBB	HARSH
TE-4443D	R369-01-004	ROSEMOUNT	104MA23ABBB	HARSH
TE-4444A	R369-01-005	ROSEMOUNT	104MA23ABBB	HARSH
TE-4444B	R369-01-006	ROSEMOUNT	104MA23ABBB	HARSH
TE-4444C	R369-01-007	ROSEMOUNT	104MA23ABBB	HARSH
TE-4444D	R369-01-008	ROSEMOUNT	104MA23ABBB	HARSH
TE-4445A	R369-01-009	ROSEMOUNT	104MA23ABBB	HARSH
TE-4445B	R369-01-010	ROSEMOUNT	104MA23ABBB	HARSH
TE-4445C	R369-01-011	ROSEMOUNT	104MA23ABBB	HARSH
TE-4445D	R369-01-012	ROSEMOUNT	104MA23ABBB	HARSH
TE-4446A	R369-01-013	ROSEMOUNT	104MA23ABBB	HARSH
TE-4446B	R369-01-014	ROSEMOUNT	104MA23ABBB	HARSH
TE-4446C	R369-01-015	ROSEMOUNT	104MA23ABBB	HARSH
TE-4446D	R369-01-016	ROSEMOUNT	104MA23ABBB	HARSH
TE-4447	N070-02-032	NECI	N145C3023	HARSH
TE-4451A	N070-02-033	NECI	N145C3023	HARSH
TE-4451B	N070-02-034	NECI	N145C3023	HARSH
TE-4477A	R369-01-017	ROSEMOUNT	104MA23ABBB	HARSH
TE-4477B	R369-01-018	ROSEMOUNT	104MA23ABBB	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
TE-4478A	R369-01-019	ROSEMOUNT	104MA23ABBB	HARSH
TE-4478B	R369-01-020	ROSEMOUNT	104MA23ABBB	HARSH
TE-4479A	R369-01-021	ROSEMOUNT	104MA23ABBB	HARSH
TE-4479B	R369-01-022	ROSEMOUNT	104MA23ABBB	HARSH
TE-4480A	R369-01-023	ROSEMOUNT	104MA23ABBB	HARSH
TE-4480B	R369-01-024	ROSEMOUNT	104MA23ABBB	HARSH
TE-5805A	I045-01-003	INDUSTRIAL ENG.\$EQUIPMENT CO	CT32-23	HARSH
TE-5805B	I045-01-004	INDUSTRIAL ENG.\$EQUIPMENT CO	CT32-23	HARSH
TE-5805U	G315-01-003	GULTON INDUSTRIES	TCA-0646	HARSH
TE-5805V	G315-01-004	GULTON INDUSTRIES	TCA-0646	HARSH
TE-5805W	G315-01-005	GULTON INDUSTRIES	TCA-0646	HARSH
TE-5805X	G315-01-006	GULTON INDUSTRIES	TCA-0646	HARSH
TE-7304A	C251-03-002	CHANNEL MASTER	CNOF-76D	MILD
TE-7304B	C251-03-001	CHANNEL MASTER	CNOF-76D	MILD
TIC-7538A	P129-05-001	PENN	T2J-1	MILD
TIC-7538B	P129-05-002	PENN	T2J-1	MILD
TIS-3724	G080-39-001	GE	195	MILD
TIS-4443	R369-02-001	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4444	R369-02-002	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4445	R369-02-003	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4446	R369-02-004	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4477	R369-02-005	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4478	R369-02-006	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4479	R369-02-007	ROSEMOUNT	3000A-1-4-2-20	MILD
TIS-4480	R369-02-008	ROSEMOUNT	3000A-1-4-2-20	MILD
TI-4328	L130-03-001	LEEDS & NORTHRUP	900	MILD
TI-5805A	G080-35-022	GE	180	MILD
TI-5805B	G080-35-023	GE	180	MILD
TI-5822A	W124-01-001	METER WESTON	2031	MILD
TI-5822B	W124-01-002	METER WESTON	2031	MILD
TI-5838A	G080-35-024	GE	180	MILD
TI-5838B	G080-35-025	GE	180	MILD
TR-4383A	H260-01-011	HONEYWELL	37303-6020-0222-000-610-00	MILD
TR-4383B	H260-01-012	HONEYWELL	37303-6020-0222-000-610-00	MILD
TR-4383C	H260-01-013	HONEYWELL	37303-6020-0222-000-610-00	MILD
TR-4386A	H260-01-014	HONEYWELL	37303-6020-0222-000-610-00	MILD
TR-4386B	H260-01-016	HONEYWELL	37303-6020-0222-000-610-00	MILD
TR-4400	G080-26-001	GE H	HG	MILD
TS-2082B	A001-08-002			MILD
TS-2261A	T287-01-003	TRANSMATION	610A	MILD
TS-2261B	T287-01-004	TRANSMATION	610A	MILD
TS-2265	T287-01-005	TRANSMATION	610A	MILD
TS-2450A	T287-01-006	TRANSMATION	610A	MILD
TS-2450B	T287-01-007	TRANSMATION	610A	MILD
TS-2453	T287-01-008	TRANSMATION	610A	MILD
TS-2526A	T287-01-009	TRANSMATION	610A	MILD
TS-2526B	T287-01-010	TRANSMATION	610A	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
TS-2526C	T287-01-011	TRANSMATION	610A	MILD
TS-2526D	T287-01-012	TRANSMATION	610A	MILD
TS-2742A	T287-01-013	TRANSMATION	610A	MILD
TS-2742B	T287-01-014	TRANSMATION	610A	MILD
TS-2742C	T287-01-015	TRANSMATION	610A	MILD
TS-2742D	T287-01-016	TRANSMATION	610A	MILD
TS-2742E	T287-01-017	TRANSMATION	610A	MILD
TS-2742F	T287-01-018	TRANSMATION	610A	MILD
TS-3226	F081-01-001	FENWAL	27020	MILD
TS-3227	F081-01-002	FENWAL	27020	MILD
TS-4447	T287-01-019	TRANSMATION	610A	MILD
TS-5805A	G080-69-009	GE	560	MILD
TS-5805B	G080-69-010	GE	560	MILD
TS-5808A	P129-02-001	PENN	A-19ABB-6	HARSH
TS-5808B	P129-02-002	PENN	A-19ABB-6	HARSH
TS-5836A	I045-01-001	INDUSTRIAL ENG.\$EQUIPMENT CO	CT32-23	HARSH
TS-5836B	I045-01-002	INDUSTRIAL ENG.\$EQUIPMENT CO	CT32-23	HARSH
TS-6124A	P129-01-001	PENN	A-19AAF-20	MILD
TS-6124B	P129-01-002	PENN	A-19AAF-20	MILD
TS-7304A	C251-01-001	CHANNEL MASTER	ARC290	MILD
TS-7304B	C251-01-002	CHANNEL MASTER	ARC290	MILD
TS-7538C	P129-05-003	PENN	T2J-1	MILD
TS-7538D	P129-05-004	PENN	T2J-1	MILD
TS-7540A	P129-02-003	PENN	A-19ABB-6	MILD
TS-7540B	P129-02-004	PENN	A-19ABB-6	MILD
TS-7701	C332-02-001	CHROMALOX	972D	MILD
TS-7702	C332-02-002	CHROMALOX	972D	MILD
TS-7703	C332-02-003	CHROMALOX	972D	MILD
TS-7704	C332-02-004	CHROMALOX	972D	MILD
TS-7705	C332-02-005	CHROMALOX	972D	MILD
TS-7706	C332-02-006	CHROMALOX	972D	MILD
TS-7707	C332-02-007	CHROMALOX	972D	MILD
TS-7708	C332-02-008	CHROMALOX	972D	MILD
TT-4386A	H260-05-001	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386B	H260-05-002	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386C	H260-05-003	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386D	H260-05-004	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386E	H260-05-005	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386F	H260-05-006	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386G	H260-05-007	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386H	H260-05-008	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386I	H260-05-009	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386J	H260-05-010	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386K	H260-05-011	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386L	H260-05-012	HONEYWELL	39521-4010-912-00-00	MILD
TT-4386M	H260-05-013	HONEYWELL	39521-4010-912-00-00	MILD
TT-5805A	G080-57-001	GE	550	MILD

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PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
TT-5805B	G080-57-002	GE	550	MILD
TT-5838A	G080-57-003	GE	550	MILD
TT-5838B	G080-57-004	GE	550	MILD
ZM-1947	G080-56-001	GE	543151AAZZ	MILD
ZM-2046	G080-56-002	GE	543151AAZZ	MILD
ZS-1076A	N007-01-001	NAMCO	D-2400X-R1	MILD
ZS-1076B	N007-01-002	NAMCO	D-2400X-R1	MILD
ZS-1076C	N007-01-003	NAMCO	D-2400X-R1	MILD
ZS-1076D	N007-01-004	NAMCO	D-2400X-R1	MILD
ZS-1906A	N007-03-009	NAMCO	EA-740	HARSH
ZS-1906B	N007-03-013	NAMCO	EA-740	HARSH
ZS-1972	T020-02-001	TARGET ROCK	72V001 (ZS)	HARSH
ZS-1973	T020-02-002	TARGET ROCK	72V001 (ZS)	HARSH
ZS-2002A	N007-03-012	NAMCO	EA-740	HARSH
ZS-2002B	N007-03-010	NAMCO	EA-740	HARSH
ZS-2051	T020-02-003	TARGET ROCK	72V001 (ZS)	HARSH
ZS-2052	T020-02-004	TARGET ROCK	72V001 (ZS)	HARSH
ZS-2201	N007-02-001	NAMCO	D1200G-2	MILD
ZS-2211	N007-06-004	NAMCO	SAI-31	HARSH
ZS-2212	N007-06-005	NAMCO	SAI-31	HARSH
ZS-2234	N007-05-001	NAMCO	SAI-131	HARSH
ZS-2235	N007-05-002	NAMCO	SAI-131	HARSH
ZS-2435	N007-05-003	NAMCO	SAI-131	HARSH
ZS-2436	N007-05-004	NAMCO	SAI-131	HARSH
ZS-2902	L200-04-002	LIMITORQUE	SMB-000-2	MILD
ZS-2903	L200-04-004	LIMITORQUE	SMB-000-2	MILD
ZS-3704	M302-02-001	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-3705	M302-02-002	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-3728	M302-02-003	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-3729	M302-02-004	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-4300	M302-03-014	MICRO SWITCH	OPD-AR	MILD
ZS-4301	M302-03-012	MICRO SWITCH	OPD-AR	HARSH
ZS-4302	M302-03-013	MICRO SWITCH	OPD-AR	MILD
ZS-4303	M302-03-001	MICRO SWITCH	OPD-AR	HARSH
ZS-4304	M302-03-015	MICRO SWITCH	OPD-AR	HARSH
ZS-4305	M302-03-007	MICRO SWITCH	OPD-AR	HARSH
ZS-4306	M302-03-002	MICRO SWITCH	OPD-AR	HARSH
ZS-4307	M302-03-003	MICRO SWITCH	OPD-AR	HARSH
ZS-4308	M302-03-004	MICRO SWITCH	OPD-AR	HARSH
ZS-4309	N007-06-006	NAMCO	SAI-31	HARSH
ZS-4310	N007-06-003	NAMCO	SAI-31	HARSH
ZS-4311	M302-02-005	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-4312	M302-02-006	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-4313	M302-02-007	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-4412	N007-03-001	NAMCO	EA-740	HARSH
ZS-4413	N007-03-002	NAMCO	EA-740	HARSH
ZS-4415	N007-03-003	NAMCO	EA-740	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
ZS-4416	N007-03-004	NAMCO	EA-740	HARSH
ZS-4418	N007-03-005	NAMCO	EA-740	HARSH
ZS-4419	N007-03-006	NAMCO	EA-740	HARSH
ZS-4420	N007-03-007	NAMCO	EA-740	HARSH
ZS-4421	N007-03-008	NAMCO	EA-740	HARSH
ZS-4639	N007-03-011	NAMCO	EA-740	HARSH
ZS-4640	N007-05-005	NAMCO	SAI-131	HARSH
ZS-5703A	M302-02-008	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5703B	M302-02-009	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5704A	M302-02-010	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5704B	M302-02-011	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5718A	M302-02-012	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5718B	M302-02-013	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5719A	M302-02-014	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5719B	M302-02-015	MICRO SWITCH	DTF2-2RN-RH	HARSH
ZS-5817A	M302-03-016	MICRO SWITCH	OPD-AR	MILD
ZS-5817B	M302-03-017	MICRO SWITCH	OPD-AR	MILD
ZS-5825A	M302-03-018	MICRO SWITCH	OPD-AR	HARSH
ZS-5825B	M302-03-019	MICRO SWITCH	OPD-AR	HARSH
ZS-7602A	M302-03-008	MICRO SWITCH	OPD-AR	HARSH
ZS-7602B	M302-03-009	MICRO SWITCH	OPD-AR	HARSH
ZS-7604U	M302-03-010	MICRO SWITCH	OPD-AR	MILD
ZS-7604V	M302-03-011	MICRO SWITCH	OPD-AR	MILD
ZS-7610A	M302-04-001	MICRO SWITCH L	LATER	MILD
ZS-7610B	M302-04-002	MICRO SWITCH L	LATER	MILD
ZS-7612A	M302-04-003	MICRO SWITCH L	LATER	MILD
ZS-7612B	M302-04-004	MICRO SWITCH L	LATER	MILD
ZS-7630A	M302-01-015	MICRO SWITCH	BZE6-2RN	MILD
ZS-7630B	M302-01-010	MICRO SWITCH	BZE6-2RN	MILD
ZS-7631A	M302-01-004	MICRO SWITCH	BZE6-2RN	MILD
ZS-7631B	M302-01-005	MICRO SWITCH	BZE6-2RN	MILD
ZS-7632A	M302-01-006	MICRO SWITCH	BZE6-2RN	MILD
ZS-7632B	M302-01-007	MICRO SWITCH	BZE6-2RN	MILD
ZS-7633A	M302-01-008	MICRO SWITCH	BZE6-2RN	MILD
ZS-7633B	M302-01-009	MICRO SWITCH	BZE6-2RN	MILD
ZS-7634A	M302-01-011	MICRO SWITCH	BZE6-2RN	MILD
ZS-7634B	M302-01-012	MICRO SWITCH	BZE6-2RN	MILD
ZS-7636A	M302-01-013	MICRO SWITCH	BZE6-2RN	MILD
ZS-7636B	M302-01-014	MICRO SWITCH	BZE6-2RN	MILD
ZS-7641A	M302-03-005	MICRO SWITCH	OPD-AR	MILD
ZS-7641B	M302-03-006	MICRO SWITCH	OPD-AR	MILD
ZS-8773A	N007-04-001	NAMCO	EA170-41302	HARSH
ZS-8773B	N007-04-002	NAMCO	EA170-41302	HARSH
ZT-1947	L200-99-001	LIMITORQUE	NONE	HARSH
ZT-2046	L200-99-002	LIMITORQUE	NONE	HARSH
1A3	G080-24-001	GE	HFA-511	MILD
1A4	G080-24-002	GE	HFA-511	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
1B20	I202-08-001	ITE IMPERIAL	47855-B1	MILD
1B21	A180-04-001	ALLIS-CHALMERS	VALUELINE	MILD
1B3	I202-05-001	ITE IMPERIAL	47844-A	MILD
1B32	A180-04-002	ALLIS-CHALMERS	VALUELINE	MILD
1B34	A180-03-001	ALLIS-CHALMERS	MARK 1	MILD
1B34A	A180-04-003	ALLIS-CHALMERS	VALUELINE	MILD
1B36	A180-04-004	ALLIS-CHALMERS	VALUELINE	MILD
1B37	A180-04-005	ALLIS-CHALMERS	VALUELINE	MILD
1B4	I202-06-001	ITE IMPERIAL	47844-B	MILD
1B42	A180-04-006	ALLIS-CHALMERS	VALUELINE	MILD
1B44	A180-03-002	ALLIS-CHALMERS	MARK 1	MILD
1B44A	A180-04-007	ALLIS-CHALMERS	VALUELINE	MILD
1B46	A180-03-003	ALLIS-CHALMERS	MARK 1	MILD
1B9	I202-07-001	ITE IMPERIAL	47855-A3	MILD
1B91	A180-04-008	ALLIS-CHALMERS	VALUELINE	MILD
1C-218A	C503-01-001	COMSIP	K-IV	MILD
1C-218B	C503-01-002	COMSIP	K-IV	MILD
1C-335	D160-01-001	DIGITAL EQUIPMENT\$CORP P	PDP11/34A	MILD
1C-338	C535-01-001	CONRAC 5	5211	MILD
1C-339	C535-01-002	CONRAC 5	5211	MILD
1C-340	A700-01-001	AYDIN 5	5217	MILD
1C-340A	W360-01-001	WELTRONIC 8	851-1448	MILD
1C-341	A700-01-002	AYDIN 5	5217	MILD
1C-341A	W360-01-002	WELTRONIC 8	851-1448	MILD
1C77A	G080-99-030	GE		MILD
1C77B	G080-99-031	GE		MILD
1C77C	G080-99-032	GE		MILD
1C77D	G080-99-033	GE		MILD
1C77E	G080-99-034	GE		MILD
1C77F	G080-99-035	GE		MILD
1D1	G182-03-001	GOULD	FPS-13	MILD
1D10	D102-01-001	DELTA SWITCHBOARD	33431 TYPE CDP	MILD
1D11	D102-01-002	DELTA SWITCHBOARD	33431 TYPE CDP	MILD
1D12	P319-02-001	POWER CON-VERSION PRODUCTS	3M-130-75	MILD
1D120	P319-02-002	POWER CON-VERSION PRODUCTS	3M-130-75	MILD
1D13	D102-01-003	DELTA SWITCHBOARD	33431 TYPE CDP	MILD
1D14	I202-03-001	ITE	85-71170	MILD
1D2	G182-03-002	GOULD	FPS-13	MILD
1D20	D102-01-004	DELTA SWITCHBOARD	33431 TYPE CDP	MILD
1D21	D102-03-001	DELTA SWITCHBOARD	33431 TYPE NHDP	MILD
1D22	P319-02-003	POWER CON-VERSION PRODUCTS	3M-130-75	MILD
1D23	D102-03-002	DELTA SWITCHBOARD	33431 TYPE NHDP	MILD
1D4	G182-02-001	GOULD	FPS-A	MILD
1D40	D102-01-005	DELTA SWITCHBOARD	33431 TYPE CDP	MILD
1D41	I202-01-001	ITE	SERIES 9600	MILD
1D42	I202-03-002	ITE	85-71170	MILD
1D43	P319-03-001	POWER CON-VERSION PRODUCTS	3M-260-75	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
1D44	P319-04-001	POWER CON-VERSION PRODUCTS	3M-280-75	MILD
1D5	G182-01-001	GOULD	DPR11	MILD
1D50	D102-02-001	DELTA SWITCHBOARD	33431 TYPE NA1B	MILD
1D51	P319-01-001	POWER CON-VERSION PRODUCTS	S-24-25	MILD
1D52	P319-01-002	POWER CON-VERSION PRODUCTS	S-24-25	MILD
1D6	G182-03-003	GOULD	FPS-13	MILD
1D60	D102-02-002	DELTA SWITCHBOARD	33431 TYPE NA1B	MILD
1D61	P319-01-003	POWER CON-VERSION PRODUCTS	S-24-25	MILD
1D62	P319-01-004	POWER CON-VERSION PRODUCTS	S-24-25	MILD
1F-36A	R165-01-001	RELIANCE	P1461403	MILD
1F-36B	R165-01-002	RELIANCE	P1461403	MILD
1G-21	C470-02-001	COLT INDUSTRIES	50-44-24	MILD
1G-31	C470-02-002	COLT INDUSTRIES	50-44-24	MILD
1K-25A	S188-01-001	SIEMENS	2CH6 041-1U	HARSH
1K-25B	S188-01-002	SIEMENS	2CH6 041-1U	HARSH
1P-112A	G200-01-001	GOULD PUMPS, INC.	3196MT	MILD
1P-112B	G200-01-002	GOULD PUMPS, INC.	3196MT	MILD
1P-117A	L095-03-001	LAYNE & BOWLER PUMP COMPAN	M-10	MILD
1P-117B	L095-03-002	LAYNE & BOWLER PUMP COMPAN	M-10	MILD
1P-117C	L095-03-003	LAYNE & BOWLER PUMP COMPAN	M-10	MILD
1P-117D	L095-03-004	LAYNE & BOWLER PUMP COMPAN	M-10	MILD
1P-132A	C665-01-001	CRANE COMPANY	GA-1K-ISO	MILD
1P-132B	C665-01-002	CRANE COMPANY	GA-1K-ISO	MILD
1P-211A	G080-46-001	GE	5K6336XC229A	HARSH
1P-211B	G080-46-002	GE	5K6336XC229A	HARSH
1P-218	G080-32-001	GE	1T-1D	MILD
1P-219	G080-28-001	GE	L182AY	MILD
1P-22A	L095-02-001	LAYNE & BOWLER	D30841-A	MILD
1P-22B	L095-02-002	LAYNE & BOWLER	D30841-A	MILD
1P-22C	L095-02-003	LAYNE & BOWLER	D30841-A	MILD
1P-22D	L095-02-004	LAYNE & BOWLER	D30841-A	MILD
1P-229A	G080-45-001	GE	5K6336XC213A	HARSH
1P-229B	G080-45-002	GE	5K6336XC213A	HARSH
1P-229C	G080-45-003	GE	5K6336XC213A	HARSH
1P-229D	G080-45-004	GE	5K6336XC213A	HARSH
1P-233	G080-43-001	GE	5CD14D13 A900019	MILD
1P-28A	T240-01-001	TOKYO SHIBAURA	MB-301	MILD
1P-28B	T240-01-002	TOKYO SHIBAURA	MB-301	MILD
1P-29A	T240-02-001	TOKYO SHIBAURA	MB-302	MILD
1P-29B	T240-01-003	TOKYO SHIBAURA	MB-301	MILD
1P-44A	C665-02-001	CRANE CO.	GA-1K-150	MILD
1P-44B	C665-02-002	CRANE CO.	GA-1K-150	MILD
1P-99A	L095-01-001	LAYNE & BOWLER	D30839	MILD
1P-99B	L095-01-002	LAYNE & BOWLER	D30839	MILD
1S-1061A	IO45-02-001	INDUSTRIAL ENG.\$EQUIPMENT CO	PENWALT CVI\$A-7075900	HARSH
1S-1061B	IO45-02-002	INDUSTRIAL ENG.\$EQUIPMENT CO	PENWALT CVI\$A-7075900	HARSH
1S-122A	G080-42-001	GE	47C518675	HARSH

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID	EQUIPMENT ID	MANUFACTURER	MODEL	ENVIRONMENT
1S-122B	G080-42-002	GE	47C518675	HARSH
1S-122C	G080-42-003	GE	47C518675	HARSH
1S-122D	G080-42-004	GE	47C518675	HARSH
1S-201	T147-01-001	TERRY TURBINE	G.E. ORDER NO.\$205AA872 T*	MILD
1S-85A	G080-44-001	GE	5K42F6	MILD
1S-85B	G080-44-002	GE	5K42F6	MILD
1T-6924A	G080-82-001	GE	9173028	MILD
1T-6924B	G080-83-001	GE	9173029	MILD
1V-AC-11	W120-05-001	WESTINGHOUSE	TEFC	HARSH
1V-AC-12	W120-05-002	WESTINGHOUSE	TEFC	HARSH
1V-AC-14A	W120-05-003	WESTINGHOUSE	TEFC	MILD
1V-AC-14B	W120-05-004	WESTINGHOUSE	TEFC	MILD
1V-AC-30A	P295-02-001	H.K. PORTER	F1R-(P270)-23.0	MILD
1V-AC-30B	P295-02-002	H.K. PORTER	F1R-(P270)-23.0	MILD
1V-AC-32	P295-01-001	H.K. PORTER	C1H-447APR	MILD
1V-CP-30A	G200-01-003	GOULD PUMPS, INC.	3196MT	MILD
1V-CP-30B	G200-01-004	GOULD PUMPS, INC.	3196MT	MILD
1V-EF-15A	L280-01-002	LOUIS-ALLIS COMPANY	COG4B\$TYPE 19236S-3E371	HARSH
1V-EF-15B	L280-01-003	LOUIS-ALLIS COMPANY	COG4B\$TYPE 19236S-3E371	HARSH
1V-EF-18A	J073-01-007	JOHNSON CONTROLS	N-6810	MILD
1V-EF-18B	J073-01-008	JOHNSON CONTROLS	N-6810	MILD
1V-EF-30A	G080-27-001	GE	K32EG273	MILD
1V-EF-30B	G080-27-002	GE	K32EG273	MILD
1V-EF-30C	G080-27-003	GE	K32EG273	MILD
1V-EF-33	L280-01-001	LOUIS-ALLIS COMPANY	COG4B\$TYPE 19236S-3E371	MILD
1V-RF-30A	P295-03-001	H.K. PORTER	N1R	MILD
1V-RF-30B	P295-03-002	H.K. PORTER	N1R	MILD
1V-SF-20	J127-04-001	JOY	SF-31060, SERIES 1000	MILD
1V-SF-21	J127-05-001	JOY	SF-3160-1, SERIES 1000	MILD
1V-SF-30A	A180-01-001	ALLIS-CHALMERS	COC64B	MILD
1V-SF-30B	A180-01-002	ALLIS-CHALMERS	COC64B	MILD
1V-SF-50	J127-02-001	JOY	SF-302060, SERIES 1000	MILD
1V-SF-51	J127-03-001	JOY	SF-302061, SERIES 1000	MILD
1V-SF-56A	J127-01-001	JOY	SF-29448, SERIES 1000	MILD
1V-SF-56B	J127-01-002	JOY	SF-29448, SERIES 1000	MILD
1V-UH-52A	C332-01-001	CHROMALOX	LUH12-18	MILD
1V-UH-52B	C332-01-002	CHROMALOX	LUH12-18	MILD
1V-UH-52C	C332-01-003	CHROMALOX	LUH12-18	MILD
1V-UH-52D	C332-01-004	CHROMALOX	LUH12-18	MILD
1V-UH-52E	C332-01-005	CHROMALOX	LUH12-18	MILD
1V-UH-52F	C332-01-006	CHROMALOX	LUH12-18	MILD
1V-UH-52G	C332-01-007	CHROMALOX	LUH12-18	MILD
1V-UH-52H	C332-01-008	CHROMALOX	LUH12-18	MILD
1X20	I202-02-001	ITE	47855	MILD
1X31	I202-04-001	ITE IMPERIAL	46787	MILD
1X41	I202-04-002	ITE IMPERIAL	46787	MILD
1X91	I202-02-002	ITE	47855	MILD

EQUIPMENT QUALIFICATION SUMMARY INDEX

PLANT ID

1Y-30

EQUIPMENT ID

GO80-25-001

MANUFACTURER

GE C

MODEL

CR105PO02

ENVIRONMENT

MILD

EQUIPMENT QUALIFICATION

SUMMARY SHEETS

A000-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TERMINAL BLOCKS Manufacturer: AMERACE CORP Model Number: NQB108 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE NOTE (1)	001		REF A,B	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	SEE GEN NOTE 6		346	001		REF. A	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		113	001		REF. A	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. A	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. A	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.0 E08	001		REF. A	TYPE TEST	NONE
	Aging	40 YEARS		9 YEARS SEE NOTE (2)	001		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . QUALIFICATION TESTS OF TERMINAL AND FUSE BLOCKS DATED JULY 17, 1980 FOR CONTROL PRODUCTS DIV., AMERACE CORP. BY FRANKLIN RESEARCH CENTER (FRC). FRC REPORT F-C5143 (CHRON 6900) CONTROL PRODUCTS NO. CTP-NQ-51171. TEST PROFILE IS FIGURE 11, PAGE 5-14 OF THIS REPORT. B . TERMINAL BLOCK (MODEL NQB108) QUALIFICATION BY ANALYSIS	1 . SPRAY CHEMISTRY WAS 3000 PPM BORIC ACID AND BUFFERS. THIS IS MORE SEVERE THAN DEMINERALIZED WATER. 2 . TERMINAL BLOCKS ARE QUALIFIED FOR 40 YEARS AT TEMPERATURES UP TO 124F. TERMINAL BLOCKS LOCATED IN DRYWELL AT ELEVATION 780 (TEMPERATURE 165F) ARE QUALIFIED FOR 9 YEARS AND WILL BE REPLACED EVERY 9 YEARS.

A000-02

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

EQUIPMENT QUALIFICATION REPORT

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DOCUMENTATION REFERENCES:	NOTES:
C . AGING EVALUATION FORM A000-02 DATED 7/8/82 (CHRON 8100).	

A000-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A000-02-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 3
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	
Plant I.D. Number: TERMINAL BLOCKS Component: TERMINAL BLOCKS	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: AMERACE CORP	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: NQB108	Relative Humidity (%)	100	
Purchase Order Number: 47134	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/CABLE TERMINATIONS	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	4.3 EO7	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfgr Model Ref: DCR-1010, ITEM 1.1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

A385-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: ANACONDA ERICSON Model Number: NA NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	SEE GENERAL NOTE 6		385	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GENERAL NOTE 6		66	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		NA	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. QUALIFICATION TESTS OF CLASS 1E CABLES IN A SIMULATED STEAM LINE BREAK AND LOSS OF COOLANT ACCIDENT ENVIRONMENT, FINAL REPORT F-C4969-1 FOR THE ANACONDA COMPANY, JULY 1979 (CHRON 7702). TEST PROFILE IS FIGURE 3 OF THIS REPORT. B. AGING EVALUATION FORM A385-01 DATED 6/18/82 (CHRON 8101).	1. TEST CABLE SAMPLE WAS CONTINUOUSLY SPRAYED AT A RATE OF AT LEAST 0.15 GPM PER SQUARE FOOT. THE CHEMICAL SOLUTION WAS 6200 PPM BORON AS BORIC ACID AND 50 PPM HYDRAZINE AND TRISODIUM PHOSPHATE AND SODIUM HYDROXIDE WERE ADDED FOR PH CONTROL. THIS IS MORE SEVERE THAN DEMINERALIZED WATER SPRAY.

A385-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 5
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Equip ID: A385-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS
Plant I.D. Number: CABLE-POWER-A/E Component:	Temperature (°F)	SEE GENERAL NOTE 6	
600V CABLE	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: ANACONDA ERICSON	Relative Humidity (%)	100	
Model Number: NA	Chemical Spray	DEMIN WATER	
Purchase Order Number: 51918, 46332	Seismic	LATER	
Function/Service: SUPPORT/SUPPLY POWER TO EQUIPMENT	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: VARIOUS Floor Elevation: NA	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS
Plant I.D. Number: CABLE-CONTROL-A/E Component:	Temperature (°F)	SEE GENERAL NOTE 6	
600V CABLE	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: ANACONDA ERICSON	Relative Humidity (%)	100	
Model Number: NA	Chemical Spray	DEMIN WATER	
Purchase Order Number: 51918, 46332	Seismic	LATER	
Function/Service: SUPPORT/SUPPLY CONTROL SIGNAL	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: VARIOUS Floor Elevation: NA	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 32	P&ID: NA				
Loc Dwg: NA	Elec Scheme: NA	VDR ID: NONE					
Mfgr Model Ref: IE PO 51918, 46332							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 32	P&ID: NA				
Loc Dwg: NA	Elec Scheme: NA	VDR ID: NONE					
Mfgr Model Ref: IE PO 51918, 46332							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS
Plant I.D. Number: CABLE-INSTR-A/E Component: 600V CABLE	Temperature (*F)	SEE GENERAL NOTE 6	
Manufacturer: ANACONDA ERICSON	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: NA	Relative Humidity (%)	100	
Purchase Order Number: 51918,46332	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/SUPPLY INSTRUMENT SIGNAL	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: NA	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: NA	Elec Scheme: NA		VDR ID: NONE				
Mfgr Model Ref: IE PO 51918, 46332							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: HT831665 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	104		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 24.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: A499-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: SV-5815A Component: SOLENOID VALVE	Temperature (°F)	104	
Manufacturer: ASCO	Pressure (PSIG)	0	
Model Number: HT831665	Relative Humidity (%)	100	
Purchase Order Number: M-144E	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS AIR INTAKE	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' - 0"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: SV-5815B Component: SOLENOID VALVE	Temperature (°F)	104	
Manufacturer: ASCO	Pressure (PSIG)	0	
Model Number: HT831665	Relative Humidity (%)	100	
Purchase Order Number: M-144E	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS AIR INTAKE	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' - 0"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/G3		
Loc Dwg: E315/G4		Elec Scheme: E113/11		VDR ID: NONE			
Mfgr Model Ref: V.P. M144E-12-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 10		P&ID: M158/C3	
Loc Dwg: E315/F4		Elec Scheme: E113/11		VDR ID: NONE			
Mfr Model Ref: V.P. M144E-11-2							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: A499-01-005

EQUIPMENT QUALIFICATION REPORT
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Equip ID: A499-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT Plant I.D. Number: SV-5825A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: HT831665 Purchase Order Number: M- 144E Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS AIR INTAKE Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786' -0"	Operating Time	30 DAYS	
	Temperature ("F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT Plant I.D. Number: SV-5825B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: HT831665 Purchase Order Number: M-144E Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS AIR INTAKE Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786' -0"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M158/E6 Loc Dwg: E315/G6 Elec Scheme: E113/11 VDR ID: NONE Mfr Model Ref: V.P. M144E-14-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M158/D6 Loc Dwg: E315/F6 Elec Scheme: E113/11 VDR ID: NONE Mfr Model Ref: V.P. M144E-13-2							

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 Facility: DUANE ARNOLD
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Equip ID: A499-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT Plant I.D. Number: SV-5801A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: HT831665 Purchase Order Number: M- 144E Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS COOLDOWN AIR VALVE Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786' -0"	Operating Time	30 DAYS	
	Temperature (*F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT Plant I.D. Number: SV-5801B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: HT831665 Purchase Order Number: M-144E Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS COOLDOWN AIR VALVE Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786' - 0"	Operating Time	30 DAYS	
	Temperature (*F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M158/G7 Loc Dwg: E315/G6 Elec Scheme: E113/11 VDR ID: NONE Mfgr Model Ref: V.P. M144E-4-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M158/C7 Loc Dwg: E315/F6 Elec Scheme: E113/11 VDR ID: NONE Mfgr Model Ref: V.P. M144E-3-2							

A499-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: A499-01-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: SV-7602A Component:	Temperature (°F)	104	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: HT831665	Chemical Spray	NA	
Purchase Order Number: M-144E	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS INLET SGTS INLET	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786'-0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: SV-7602B Component:	Temperature (°F)	104	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: HT831665	Chemical Spray	NA	
Purchase Order Number: M-144E	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS INLET SGTS INLET	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786'-0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M176/A4							
Loc Dwg: E315/G3 Elec Scheme: E113/64 VDR ID: NONE							
Mfr Model Ref: V.P. M144E-6-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M176/A4	
Loc Dwg: E315/G3	Elec Scheme: E113/64			VDR ID: NONE			
Mfgr Model Ref: V. P. M144E-5-2							

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 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A173E NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	277		346	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	1.2		110	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT NO. AOS21678/TR REVISION A, JULY 1979 (CHRON 7318). TEST PROFILE IS FIGURE 2 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOE DATED 7/8/82 (CHRON 8102).	1. TO ENSURE A QUALIFIED LIFE OF 40 YEARS ETHYLENE PROPYLENE ELASTOMERS SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT THE FOLLOWING INTERVALS; -DRYWELL AND STEAM TUNNEL OPERATORS--4.5 YEARS -OTHER OPERATORS--20 YEARS FOR ALL OPERATORS, PROPER OPERATION SHOULD BE CHECKED

A499-03

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DOCUMENTATION REFERENCES:	NOTES:
	YEARLY.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: A499-03-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: SV-1964 Component: SOLENOID VALVE	Temperature (°F)	277	
Manufacturer: ASCO	Pressure (PSIG)	1.2	
Model Number: NP8320A173E	Relative Humidity (%)	100	
Purchase Order Number: DCR-986	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ ISOLATION OF HPCI STEAM FLOW TO THE RHR HEAT EXCHANGER	Seismic	LATER	
Accuracy: Spec: NA Location: TORUS ROOM SOUTH	Radiation (Rad)	1.3 E07	
Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: SV-2034 Component: SOLENOID VALVE	Temperature (°F)	277	
Manufacturer: ASCO	Pressure (PSIG)	1.2	
Model Number: NP8320A173E	Relative Humidity (%)	100	
Purchase Order Number: DCR-986	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ ISOLATION OF HPCI STEAM FLOW TO THE RHR HEAT EXCHANGER	Seismic	LATER	
Accuracy: Spec: NA Location: TORUS ROOM SOUTH	Radiation (Rad)	1.3 E07	
Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M119/D2		
Loc Dwg: M266/D5		Elec Scheme: E121/58		VDR ID: NONE			
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M120/D7		
Loc Dwg: M266/D5	Elec Scheme: E121/58			VDR ID: NONE			
Mfr Model Ref: NG-80-1234/ATT. A-- CHRON 2379							

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 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: HB8302C25RU NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	1 HOUR		SEE GEN NOTE 4	002		---	---	NONE
	Temperature (*F)	104		SEE GEN NOTE 7	002		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	002		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	002		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.1 E06		4.0 E05	002		REF. (A)	ANALYSIS	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	002		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. AUTOMATIC SWITCH COMPANY LETTER DATED AUGUST 15, 1980 FROM W.M. BROWN TO J.L. HURLEY OF BECHTEL (CHRON 1909).	1. SEE ACTION ITEM 24.

A499-04

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4640 Component: SOLENOID VALVE	Temperature (*F)	104	
Manufacturer: ASCO	Pressure (PSIG)	0	
Model Number: HB8302C25RU	Relative Humidity (%)	100	
Purchase Order Number: M-123	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/RECIRC WATER SAMPLE LINE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.1 E06	
Location: RWCU HEAT EXCH ROOM	Aging	40 YEARS	
Floor Elevation: 786'-0"			
Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 3		P&ID: M116/F6		
Loc Dwg: E321/E5	Elec Scheme: E122/10		VDR ID: NONE				
Mfgr Model Ref: V.P. M123-8-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	150		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.6 E06		SEE NOTE (1)	005		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM NUMBER 24.

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Equip ID: A499-05-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4303 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M- 144D Function/Service: CONTAINMENT ISOLATION /CONTAINMENT PURGE OUTLET ISOLATION Accuracy: Spec: NA Location: H&V CONTROL VALVE RM Floor Elevation: 812'-0"	Operating Time	30 DAYS	
	Temperature (°F)	150	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CDNTROL Plant I.D. Number: SV-4306 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-144D Function/Service: CONTAINMENT ISOLATION /CONTAINMENT PURGE INLET ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' - 6"	Operating Time	1 HOUR	SEE GENERAL NOTE 8
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.5 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/D7 Loc Dwg: E322/D4 Elec Scheme: E122/13 VDR ID: NONE Mfr Model Ref: V.P. M144D-52-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/F1 Loc Dwg: E318/E6 Elec Scheme: E122/13 VDR ID: NONE Mfr Model Ref: V.P. M144D-52-1							

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Equip ID: A499-05-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4307 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-144D Function/Service: CONTAINMENT ISOLATION /CONTAINMENT PURGE INLET ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757'-6"	Operating Time	1 HOUR	SEE GENERAL NOTE 8
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.5 E06	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4308 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-144D Function/Service: CONTAINMENT ISOLATION /SUPPRESSION POOL PURGE INLET ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.5 E06	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 29		P&ID: M143/F2	
Loc Dwg: E318/D6		Elec Scheme: E122/12		VDR ID: NONE			
Mfr Model Ref: V.P. M144D-52-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 29		P&ID: M143/E3	
Loc Dwg: E318/D6		Elec Scheme: E122/12		VDR ID: NONE			
Mfr Model Ref: V.P. M144D-52-1							

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Equip ID: A499-05-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4311 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-137B Function/Service: CONTAINMENT ISOLATION /MAKEUP NITROGEN GAS SUPPLY INLET ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757'-6"	Operating Time	1 HOUR	SEE GENERAL NOTE 8
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4312 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-137B Function/Service: CONTAINMENT ISOLATION /CONTAINMENT NITRO- GEN SUPPLY ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757'-6"	Operating Time	1 HOUR	SEE GENERAL NOTE 8
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/F3 Loc Dwg: E318/D6 Elec Scheme: E122/13 VDR ID: NONE Mfr Model Ref: V.P. M144D-52-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/F3 Loc Dwg: E318/D6 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M144D-52-1							

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Equip ID: A499-05-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4313 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-137B Function/Service: CONTAINMENT ISOLATION SUPPRESSION POOL NITROGEN SUPPLY ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' - 6"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4309 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 831665 Purchase Order Number: M-141 Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL PURGE OUTLET BYPASS Accuracy: Spec: NA Location: NE CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/F3 Loc Dwg: E318/D6 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M137B-41-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C7 Loc Dwg: E316/E2 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M141-44							

A499-07

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

Sheet No: 22

Revision: 1

Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-2RG NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	1 HOUR		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		346	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		110	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---			---	---	---
	Radiation (Rad)	2.1 E07		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT NO. AQS21678/TR REVISION A, JULY 1979 (CHRON 7318). TEST PROFILE IS FIGURE 2 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOE DATED 7/8/82 (CHRON 8102).	1. ACTUAL SPRAY TEST USED A BORIC ACID SOLUTION WHICH IS MORE SEVERE THAN A DEMINERALIZED WATER SPRAY. 2. TO ENSURE A QUALIFIED LIFE OF 40 YEARS ETHYLENE PROPYLENE ELASTOMERS SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT THE FOLLOWING INTERVALS; -DRYWELL AND STEAM TUNNEL OPERATORS--4.5 YEARS

A499-07

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

EQUIPMENT QUALIFICATION REPORT

Sheet No. 23
Revision: 1
Date: 07/09/82

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DOCUMENTATION REFERENCES:	NOTES:
	-OTHER OPERATORS--20 YEARS FOR ALL OPERATORS, PROPER OPERATION SHOULD BE CHECKED YEARLY.

A499-07

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: A499-07-001

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 24

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4639 Component: SOLENOID VALVE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: 206-832-2RG	Relative Humidity (%)	100	
Purchase Order Number: DCR-892	Chemical Spray	DEMIN WATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/RECIRC WATER SAMPLE LINE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	2.1 E07	
Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 775' - 11"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: O3 P&ID: M116/F6							
Loc Dwg: E330/B5 Elec Scheme: E122/10 VDR ID: NONE							
Mfgr Model Ref: V.P.M123A-8-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

A499-12

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	006		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		346	005		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		110	005		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	005		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		2.0 E08	005		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT NO. AQS21678/TR REVISION A, JULY 1979 (CHRON 7318). TEST PROFILE IS FIGURE 2 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOE DATED 7/8/82 (CHRON 8102).	1. ACTUAL SPRAY TEST USED A BORIC ACID SOLUTION WHICH IS MORE SEVERE THAN A DEMINERALIZED WATER SPRAY 2. TO ENSURE A QUALIFIED LIFE OF 40 YEARS ETHYLENE PROPYLENE ELASTOMERS SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT THE FOLLOWING INTERVALS; -DRYWELL AND STEAM TUNNEL OPERATORS--4.5 YEARS

A499-12

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

EQUIPMENT QUALIFICATION REPORT

Sheet No. 26
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DOCUMENTATION REFERENCES:

NOTES:

-OTHER OPERATORS--20 YEARS
FOR ALL OPERATORS, PROPER OPERATION SHOULD BE CHECKED
YEARLY.

A499-12

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-12-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 27
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Equip ID: A499-12-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-3704 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL FLOOR DRAIN SUMP ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716' - 9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-3705 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL FLOOR DRAIN SUMP ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716' - 9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M137/G7							
Loc Dwg: E317/F3 Elec Scheme: E122/9 VDR ID: NONE							
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M137/G7							
Loc Dwg: E317/F3 Elec Scheme: E122/9 VDR ID: NONE							
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: A499-12-003

EQUIPMENT QUALIFICATION REPORT
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Equip ID: A499-12-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-3728 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL EQUIPMENT DRAIN SUMP ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-3729 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL EQUIPMENT DRAIN SUMP ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M137/D6 Loc Dwg: E316/D7 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M137/D6 Loc Dwg: E316/D7 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: A499-12-005

EQUIPMENT QUALIFICATION REPORT
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Equip ID: A499-12-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4371B Component:	Temperature (°F)	SEE GENERAL NOTE 6	
SOLENOID VALVE	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: NP831665E	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-892	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/NITROGEN COMPR ISOL	Radiation (Rad)	2.1 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757' - 6"	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: SV-7605A Component:	Temperature (°F)	300	
SOLENOID VALVE	Pressure (PSIG)	1.5	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: NP831665E	Chemical Spray	NA	
Purchase Order Number: DCR-986	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/REACTOR BUILDING VENT ISOLATION	Radiation (Rad)	8.1 E06	
Accuracy: Spec: NA Location: HPCI ROOM	Aging	40 YEARS	
Floor Elevation: 731' - 9"	Submergence	NA	
Flood Level Elevation: 717' - 2" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M143/F5							
Loc Dwg: E329/B3 Elec Scheme: E122/24 VDR ID: NONE							
Mfgr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M176/A5	
Loc Dwg: E317/B4	Elec Scheme: E113/64			VDR ID: NONE			
Mfr Model Ref:	NG-80-1234/ATT. A--CHRON 2379						

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT QUALIFICATION REPORT
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Equip ID: A499-12-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: SV-7605B Component: SOLENOID VALVE	Temperature (°F)	300	
Manufacturer: ASCO	Pressure (PSIG)	1.5	
Model Number: NP831665E	Relative Humidity (%)	100	
Purchase Order Number: DCR-986	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/REACTOR BUILDING VENT ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	8.1 E06	
Location: HPCI ROOM	Aging	40 YEARS	
Floor Elevation: 731'-9"	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS	Operating Time	30 DAYS	
Plant I.D. Number: SV-4300X Component: SOLENOID VALVE	Temperature (°F)	104	
Manufacturer: ASCO	Pressure (PSIG)	0	
Model Number: NP831665E	Relative Humidity (%)	100	
Purchase Order Number: DCR-918	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL PURGE OUTLET ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	2.9 E05	
Location: NE CRNR RM	Aging	40 YEARS	
Floor Elevation: 735'-7"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M176/A5		
Loc Dwg: E317/B4	Elec Scheme: E113/64		VDR ID: NONE				
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 35		P&ID: M143/D7		
Loc Dwg: E316/E2	Elec Scheme: E122/12		VDR ID: NONE				
Mfr Model Ref: DCR-918 INDEX ITEM 59 (FCR 918-5)							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: A499-12-009

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: A499-12-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: SV-4302X Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E Purchase Order Number: DCR-918 Function/Service: PRIMARY CONTAINMENT ISOLATION/CONTAINMENT PURGE OUTLET Accuracy: Spec: NA Location: H&V CONTROL VALVE RM Floor Elevation: 812' - 0"	Operating Time	30 DAYS	
	Temperature (°F)	150	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4310 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP831665E Purchase Order Number: DCR 986 Function/Service: PREVENT RELEASE OF RADIOACTIVE MATERIAL /CONTAINMENT VENT PURGE EXHAUST BYPASS Accuracy: Spec: NA Location: H&V CONTROL VALVE RM Floor Elevation: 812' - 0"	Operating Time	30 DAYS	
	Temperature (°F)	150	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M143/D7 Loc Dwg: E322/D4 Elec Scheme: E122/12 VDR ID: NONE Mfgr Model Ref: DCR-918 INDEX ITEM 59 (FCR 918-5)							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/D7 Loc Dwg: E322/D4 Elec Scheme: E122/12 VDR ID: NONE Mfgr Model Ref: DCR-986							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 32
 Revision: 1
 Date: 07/09/82

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A183E NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	1 HOUR		30 DAYS	003		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		346	003		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		110	003		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	003		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	003		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		2.0 E08	003		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	003		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT NO. AQS21678/TR REVISION A, JULY 1979 (CHRON 7318). TEST PROFILE IS FIGURE 2 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOE DATED 7/8/82 (CHRON 8102).	1. SUBJECTED TO H3BO4 (+ BUFFER) SPRAY WHICH IS MORE SEVERE THAN DEMINERALIZED WATER SPRAY. 2. TO ENSURE A QUALIFIED LIFE OF 40 YEARS ETHYLENE PROPYLENE ELASTOMERS SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT THE FOLLOWING INTERVALS; -DRYWELL AND STEAM TUNNEL OPERATORS--4.5 YEARS

A499-15

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

EQUIPMENT QUALIFICATION REPORT

Sheet No. 33
Revision: 1
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DOCUMENTATION REFERENCES:	NOTES:
	-OTHER OPERATORS--20 YEARS FOR ALL OPERATORS, PROPER OPERATION SHOULD BE CHECKED YEARLY.

A499-15

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-15-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 34
 Revision: 1
 Date: 07/09/82

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Equip ID: A499-15-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4412A Component:	Temperature (°F)	SEE GENERAL NOTE 6	
SOLENOID VALVE	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: NP8320A183E	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-892	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "A" INBOARD VALVE ISOLATION	Radiation (Rad)	2.1 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4413A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A183E Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "A" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/F3 Loc Dwg: E329/D3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/F2 Loc Dwg: E328/D4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

A499-15
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-15-005

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Equip ID: A499-15-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4415A Component: SOLENOID VALVE	Temperature (*F)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: NP8320A183E	Relative Humidity (%)	100	
Purchase Order Number: DCR-892	Chemical Spray	DEMIN WATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "B" INBOARD VALVE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	2.1 E07	
Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4416A Component: SOLENOID VALVE	Temperature (*F)	300	
Manufacturer: ASCO	Pressure (PSIG)	1.8	
Model Number: NP8320A183E	Relative Humidity (%)	100	
Purchase Order Number: DCR-892	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "B" OUTBOARD VALVE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	9.4 E06	
Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757'-6"			
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 03		P&ID: M114/C7		
Loc Dwg: E329/C3	Elec Scheme: E122/11			VDR ID: NONE			
Mfr Model Ref: DCR-892	INDEX ITEM 5						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 03		P&ID: M114/C8	
Loc Dwg: E328/D4		Elec Scheme: E122/11			VDR ID: NONE		
Mfr Model Ref: DCR-892		INDEX ITEM 5					

A499-15

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-15-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 36
 Revision: 1
 Date: 07/09/82

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Equip ID: A499-15-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4418A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A183E Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM INBOARD VALVE ISDLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4419A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A183E Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 EO6	
	Aging	40 YEARS	
	Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O3		P&ID: M114/C3		
Loc Dwg: E329/F3 Elec Scheme: E122/11 VDR ID: NONE							
Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: O3		P&ID: M114/C2	
Loc Dwg: E328/E4 Elec Scheme: E122/11 VDR ID: NONE							
Mfr Model Ref: DCR-892 INDEX ITEM 5							

A499-15
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-15-009

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Equip ID: A499-15-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4420A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A183E Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "D" INBOARD VALVE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' -6" Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4421A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8320A183E Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "D" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' -6" Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 03		P&ID: M114/E7		
Loc Dwg: E329/E3		Elec Scheme: E122/11		VDR ID: NONE			
Mfgr Model Ref: DCR-892		INDEX ITEM 5					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 03		P&ID: M114/E8	
Loc Dwg: E328/E4	Elec Scheme: E122/11			VDR ID: NONE			
Mfr Model Ref:	OCR-892 INDEX ITEM 5						

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8321A5E NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	140		346	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	0		110	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT NO. AQS21678/TR REVISION A, JULY 1979 (CHRON 7318). TEST PROFILE IS FIGURE 2 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOE DATED 7/8/82 (CHRON 8102).	1. TO ENSURE A QUALIFIED LIFE OF 40 YEARS ETHYLENE PROPYLENE ELASTOMERS SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT THE FOLLOWING INTERVALS; -DRYWELL AND STEAM TUNNEL OPERATORS--4.5 YEARS -OTHER OPERATORS--20 YEARS FOR ALL OPERATORS, PROPER OPERATION SHOULD BE CHECKED

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Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
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EQUIPMENT QUALIFICATION REPORT

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DOCUMENTATION REFERENCES:	NOTES:
	YEARLY.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: A499-16-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: A499-16-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: SV-8773A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8321A5E Purchase Order Number: DCR-932A Function/Service: POST ACCIDENT MONITORING/SAMPLE PANEL EXHAUST DUCT ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: SV-8773B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8321A5E Purchase Order Number: DCR-932A Function/Service: POST ACCIDENT MONITORING/SAMPLE PANEL EXHAUST DUCT ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 35		P&ID: M187/C3		
Loc Dwg: E316/F7		Elec Scheme: E113/64			VDR ID: NONE		
Mfr Model Ref: V.P. 11186-223-44668-8-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 35		P&ID: M187/C2	
Loc Dwg: E316/F7	Elec Scheme: E113/64			VDR ID: NONE			
Mfr Model Ref: V.P. 11186-223-44668-8-2							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	1 HOUR		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		448	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		68	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		2.3 E07	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT AQR-67368 REVISION 0, DATED 3/2/82 (CHRON 7411). TEST PROFILE IS FIGURE 4.1 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOV DATED 7/8/82 (CHRON 8102).	1. SPRAYED WITH H3BO4 (+BUFFER) WHICH IS MORE HARSH THAN BEING SPRAYED WITH DEMINERALIZED WATER. 2. TO ENSURE A QUALIFIED LIFE OF 40 YEARS, VITON ELASTOMERS FOR SOLENOID OPERATORS WITHIN THE DRYWELL AND STEAM TUNNEL SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT 20 YEAR INTERVALS. ALL

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Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT

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DOCUMENTATION REFERENCES:	NOTES:
	OPERATORS SHOULD BE CHECKED FOR PROPER OPERATION YEARLY.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: A499-18-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4412C Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "A" INBOARD VALVE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4413C Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "A" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O3		P&ID: M114/G3		
Loc Dwg: E329/D3		Elec Scheme: E122/11			VDR ID: NONE		
Mfr Model Ref: DCR-892		INDEX ITEM 5					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/F2							
Loc Dwg: E328/D4 Elec Scheme: E122/11 VDR ID: NONE							
Mfr Model Ref: DCR-892 INDEX ITEM 5							

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 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: A499-18-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4415C Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "B" INBOARD VALVE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4416C Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "B" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M114/C7 Loc Dwg: E329/C3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M114/C8 Loc Dwg: E328/D4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

A499-18
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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 Equip ID: A499-18-005

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Equip ID: A499-18-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4418C Component: SOLENOID VALVE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: NP8323A36V	Relative Humidity (%)	100	
Purchase Order Number: DCR-892	Chemical Spray	DEMIN WATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "C" INBOARD VALVE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA Location: DRYWELL	Radiation (Rad)	2.1 E07	
Floor Elevation: 757'-6"	Aging	40 YEARS	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4419C Component:	Temperature (°F)	300	
SOLENOID VALVE	Pressure (PSIG)	1.8	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: NP8323A36V	Chemical Spray	NA	
Purchase Order Number: DCR-892	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "C" OUTBOARD VALVE ISOLATION	Radiation (Rad)	9.4 E06	
Accuracy: Spec: NA Location:	Aging	40 YEARS	
STEAM TUNNEL Floor Elevation: 757' - 6"	Submergence	NA	
Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/C3 Loc Dwg: E329/F3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/C2 Loc Dwg: E328/E4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

A499-18
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: A499-18-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: A499-18-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4420C Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "D" INBOARD VALVE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4421C Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "D" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/E7 Loc Dwg: E329/E3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/E8 Loc Dwg: E328/E4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

A499-18

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-18-009

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 47
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: A499-18-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4412B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "A" INBOARD VALVE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4413B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "A" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	1 HOUR	
	Temperature ("F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M114/F3 Loc Dwg: E329/D3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M114/F2 Loc Dwg: E328/D4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

A499-18

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: A499-18-011

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 48

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: A499-18-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4415B Component: SOLENOID VALVE	Temperature ("F)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: NP8323A36V	Relative Humidity (%)	100	
Purchase Order Number: DCR-892	Chemical Spray	DEMIN WATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "B" INBOARD VALVE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA Location: DRYWELL	Radiation (Rad)	2.1 E07	
Floor Elevation: 757'-6"	Aging	40 YEARS	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4416B Component: SOLENOID VALVE	Temperature ("F)	300	
Manufacturer: ASCO	Pressure (PSIG)	1.8	
Model Number: NP8323A36V	Relative Humidity (%)	100	
Purchase Order Number: DCR-892	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "B" OUTBOARD VALVE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA Location: STEAM TUNNEL	Radiation (Rad)	9.4 E06	
Floor Elevation: 757'-6"	Aging	40 YEARS	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 03		P&ID: M114/C7		
Loc Dwg: E329/C3	Elec Scheme: E122/11			VDR ID: NONE			
Mfgr Model Ref: DCR-892	INDEX ITEM 5						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 03		P&ID: M114/C8	
Loc Dwg: E328/D4	Elec Scheme: E122/11				VDR ID: NONE		
Mfgr Model Ref:	DCR-892 INDEX ITEM 5						

A499-18

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-18-013

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 49
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: A499-18-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4418B Component:	Temperature (*F)	SEE GENERAL NOTE 6	
SOLENOID VALVE	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: NP8323A36V	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-892	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "C" INBOARD VALVE ISOLATION	Radiation (Rad)	2.1 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-4419B Component:	Temperature (*F)	300	
SOLENOID VALVE	Pressure (PSIG)	1.8	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: NP8323A36V	Chemical Spray	NA	
Purchase Order Number: DCR-892	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "C" OUTBOARD VALVE ISOLATION	Radiation (Rad)	9.4 E06	
Accuracy: Spec: NA Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 03		P&ID: M114/C3		
Loc Dwg: E329/F3		Elec Scheme: E122/11			VDR ID: NONE		
Mfgr Model Ref: DCR-892		INDEX ITEM 5					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 03		P&ID: M114/C2		
Loc Dwg: E328/E4	Elec Scheme: E122/11			VDR ID: NONE			
Mfr Model Ref: DCR-892	INDEX ITEM 5						

A499-18
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-18-015

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 50
 Revision: 1
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Equip ID: A499-18-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4420B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "D" INBOARD VALVE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-4421B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: NP8323A36V Purchase Order Number: DCR-892 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE "D" OUTBOARD VALVE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6"	Operating Time	1 HOUR	
	Temperature (*F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/E7 Loc Dwg: E329/E3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M114/E8 Loc Dwg: E328/E4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: DCR-892 INDEX ITEM 5							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	1 HOUR		30 DAYS	007		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	140		346	007		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	0		110	007		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	007		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	---
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.7 E06		2.0 E08	007		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	007		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ASCO TEST REPORT NO. AQS21678/TR REVISION A, JULY 1979 (CHRON 7318). TEST PROFILE IS FIGURE 2 OF THIS REPORT. B. AGING EVALUATION FORM A499-OOE DATED 7/8/82 (CHRON 8102).	1. TO ENSURE A QUALIFIED LIFE OF 40 YEARS ETHYLENE PROPYLENE ELASTOMERS SHOULD BE REPLACED AND THE SOLENOID COILS SHOULD BE INSPECTED FOR DEGRADATION AT THE FOLLOWING INTERVALS; -DRYWELL AND STEAM TUNNEL OPERATORS--4.5 YEARS -OTHER OPERATORS--20 YEARS FOR ALL OPERATORS, PROPER OPERATION SHOULD BE CHECKED

A499-22

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

EQUIPMENT QUALIFICATION REPORT

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DOCUMENTATION REFERENCES:	NOTES:
	YEARLY.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: A499-22-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 53
 Revision: 1
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Equip ID: A499-22-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-5703A Component:	Temperature (°F)	140	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: 206-832-3RU	Chemical Spray	NA	
Purchase Order Number: DCR-986	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER SYSTEM BACKWASH INLET ISOLATION LOOP A Accuracy: Spec:	Radiation (Rad)	2.7 E06	
NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	
Plant I.D. Number: SV-5703B Component:	Temperature (°F)	140	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: ASCO	Relative Humidity (%)	100	
Model Number: 206-832-3RU	Chemical Spray	NA	
Purchase Order Number: DCR-986	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER SYSTEM BACKWASH INLET ISOLATION LOOP B Accuracy: Spec:	Radiation (Rad)	2.7 E06	
NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: O3	P&ID: M157/G7				
Loc Dwg: E317/E5	Elec Scheme: E113/94	VDR ID: NONE					
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: O3	P&ID: M157/G7				
Loc Dwg: E317/H7	Elec Scheme: E113/94	VDR ID: NONE					
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: A499-22-009

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Equip ID: A499-22-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-5704A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER OUTLET ISOLATION LOOP A Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-5704B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER OUTLET ISOLATION LOOP B Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M157/H6							
Loc Dwg: E317/E5 Elec Scheme: E113/94 VDR ID: NONE							
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M157/H6							
Loc Dwg: E317/G7 Elec Scheme: E113/94 VDR ID: NONE							
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

A499-22

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-22-011

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: A499-22-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-5718A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER OUTLET ISOLATION LOOP A Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-5718B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER INLET ISOLATION LOOP B Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: O3		P&ID: M157/B8		
Loc Dwg: E317/E5		Elec Scheme: E113/94		VDR ID: NONE			
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M157/B8							
Loc Dwg: E316/C7 Elec Scheme: E113/94 VDR ID: NONE							
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

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 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-22-013

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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 Revision: 1
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Equip ID: A499-22-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-5719A Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER SYSTEM BACKWASH OUTLET ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 E06	
	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: SV-5719B Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 206-832-3RU Purchase Order Number: DCR-986 Function/Service: PRIMARY CONTAINMENT ISOLATION/DRYWELL COOLING WATER SYSTEM BACKWASH OUTLET ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 E06	
	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: O3		P&ID: M157/B7		
Loc Dwg: E317/E5		Elec Scheme: E113/94		VDR ID: NONE			
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M157/A7							
Loc Dwg: E316/C7 Elec Scheme: E113/94 VDR ID: NONE							
Mfr Model Ref: NG-80-1234/ATT. A--CHRON 2379							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

Sheet No: 57

Revision: 1

Date: 07/09/82

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 8320A6 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	007		---	---	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	006		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	006		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	006		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		SEE NOTE (1)	007		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	---		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM NO. 24

A499-34
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A499-34-006

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 58
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: A499-34-007

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: SV-1963 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 8320A6 Purchase Order Number: M-147 Function/Service: REACTOR CORE COOLING /ISOLATION OF HPCI STEAM FLOW TO THE RHR HEAT EXCHANGER Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 747'-6" Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS VALVE IS USED IN STEAM CONDENSING MODE AND HAS NO LONG TERM SAFETY FUNC- TION DURING A DBA LOCA
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: SV-1966 Component: SOLENOID VALVE Manufacturer: ASCO Model Number: 8320A6 Purchase Order Number: M-147 Function/Service: REACTOR CORE COOLING /RHR TRAIN B CONDENSATE RETURN TO RCIC OR RHR TEST ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 747'-6" Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/D3 Loc Dwg: M246/E8 Elec Scheme: E121/58 VDR ID: NONE Mfr Model Ref: V.P. 7884-M147-1-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/E3 Loc Dwg: M246/E7 Elec Scheme: E121/58 VDR ID: NONE Mfr Model Ref: V.P. 7884-M147-1-3							

A499-34

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: A499-34-008

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 59

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: A499-34-009

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	1 HOUR	THIS VALVE IS USED IN STEAM CONDENSING MODE AND HAS NO LONG TERM SAFETY FUNCTION DURING A DBA LOCA
Plant I.D. Number: SV-2033 Component: SOLENOID VALVE	Temperature (°F)	140	
Manufacturer: ASCO	Pressure (PSIG)	0	
Model Number: 8320A6	Relative Humidity (%)	100	
Purchase Order Number: M-147	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING /ISOLATION OF HPCI STEAM FLOW TO THE RHR HEAT EXCHANGER	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	9.6 E05	
Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 736' -6"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: SV-2037 Component: SOLENOID VALVE	Temperature (°F)	140	
Manufacturer: ASCO	Pressure (PSIG)	0	
Model Number: 8320A6	Relative Humidity (%)	100	
Purchase Order Number: M-147	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING /RHR TRAIN A CONDENSATE RETURN TO RCIC OR RHR TEST ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	5.9 E06	
Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 731' -4"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 09		P&ID: M120/D7	
Loc Dwg: E317/D3		Elec Scheme: E121/58			VDR ID: NONE		
Mfr Model Ref: DATA		SHEET 7884-M452-5					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/E7	
Loc Dwg: E317/E3	Elec Scheme: E121/58				VDR ID: NONE		
Mfr Model Ref:	DATA SHEET 7884-M452-5						

A613-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 60
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: AUTOMATIC VALVE CO. Model Number: C5450-5 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A,B	TYPE TEST/ ANALYSIS	NONE
	Temperature (*F)	SEE GEN NOTE 6		340	001		REF. A	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		65	001		REF. A	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. A	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		DEMIN WATER	001		REF. B	ANALYSIS	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.6 E07		3.0 E07	001		REF. A	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. C	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . BWR EQUIPMENT QUALIFICATION SUMMARY QSR-052-A-01, DATED 9/19/80 (CHRON 7500) AND ITS ATTACHMENT REPORT, ENVIRONMENTAL TESTING OF MSS/RV AIR CONTROL VALVES, NO. 126-62, DATED 1/15/75. TEST PROFILE IS SHOWN ON PAGE 3 OF QSR-052-A-01 AND PAGES 2 AND 3 OF NO 126-62. B . AUTOMATIC DEPRESSURIZATION SYSTEM SOLENOID VALVES	1 . TO ENSURE A QUALIFIED LIFE OF 40 YEARS, VITON ELASTOMERS SHOULD BE REPLACED AND ELECTRICAL SUBCOMPONENTS INSPECTED EVERY 20 YEARS. PROPER VALVE OPERATION SHOULD BE CHECKED YEARLY.

A613-O1

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

EQUIPMENT QUALIFICATION REPORT

Sheet No. 61
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DOCUMENTATION REFERENCES:

(AUTOMATIC VALVE CO. MODEL C-5450-5) QUALIFICATION
BY ANALYSIS BY BECHTEL POWER CORP., 3/1982 (CHRON 6800).
C . AGING EVALUATION FORM A613-O1 DATED 7/8/82 (CHRON 8103).

NOTES:

A613-01
 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A613-01-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 62
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: A613-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: SV-4400 Component: SOLENOID VALVE Manufacturer: AUTOMATIC VALVE CO. Model Number: C5450-5 Purchase Order Number: DCR-244 Function/Service: REACTOR CORE COOLING/ NUCLEAR SYSTEM PRESSURE RELIEF A Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	RAD DOSE BASED ON SECTION 2.1.2 OF REFERENCE B.
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.6 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: SV-4402 Component: SOLENOID VALVE Manufacturer: AUTOMATIC VALVE CO. Model Number: C5450-5 Purchase Order Number: DCR-244 Function/Service: REACTOR CORE COOLING/ NUCLEAR SYSTEM PRESSURE RELIEF B Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	RAD DOSE BASED ON SECTION 2.1.2 OF REFERENCE B.
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.6 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 07		P&ID: M114/F5	
Loc Dwg: E330/C4		Elec Scheme: E121/2			VDR ID: 200423-2		
Mfgr Model Ref: V.P. B21-3379-1(4)							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 07		P&ID: M114/D6	
Loc Dwg: E330/B4		Elec Scheme: E121/2		VDR ID: 200423-2			
Mfr Model Ref: V.P. B21-3379-1(4)							

A613-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: A613-01-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 63
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: A613-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: SV-4405 Component: SOLENOID VALVE Manufacturer: AUTOMATIC VALVE CO. Model Number: C5450-5 Purchase Order Number: DCR-244 Function/Service: REACTOR CORE COOLING/ NUCLEAR SYSTEM PRESSURE RELIEF C Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	RAD DOSE BASED ON SECTION 2.1.2 OF REFERENCE B.
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.6 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: SV-4406 Component: SOLENOID VALVE Manufacturer: AUTOMATIC VALVE CO. Model Number: C5450-5 Purchase Order Number: DCR-244 Function/Service: REACTOR CORE COOLING/ NUCLEAR SYSTEM PRESSURE RELIEF D Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	RAD DOSE BASED ON SECTION 2.1.2 OF REFERENCE B.
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.6 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 07 P&ID: M114/D4 Loc Dwg: E330/F4 Elec Scheme: E121/2 VDR ID: 200423-2 Mfr Model Ref: V.P. B21-3379-1(4)							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 07 P&ID: M114/F5 Loc Dwg: E330/F4 Elec Scheme: E121/2 VDR ID: 200423-2 Mfr Model Ref: V.P. B21-3379-1(4)							

B069-09

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

Sheet No: 64

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Date: 07/09/82

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE SWITCH Manufacturer: BARKSDALE Model Number: P 1H-M85SS-V NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (*F)	104		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.1 E07		2.0 E06	001		REF. (A)	ANALYSIS	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. EDS PROBLEM FILE NO. 0460-067-001, MARCH 19, 1982 (CHRON 6863).	1. SEE ACTION ITEM 30.

B069-09

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: B069-09-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 65
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 Date: 07/09/82

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Equip ID: B069-09-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: PS-8404A Component: PRESSURE SWITCH Manufacturer: BARKSDALE Model Number: P1H-M85SS-V Purchase Order Number: APED Function/Service: MITIGATE RADIOACTIVE RELEASE/UPSTREAM OUTBOARD MSIV A PRESS Accuracy: Spec: NA Location: A CRD RR/1C-145 Floor Elevation: 771'-10"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.1 EO7	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: PS-8404B Component: PRESSURE SWITCH Manufacturer: BARKSDALE Model Number: P1H-M85SS-V Purchase Order Number: APED Function/Service: MITIGATE RADIOACTIVE RELEASE/UPSTREAM OUTBOARD MSIV B PRESS Accuracy: Spec: NA Location: A CRD RR/1C-145 Floor Elevation: 771'-10"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.1 EO7	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/G3							
Loc Dwg: M2/A5 Elec Scheme: E122/37 VDR ID: B21-N913A							
Mfrgr Model Ref: V.P. APED B21-22-4 SH 14, B21-84-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 05		P&ID: M184/C8	
Loc Dwg: M2/A5		Elec Scheme: E122/37			VDR ID: B21-N913B		
Mfr Model Ref:		V.P. APED B21-33-4 SH 14, B21-84-1					

B069-09

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: B069-09-003

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 66

Revision: 1

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Equip ID: B069-09-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	
Plant I.D. Number: PS-8404C Component:	Temperature (°F)	104	
PRESSURE SWITCH	Pressure (PSIG)	0	
Manufacturer: BARKSDALE	Relative Humidity (%)	100	
Model Number: P1H-M85SS-V	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/UPSTREAM OUTBOARD MSIV C PRESS	Radiation (Rad)	1.1 E07	
Accuracy: Spec: NA Location: A CRD RR/1C-145 Floor Elevation: 771' - 10"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	
Plant I.D. Number: PS-8404D Component:	Temperature (°F)	104	
PRESSURE SWITCH	Pressure (PSIG)	0	
Manufacturer: BARKSDALE	Relative Humidity (%)	100	
Model Number: P1H-M85SS-V	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/UPSTREAM OUTBOARD MSIV D PRESS	Radiation (Rad)	1.1 E07	
Accuracy: Spec: NA Location: A CRD RR/1C-145 Floor Elevation: 771' - 10"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/F3							
Loc Dwg: M2/A5 Elec Scheme: E122/37 VDR ID: B21-N913C							
Mfr Model Ref: V.P. APED 21-33-4 SH 14, B21-84-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 05		P&ID: M184/F8	
Loc Dwg: M2/A5		Elec Scheme: E122/37		VDR ID: B21-N913D			
Mfr Model Ref:		V.P. APED B21-33-4 SH 14, B21-84-1					

B365-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 67
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: BOSTON INSULATED WIRE Model Number: RG-6A/U, 59B/U NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		105	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. BOSTON INSULATED WIRE AND CABLE CO. REPORT B913 (CHRON 7640) TEST PROFILE IS PAGE 8 OF THIS REPORT. B. AGING EVALUATION FORM B365-01 DATED 6/18/82 (CHRON 8104).	1. SPRAY MAKE-UP WAS 0.28M H3BO3 SOLUTION ADJUSTED TO PH OF 10.5 WITH NAOH. THIS IS MORE SEVERE THAN DEMINERALIZED WATER.

B365-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: B365-01-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 68
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS	Operating Time	30 DAYS	THE REQUIRED ENVIRONMENT IS THE WORST CASE TEMPERATURE, HUMIDITY, PRESSURE AND RADIATION CONDITIONS IN THE DRYWELL.
Plant I.D. Number: CABLE-COAX-BIW Component: 600V CABLE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: BOSTON INSULATED WIRE	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: RG-6A/U, 59B/U	Relative Humidity (%)	100	
Purchase Order Number: 31252	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/POST ACCIDENT RADIATION MONITORING	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	4.3 E07	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 35	P&ID: NA				
Loc Dwg: NA	Elec Scheme: NA	VDR ID: NONE					
Mfgr Model Ref: IE PO 31252							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:	System:	P&ID:				
Loc Dwg:	Elec Scheme:	VDR ID:					
Mfgr Model Ref:							

0093-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: LEVEL ELEMENT Manufacturer: DELAVAL GEMS SENSORS Model Number: XM-33353 NUREG 0588 Applicable: NO Accuracy: Demo: 1%	Operating Time	30 DAYS		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Chemical Spray	DEMIN WATER		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

D093-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: D093-01-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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11186-234-NP-1

Equip ID: D093-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: LE-3701 Component:	Temperature (°F)	SEE GENERAL NOTE 6	
LEVEL ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: DELAVAL GEMS SENSORS	Relative Humidity (%)	100	
Model Number: XM-33353	Chemical Spray	DEMIN WATER	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL FLOOR DRAIN SUMP LEVEL HI	Radiation (Rad)	4.3 EO7	
Accuracy: Spec: 2% Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 742' - 9"	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: LE-3721 Component:	Temperature (°F)	SEE GENERAL NOTE 6	
LEVEL ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: DELAVAL GEMS SENSORS	Relative Humidity (%)	100	
Model Number: XM-33353	Chemical Spray	DEMIN WATER	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL EQUIPMENT DRAIN SUMP HI-HI/HI	Radiation (Rad)	4.3 EO7	
Accuracy: Spec: 2% Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 742' - 9"	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M137/F8		
Loc Dwg: E331/D4	Elec Scheme: E125/2		VDR ID: G11-NO02				
Mfr Model Ref:	WALKDOWN 10/81, SHEET 20						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M137/B7	
Loc Dwg: E331/E5		Elec Scheme: E125/2		VDR ID: G11-NO09			
Mfr Model Ref:		WALKDOWN 10/81, SHEET 21					

D093-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: LEVEL SWITCH Manufacturer: DELAVAL GEMS SENSORS Model Number: 31924 NUREG 0588 Applicable: NO Accuracy: Demo: 1%	Operating Time	30 DAYS		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Temperature (*F)	90		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	0		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.7 E05		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		---	---		---	---	---
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

D093-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: D093-02-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 72
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: D093-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: LS-3701 Component: LEVEL SWITCH Manufacturer: DELAVAL GEMS SENSORS Model Number: 31924 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/DRYWELL FLOOR DRAIN SUMP LEVEL HI Accuracy: Spec: 2% Location: RB-N Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: LS-3721 Component: LEVEL SWITCH Manufacturer: DELAVAL GEMS SENSORS Model Number: 31924 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/DRYWELL EQUIPMENT DRAIN SUMP HI-HI/HI Accuracy: Spec: 2% Location: RB-N Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M137/F8	
Loc Dwg: E318/E5	Elec Scheme: E125/2			VDR ID: G11-NO01			
Mifr Model Ref:	WALKDOWN 8/81, SHEET 136						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M137/B7	
Loc Dwg: E318/E5	Elec Scheme: E125/2			VDR ID: G11-NO08			
Mfr Model Ref:	WALKDOWN 8/81, SHEET 137						

E153-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATED VALVE Manufacturer: ELECTRODYNE Model Number: TN-24-400 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		NONE	001		---	---	SEE NOTE (1)
	Temperature (*F)	277		NONE	001		---	---	SEE NOTE (1)
	Pressure (PSIG)	1.2		NONE	001		---	---	SEE NOTE (1)
	Relative Humidity (%)	100		NONE	001		---	---	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.6 E06		NONE	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		NONE	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM NO 23

E153-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: E153-01-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 74
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: E153-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1904 Component: MOTOR OPERATED VALVE Manufacturer: ELECTRODYNE Model Number: TN-24-400 Purchase Order Number: M-133C Function/Service: CONTAINMENT HEAT REMOVAL/RHR RECIRC INJECTION LOOP B Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	MOTOR S/N 1-5137-48304
	Temperature (°F)	277	1-2
	Pressure (PSIG)	1.2	MOTOR BRAKE
	Relative Humidity (%)	100	S/N B-814292
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2004 Component: MOTOR OPERATED VALVE Manufacturer: ELECTRODYNE Model Number: TN-24-400 Purchase Order Number: M-133C Function/Service: CONTAINMENT HEAT REMOVAL/RHR RECIRC INJECTION LOOP A Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	MOTOR S/N 1-5137-48304-
	Temperature (°F)	277	1-1
	Pressure (PSIG)	1.2	MOTOR BRAKE
	Relative Humidity (%)	100	S/N B-814293
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/E6 Loc Dwg: M268/G7 Elec Scheme: E121/53 VDR ID: E11-FO17B Mfg Model Ref: V.P. M133C-25-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/F4 Loc Dwg: M248/E7 Elec Scheme: E121/53 VDR ID: E11-FO17A Mfg Model Ref: V.P. M133C-25-3							

FO81-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: CONTROL UNIT Manufacturer: FENWAL Model Number: 35003-0 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	104		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	---		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM NO 22

F081-02

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: F081-02-001

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 76

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: F081-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5835A1 Component: CONTROL UNIT	Temperature (°F)	104	
Manufacturer: FENWAL	Pressure (PSIG)	0	
Model Number: 35003-0	Relative Humidity (%)	100	
Purchase Order Number: M-81	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Seismic	LATER	
Accuracy: Spec: NA Location: SGT ROOM/1N3455	Radiation (Rad)	1.6 E08	
Floor Elevation: 786' - 0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5835A2 Component: CONTROL UNIT	Temperature (°F)	104	
Manufacturer: FENWAL	Pressure (PSIG)	0	
Model Number: 35003-0	Relative Humidity (%)	100	
Purchase Order Number: M-81	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Seismic	LATER	
Accuracy: Spec: NA Location: SGT ROOM/1N3455	Radiation (Rad)	1.6 E08	
Floor Elevation: 786' - 0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 10		P&ID: M158/F4	
Loc Dwg: E315/G5		Elec Scheme: E113/97			VDR ID: NONE		
Mfr Model Ref:		WALKDOWN 8/81, SHEET 47					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 10		P&ID: M158/F4	
Loc Dwg: E315/G5		Elec Scheme: E113/97			VDR ID: NONE		
Mfr Model Ref:		WALKDOWN 8/81, SHEET 48					

FO81-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: FO81-02-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 77
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11186-234-NP-1

Equip ID: FO81-02-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5835B1 Component:	Temperature (*F)	104	
CONTROL UNIT	Pressure (PSIG)	0	
Manufacturer: FENWAL	Relative Humidity (%)	100	
Model Number: 35003-0	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM/1N4446 Floor Elevation: 786' -0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5835B2 Component:	Temperature (*F)	104	
CONTROL UNIT	Pressure (PSIG)	0	
Manufacturer: FENWAL	Relative Humidity (%)	100	
Model Number: 35003-0	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM/1N4446 Floor Elevation: 786' -0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 10		P&ID: M158/B4	
Loc Dwg: E315/F6		Elec Scheme: E113/97			VDR ID: NONE		
Mfgr Model Ref:		WALKDOWN 8/81, SHEET 49					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 10		P&ID: M158/B4	
Loc Dwg: E315/F6		Elec Scheme: E113/97			VDR ID: NONE		
Mfgr Model Ref:		WALKDOWN 8/81, SHEET 50					

F081-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: F081-02-005

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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11186-234-NP-1

Equip ID: F081-02-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5837A1 Component:	Temperature (°F)	104	
CONTROL UNIT	Pressure (PSIG)	0	
Manufacturer: FENWAL	Relative Humidity (%)	100	
Model Number: 35003-0	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM/1N3455 Floor Elevation: 786' -0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5837A2 Component:	Temperature (°F)	104	
CONTROL UNIT	Pressure (PSIG)	0	
Manufacturer: FENWAL	Relative Humidity (%)	100	
Model Number: 35003-0	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM/1N3455 Floor Elevation: 786' -0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/F4		
Loc Dwg: E315/G6	Elec Scheme: E113/97			VDR ID: NONE			
Mfgr Model Ref:	WALKDOWN 8/81, SHEET 51						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/F4		
Loc Dwg: E315/G6		Elec Scheme: E113/97			VDR ID: NONE		
Mfgr Model Ref:		WALKDOWN 8/81, SHEET 52					

FO81-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: FO81-02-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 79
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11186-234-NP-1

Equip ID: FO81-02-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5837B1 Component:	Temperature (°F)	104	
CONTROL UNIT	Pressure (PSIG)	0	
Manufacturer: FENWAL	Relative Humidity (%)	100	
Model Number: 35003-0	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM/1N4446 Floor Elevation: 786' -0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: CU-5837B2 Component:	Temperature (°F)	104	
CONTROL UNIT	Pressure (PSIG)	0	
Manufacturer: FENWAL	Relative Humidity (%)	100	
Model Number: 35003-0	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/FIRE DELUGE CARB BED	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA Location: SGT ROOM/1N4446 Floor Elevation: 786' -0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M158/B4	
Loc Dwg: E315/F6		Elec Scheme: E113/97			VDR ID: NONE		
Mfgr Model Ref:		WALKDOWN 8/81, SHEET 53					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 10		P&ID: M158/B4	
Loc Dwg: E315/F6		Elec Scheme: E113/97		VDR ID: NONE			
Mfgr Model Ref:		WALKDOWN 8/81, SHEET 54					

GO80-42

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 80
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11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: HEATER Manufacturer: GE Model Number: 47C518675 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		REF. (A)	ANALYSIS	NONE
	Temperature (°F)	130		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		1.0 E08	001		REF. (A)	ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. MAIN STEAM ISOLATION VALVE LEAKAGE CONTROL SYSTEM HEATERS QUALIFICATION BY ANALYSIS FOR NUCLEAR POWER STATION SERVICE PER IEEE 323-1974 BY BECHTEL POWER CORPORATION JANUARY, 1982 (CHRON 5814) B. AGING EVALUATION FORM GO80-42 DATED 6/18/82 (CHRON 8105).	

GO80-42

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: GO80-42-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Equip ID: GO80-42-002

Sheet No. 81
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: 1S-122A Component: HEATER Manufacturer: GE Model Number: 47C518675 Purchase Order Number: DCR 159 Function/Service: MITIGATE RADIOACTIVE RELEASE/VAPORIZATION OF MAIN STEAM LINE "A" LEAKAGE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	30 DAYS	SUBMERGENCE WILL NOT OCCUR FOR THE ACCIDENT WHICH THE EQUIPMENT IS ESSENTIAL
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: 1S-122B Component: HEATER Manufacturer: GE Model Number: 47C518675 Purchase Order Number: DCR 159 Function/Service: MITIGATE RADIOACTIVE RELEASE/VAPORIZATION OF MAIN STEAM LINE "B" LEAKAGE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	30 DAYS	SUBMERGENCE WILL NOT OCCUR FOR THE ACCIDENT WHICH THE EQUIPMENT IS ESSENTIAL
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/F4 Loc Dwg: E328/D3 Elec Scheme: E122/39 VDR ID: B21-B926A Mfr Model Ref: V.P. 7884-B21-3830-50							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/B8 Loc Dwg: E328/D3 Elec Scheme: E122/39 VDR ID: B21-B926B Mfr Model Ref: V.P. 7884-B21-3830-50							

G080-42

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-42-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 82
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: G080-42-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: 1S-122C Component: HEATER Manufacturer: GE Model Number: 47C518675 Purchase Order Number: DCR 159 Function/Service: MITIGATE RADIOACTIVE RELEASE/VAPORIZATION OF MAIN STEAM LINE "C" LEAKAGE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	30 DAYS	SUBMERGENCE WILL NOT OCCUR FOR THE ACCIDENT WHICH THE EQUIPMENT IS ESSENTIAL
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: 1S-122D Component: HEATER Manufacturer: GE Model Number: 47C518675 Purchase Order Number: DCR 159 Function/Service: MITIGATE RADIOACTIVE RELEASE/VAPORIZATION OF MAIN STEAM LINE "D" LEAKAGE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6"	Operating Time	30 DAYS	SUBMERGENCE WILL NOT OCCUR FOR THE ACCIDENT WHICH THE EQUIPMENT IS ESSENTIAL
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/B3 Loc Dwg: E328/E3 Elec Scheme: E122/39 VDR ID: B21-B926C Mfr Model Ref: V.P. 7884-B21-3830-50							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/E8 Loc Dwg: E328/E3 Elec Scheme: E122/39 VDR ID: B21-B926D Mfr Model Ref: V.P. 7884-B21-3830-50							

GO80-45

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 83
 Revision 1
 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PUMP MOTOR Manufacturer: GE Model Number: 5K6336XC213A NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		REF. A	ANALYSIS	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	001		REF. A	ANALYSIS	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		REF. A	ANALYSIS	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		REF. A	ANALYSIS	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		4.6 E07	001		REF. A	ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. A,B	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . GENERAL ELECTRIC QUALIFICATION REPORT NSE 76-1281 DATED 2/8/82 (CHRON 6599). B . AGING EVALUATION FORM GO80-45 DATED 6/18/82 (CHRON 8105).	1 . QUALIFIED LIFE REQUIRES IMPLEMENTATION OF MAINTENANCE/ INSPECTION PROCEDURES DESCRIBED IN SECTION 7 OF GE REPORT NSE 76-1281 DATED 2/8/82 (REFERENCE A).

G080-45

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-45-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 84
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: G080-45-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: 1P-229A Component:	Temperature (°F)	140	
PUMP MOTOR	Pressure (PSIG)	0	
Manufacturer: GE	Relative Humidity (%)	100	
Model Number: 5K6336XC213A	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ RHR PUMP	Radiation (Rad)	5.9 E06	
Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716' - 9"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: 1P-229B Component:	Temperature (°F)	140	
PUMP MOTOR	Pressure (PSIG)	0	
Manufacturer: GE	Relative Humidity (%)	100	
Model Number: 5K6336XC213A	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ RHR PUMP	Radiation (Rad)	5.9 E06	
Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716' - 9"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/B3	
Loc Dwg: M1/C5	Elec Scheme: E121/41			VDR ID: E11-CO02			
Mfr Model Ref:	EQUIPMENT MASTER FILE, 12/23/81, CARD 2						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/B7	
Loc Dwg: M1/F7	Elec Scheme: E121/41			VDR ID: E11-CO02			
Mfgr Model Ref:	EQUIPMENT MASTER FILE, 12/23/81, CARD 2						

G080-45

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: G080-45-003

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 85

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: G080-45-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: 1P-229C Component: PUMP MOTOR	Temperature (*F)	140	
Manufacturer: GE	Pressure (PSIG)	0	
Model Number: 5K6336XC213A	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR PUMP	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	5.9 E06	
Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 716'-9"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: 1P-229D Component: PUMP MOTOR	Temperature (*F)	140	
Manufacturer: GE	Pressure (PSIG)	0	
Model Number: 5K6336XC213A	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR PUMP	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	5.9 E06	
Location: NW CRNR RM	Aging	40 YEARS	
Floor Elevation: 716'-9"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M120/B2		
Loc Dwg: M1/C5	Elec Scheme: E121/41		VDR ID: E11-CO02				
Mfr Model Ref:	EQUIPMENT MASTER FILE, 12/23/81, CARD 2						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M119/B8		
Loc Dwg: M1/F7	Elec Scheme: E121/41		VDR ID: E11-CO02				
Mfr Model Ref:	EQUIPMENT MASTER FILE, 12/23/81, CARD 2						

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

Sheet No: 86

Revision 1

Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PUMP MOTOR Manufacturer: GE Model Number: 5K6336XC229A NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		REF. A	ANALYSIS	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	001		REF. A	ANALYSIS	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		REF. A	ANALYSIS	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		REF. A	ANALYSIS	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		4.6 E07	001		REF. A	ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. A,B	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . GENERAL ELECTRIC QUALIFICATION REPORT NSE 76-1281 DATED 2/8/82 (CHRON 6599). B . AGING EVALUATION FORM G080-46 DATED 6/18/82 (CHRON 8105).	1 . QUALIFIED LIFE REQUIRES IMPLEMENTATION OF MAINTENANCE/ INSPECTION PROCEDURES DESCRIBED IN SECTION 7 OF GE REPORT NSE 76-1281 DATED 2/8/82 (REFERENCE A).

G080-46

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-46-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 87
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: G080-46-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY	Operating Time	30 DAYS	
Plant I.D. Number: 1P-211A Component:	Temperature (°F)	140	
PUMP MOTOR	Pressure (PSIG)	0	
Manufacturer: GE	Relative Humidity (%)	100	
Model Number: 5K6336XC229A	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP	Radiation (Rad)	5.9 E06	
Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY	Operating Time	30 DAYS	
Plant I.D. Number: 1P-211B Component:	Temperature (°F)	140	
PUMP MOTOR	Pressure (PSIG)	0	
Manufacturer: GE	Relative Humidity (%)	100	
Model Number: 5K6336XC229A	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP	Radiation (Rad)	5.9 E06	
Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/C3							
Loc Dwg: E317/D2 Elec Scheme: E121/3 VDR ID: E21-C001A Mfr Model Ref: EQUIPMENT MASTER FILE, 12/23/81, CARD 2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/C4							
Loc Dwg: E316/F8 Elec Scheme: E121/3 VDR ID: E21-C001B Mfr Model Ref: EQUIPMENT MASTER FILE, 12/23/81, CARD 2							

G080-48

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 88
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 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE DIFFERENTIAL TRANSMITTER Manufacturer: GE Model Number: 552032HKZZ2 NUREG 0588 Applicable: YES Accuracy: Demo:	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		NONE	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		NONE SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 6.

G080-48

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: G080-48-001

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 89

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: G080-48-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: PDT-1947 Component:	Temperature (°F)	140	
PRESSURE DIFFERENTIAL TRANSMITTER Manufacturer:	Pressure (PSIG)	0	
GE	Relative Humidity (%)	100	
Model Number: 552032HKZZ2	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ SERVICE WATER INLET DIFFERENTIAL PRESSURE	Radiation (Rad)	5.9 E06	
Accuracy: Spec: 0.5% Location: NW CRNR RM/1C-129B	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: PDT-2046 Component:	Temperature (°F)	140	
PRESSURE DIFFERENTIAL TRANSMITTER Manufacturer:	Pressure (PSIG)	0	
GE	Relative Humidity (%)	100	
Model Number: 552032HKZZ2	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ SERVICE WATER INLET DIFFERENTIAL PRESSURE	Radiation (Rad)	5.9 E06	
Accuracy: Spec: 0.5% Location: SE CRNR RM/1C-129A	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/C4	
Loc Dwg: M1/E7	Elec Scheme: E121/57			VDR ID: E11-NOO2B			
Mfgr Model Ref:	DATA SHEET E11-14						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M120/C5		
Loc Dwg: M1/E7	Elec Scheme: E121/58			VDR ID: E11-NO02A			
Mfr Model Ref:	DATA SHEET E11-14						

GO80-49

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 90
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 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE TRANSMITTER Manufacturer: GE Model Number: 551032GKZZ2 NUREG 0588 Applicable: NO Accuracy: Demo: 0.5%	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	8.1 E06		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

G080-49

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-49-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 91
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: G080-49-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: PT-2306 Component: PRESSURE TRANSMITTER Manufacturer: GE Model Number: 551032GKZZ2 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/HPCI PUMP IP-216 DISCH PRESSURE Accuracy: Spec: 15 PSIG Location: HPCI ROOM/1C-120 Floor Elevation: 716'-9" Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: PT-2207 Component: PRESSURE TRANSMITTER Manufacturer: GE Model Number: 551032GKZZ2 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM SUPPLY PRESSURE TO HPCI TURBINE Accuracy: Spec: 15 PSIG Location: HPCI ROOM/1C-120 Floor Elevation: 716'-9" Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M123/D4	
Loc Dwg: E317/B4		Elec Scheme: E121/25			VDR ID: E41-NO09		
Mfgr Model Ref: DATA		SHEET E41-13					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M122/F2	
Loc Dwg: E317/B4		Elec Scheme: E121/25			VDR ID: E41-NO13		
Mfr Model Ref: DATA SHEET E41-13							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 92
 Revision 1
 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE TRANSMITTER Manufacturer: GE Model Number: 551032EKZZ2 NUREG 0588 Applicable: NO Accuracy: Demo: 0.5%	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

G080-59

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-59-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 93
 Revision: 1
 Date: 07/09/82

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Equip ID: G080-59-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: PT-2126 Component: PRESSURE TRANSMITTER Manufacturer: GE Model Number: 551032EKZZ2 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/CORE SPRAY PUMP 1P-211B DISCH PRESSURE Accuracy: Spec: 5 PSIG Location: NW CRNR RM/1C-124 Floor Elevation: 716' -9" Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: PT-2106 Component: PRESSURE TRANSMITTER Manufacturer: GE Model Number: 551032EKZZ2 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/CORE SPRAY PUMP 1P-211A DISCH PRESSURE Accuracy: Spec: 5 PSIG Location: SE CRNR RM/1C-123 Floor Elevation: 716' -9" Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M121/E4 Loc Dwg: E316/E7 Elec Scheme: E121/10 VDR ID: E21-N001B Mfr Model Ref: DATA SHEET E21-9							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M121/E3 Loc Dwg: E317/D3 Elec Scheme: E121/9 VDR ID: E21-N001A Mfr Model Ref: DATA SHEET E21-9							

G080-66

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: FLOW TRANSMITTER Manufacturer: GE Model Number: 555111BCAA-3ABA NUREG 0588 Applicable: NO Accuracy: Demo: 0.4%	Operating Time	30 DAYS		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Temperature (°F)	140		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Pressure (PSIG)	0		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Relative Humidity (%)	100		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

G080-66

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-66-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 95
 Revision: 1
 Date: 07/09/82

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Equip ID: G080-66-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: FT-3707 Component: FLOW TRANSMITTER Manufacturer: GE Model Number: 555111BCAA-3ABA Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/DRYWELL FLOOR DRAIN SUMP OUTFLOW Accuracy: Spec: 2% Location: TORUS ROOM SOUTH Floor Elevation: 716' - 9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: FT-3708 Component: FLOW TRANSMITTER Manufacturer: GE Model Number: 555111BCAA-3ABA Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/DRYWELL EQUIPMENT DRAIN SUMP OUTFLOW Accuracy: Spec: 2% Location: TORUS ROOM NORTH Floor Elevation: 716' - 9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M137/H6		
Loc Dwg: E317/F3		Elec Scheme: E125/5		VDR ID: G11-NO03			
Mfgr Model Ref: GE 234A9313 SH 25							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M137/E6	
Loc Dwg: E316/D7		Elec Scheme: E125/5			VDR ID: G11-NO12		
Mfgr Model Ref: GE 234A9313 SH 25							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: ELECTRICAL PENETRATIONS Manufacturer: GE Model Number: NS04 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A,B	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		63	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	SEE NOTE (2)
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.6 E07		4.0 E07	001		REF. (B)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. (C)	---	TYPE TEST/ ANALYSIS
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. GE QUALIFICATION TEST REPORT FOR FO1 ELECTRICAL PENETRATION ASSEMBLIES DATED APRIL 30, 1971 (CHRON 6898). B. LETTER FROM G.G. SHERWOOD (GENERAL ELECTRIC) TO D.G. EISENHUT (NRC), DATED 12/2/77 (CHRON 6897). C. AGING EVALUATION FORM G080-00 DATED 7/8/82 (CHRON 8105).	1. REPRESENTATIVE ELECTRICAL PENETRATION ASSEMBLIES WERE SUBJECTED TO A SUPERHEATED STEAM ENVIRONMENT AS PART OF THEIR TEST PROGRAM. 2. SEE ACTION ITEM 20. 3. PENETRATION ASSEMBLIES CONTAIN NO KNOWN THERMAL AGING SUSCEPTIBLE MATERIALS. THE PENETRATION ASSEMBLY IS

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Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

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DOCUMENTATION REFERENCES:

NOTES:

CONTINUOUSLY PRESSURIZED WITH NITROGEN AND MONITORED
ONCE A YEAR FOR PRESSURE INTEGRITY. EXPOSED SURFACES
ARE ANNUALLY CHECKED FOR DEGRADATION.

G080-84

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-84-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: G080-84-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS Plant I.D. Number: JX-104A Component: ELECTRICAL PENETRATIONS Manufacturer: GE Model Number: NSO4 Purchase Order Number: E-001 Function/Service: PRIMARY CONTAINMENT ISOLATION/INSTRUMENT AND CONTROL Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 761' - 4"	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION 221-015 REVISION 1
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.6 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS Plant I.D. Number: JX-104B Component: ELECTRICAL PENETRATIONS Manufacturer: GE Model Number: NSO4 Purchase Order Number: E-001 Function/Service: PRIMARY CONTAINMENT ISOLATION/INSTRUMENT AND CONTROL Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 761' - 4"	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION 221-015 REVISION 1
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.6 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 32		P&ID: NA	
Loc Dwg: M41	Elec Scheme: E807			VDR ID: 238X702RSG001			
Mfr Model Ref:	GE SPEC 175A9005, CHRON 6943						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: M41 Elec Scheme: E807 VDR ID: 238X702RSG001							
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-84-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: G080-84-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION
Plant I.D. Number: JX-104C Component: ELECTRICAL PENETRATIONS Manufacturer: GE	Temperature (°F)	SEE GENERAL NOTE 6	221-015 REVISION 1
Model Number: NSO4	Pressure (PSIG)	SEE GENERAL NOTE 6	
Purchase Order Number: E-001	Relative Humidity (%)	100	
Function/Service: PRIMARY CONTAINMENT ISOLATION/INSTRUMENT AND CONTROL	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
Accuracy: Spec: NA Location: DRYWELL	Radiation (Rad)	2.6 E07	
Floor Elevation: 761'-4"	Aging	40 YEARS	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION
Plant I.D. Number: JX-104D Component: ELECTRICAL PENETRATIONS Manufacturer: GE	Temperature (°F)	SEE GENERAL NOTE 6	221-015 REVISION 1
Model Number: NSO4	Pressure (PSIG)	SEE GENERAL NOTE 6	
Purchase Order Number: E-001	Relative Humidity (%)	100	
Function/Service: PRIMARY CONTAINMENT ISOLATION/INSTRUMENT AND CONTROL	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
Accuracy: Spec: NA Location: DRYWELL	Radiation (Rad)	2.6 E07	
Floor Elevation: 761'-4"	Aging	40 YEARS	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: M41	Elec Scheme: E807		VDR ID: 238X702RSG001				
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: M41	Elec Scheme: E807		VDR ID: 238X702RSG001				
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: ELECTRICAL PENETRATION Manufacturer: GE Model Number: NS03 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A,B	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		63	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	SEE NOTE (2)
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.6 E07		4.0 E07	001		REF. (B)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. (C)	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. GE QUALIFICATION TEST REPORT FOR F01 ELECTRICAL PENETRATION ASSEMBLIES DATED APRIL 30, 1971 (CHRON 6898). B. LETTER FROM G.G. SHERWOOD (GENERAL ELECTRIC) TO D.G. EISENHUT (NRC), DATED 12/2/77 (CHRON 6897). C. AGING EVALUATION FORM GO80-00 DATED 7/8/82 (CHRON 8105).	1. REPRESENTATIVE ELECTRICAL PENETRATION ASSEMBLIES WERE SUBJECTED TO A SUPERHEATED STEAM ENVIRONMENT AS PART OF THEIR TEST PROGRAM. 2. SEE ACTION ITEM 20. 3. PENETRATION ASSEMBLIES CONTAIN NO KNOWN THERMAL AGING SUSCEPTIBLE MATERIALS. THE PENETRATION ASSEMBLY IS

GO80-88

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

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Sheet No. 101

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DOCUMENTATION REFERENCES:	NOTES:
	CONTINUOUSLY PRESSURIZED WITH NITROGEN AND MONITORED ONCE A YEAR FOR PRESSURE INTEGRITY. EXPOSED SURFACES ARE ANNUALLY CHECKED FOR DEGRADATION.

G080-88

Owner: IDWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: G080-88-001

EQUIPMENT QUALIFICATION REPORT
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Equip ID: G080-88-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION
Plant I.D. Number: JX-101A Component:	Temperature (°F)	SEE GENERAL NOTE 6	221-015 REVISION 1
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NS03	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MEDIUM VOLTAGE	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION
Plant I.D. Number: JX-101B Component:	Temperature (°F)	SEE GENERAL NOTE 6	221-015 REVISION 1
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NS03	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MEDIUM VOLTAGE	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: M41	Elec Scheme: E807		VDR ID: 238X703RSG001				
Mfgr Model Ref:	GE SPEC 175A9005, CHRON 6943						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: M41	Elec Scheme: E807		VDR ID: 238X703RSG001				
Mfgr Model Ref:	GE SPEC 175A9005, CHRON 6943						

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: ELECTRICAL PENETRATION Manufacturer: GE Model Number: NS02-I NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A,B	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		63	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	SEE NOTE (2)
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.6 E07		4.0 E07	001		REF. (B)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. (C)	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. GE QUALIFICATION TEST REPORT FOR F01 ELECTRICAL PENETRATION ASSEMBLIES DATED APRIL 30, 1971. B. LETTER FROM G.G. SHERWOOD (GENERAL ELECTRIC) TO D.G. EISENHUT (NRC), DATED 12/2/77 (CHRON 6897). C. AGING EVALUATION FORM G080-00 DATED 7/8/82 (CHRON 8105).	1. REPRESENTATIVE ELECTRICAL PENETRATION ASSEMBLIES WERE SUBJECTED TO A SUPERHEATED STEAM ENVIRONMENT AS PART OF THEIR TEST PROGRAM. 2. SEE ACTION ITEM 20. 3. PENETRATION ASSEMBLIES CONTAIN NO KNOWN THERMAL AGING SUSCEPTIBLE MATERIALS. THE PENETRATION ASSEMBLY IS

GO80-89

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
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EQUIPMENT QUALIFICATION REPORT

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DOCUMENTATION REFERENCES:	NOTES:
	CONTINUOUSLY PRESSURIZED WITH NITROGEN AND MONITORED ONCE A YEAR FOR PRESSURE INTEGRITY. EXPOSED SURFACES ARE ANNUALLY CHECKED FOR DEGRADATION.

G080-89

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G080-89-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 105
 Revision: 1
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11186-234-NP-1

Equip ID: G080-89-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION
Plant I.D. Number: JX-105A Component:	Temperature (°F)	SEE GENERAL NOTE 6	221-015 REVISION 1
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NS02-I	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/LOW VOLTAGE AND MISC. POWER	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-4"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION
Plant I.D. Number: JX-105B Component:	Temperature (°F)	SEE GENERAL NOTE 6	221-015 REVISION 1
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NS02-I	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/LOW VOLTAGE AND MISC. POWER	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-4"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: M41 Elec Scheme: E807 VDR ID: 238X704RSG001							
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: M41 Elec Scheme: E807 VDR ID: 238X704RSG001							
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

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Owner: IDWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: G080-89-003

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Revision: 1

Date: 07/09/82

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Equip ID: G080-89-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION 221-015 REVISION 1
Plant I.D. Number: JX-105C Component:	Temperature (°F)	SEE GENERAL NOTE 6	
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NSO2-I	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/LOW VOLTAGE AND MISC. POWER	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-4"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION 221-015 REVISION 1
Plant I.D. Number: JX-105D Component:	Temperature (°F)	SEE GENERAL NOTE 6	
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NSO2-I	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/LOW VOLTAGE AND MISC. POWER	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-4"	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: M41 Elec Scheme: E807 VDR ID: 238X704RSG001							
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: M41 Elec Scheme: E807 VDR ID: 238X704R5G001							
Mfr Model Ref: GE SPEC 175A9005, CHRON 6943							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: ELECTRICAL PENETRATION Manufacturer: GE Model Number: NS02-II NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A,B	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		63	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	SEE NOTE (2)
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.6 E07		4.0 E07	001		REF. (B)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. (C)	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. GE QUALIFICATION TEST REPORT FOR F01 ELECTRICAL PENETRATION ASSEMBLIES DATED APRIL 30, 1971 (CHRON 6898). B. LETTER FROM G.G. SHERWOOD (GENERAL ELECTRIC) TO D.G. EISENHUT (NRC), DATED 12/2/77 (CHRON 6897). C. AGING EVALUATION FORM GO80-00 DATED 7/8/82 (CHRON 8105).	1. REPRESENTATIVE ELECTRICAL PENETRATION ASSEMBLIES WERE SUBJECTED TO A SUPERHEATED STEAM ENVIRONMENT AS PART OF THEIR TEST PROGRAM. 2. SEE ACTION ITEM 20. 3. PENETRATION ASSEMBLIES CONTAIN NO KNOWN THERMAL AGING SUSCEPTIBLE MATERIALS. THE PENETRATION ASSEMBLY IS

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Owner: IOWA ELECTRIC
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DOCUMENTATION REFERENCES:	NOTES:
	CONTINUOUSLY PRESSURIZED WITH NITROGEN AND MONITORED ONCE A YEAR FOR PRESSURE INTEGRITY. EXPOSED SURFACES ARE ANNUALLY CHECKED FOR DEGRADATION.

GO80-90

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: GO80-90-001

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE FROM CALCULATION 221-015 REVISION 1
Plant I.D. Number: JX-103 Component:	Temperature (°F)	SEE GENERAL NOTE 6	
ELECTRICAL PENETRATION Manufacturer:	Pressure (PSIG)	SEE GENERAL NOTE 6	
GE	Relative Humidity (%)	100	
Model Number: NS02-II	Chemical Spray	DEMIN WATER	
Purchase Order Number: E-001	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/ THERMOCOUPLE	Radiation (Rad)	2.6 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761' - 4"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown:	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: M41	Elec Scheme: E807		VDR ID: 238X705RSG001				
Mfgr Model Ref:	GE SPEC 175A9005, CHRON 6943						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: RADIATION ELEMENT Manufacturer: GE Model Number: 237X731G001 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	130		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		SEE GEN NOTE 1	001		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1 ()	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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Equip ID: G080-91-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: RE-4448A Component: RADIATION ELEMENT Manufacturer: GE Model Number: 237X731G001 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE A RADIATION MONITOR Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	30 DAYS	
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: RE-4448B Component: RADIATION ELEMENT Manufacturer: GE Model Number: 237X731G001 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE B RADIATION MONITOR Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	30 DAYS	
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M114/E2	
Loc Dwg: E328/E4		Elec Scheme: E64		VDR ID: D11-NO06A			
Mfgr Model Ref: V.P. APED D11-17-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: ~ Environment: HARSH System: 36 P&ID: M114/D8							
Loc Dwg: E328/E4 Elec Scheme: E64 VDR ID: D11-NO06B							
Mfgr Model Ref: V.P. APED D11-17-1							

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Equip ID: G080-91-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: RE-4448C Component: RADIATION ELEMENT Manufacturer: GE Model Number: 237X731G001 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE C RADIATION MONITOR Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: RE-4448D Component: RADIATION ELEMENT Manufacturer: GE Model Number: 237X731G001 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE D RADIATION MONITOR Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M114/D2							
Loc Dwg: E328/E4 Elec Scheme: E64 VDR ID: D11-NO06C							
Mfr Model Ref: V.P. APED D11-17-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M114/E8							
Loc Dwg: E328/E4 Elec Scheme: E64 VDR ID: D11-NO06D							
Mfr Model Ref: V.P. APED D11-17-1							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: GENERAL ELECTRIC Model Number: P/N 133D9679 NUREG 0588 Applicable: NO Accuracy: Demo: NONE	Operating Time	30 DAYS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Chemical Spray	DEMIN WATER		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: G080-92-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4400 Component:	Temperature (°F)	SEE GENERAL NOTE NO. 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE NO. 6	
Manufacturer: GENERAL ELECTRIC	Relative Humidity (%)	100	
Model Number: P/N 133D9679	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-670E	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ MAIN STEAM LINE A RELIEF TEMPERATURE Accuracy: Spec:	Radiation (Rad)	4.3 E07	
NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-2"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4401 Component:	Temperature (°F)	SEE GENERAL NOTE NO. 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE NO. 6	
Manufacturer: GENERAL ELECTRIC	Relative Humidity (%)	100	
Model Number: P/N 133D9679	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-670E	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ MAIN STEAM LINE A RELIEF TEMPERATURE Accuracy: Spec:	Radiation (Rad)	4.3 E07	
NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-2"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: -		Environment: HARSH		System: 36		P&ID: M114/E4	
Loc Dwg: E330/C4		Elec Scheme: E121/2		VDR ID: NONE			
Mfgr Model Ref: IE PD 05464							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	ND	NO	NO	NO	LATE
Walkdown: -	Environment: HARSH			System: 36		P&ID: M114/E4	
Loc Dwg: E330/C3	Elec Scheme: E121/2			VDR ID: NONE			
Mfgr Model Ref: IE PD 05464							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: GO80-92-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4402 Component: TEMPERATURE ELEMENT Manufacturer: GENERAL ELECTRIC Model Number: P/N 133D9679 Purchase Order Number: DCR-670E Function/Service: POST ACCIDENT MONITORING/ MAIN STEAM LINE B RELIEF TEMPERATURE Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 773'-9" Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAY	
	Temperature (*F)	SEE GEN NOTE 6	
	Pressure (PSIG)	SEE GEN NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4405 Component: TEMPERATURE ELEMENT Manufacturer: GENERAL ELECTRIC Model Number: P/N 133D9679 Purchase Order Number: DCR-670E Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE C RELIEF TEMPERATURE Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 773'-9" Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (*F)	SEE GEN NOTE 6	
	Pressure (PSIG)	SEE GEN NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: -	Environment: HARSH		System: 36		P&ID: M114/E6		
Loc Dwg: E330/C4	Elec Scheme: E121/2		VDR ID: NONE				
Mfgr Model Ref: IE PO 05464							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M114/D4							
Loc Dwg: E330/F4 Elec Scheme: E121/2 VDR ID: NONE							
Mfgr Model Ref: IE PO 05464							

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Equip ID: G080-92-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4406 Component:	Temperature (°F)	SEE GEN NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GEN NOTE 6	
Manufacturer: GENERAL ELECTRIC	Relative Humidity (%)	100	
Model Number: P/N 133D9679	Chemical Spray	DEMIM WATER	
Purchase Order Number: DCR-670E	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE D RELIEF TEMPERATURE	Radiation (Rad)	4.3 EO7	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 773' - 9"	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4407 Component:	Temperature (°F)	SEE GEN NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GEN NOTE 6	
Manufacturer: GENERAL ELECTRIC	Relative Humidity (%)	100	
Model Number: P/N 133D9679	Chemical Spray	DEMIM WATER	
Purchase Order Number: DCR-670E	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE D RELIEF TEMPERATURE	Radiation (Rad)	4.3 EO7	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 773' - 9"	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: -	Environment: HARSH		System: 36		P&ID: M114/E6		
Loc Dwg: E330/F3	Elec Scheme: E121/2		VDR ID: NONE				
Mfgr Model Ref: IE PO 05464							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M114/E6							
Loc Dwg: E330/E3 Elec Scheme: E121/2 VDR ID: NONE							
Mfgr Model Ref: IE PO 05464							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: GULTON INDUSTRIES Model Number: TCA-0646 NUREG 0588 Applicable: NO Accuracy: Demo: NONE	Operating Time	30 DAYS		SEE GEN NOTE 4	003		---	---	SEE NOTE (1)
	Temperature (°F)	104		SEE GEN NOTE 7	003		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	003		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	003		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		1.6 E08 SEE NOTE 1	003		REF. (A)	ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE 1	003		REF. (A)	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. AGING EVALUATION FORM G315-01 DATED 6/29/82 (CHRON 8106).	1. EQUIPMENT CONTAINS NO SUBCOMPONENTS SUSCEPTIBLE TO RADIATION OR THERMAL AGING.

G315-01

Owner: IOWA ELECTRIC
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Equip ID: G315-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TE-5805U Component:	Temperature (°F)	104	
TEMPERATURE ELEMENT	Pressure (PSIG)	0	
Manufacturer: GULTON INDUSTRIES	Relative Humidity (%)	100	
Model Number: TCA-0646	Chemical Spray	NA	
Purchase Order Number: M-73	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/INPUT TO SGTS HEATER DELTA TEMPERATURE CONTROLLER Accuracy: Spec:	Radiation (Rad)	1.6 E08	
NONE Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' -0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TE-5805V Component:	Temperature (°F)	104	
TEMPERATURE ELEMENT	Pressure (PSIG)	0	
Manufacturer: GULTON INDUSTRIES	Relative Humidity (%)	100	
Model Number: TCA-0646	Chemical Spray	NA	
Purchase Order Number: M-73	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/INPUT TO SGTS HEATER DELTA TEMPERATURE CONTROLLER Accuracy: Spec:	Radiation (Rad)	1.6 E08	
NONE Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' -0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/G5		
Loc Dwg: E315/G5	Elec Scheme: E113/113			VDR ID: NONE			
Mfr Model Ref: V.P.	7884-M73-40-4, WALKDOWN 8/81, SHEET 225						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M158/G4	
Loc Dwg: E315/G4	Elec Scheme: E113/114			VDR ID: NONE			
Mfr Model Ref: V.P.	7884-M73-40-4, WALKDOWN 8/81, SHEET 226						

G315-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: G315-01-005

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Equip ID: G315-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TE-5805W Component:	Temperature (°F)	104	
TEMPERATURE ELEMENT	Pressure (PSIG)	0	
Manufacturer: GULTON INDUSTRIES	Relative Humidity (%)	100	
Model Number: TCA-0646	Chemical Spray	NA	
Purchase Order Number: M-73	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/INPUT TO SGTS HEATER DELTA TEMPERATURE CONTRDLLER Accuracy: Spec:	Radiation (Rad)	1.6 E08	
NONE Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' - 0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TE-5805X Component:	Temperature (°F)	104	
TEMPERATURE ELEMENT	Pressure (PSIG)	0	
Manufacturer: GULTON INDUSTRIES	Relative Humidity (%)	100	
Model Number: TCA-0646	Chemical Spray	NA	
Purchase Order Number: M-73	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/INPUT TO SGTS HEATER DELTA TEMPERATURE CONTROLLER Accuracy: Spec:	Radiation (Rad)	1.6 E08	
NONE Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' - 0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/C5		
Loc Dwg: E315/F5	Elec Scheme: E113/113			VDR ID: NONE			
Mfr Model Ref:	V.P. 7884-M73-40-4, WALKDOWN 8/81, SHEET 227						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M158/C4							
Loc Dwg: E315/F4 Elec Scheme: E113/114 VDR ID: NONE							
Mfr Model Ref: V.P. 7884-M73-40-4, WALKDOWN 8/81, SHEET 228							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE SWITCH Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number: CT32-23 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (*F)	104		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 27

IO45-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: IO45-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TS-5836A Component:	Temperature (*F)	104	
TEMPERATURE SWITCH	Pressure (PSIG)	0	
Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number:	Relative Humidity (%)	100	
CT32-23	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS HEATER OVERTEMPERATURE PROTECTION (MANUAL RESET) Accuracy: Spec:	Radiation (Rad)	1.6 E08	
NA Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' -0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TS-5836B Component:	Temperature (*F)	104	
TEMPERATURE SWITCH	Pressure (PSIG)	0	
Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number:	Relative Humidity (%)	100	
CT32-23	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS HEATER OVERTEMPERATURE PROTECTION (MANUAL RESET) Accuracy: Spec:	Radiation (Rad)	1.6 E08	
NA Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' -0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 10	P&ID: M158/G5				
Loc Dwg: M647/G6	Elec Scheme: E113/13	VDR ID: NONE					
Mfr Model Ref: TELECON-CHRON 5953							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 10	P&ID: M158/C5				
Loc Dwg: M647/F6	Elec Scheme: E113/13	VDR ID: NONE					
Mfr Model Ref: TELECON-CHRON 5953							

I045-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: I045-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TE-5805A Component: TEMPERATURE SWITCH	Temperature (°F)	104	
Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number: CT32-23	Pressure (PSIG)	0	
Purchase Order Number: M-81	Relative Humidity (%)	100	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS HEATER OVERTEMPERATURE PROTECTION (AUTO RESET) Accuracy: Spec:	Chemical Spray	NA	
NA Location: SGT ROOM	Seismic	LATER	
Floor Elevation: 786' - 0"	Radiation (Rad)	1.6 E08	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TE-5805B Component: TEMPERATURE SWITCH	Temperature (°F)	104	
Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number: CT32-23	Pressure (PSIG)	0	
Purchase Order Number: M-81	Relative Humidity (%)	100	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS HEATER OVERTEMPERATURE PROTECTION (AUTO RESET) Accuracy: Spec:	Chemical Spray	NA	
NA Location: SGT ROOM	Seismic	LATER	
Floor Elevation: 786' - 0"	Radiation (Rad)	1.6 E08	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 10 P&ID: M158/G5							
Loc Dwg: M647/G6 Elec Scheme: E113/13 VDR ID: NONE							
Mfgr Model Ref: V.P. 7884-M81-3(1)-7, TELECON (CHRON 5953)							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/C5		
Loc Dwg: M647/F6	Elec Scheme: E113/13			VDR ID: NONE			
Mfgr Model Ref: V.P. 7884-M81-3(1)-7, TELECON (CHRON 5953)							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: HEATER Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number: PENWALT CVI A-7075900 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		---	---	NONE
	Temperature (°F)	104		SEE GENERAL NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GENERAL NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GENERAL NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 28.

IO45-02

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT QUALIFICATION REPORT
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Equip ID: IO45-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: 1S-1061A Component:	Temperature (°F)	104	
HEATER	Pressure (PSIG)	0	
Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number:	Relative Humidity (%)	100	
PENWALT CVI A-7075900 Purchase Order Number:	Chemical Spray	NA	
M-081	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/MAINTAIN SGTS HUMIDITY CONTROL	Radiation (Rad)	1.6 EO8	
Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786' - 0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: 1S-1061B Component:	Temperature (°F)	104	
HEATER	Pressure (PSIG)	0	
Manufacturer: INDUSTRIAL ENG. EQUIPMENT CO Model Number:	Relative Humidity (%)	100	
PENWALT CVI A-7075900 Purchase Order Number:	Chemical Spray	NA	
M-081	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/MAINTAIN SGTS HUMIDITY CONTROL	Radiation (Rad)	1.6 EO8	
Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786' - 0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M158/G5	
Loc Dwg: E315/G5		Elec Scheme: E113/13		VDR ID: NONE			
Mfr Model Ref: V.P. M81-3(1)-7, M81-4-5, CHRON 7087, 7404							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M158/C5	
Loc Dwg: E315/F5		Elec Scheme: E113/13		VDR ID: NONE			
Mfr Model Ref:		V.P. M-81-3(1)-7, M81-4-5, CHRON 7087, 7404					

I204-O1

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 763 NUREG 0588 Applicable: YES Accuracy: Demo: 0.5%	Operating Time	30 DAYS		30 DAYS	007		REF. A, C	TYPE TEST	NONE
	Temperature (*F)	277		420	007		REF. C	TYPE TEST	NONE
	Pressure (PSIG)	1.2		75	007		REF. C	TYPE TEST	NONE
	Relative Humidity (%)	100		100	007		REF. C	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		1.0 E08	007		REF. A, C	TYPE TEST	NONE
	Aging	40 YEARS		24 YEARS SEE NOTE (1)	007		REF. B	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . ITT BARTON LETTER NO. 556, DATED 3/19/82 (CHRON 7098). B . AGING EVALUATION FORM I204-O1 DATED 7/8/82 (CHRON 8107). C . TELECON T. BRENDLE (BECHTEL) TO J. DOYAN (BARTON) DATED 3/25/82 (CHRON 7654).	1 . TRANSMITTERS WILL BE SCHEDULED FOR REPLACEMENT AT END OF 24 YEARS.

I204-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: I204-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: LT-4396A Component: PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 763 Purchase Order Number: DCR-933 Function/Service: POST ACCIDENT MONITORING/TORUS WATER LEVEL DETECTION Accuracy: Spec: 0.5% Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature ("F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: LT-4396B Component: PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 763 Purchase Order Number: DCR-933 Function/Service: POST ACCIDENT MONITORING/TORUS WATER LEVEL DETECTION Accuracy: Spec: 0.5% Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M143/B6 Loc Dwg: E316/F6 Elec Scheme: E122/19A VDR ID: NONE Mfr Model Ref: GE SPEC 22A7898							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M143/B4 Loc Dwg: E316/E3 Elec Scheme: E122/19A VDR ID: NONE Mfr Model Ref: GE SPEC 22A7898							

I204-O2

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: LEVEL/PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 764 NUREG 0588 Applicable: YES Accuracy: Demo: 0.5%	Operating Time	30 DAYS		SEE NOTE (1)	001		REF. (A)	TYPE TEST/ ANALYSIS	SEE NOTE (2)
	Temperature (°F)	277		320	005		REF. (A)	TYPE TEST	SEE NOTE (2)
	Pressure (PSIG)	1.2		84	005		REF. (A)	TYPE TEST	SEE NOTE (2)
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	SEE NOTE (2)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		1.0 E08	005		REF. (A)	TYPE TEST	SEE NOTE (2)
	Aging	40 YEARS		24 YEARS SEE NOTE (3)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ITT BARTON TRANSMITTER MODEL 764 REPORT NO. R3-764-3 DATED 5/1/79 (CHRON 7086). TEST PROFILE IS FIGURE 32 (SH. 59) OF THIS REPORT. B. AGING EVALUATION FORM I204-O2 DATED 7/8/82 (CHRON 8107).	1. ALTHOUGH TESTED FOR 7 DAYS (REF A), THE EQUIPMENT IS QUALIFIED FOR A 30 DAY OPERATING TIME BY EXTRAPOLATION ANALYSIS. RADIATION IS THE ONLY CRITICAL ENVIRONMENTAL QUALIFICATION PARAMETER IN THE LONG TERM AND THE EQUIPMENT IS QUALIFIED FOR 30 DAY RADIATION DOSE BY TEST (REF A). 2. EQUIPMENT IS QUALIFIED TO IEEE STANDARD 323-1971.

I204-02

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DOCUMENTATION REFERENCES:

NOTES:

NUREG 0588 QUALIFICATION PROGRAM IS IN PROGRESS.
3 . TRANSMITTERS WILL BE SCHEDULED FOR REPLACEMENT AT END
OF 24 YEARS.

I204-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: I204-02-001

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Equip ID: I204-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PT-4398A Component: LEVEL/PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 764 Purchase Order Number: DCR-933 Function/Service: POST ACCIDENT MONITORING/DRYWELL PRESSURE INDICATOR Accuracy: Spec: 0.5% Location: RB-S Floor Elevation: 757' - 6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PT-4398B Component: LEVEL/PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 764 Purchase Order Number: DCR-933 Function/Service: POST ACCIDENT MONITORING/DRYWELL PRESSURE INDICATOR Accuracy: Spec: 0.5% Location: RB-N Floor Elevation: 786' - 0"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 35		P&ID: M143/F7	
Loc Dwg: E319/E6		Elec Scheme: E124/3		VDR ID: NONE			
Mfgr Model Ref: GE SPEC 22A7885							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 35		P&ID: M143/D5	
Loc Dwg: E320/C4		Elec Scheme: E124/3		VDR ID: NONE			
Mfr Model Ref: GE SPEC 22A7885							

I204-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: I204-02-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: LT-4397A Component: LEVEL/PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 764 Purchase Order Number: DCR-933 Function/Service: POST ACCIDENT MONITORING/TORUS WATER LEVEL DETECTION Accuracy: Spec: 0.5% Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (*F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: LT-4397B Component: LEVEL/PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 764 Purchase Order Number: DCR-933 Function/Service: POST ACCIDENT MONITORING/TORUS WATER LEVEL DETECTION Accuracy: Spec: 0.5% Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (*F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M143/B5 Loc Dwg: E316/F6 Elec Scheme: E122/20 VDR ID: NONE Mfr Model Ref: GE SPEC 22A7726							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M143/B5 Loc Dwg: E316/E3 Elec Scheme: E122/20 VDR ID: NONE Mfr Model Ref: GE SPEC 22A7726							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: FLOW INDICATING SWITCH Manufacturer: ITT BARTON Model Number: 289 NUREG 0588 Applicable: NO Accuracy: Demo: 1.5%	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	140		212 SEE GEN NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		100 SEE GEN NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		3.0 E06	001		REF. (B)	TYPE TEST	SEE NOTE (1)
	Aging	40 YEARS		35 YEARS SEE NOTE (2)	008		REF. (C)	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. BWR EQUIPMENT QUALIFICATION SUMMARY REPORT QSR-029-A-01 DATED 10/9/80 (CHRON 7719). B. ITT BARTON REPORT R3-288A-1 DATED MAY, 1980 (CHRON 7510). C. AGING EVALUATION FORM I204-04 DATED 7/8/82 (CHRON 8107).	1. FOR REPLACEMENT OF FIS-2131, FIS-2111, PDIS-1971A AND PDIS-1971B, SEE ACTION ITEMS 17 AND 18. 2. DEVICE WILL BE REPLACE AT END OF 35 YEARS. SURVEILLANCE WILL MONITOR DEVICE FOR DEGRADATION AT 18 MONTH INTERVALS.

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Owner: IOWA ELECTRIC
 Facility: QUANE ARNOLD
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Equip ID: I204-04-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY	Operating Time	30 DAYS	
Plant I.D. Number: FIS-2111 Component:	Temperature ("F)	140	
FLOW INDICATING SWITCH Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 289	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP 1P-211A DISCHARGE LOW FLOW	Radiation (Rad)	5.9 E06	
Accuracy: Spec: 2% Location: SE CRNR RM/1C-123	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY	Operating Time	30 DAYS	
Plant I.D. Number: FIS-2131 Component:	Temperature ("F)	140	
FLOW INDICATING SWITCH Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 289	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP 1P-211B DISCHARGE LOW FLOW	Radiation (Rad)	5.9 E06	
Accuracy: Spec: 2% Location: NW CRNR RM/1C-124	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O8		P&ID: M121/F5		
Loc Dwg: E317/E3		Elec Scheme: E121/6		VDR ID: E21-N006A			
Mfrgr Model Ref: V.P. APED E21-10		SHEET 4					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O8		P&ID: M121/G5		
Loc Dwg: E316/E7	Elec Scheme: E121/6		VDR ID: E21-N006B				
Mfr Model Ref: V.P. APED E21-10	SHEET 4						

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: I204-04-005

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: PDIS-1971A Component:	Temperature (*F)	140	
FLOW INDICATING SWITCH Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 289	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER A LOW DISCHARGE FLOW BYPASS TO SUPPRES- SION POOL Accuracy: Spec:	Radiation (Rad)	5.9 E06	
5% Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM		
	YES	YES	YES	YES	YES	YES	LATER		
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/F7			
Loc Dwg: E317/E3	Elec Scheme: E121/54			VDR ID: E11-NO21A					
Mfr Model Ref: V.P. APED E11-14	SHEET 16								

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	
Plant I.D. Number: PDIS-1971B Component:	Temperature (*F)	140	
FLOW INDICATING SWITCH Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 289	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER B LOW DISCHARGE FLOW BYPASS TO SUPPRESSION POOL Accuracy: Spec:	Radiation (Rad)	5.9 E06	
5% Location: NW CRNR RM	Aging	40 YEARS	
Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM		
	YES	YES	YES	YES	YES	YES	LATER		
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/F7			
Loc Dwg: E316/E7	Elec Scheme: E121/54			VDR ID: E11-NO21B					
Mfr Model Ref: V.P. APED E11-14	SHEET 16								

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: PS-4348 Component:	Temperature (*F)	90	
FLOW INDICATING SWITCH Manufacturer: ITT BARTON	Pressure (PSIG)	0	
Model Number: 289	Relative Humidity (%)	100	
Purchase Order Number: DCR-568	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/TORUS NITROGEN PURGE ISOLA- TION ON HIGH TORUS PRESSURE Accuracy: Spec:	Seismic	LATER	
1.5% Location: RB-N	Radiation (Rad)	4.7 E05	
Floor Elevation: 757' - 6"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 29	P&ID: M143/C4				
Loc Dwg: E318/A5	Elec Scheme: E122/12	VDR ID: NONE					
Mfgr Model Ref: CHRON 7655 AND 7636							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:	System:	P&ID:				
Loc Dwg:	Elec Scheme:	VDR ID:					
Mfgr Model Ref:							

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 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: DIFFERENTIAL PRESSURE TRANSMITTER Manufacturer: ITT BARTON Model Number: 368 NUREG 0588 Applicable: NO Accuracy: Demo: 0.5%	Operating Time	30 DAYS		SEE GEN NOTE 4	006		---	---	SEE GEN NOTE 1
	Temperature (°F)	104		SEE GEN NOTE 7	006		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	006		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	006		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.9 E05		SEE GEN NOTE 1	006		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	006		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

I204-05

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: PDT-4623 Component:	Temperature (*F)	104	
DIFFERENTIAL PRESSURE TRANSMITTER Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 368	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ RECIRC. PMP 1P201A DIFF PRESS Accuracy: Spec:	Radiation (Rad)	2.9 EO5	
0.5% Location: NE CRNR RM/1C-57	Aging	40 YEARS	
Floor Elevation: 735' - 7"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M116/A3		
Loc Dwg: E316/E2	Elec Scheme: E124/2		VDR ID: B31-N015A				
Mfgr Model Ref: V.P. APED B31-33-4, H21-15(2)-5							

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Facility: DUANE ARNOLD

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: DIFFERENTIAL PRESSURE INDICATING SWITCH Manufacturer: ITT BARTON Model Number: 288A NUREG 0588 Applicable: NO Accuracy: Demo: 1%	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		---	---	NONE
	Temperature (°F)	104		SEE GENERAL NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GENERAL NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GENERAL NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.9 E05		3.0 E06	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		16 YEARS SEE NOTE (1)	001		REF. (B)	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ITT BARTON REPORT R3-288A-1 DATED MAY, 1980 (CHRON 7510). B. AGING EVALUATION FORM I204-06 DATED 7/8/82 (CHRON 8107).	1. DEVICE WILL BE REPLACED AT END OF 16 YEARS. SURVEILLANCE WILL MONITOR DEVICE FOR DEGRADATION AT 18 MONTH INTERVALS.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: I204-06-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: PDIS-4304 Component:	Temperature (°F)	104	
DIFFERENTIAL PRESSURE INDICATING SWITCH Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 288A	Chemical Spray	NA	
Purchase Order Number: M-167	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/VACUUM BREAKER HIGH DIFFER- ENTIAL PRESSURE	Radiation (Rad)	2.9 E05	
Accuracy: Spec: 1.5% Location: NE CRNR RM	Aging	40 YEARS	
Floor Elevation: 735' - 7"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: PDIS-4305 Component:	Temperature (°F)	104	
DIFFERENTIAL PRESSURE INDICATING SWITCH Manufacturer:	Pressure (PSIG)	0	
ITT BARTON	Relative Humidity (%)	100	
Model Number: 288A	Chemical Spray	NA	
Purchase Order Number: M-167	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/VACUUM BREAKER HIGH DIFFER- ENTIAL PRESSURE	Radiation (Rad)	2.9 E05	
Accuracy: Spec: 1.5% Location: NE CRNR RM	Aging	40 YEARS	
Floor Elevation: 735' - 7"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: - Environment: HARSH System: 29 P&ID: M143/B7							
Loc Dwg: E316/F3 Elec Scheme: E122/23 VDR ID: NONE							
Mfr Model Ref: P.O. M-167-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATE
Walkdown: - Environment: HARSH System: 29 P&ID: M143/B8							
Loc Dwg: E316/F3 Elec Scheme: E122/23 VDR ID: NONE							
Mfr Model Ref: P.O. M167-3							

KO80-01

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 5 KV CABLE Manufacturer: KERITE Model Number: HT WITH NS JACKET NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		100 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	300		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	4.6		104	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. LOCA QUALIFICATION TEST OF KERITE 5KV HTK/HTNS NONSHIELDED POWER CABLES DATED 2/17/81 (CHRON 7591). TEST PROFILE IS PARAGRAPH 4, PAGE 2 OF THIS REPORT. B. AGING EVALUATION FORM KO80-01 DATED 6/18/82 (CHRON 8108).	

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	THE REQUIRED ENVIRONMENT IS ENVELOPE OF WORST CASE CONDITIONS OUTSIDE DRYWELL. TEMP AND RADIATION FROM STEAM TUNNEL, PRESS FROM TRAVSG IN CORE PROBE ROOM. NOT USED IN SGTS ROOM.
Plant I.D. Number: CABLE-POWER-KER Component: 5 KV CABLE	Temperature (*F)	300	
Manufacturer: KERITE	Pressure (PSIG)	4.6	
Model Number: HT WITH NS JACKET	Relative Humidity (%)	100	
Purchase Order Number: E-018 & IE P.O. 21045	Chemical Spray	NA	
Function/Service: SUPPORT/SUPPLY 5KV POWER TO EQUIPMENT	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	2.1 E07	
Location: OUTSIDE DRYWELL	Aging	40 YEARS	
Floor Elevation: VARIOUS			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfgr Model Ref: P.O. E-018BC, REVISION 3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8197-10-S NUREG 0588 Applicable: NO Accuracy: Demo: NONE	Operating Time	30 DAYS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	005		---	---	SEE GENERAL NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	005		---	---	SEE GENERAL NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Chemical Spray	DEMIN WATER		SEE GENERAL NOTE 1	005		---	---	SEE GENERAL NOTE 1
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GENERAL NOTE 1	005		---	---	SEE GENERAL NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L130-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4328A Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8197-10-S Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/TORUS ROOM AIR TEMPERATURE Accuracy: Spec: NONE Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
	Temperature (*F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4328B Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8197-10-S Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/TORUS ROOM AIR TEMPERATURE Accuracy: Spec: NONE Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/C5 Loc Dwg: E316/F5 Elec Scheme: E122/18 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/C5 Loc Dwg: E316/B2 Elec Scheme: E122/18 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

L130-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: L130-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4328C Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8197-10-S Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/TORUS ROOM AIR TEMPERATURE Accuracy: Spec: NONE Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
	Temperature (*F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
Plant I.D. Number: TE-4328D Component:	Temperature (°F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer:	Relative Humidity (%)	100	
LEEDS & NORTHRUP	Chemical Spray	NA	
Model Number:	Seismic	LATER	
8197-10-S	Radiation (Rad)	1.0 EO6	
Purchase Order Number:	Aging	40 YEARS	
FIELD	Submergence	NA	
Function/Service: POST ACCIDENT MONITORING/TORUS ROOM AIR TEMPERATURE			
Accuracy: Spec: NONE Location: TORUS ROOM SOUTH			
Floor Elevation: 716'-9"			
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/C5 Loc Dwg: E317/G5 Elec Scheme: E122/18 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/C5 Loc Dwg: E317/H8 Elec Scheme: E122/18 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

L130-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: L130-01-005

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Equip ID: L130-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4328E Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8197-10-S Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE Accuracy: Spec: NONE Location: DRYWELL Floor Elevation: 742'-9"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4328F Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8197-10-S Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE Accuracy: Spec: NONE Location: DRYWELL Floor Elevation: 742'-9"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6 Loc Dwg: E331/C3 Elec Scheme: E122/20 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6 Loc Dwg: E331/F6 Elec Scheme: E122/20 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: L130-01-007

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Equip ID: L130-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4328G Component:	Temperature (°F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8197-10-S	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4328H Component:	Temperature (°F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NDRTHRUP	Relative Humidity (%)	100	
Model Number: 8197-10-S	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6							
Loc Dwg: E329/B4 Elec Scheme: E122/20 VDR ID: NONE							
Mfgr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6							
Loc Dwg: E329/G4 Elec Scheme: E122/20 VDR ID: NONE							
Mfgr Model Ref: DATA SHEET M436							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L130-01-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4328J Component:	Temperature (*F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8197-10-S	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-4"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4328K Component:	Temperature (*F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8197-10-S	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761'-4"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/E6							
Loc Dwg: E330/E2 Elec Scheme: E122/20 VDR ID: NONE							
Mfgr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M143/E6	
Loc Dwg: E330/E6		Elec Scheme: E122/20		VDR ID: NONE			
Mfgr Model Ref: DATA SHEET M436							

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Owner: IOWA ELECTRIC

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4328M Component:	Temperature (°F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8197-10-S	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec:	Aging	40 YEARS	
Location: DRYWELL			
Floor Elevation: 742'-9"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M143/D6		
Loc Dwg: E331/D4	Elec Scheme: E122/20		VDR ID: NONE				
Mfgr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8920-404-00-3-21 NUREG 0588 Applicable: NO Accuracy: Demo: NONE	Operating Time	30 DAYS		SEE GENERAL NOTE 1	005		---	---	SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	005		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	005		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Chemical Spray	DEMIN WATER		SEE GENERAL NOTE 1	005		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GENERAL NOTE 1	005		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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Equip ID: L130-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
Plant I.D. Number: TE-4386A Component:	Temperature ("F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	NA	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ TORUS ROOM AIR TEMPERATURE	Radiation (Rad)	1.0 E06	
Accuracy: Spec: NONE Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
Plant I.D. Number: TE-4386B Component:	Temperature ("F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	NA	
Purchase Order Number:	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ TORUS ROOM AIR TEMPERATURE	Radiation (Rad)	1.0 E06	
Accuracy: Spec: NDNE Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M143/C5	
Loc Dwg: E316/F5		Elec Scheme: E122/18		VDR ID: NONE			
Mfgr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M143/C5	
Loc Dwg: E316/B2		Elec Scheme: E122/18		VDR ID: NONE			
Mfgr Model Ref: DATA SHEET M436							

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 Facility: DUANE ARNOLD
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Equip ID: L130-02-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
Plant I.D. Number: TE-4386C Component:	Temperature ("F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	NA	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ TORUS ROOM AIR TEMPERATURE	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: NONE Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	LOCATED ON EXTERIOR TORUS CATWALK
Plant I.D. Number: TE-4386D Component:	Temperature ("F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	NA	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ TORUS ROOM AIR TEMPERATURE	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: NONE Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/C5							
Loc Dwg: E317/G5 Elec Scheme: E122/18 VDR ID: NONE							
Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M143/C5	
Loc Dwg: E317/H8		Elec Scheme: E122/18		VDR ID: NONE			
Mfr Model Ref: DATA SHEET M436							

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Equip ID: L130-02-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4386E Component:	Temperature (°F)	SEE GENERAL NDTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 742' -9"	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4386F Component:	Temperature (°F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 742' -9"	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6							
Loc Dwg: E331/C3 Elec Scheme: E122/20 VDR ID: NONE							
Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6							
Loc Dwg: E331/F6 Elec Scheme: E122/20 VDR ID: NONE							
Mfr Model Ref: DATA SHEET M436							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L 130-02-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4386G Component:	Temperature (°F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE	Aging	40 YEARS	
Location: DRYWELL	Submergence	NA	
Floor Elevation: 757'-6"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4386H Component:	Temperature (°F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-404-00-3-21	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE	Aging	40 YEARS	
Location: DRYWELL	Submergence	NA	
Floor Elevation: 757'-6"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M143/D6		
Loc Dwg: E329/B4		Elec Scheme: E122/20		VDR ID: NONE			
Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M143/D6		
Loc Dwg: E329/G4		Elec Scheme: E122/20		VDR ID: NONE			
Mfr Model Ref: DATA SHEET M436							

L130-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: L130-02-009

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Equip ID: L130-02-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4386J Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8920-404-00-3-21 Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE Accuracy: Spec: NONE Location: DRYWELL Floor Elevation: 761' - 4" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4386K Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8920-404-00-3-21 Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE Accuracy: Spec: NONE Location: DRYWELL Floor Elevation: 761' - 4" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/E6							
Loc Dwg: E330/D2 Elec Scheme: E122/20 VDR ID: NONE							
Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/E6							
Loc Dwg: E330/D6 Elec Scheme: E122/20 VDR ID: NONE							
Mfr Model Ref: DATA SHEET M436							

L130-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: L130-02-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4386L Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8920-404-00-3-21 Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE Accuracy: Spec: NONE Location: DRYWELL Floor Elevation: 761' -4"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4386M Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8920-404-00-3-21 Purchase Order Number: FIELD Function/Service: POST ACCIDENT MONITORING/ DRYWELL TEMPERATURE Accuracy: Spec: NONE Location: DRYWELL Floor Elevation: 761'-9"	Operating Time	30 DAYS	
	Temperature (*F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/E6 Loc Dwg: E330/F5 Elec Scheme: E122/20 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D6 Loc Dwg: E331/D4 Elec Scheme: E122/20 VDR ID: NONE Mfr Model Ref: DATA SHEET M436							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: LEEDS & NORTHRUP Model Number: 8920-405-0-00-5 NUREG 0588 Applicable: NO Accuracy: Demo: NONE	Operating Time	30 DAYS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 1		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 1		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Chemical Spray	DEMIN WATER		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

L130-05

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4328L Component:	Temperature ("F)	SEE GENERAL NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: LEEDS & NORTHRUP	Relative Humidity (%)	100	
Model Number: 8920-405-0-00-5	Chemical Spray	DEMIN WATER	
Purchase Order Number: FIELD	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NONE Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 761' -4"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature ("F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M143/E6		
Loc Dwg: E330/F4		Elec Scheme: E122/20		VDR ID: NONE			
Mfgr Model Ref: DATA SHEET M436							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:		Elec Scheme:		VDR ID:			
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	002		REF A,C D,G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	300		SEE NOTE (1)	015		REF A,G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.5		SEE NOTE (2)	015		REF A,G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	002		REF A,B,C D,E,G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	002		REF A,F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	002		REF. H	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G.

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. BOO27, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. BOO58 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-OOB DATED 7/8/82 (CHRON 8109).	3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

L200-01

Owner: IOWA ELECTRIC

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Equip ID: L200-01-003

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-1932 Component: MOTOR OPERATOR	Temperature (°F)	277	353177A OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	1.2	136615 MOTOR S/N
Model Number: SMB-O, AC-CLASS B	Relative Humidity (%)	100	1B600008FW2
Purchase Order Number: M-151A	Chemical Spray	NA	
Function/Service: CONTAINMENT HEAT RE- MOVAL/SUPPRESSION POOL SPRAY HEADER ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.3 E07	
Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-1939 Component: MOTOR OPERATOR	Temperature (°F)	140	353178B OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	134702 MOTOR S/N
Model Number: SMB-O, AC-CLASS B	Relative Humidity (%)	100	1B600011F2
Purchase Order Number: M-137A	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201B INLET ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	5.9 E06	
Location: NW CRNR RM	Aging	40 YEARS	
Floor Elevation: 732'-0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/F5	
Loc Dwg: M266/G7	Elec Scheme: E121/49			VDR ID: E11-FO28B			
Mfgr Model Ref: V.P. M151A-6							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/D4	
Loc Dwg: M253/C7	Elec Scheme: E121/43B			VDR ID: E11-FO47B			
Mfgr Model Ref: V.P. M137A-70							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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Equip ID: L200-01-005

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1941 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201B OUTLET ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 732'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178B OPERATOR S/N 134701
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: MO-1942 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR SERVICE WATER SUPPLY TO RHR SYSTEM ISOLATION Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 736'-6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178B OPERATOR S/N 141259 MOTOR S/N 1BA603558KW
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/E3	
Loc Dwg: M253/C7		Elec Scheme: E121/43		VDR ID: E11-FO03B			
Mfgr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 13		P&ID: M113/F8	
Loc Dwg: M266/E3	Elec Scheme: E121/46			VDR ID: E11-F075			
Mfr Model Ref: V.P.	M137A-70						

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 Facility: DUANE ARNOLD
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Equip ID: L200-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1989 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B Purchase Order Number: M-151A Function/Service: REACTOR CORE COOLING /RHR TRAIN B SUPPRES- SION POOL ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177K OPERATOR S/N 140388 MOTOR S/N 1BA602960JW
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2005 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B Purchase Order Number: M-151A Function/Service: CONTAINMENT HEAT RE- MOVAL/SUPPRESSION POOL SPRAY HEADER ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177A OPERATOR S/N 136616 MOTOR S/N 1B600008FW1
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M119/D7		
Loc Dwg: M245/E7		Elec Scheme: E121/45		VDR ID: NONE			
Mfr Model Ref: V. P. M151A-11							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/G4	
Loc Dwg: E316/D7	Elec Scheme: E121/49			VDR ID: E11-F028A			
Mfr Model Ref: V.P. M151A-6							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L200-01-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2029 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B Purchase Order Number: M- 137A Function/Service: REACTOR CORE COOLING /RHR HEAT EXCHANGER 1E-201A INLET ISOLATION Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 731' - 4"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178B OPERATOR S/N 134703
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2031 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING /RHR HEAT EXCHANGER 1E-201A OUTLET ISOLATION Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 731' - 4"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178B OPERATOR S/N 134704 MOTOR S/N B600011F1
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/D5 Loc Dwg: M277/C3 Elec Scheme: E121/43B VDR ID: E11-FO47A Mfr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/E7 Loc Dwg: M277/C3 Elec Scheme: E121/43 VDR ID: E11-FO03A Mfr Model Ref: V.P. M137A-70							

L200-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
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Equip ID: L200-01-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2069 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B Purchase Order Number: M- 151A Function/Service: REACTOR CORE COOLING /RHR TRAIN A SUPPRES- SION POOL ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177K OPERATOR S/N 140389 MOTOR S/N 1BA602960JW
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: MO-1947 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O,AC-CLASS B Purchase Order Number: M- 144A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201B SERVICE WATER DISCHARGE ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 732'-0" Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 363844A OPERATOR S/N 153537 MOTOR S/N 447014EX
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/D3	
Loc Dwg: M265/F3		Elec Scheme: E121/45		VDR ID: NONE			
Mfgr Model Ref: V. P. M151A-11							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 13		P&ID: M113/D7	
Loc Dwg: E316/E8		Elec Scheme: E121/55			VDR ID: E11-F068B		
Mfgr Model Ref: V. P. M144A-120-4							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: MO-2046 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-O, AC-CLASS B Purchase Order Number: M-144A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201A SERVICE WATER DISCHARGE ISOLATION Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 731'-9" Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 363844A OPERATOR S/N 153536
	Temperature (°F)	300	
	Pressure (PSIG)	1.5	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: Plant I.D. Number: Component: Manufacturer: Model Number: Purchase Order Number: Function/Service: Accuracy: Spec: Location: Floor Elevation: Flood Level Elevation: Above Flood Level: Yes: No:	Operating Time		
	Temperature (°F)		
	Pressure (PSIG)		
	Relative Humidity (%)		
	Chemical Spray		
	Seismic		
	Radiation (Rad)		
	Aging		
	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 13 P&ID: M113/D5 Loc Dwg: E317/D2 Elec Scheme: E121/55 VDR ID: E11-F068A Mfr Model Ref: V.P. M144A-120-4							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID: Loc Dwg: Elec Scheme: VDR ID: Mfr Model Ref:							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS H NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF C,D	TYPE TEST	NONE
	Temperature (*F)	SEE GENERAL NOTE 6		SEE NOTE (3)	001		REF B,C D,E	TYPE TEST	NONE
	Pressure (PSIG)	SEE GENERAL NOTE 6		105	001		REF B,C	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF A,B,C D,E	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (2)	001		REF D	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.0 E08	001		REF C,D,F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF G	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT. 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . AGING EVALUATION FORM L200-00H DATED 7/8/82 (CHRON 8109).	OR 1000 CYCLES, WHICHEVER OCCURS FIRST. 2 . REPRESENTATIVE VALVE OPERATORS WERE SUBJECTED TO SPRAY CHEMISTRY DESCRIBED IN IEEE STANDARD 382-1972 TABLE 1 WHICH IS MORE SEVERE THAN DEMIN WATER 3 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SIMILAR SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E.

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 Facility: DUANE ARNOLD
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Equip ID: L200-02-023

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MD-1900 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS H Purchase Order Number: M-133A Function/Service: REACTOR CORE COOLING /REACTOR VESSEL HEAD SPRAY ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 805' - 5"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353170D1 OPERATOR S/N 137097
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MD-2400 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS H Purchase Order Number: M-133A Function/Service: PRIMARY CONTAINMENT ISOLATION/RCIC-STEAM SUPPLY LINE ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 353179D OPERATOR S/N 137629 MOTOR S/N 1B600016HW2
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 09		P&ID: M119/G8	
Loc Dwg: M330/D4		Elec Scheme: E122/2		VDR ID: E11-F022			
Mfr Model Ref: V.P. M133A-6							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	YES	NO	LATER
Walkdown: -		Environment: HARSH		System: 03		P&ID: M124/H7	
Loc Dwg: E330/E3		Elec Scheme: E121/29		VDR ID: E51-F007			
Mfr Model Ref: V.P. M133A-6							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L200-02-031

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-2700 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS H Purchase Order Number: M- 134A Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU LINE INBOARD ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 353176A OPERATOR S/N 137255
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-4423 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS H Purchase Order Number: M-133A Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE CONDENSATE DRAIN ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' - 6"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 375212A OPERATOR S/N 136268
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M127/F8 Loc Dwg: E330/D5 Elec Scheme: E122/3 VDR ID: G31-F001 Mfr Model Ref: V.P. M134A-20							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M114/B3 Loc Dwg: E329/E2 Elec Scheme: E122/2 VDR ID: B21-F016 Mfr Model Ref: V.P. M133A-2							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A, C, D, G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	277		SEE NOTE (1)	001		REF. A, G	TYPE TEST	NONE
	Pressure (PSIG)	1.2		SEE NOTE (2)	001		REF. A, G	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. A, B, C, D, E, G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	001		REF. A, F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. H	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155). LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G.

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-00B DATED 7/8/82 (CHRON 8109).	3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

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Owner: IOWA ELECTRIC

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Equip ID: L200-03-003

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1935 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-137B Function/Service: REACTOR CORE COOLING/ RHR PUMPS 1P229B,D MINI FLOW TEST LINE ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 356059I OPERATOR S/N 140780 MOTOR S/N 434011KW
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1949A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201B VENT ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 747' - 6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 370364A OPERATOR S/N 177877
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M119/C5		
Loc Dwg: M256/D3	Elec Scheme: E121/54		VDR ID: E11-FO07B				
Mfgr Model Ref: V.P. M137B-13							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/C4	
Loc Dwg: E316/E8		Elec Scheme: E121/47		VDR ID: E11-F103B			
Mfr Model Ref: V.P. M141A-66							

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Owner: IOWA ELECTRIC
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Equip ID: L200-03-005

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1949B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201B VENT ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 747' - 6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 370364A OPERATOR S/N 177878
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1967 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-137B Function/Service: REACTOR CORE COOLING/ RHR TRAIN B CONDENSATE RETURN TO RCIC Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 732' -0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 356059G OPERATOR S/N 140777
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/D4 Loc Dwg: E316/E8 Elec Scheme: E121/47 VDR ID: E11-F104B Mfr Model Ref: V.P. M141A-66							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/E2 Loc Dwg: M246/E7 Elec Scheme: E121/50 VDR ID: E11-F026B Mfr Model Ref: V.P. M137B-43							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1970 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-137B Function/Service: REACTOR CORE COOLING/ RHR TRAIN B BYPASS LINE ISOLATION TO THE SUPPRESSION POOL Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 356059F OPERATOR S/N 147081 MOTOR S/N 480302JV
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/F3 Loc Dwg: M246/E7 Elec Scheme: E121/50 VDR ID: E11-F011B Mfgr Model Ref: V.P. M137B-12							

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2009 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-137B Function/Service: REACTOR CORE COOLING/ RHR PUMPS 1P-229A,C MINI FLOW TEST LINE ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 356591 OPERATOR S/N 140779 MOTOR S/N 434011KW
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/C4 Loc Dwg: M277/D5 Elec Scheme: E121/54 VDR ID: E11-F007A Mfgr Model Ref: V.P. M137B-13							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: L200-03-009

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-2036 Component: MOTOR OPERATOR	Temperature (°F)	140	356059G OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	140778
Model Number: SMB-000, AC-CLASS B	Relative Humidity (%)	100	
Purchase Order Number: M-137B	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR TRAIN A CONDENSATE TO RCIC	Seismic	LATER	
Accuracy: Spec: NA Location: SE CRNR RM	Radiation (Rad)	5.9 E06	
Floor Elevation: 731'-4"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-2038 Component: MOTOR OPERATOR	Temperature (°F)	277	356059F OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	1.2	147080 MOTOR S/N
Model Number: SMB-000, AC-CLASS B	Relative Humidity (%)	100	480302JV
Purchase Order Number: M-137B	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR BYPASS TRAIN A LINE ISOLATION TO THE SUPPRESSION POOL	Seismic	LATER	
Accuracy: Spec: NA Location: TORUS ROOM SOUTH	Radiation (Rad)	1.3 E07	
Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/E8							
Loc Dwg: M277/C3 Elec Scheme: E121/50 VDR ID: E11-F026A Mfr Model Ref: V.P. M137B-43							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/F7							
Loc Dwg: M277/D5 Elec Scheme: E121/50 VDR ID: E11-F011A Mfr Model Ref: V.P. M137B-43							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: L200-03-013

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2044A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201A VENT ISOLATION Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 747'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 370364A OPERATOR S/N 177879
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2044B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: REACTOR CORE COOLING/ RHR HEAT EXCHANGER 1E-201A VENT ISOLATION Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 747'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 370364A OPERATOR S/N 177880
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M120/C6	
Loc Dwg: E317/D3	Elec Scheme: E121/47			VDR ID: E11-F103A			
Mfgr Model Ref: V.P. M141A-66							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 09		P&ID: M120/C6	
Loc Dwg: E317/D3		Elec Scheme: E121/47		VDR ID: E11-F104A			
Mfgr Model Ref: V.P. M141A-66							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L200-03-017

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2104 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141 Function/Service: REACTOR CORE COOLING /CORE SPRAY MINI FLOW LINE ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 364542C OPERATOR S/N 157953 MOTOR S/N J235951
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2124 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141 Function/Service: REACTOR CORE COOLING /CORE SPRAY MINI FLOW LINE ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 364542C OPERATOR S/N 157954 MOTOR S/N J235952
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/D4 Loc Dwg: E317/E5 Elec Scheme: E121/6 VDR ID: E21-F031A Mfr Model Ref:							

Accidents:	LQCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/D4 Loc Dwg: E316/F6 Elec Scheme: E121/6 VDR ID: E21-F031B Mfr Model Ref:							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: L200-03-020

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: HIGH PRESSURE COOLANT INJECTION Plant I.D. Number: MO-2290A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: REACTOR CORE COOLING /SUPPRESSION POOL VACUUM BREAKER Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 372709 OPERATOR S/N 171628
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: HIGH PRESSURE COOLANT INJECTION Plant I.D. Number: MO-2290B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: REACTOR CORE COOLING /SUPPRESSION POOL VACUUM BREAKER Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 372709 OPERATOR S/N 171629
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 06		P&ID: M122/B8	
Loc Dwg: E317/D5		Elec Scheme: E121/23A			VDR ID: E41-F070		
Mfgr Model Ref: V.P. M141A-63							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	NO	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 06		P&ID: M122/B8	
Loc Dwg: E317/D5		Elec Scheme: E121/23A		VDR ID: E41-F069			
Mfr Model Ref: V.P. M141A-63							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: L200-03-024

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: MO-4320A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: PRIMARY CONTAINMENT ISOLATION/CAD SYSTEM NITROGEN SUPPLY LINE ISOLATION Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 372709 OPERATOR S/N 171626
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: MO-4320B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-141A Function/Service: PRIMARY CONTAINMENT ISOLATION/CAD SYSTEM NITROGEN SUPPLY LINE ISOLATION Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 372709 OPERATOR S/N 171627
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C3 Loc Dwg: E317/B4 Elec Scheme: E122/31 VDR ID: NONE Mfr Model Ref: V.P. M141A-68							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C4 Loc Dwg: E317/B3 Elec Scheme: E122/31 VDR ID: NONE Mfr Model Ref: V.P. M141A-68							

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Equip ID: L200-03-026

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-4841A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-137B Function/Service: PRIMARY CONTAINMENT ISOLATION/REACTOR RECIRC PUMP AND DRYWELL AND CRAIN SUM HEAT EXCHANGER ISOLAT Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 356059A OPERATOR S/N 139778 MOTOR S/N 1BA602956JN
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-4841B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, AC-CLASS B Purchase Order Number: M-137B Function/Service: PRIMARY CONTAINMENT ISOLATION/REACTOR RECIRC PUMP AND DRYWELL DRAIN SUMP HEAT EXCHANGER ISOLAT Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 364972A OPERATOR S/N 159044 MOTOR S/N 434011KX
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M112/E3 Loc Dwg: E316/E5 Elec Scheme: E111/17 VDR ID: NONE Mfr Model Ref: V.P. M137B-15							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M112/F3 Loc Dwg: E316/E5 Elec Scheme: E111/17 VDR ID: NONE Mfr Model Ref: V.P. M137B-15							

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 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-1, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A, C D, G	TYPE TEST/ ANALYSIS	NONE
	Temperature (*F)	277		SEE NOTE (1)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.2		SEE NOTE (2)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A, B, C D, E, G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	001		REF A, F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. H	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G.

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DOCUMENTATION REFERENCES:

- TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT).
- C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT).
- D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT.
- E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT).
- F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80.
- G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775).
- H . AGING EVALUATION FORM L200-00B DATED 7/8/82 (CHRON 8109).

NOTES:

- 3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS-
- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST.
- B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

L200-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: L200-05-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2010 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-1, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING /RHR SYSTEM CROSS TIE ISOLATION VALVE Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178A OPERATOR S/N 134365 MOTOR S/N 113600010F1
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2112 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-1, AC-CLASS B Purchase Order Number: M-151A Function/Service: REACTOR CORE COOLING /CORE SPRAY TEST LINE ISOLATION VALVE Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177E OPERATOR S/N 136547 MOTOR S/N 1B600009FW1
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/D5 Loc Dwg: E316/C8 Elec Scheme: E121/45 VDR ID: E11-FO10 Mfr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/F5 Loc Dwg: E317/D5 Elec Scheme: E121/7 VDR ID: E21-FO15A Mfr Model Ref: V.P. M151A-3							

L200-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: L200-05-003

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-2132 Component:	Temperature (°F)	277	353177E OPERATOR S/N
MOTOR OPERATOR	Pressure (PSIG)	1.2	136548
Manufacturer: LIMITORQUE	Relative Humidity (%)	100	
Model Number: SMB-1, AC-CLASS B	Chemical Spray	NA	
Purchase Order Number: M-151A	Seismic	LATER	
Function/Service: REACTOR CORE COOLING /CORE SPRAY TEST LINE ISOLATION VALVE	Radiation (Rad)	1.3 E07	
Accuracy: Spec: NA Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: O8 P&ID: M121/E5							
Loc Dwg: E316/F5 Elec Scheme: E121/7 VDR ID: E21-FO15B							
Mfgr Model Ref: V.P. M151A-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

L200-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A, C D, G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	140		SEE NOTE (1)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	0		SEE NOTE (2)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A, B, C D, E, G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	002		001	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	002		001	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 2 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G.

L200-06

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
Unit: 1
Docket: 50-331

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-008 DATED 7/8/82 (CHRON 8109).	3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: L200-06-001

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Sheet No. 186

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-2001 Component: MOTOR OPERATOR	Temperature (°F)	140	353177F OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	136574
Model Number: SMB-2, AC-CLASS B	Relative Humidity (%)	100	
Purchase Order Number: M-151A	Chemical Spray	NA	
Function/Service: CONTAINMENT HEAT REMOVAL/CONTAINMENT SPRAY ISOLATION LOOP A	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.3 E07	
Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown:	Environment: HARSH		System: 09		P&ID: M120/G4		
Loc Dwg: M257/D7	Elec Scheme: E113/89		VDR ID: E11-FO16A				
Mfgr Model Ref: V.P. M151A-4							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-3, DC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A,B, C,D,G	TYPE TEST/ ANALYSIS	NONE
	Temperature (*F)	300		SEE NOTE (2)	001		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.8		105	001		REF B,C,G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.4 E06		2.0 E07	001		REF A,F,G	TYPE TEST/ ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. H	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-00B DATED 7/8/82 (CHRON 8109).	OR 1000 CYCLES, WHICHEVER OCCURS FIRST. 2 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SIMILAR SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E. REFERENCE G ANALYZED A TEMPERATURE QUALIFICATION CAPABILITY OF AT LEAST 300F FOR INSULATION CLASS B MOTORS.

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: HIGH PRESSURE COOLANT INJECTION	Operating Time	30 DAYS	RAD DOSE IS BASED ON A 1 HOUR OPERA- TING TIME FOR A LOCA BILL OF MAT'L ORDER NUMBER 353176E OPERATOR S/N 138949 MOTOR S/N JY18312
Plant I.D. Number: MO-2312 Component:	Temperature (*F)	300	
MOTOR OPERATOR	Pressure (PSIG)	1.8	
Manufacturer:	Relative Humidity (%)	100	
Model Number: SMB-3, DC-CLASS B	Chemical Spray	NA	
Purchase Order Number: M-152A	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI PUMP DISCHARGE ISOLATION	Radiation (Rad)	9.4 E06	
Accuracy: Spec: NA Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No: .			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATE
Walkdown: -		Environment: HARSH		System: O6		P&ID: M123/D6	
Loc Dwg: E328/D3		Elec Scheme: E121/18		VDR ID: E41-FO06			
Mfgr Model Ref: M152A-9							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-4, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A, C D, G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	140		SEE NOTE (1)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	0		SEE NOTE (2)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A, B, C D, E, G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		2.0 E07	001		REF A, F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. H	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G.

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT. 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-00B DATED 7/8/82 (CHRON 8109).	3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: L200-08-001

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Equip ID: L200-08-005

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1940 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-4, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229B,D DISCHARGE FLOW CONTROL Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 732'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178F OPERATOR S/N 136617
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2030 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-4, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMPS 1P229A,C DISCHARGE FLOW CONTROL Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 731'-4"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 373178F OPERATOR S/N 136618 MOTOR S/N Y249632AFW
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/E4 Loc Dwg: M256/C2 Elec Scheme: E121/51 VDR ID: E11-FO48B Mfr Model Ref: V.P. M137A-9							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/E5 Loc Dwg: M277/C2 Elec Scheme: E121/51 VDR ID: E11-FO48A Mfr Model Ref: V.P. M137A-9							

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Owner: IOWA ELECTRIC
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-5, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A,C D,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Temperature (°F)	277		SEE NOTE (2)	001		REF A,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Pressure (PSIG)	1.2		SEE NOTE (3)	001		REF A,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Relative Humidity (%)	100		100	001		REF A,B,C D,E,G	TYPE TEST	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.6 E06		2.0 E07	001		REF A,F	TYPE TEST	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. SEE ACTION ITEM 19. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 3. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775).	REFERENCE G.

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Equip ID: L200-09-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1905 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-5, AC-CLASS B Purchase Order Number: M-152A Function/Service: REACTOR CORE COOLING/ LPCI LOOP B ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757'-6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353176C OPERATOR S/N 140218 MOTOR S/N 1MA450563-G1
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2003 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-5, AC-CLASS B Purchase Order Number: M-152A Function/Service: REACTOR CORE COOLING/ LPCI LOOP A ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	BILL OF MAT'L OROER NUMBER 353176C OPERATOR S/N 140219 MOTOR S/N 1MA450563-G2
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/F6 Loc Dwg: M268/G7 Elec Scheme: E121/52 VDR ID: E11-F015B Mfr Model Ref: V.P. M152A-4							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/G4 Loc Dwg: M248/D7 Elec Scheme: E121/52 VDR ID: E11-F015A Mfr Model Ref: V.P. M152A-4							

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 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A, C D, G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	277		SEE NOTE (1)	005		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.2		SEE NOTE (2)	005		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A, B, C D, E, G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	005		REF A, F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. H	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G.

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGINGF EVALUATION FORM L200-008 DATED 7/8/82 (CHRON 8109).	3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

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Date: 07/09/82

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Equip ID: L200-10-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-1912 Component: MOTOR OPERATOR	Temperature (°F)	140	353178C OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	134314 MOTOR S/N
Model Number: SMB-00, AC-CLASS B	Relative Humidity (%)	100	1B600012FW
Purchase Order Number: M-137A	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229B SUCTION LINE ISOLATION FROM RECIRC SYSTEM Accuracy: Spec:	Seismic	LATER	
NA Location: NW CRNR RM	Radiation (Rad)	5.9 E06	
Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-1913 Component: MOTOR OPERATOR	Temperature (°F)	140	353178C OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	134312 MOTOR S/N
Model Number: SMB-00, AC-CLASS B	Relative Humidity (%)	100	1B600012FW3
Purchase Order Number: M-137A	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229B SUCTION LINE ISOLA- TION FROM SUPPRESSION POOL Accuracy: Spec:	Seismic	LATER	
NA Location: NW CRNR RM	Radiation (Rad)	5.9 E06	
Floor Elevation: 716'-9"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 09		P&ID: M119/C7	
Loc Dwg: M245/F7		Elec Scheme: E121/44		VDR ID: E11-FO06B			
Mfgr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 09		P&ID: M119/C7	
Loc Dwg: E316/F7		Elec. Scheme: E121/43			VDR ID: E11-FO04B		
Mfgr Model Ref: V. P. M137A-70							

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Equip ID: L200-10-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1920 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229D SUCTION LINE ISOLA- TION FROM RECIRC SYS Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178C OPERATOR S/N 134318
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1921 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229D SUCTION LINE ISOLA- TION FROM SUPPRESSION POOL Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 732'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178C OPERATOR S/N 134313 MOTOR S/N 1B6000112F1
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/C8 Loc Dwg: M245/F7 Elec Scheme: E121/44 VDR ID: E11-FOO6D Mfr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/C7 Loc Dwg: M245/F7 Elec Scheme: E121/43 VDR ID: E11-FOO4D Mfr Model Ref: V.P. M137A-70							

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Equip ID: L200-10-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178H OPERATOR S/N 136177
Plant I.D. Number: MO-1933 Component:	Temperature (°F)	277	
MOTOR OPERATOR	Pressure (PSIG)	1.2	
Manufacturer: LIMITORQUE	Relative Humidity (%)	100	
Model Number: SMB-00, AC-CLASS B	Chemical Spray	NA	
Purchase Order Number: M-137A	Seismic	LATER	
Function/Service: CONTAINMENT HEAT RE- MOVAL/SUPPRESSION POOL SPRAY ISOLATION	Radiation (Rad)	1.3 E07	
Accuracy: Spec: NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178G OPERATOR S/N 136267 MOTOR S/N 1B600014FW1
Plant I.D. Number: MO-1936 Component:	Temperature (°F)	277	
MOTOR OPERATOR	Pressure (PSIG)	1.2	
Manufacturer: LIMITORQUE	Relative Humidity (%)	100	
Model Number: SMB-00, AC-CLASS B	Chemical Spray	NA	
Purchase Order Number: M-137A	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ ISOLATION OF RHR DISCHARGE TO THE WASTE SURGE TANK	Radiation (Rad)	1.3 E07	
Accuracy: Spec: NA Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/F5							
Loc Dwg: M266/G7 Elec Scheme: E121/59 VDR ID: E11-FO27B							
Mfgr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/D6							
Loc Dwg: M246/C8 Elec Scheme: E122/7 VDR ID: E11-FO40							
Mfgr Model Ref: V. P. M137A-70							

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Equip ID: L200-10-009

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2011 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229A SUCTION LINE ISOLA- TION FROM RECIRC SYS Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178C OPERATOR S/N 134315 MOTOR S/N 1B600012FWS
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2012 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229A SUCTION LINE ISOLA- TION FROM SUPPRESSION POOL Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178C OPERATOR S/N 134316 MOTOR S/N 1B600012FWT
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O9		P&ID: M120/C3		
Loc Dwg: M265/F2		Elec Scheme: E121/44		VDR ID: E11-FO06A			
Mfgr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: O9		P&ID: M120/C3	
Loc Dwg: E317/E2	Elec Scheme: E121/43			VDR ID: E11-FO04A			
Mfgr Model Ref: V.P.	M137A-70						

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Equip ID: L200-10-011

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2015 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229C SUCTION LINE ISOLA- TION FROM SUPPRESSION POOL Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178C OPERATOR S/N 134317 MOTOR S/N 1B600012FW
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2016 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ RHR PUMP 1P-229C SUCTION LINE ISOLA- TION FROM RECIRC SYS Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716'-9" Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178C OPERATOR S/N 134319
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/C2 Loc Dwg: E317/E2 Elec Scheme: E121/43 VDR ID: E11-F004C Mfr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/C2 Loc Dwg: M317/E2 Elec Scheme: E121/44 VDR ID: E11-F006 Mfr Model Ref: V.P. M137A-70							

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Equip ID: L200-10-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2120 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP 1P-211B SUCTION ISOLA TION FROM SUPPRESSION POOL Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178E OPERATOR S/N 134361 MOTOR S/N 1B600013F1
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 EO6	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2006 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: CONTAINMENT HEAT RE MOVAL/SUPPRESSION POOL SPRAY ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178H OPERATOR S/N 136178 MOTOR S/N 1B600015FW2
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/B5 Loc Dwg: E316/D8 Elec Scheme: E121/4 VDR ID: E21-FO01B Mfr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/F4 Loc Dwg: M256/D7 Elec Scheme: E121/59 VDR ID: E11-FO27A Mfr Model Ref: V.P. M137A-70							

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 Owner: IOWA ELECTRIC
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Equip ID: L200-10-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: MO-1943A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING /RHR SERVICE WATER PUMPS A,C SERVICE WATER SUPPLY TO THE RHR SYSTEM Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 736'-6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178J OPERATOR S/N 141056 MOTOR S/N 500935KW0001
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: MO- 1943B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M- 137A Function/Service: REACTOR CORE COOLING /RHR SERVICE WATER PUMPS B,D SERVICE WATER SUPPLY TO THE RHR SYSTEM Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 360982A OPERATOR S/N 157831 MOTOR S/N 447026DX
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 13 P&ID: M113/G8 Loc Dwg: E317/E3 Elec Scheme: E121/45 VDR ID: E11-F073A Mfgr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 13 P&ID: M113/G8 Loc Dwg: E317/F7 Elec Scheme: E121/45 VDR ID: E11-F073B Mfgr Model Ref: V.P. M137A-70							

L200-10

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: L200-10-017

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Equip ID: L200-10-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2100 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-137A Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP 1P-211A SUCTION FROM THE SUPPRESSION POOL Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353178E OPERATOR S/N 134360 MOTOR S/N 1B600013FW2
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2146 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-151A Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP 1P-211B SUPPRESSION POOL SUCTION ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177J OPERATOR S/N 139174 MOTOR S/N 463417KN0001
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O8		P&ID: M121/B5		
Loc Dwg: E317/D3	Elec Scheme: E121/4			VDR ID: E21-FOO1A			
Mfgr Model Ref: V.P. M137A-70							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: O8 P&ID: M121/C5							
Loc Dwg: E316/C7 Elec Scheme: E121/4 VDR ID: E21-F038A							
Mfgr Model Ref: V.P. M151A-70							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: L200-10-019

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Equip ID: L200-10-020

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2147 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-151A Function/Service: REACTOR CORE COOLING/ CORE SPRAY PUMP 1P-211A SUPPRESSION POOL SUCTION ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177J OPERATOR S/N 139175 MOTOR S/N 463417KN0002
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-2701 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00, AC-CLASS B Purchase Order Number: M-134A Function/Service: CONTAINMENT ISOLATION /RCU LINE OUTBOARD ISOLATION Accuracy: Spec: NA Location: RWCU HEAT EXCH ROOM Floor Elevation: 786' -0" Flood Level Elevation: 786' -7" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 353175B OPERATOR S/N 138245 MOTOR S/N JY18207
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.1 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: O8		P&ID: M121/B5	
Loc Dwg: E317/D5		Elec Scheme: E121/4		VDR ID: E21-F038B			
Mfgr Model Ref: V.P. M151A-10							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	YES	LATER
Walkdown: -	Environment: HARSH			System: O3		P&ID: M127/F7	
Loc Dwg: E321/E6	Elec Scheme: E122/5			VDR ID: G31-FOO4			
Mfr Model Ref: V.P.	M134A-3						

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00,DC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	1 HOUR		30 DAYS	002		REF A,B, C,D,G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	300		SEE NOTE (2)	004		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.8		105	004		REF B,C,G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	002		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.4 E06		2.0 E07	004		REF A,F,G	TYPE TEST/ ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	002		REF. H	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. BOO27, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. BOO58 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-00B DATED 7/8/82 (CHRON 8109).	OR 1000 CYCLES, WHICHEVER OCCURS FIRST. 2 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SIMILAR SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E. REFERENCE G ANALYZED A TEMPERATURE QUALIFICATION CAPABILITY OF AT LEAST 300F FOR INSULATION CLASS B MOTORS.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L200-13-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: HIGH PRESSURE COOLANT INJECTION Plant I.D. Number: MO-2321 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00,DC-CLASS B Purchase Order Number: M-151A Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI SUPPRESSION POOL SUCTION ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716' -9" Flood Level Elevation: 716' -10" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 353177C OPERATOR S/N 137972 MOTOR S/N JY19204
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.7 EO6	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-2401 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00,DC-CLASS B Purchase Order Number: M-133A Function/Service: PRIMARY CONTAINMENT ISOLATION/RCIC TURBINE MAIN STEAM LINE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' -6" Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 353179E OPERATOR S/N 137973 MOTOR S/N JY18215
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 EO6	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: O6		P&ID: M123/A7	
Loc Dwg: E317/D4		Elec Scheme: E121/23		VDR ID: E41-FO42			
Mfr Model Ref: V.P. M151A-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	YES	NO	LATER
Walkdown: -		Environment: HARSH		System: O3		P&ID: M124/G6	
Loc Dwg: E328/E4		Elec Scheme: E121/30		VDR ID: E51-FO08			
Mfr Model Ref: V.P. M133A-13							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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Equip ID: L200-13-005

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Equip ID: L200-13-007

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-2512 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00,DC-CLASS B Purchase Order Number: M-133A Function/Service: REACTOR CORE COOLING/ RCIC PUMP 1P-226 DISCHARGE ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER
	Temperature (*F)	300	353179F
	Pressure (PSIG)	1.8	141053
	Relative Humidity (%)	100	OPERATOR S/N 137974
	Chemical Spray	NA	MOTOR S/N JY18214
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-4424 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-00,DC-CLASS B Purchase Order Number: M-133A Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE CONDENSATE DRAIN ISOLATION Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER
	Temperature (*F)	130	353179H
	Pressure (PSIG)	0	137974
	Relative Humidity (%)	100	OPERATOR S/N JY13216
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	YES	NO	LATER
Walkdown: -		Environment: HARSH		System: O3		P&ID: M125/D5	
Loc Dwg: E328/E3		Elec Scheme: E121/40		VDR ID: E51-FO13			
Mfgr Model Ref: V.P. M133A-7							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: O3		P&ID: M114/B3	
Loc Dwg: E328/E4		Elec Scheme: E122/5		VDR ID: B21-F019			
Mfr Model Ref: V.P. M133A-76-2-4							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, DC CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	002		REF A,B,C D,G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	277		SEE NOTE (2)	002		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.2		105	002		REF B,C,G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	002		REF A,F,G	TYPE TEST/ ANALYSIS	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. H	TYPE TEST/ ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PRDFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-00B DATED 7/8/82 (CHRON 8109).	OR 1000 CYCLES, WHICHEVER OCCURS FIRST. 2 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AD A SMALLER SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E. REFERENCE G ANALYZED A TEMPERATURE QUALIFICATION CAPABILITY OF AT LEAST 300F INSULATION CLASS B MOTORS.

L200-14

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: L200-14-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-2517 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, DC CLASS B Purchase Order Number: M-137B Function/Service: REACTOR CORE COOLING/ RCIC PUMP SUCTION ISOLATION FROM SUPPRESSION POOL Accuracy: Spec: NA Location: RCIC ROOM Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 356059I OPERATOR S/N 142172 MOTOR S/N LY21627
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 EO5	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1937 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-000, DC CLASS B Purchase Order Number: M-137B Function/Service: REACTOR CORE COOLING/ RHR DISCHARGE TO THE WASTE SURGE TANK ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 356059H OPERATOR S/N 144271 MOTOR S/N A221620
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O3 P&ID: M125/F4							
Loc Dwg: E317/C5 Elec Scheme: E121/33 VDR ID: E51-F029							
Mfgr Model Ref: V.P. M137B-43							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: O9		P&ID: M119/D6	
Loc Dwg: M246/8C		Elec Scheme: E122/15			VDR ID: E11-F049		
Mfgr Model Ref: V.P.		M137B-43					

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Owner: IOWA ELECTRIC

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-2516 Component:	Temperature (°F)	277	356059E OPERATOR S/N
MOTOR OPERATOR	Pressure (PSIG)	1.2	141416 MOTOR S/N
Manufacturer: LIMITORQUE	Relative Humidity (%)	100	LY21626
Model Number: SMB-000, DC CLASS B	Chemical Spray	NA	
Purchase Order Number: M-137	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ RCIC PUMP SUCTION ISOLATION FROM SUPPRESSION POOL	Radiation (Rad)	1.3 E07	
Accuracy: Spec: NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: O3		P&ID: M125/B5		
Loc Dwg: E317/E6	Elec Scheme: E121/33		VDR ID: E51-FO31				
Mfgr Model Ref: V.P. M137B-34							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Facility: DUANE ARNOLD

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS H NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF C,D	TYPE TEST	SEE NOTE (1)
	Temperature (°F)	SEE GENERAL NOTE 6		SEE NOTE (2)	001		REF B,C,D,E	TYPE TEST	SEE NOTE (1)
	Pressure (PSIG)	SEE GENERAL NOTE 6		105	001		REF B,C	TYPE TEST	SEE NOTE (1)
	Relative Humidity (%)	100		100	001		REF A,B,C,D,E	TYPE TEST	SEE NOTE (1)
	Chemical Spray	DEMIN WATER		SEE NOTE (3)	001		REF D	TYPE TEST	SEE NOTE (1)
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.0 E08	001		REF C,D,F	TYPE TEST	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. SEE ACTION ITEM 19. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SMALLER SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E.

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80.	3. REPRESENTATIVE VALVE OPERATORS WERE SUBJECTED TO SPRAY CHEMISTRY DESCRIBED IN IEEE STANDARD 382-1972 TABLE 1 WHICH IS MORE SEVERE THAN DEMIN WATER

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Equip ID: L200-17-003

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1908 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS H Purchase Order Number: M-152A Function/Service: REACTOR CORE COOLING/ RHR PMP SUCTION FROM RECIRC SYSTEM ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353176A OPERATOR S/N 137618
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: HIGH PRESSURE COOLANT INJECTION Plant I.D. Number: MO-2238 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS H Purchase Order Number: M-133A Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI TURBINE MAIN STEAM SUPPLY INBOARD ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 353179C OPERATOR S/N 138881
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 EO7	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/E8 Loc Dwg: M331/D6 Elec Scheme: E122/56 VDR ID: E11-F009 Mfr Model Ref: V.P. M152A-7							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 06 P&ID: M122/G6 Loc Dwg: E330/B5 Elec Scheme: E121/14 VDR ID: E41-F002 Mfr Model Ref: V.P. M133A-5							

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Equip ID: L200-17-005

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-4627 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS H Purchase Order Number: APED Function/Service: REACTOR CORE COOLING/ 1P201A RECIRCULATION LOOP ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 742' -9"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 329731G3 OPERATOR S/N 121781 MOTOR S/N GX79819
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: PRIMARY CONTAINMENT ISOL AND NSSS Plant I.D. Number: MO-4628 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS H Purchase Order Number: APED Function/Service: REACTOR CORE COOLING/ 1P-201B RECIRCULA- TION LOOP ISOLATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 742' -9"	Operating Time	1 HOUR	BILL OF MAT'L ORDER NUMBER 329731G3 OPERATOR S/N 121782 MOTOR S/N GX79822
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 03 P&ID: M116/C2							
Loc Dwg: E331/F4 Elec Scheme: E120/3 VDR ID: B31-F031A							
Mfgr Model Ref: APED B31-2808-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 03		P&ID: M116/CB	
Loc Dwg: E331/C5	Elec Scheme: E120/3			VDR ID: B31-F031B			
Mfr Model Ref: APED	B31-2808-1						

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-3, DC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A,B,C D,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Temperature (°F)	300		SEE NOTE (2)	001		REF A,B,C D,E,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Pressure (PSIG)	1.8		105	001		REF B,C,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Relative Humidity (%)	100		100	001		REF A,B,C D,E,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.4 E06		2.0 E07	001		REF A,F,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. SEE ACTION ITEM 19. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SMALLER SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E. REFERENCE G ANALYZED A TEMPERATURE

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775).	QUALIFICATION CAPABILITY OF AT LEAST 300F FOR INSULATION CLASS B MOTORS.

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Facility: DUANE ARNOLD

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: HIGH PRESSURE COOLANT INJECTION	Operating Time	30 DAYS	RAD DOSE IS BASED ON A
Plant I.D. Number: MO-2239 Component:	Temperature (*F)	300	1 HOUR OPERA- TING TIME FOR
MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer:	Pressure (PSIG)	1.8	A LOCA BILL OF MAT'L
LIMITORQUE	Relative Humidity (%)	100	ORDER NUMBER 353176F
Model Number: SMB-3, DC-CLASS B	Chemical Spray	NA	OPERATOR S/N 141627
Purchase Order Number: M-152A	Seismic	LATER	MOTOR S/N KY19365
Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI TURBINE STEAM SUPPLY OUTBOARD ISOLATION	Radiation (Rad)	9.4 E06	
Accuracy: Spec: NA Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: -	Environment: HARSH		System: O6		P&ID: M122/G5		
Loc Dwg: E328/D4	Elec Scheme: E121/15		VDR ID: E41-FO03				
Mfgr Model Ref: V.P.	M152A-8						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, DC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A,B,C, D,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Temperature (°F)	277		SEE NOTE (2)	001		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Pressure (PSIG)	1.2		105	001		REF B,C,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Relative Humidity (%)	100		100	001		REF A,B,C, D,E,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.6 E06		2.0 E07	001		REF. A,F,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. SEE ACTION ITEM 19. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SMALLER SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E. REFERENCE G ANALYZED A TEMPERATURE

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. BOO27, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. BOO58 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE,, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775).	QUALIFICATION CAPABILITY OF AT LEAST 300F FOR INSULATION CLASS B MOTORS.

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-1909 Component:	Temperature (°F)	277	353176B
MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer:	Pressure (PSIG)	1.2	OPERATOR S/N 138286
LIMITORQUE	Relative Humidity (%)	100	MOTOR S/N JY19364
Model Number: SMB-2, DC-CLASS B	Chemical Spray	NA	
Purchase Order Number: M-152A	Seismic	LATER	
Function/Service: REACTOR CORE COOLING/ RHR PUMP SUCTION FROM RECIRC SYSTEM ISOLATION	Radiation (Rad)	5.6 E06	
Accuracy: Spec: NA	Aging	40 YEARS	
Location: RHR VALVE ROOM			
Floor Elevation: 757'-6"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 09		P&ID: M119/E8		
Loc Dwg: M248/D7	Elec Scheme: E122/4		VDR ID: E11-FO08				
Mfgr Model Ref: V.P. M152A-42							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Facility: DUANE ARNOLD

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A, C D, G	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	277		SEE NOTE (2)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Pressure (PSIG)	1.2		SEE NOTE (1)	001		REF A, G	TYPE TEST/ ANALYSIS	NONE
	Relative Humidity (%)	100		100	001		REF A, B, C D, E, G	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	001		REF A, F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (3)	001		REF. H	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NDNE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN REFERENCE G. 2 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G.

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157). QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION. QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775). H . AGING EVALUATION FORM L200-OOB DATED 7/8/82 (CHRON 8109).	3 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS- A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

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Equip ID: L200-20-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1934 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B Purchase Order Number: M-151A Function/Service: PRIMARY CONTAINMENT ISOLATION/RHR TEST LINE ISOLATION LOOP B Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 357986A OPERATOR S/N 147182
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2007 Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B Purchase Order Number: M-151A Function/Service: PRIMARY CONTAINMENT ISOLATION/RHR TEST LINE ISOLATION LOOP A Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 357986A OPERATOR S/N 147181 MOTOR S/N Y252546AZMW
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/F5 Loc Dwg: M266/G7 Elec Scheme: E121/59 VDR ID: E11-F024B Mfr Model Ref: V.P. M151A-7							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/F5 Loc Dwg: M256/D3 Elec Scheme: E121/59 VDR ID: E11-F024A Mfr Model Ref: V.P. M151A-7							

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-1903 Component: MOTOR OPERATOR	Temperature (°F)	140	353177F OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	136573 MOTOR S/N
Model Number: SMB-2, AC-CLASS B	Relative Humidity (%)	100	Y249631A1FW
Purchase Order Number: M-151A	Chemical Spray	NA	
Function/Service: CONTAINMENT HEAT REMOVAL/CONTAINMENT SPRAY ISOLATION LOOP B	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.3 E07	
Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: O9		P&ID: M119/G6		
Loc Dwg: M266/H8	Elec Scheme: E121/60		VDR ID: E11-F016B				
Mfgr Model Ref: V.P. M151A-4							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A, C D, G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Temperature (°F)	214		SEE NOTE (2)	005		REF. A, G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Pressure (PSIG)	1.1		SEE NOTE (3)	001		REF. A, G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Relative Humidity (%)	100		100	001		REF. A, B, C D, E, G	TYPE TEST	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		2.0 E07	003		REF. A, F	TYPE TEST	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. SEE ACTION ITEM 19. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 3. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775).	REFERENCE G.

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-1902 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B Purchase Order Number: M-151A Function/Service: CONTAINMENT HEAT REMOVAL/CONTAINMENT SPRAY ISOLATION LOOP B Accuracy: Spec: NA Location: - RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177B OPERATOR S/N 135702
	Temperature ("F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL Plant I.D. Number: MO-2000 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B Purchase Order Number: M-151A Function/Service: CONTAINMENT HEAT REMOVAL/CONTAINMENT SPRAY ISOLATION LOOP A Accuracy: Spec: NA Location: RB-S Floor Elevation: 786' -0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353177B OPERATOR S/N 135703 MOTOR S/N Y249629A1FW
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.5 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M119/G7 Loc Dwg: M248/C6 Elec Scheme: E121/48 VDR ID: E11-FO21B Mfr Model Ref: V.P. M151A-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 09 P&ID: M120/G2 Loc Dwg: M269/F6 Elec Scheme: E121/48 VDR ID: E11-FO21A Mfr Model Ref: V.P. M151A-1							

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2117 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B Purchase Order Number: M-152A Function/Service: REACTOR CORE COOLING /REACTOR VESSEL CORE SPRAY INLET ISOLATION LOOP A Accuracy: Spec: NA Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
	Temperature (°F)	214	353176D OPERATOR S/N
	Pressure (PSIG)	1.1	135745 MOTOR S/N
	Relative Humidity (%)	100	Y249628A1
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.8 E06	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2137 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-2, AC-CLASS B Purchase Order Number: M-152A Function/Service: REACTOR CORE COOLING /REACTOR VESSEL CORE SPRAY INLET ISOLATION LOOP B Accuracy: Spec: NA Location: RB-N Floor Elevation: 786'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
	Temperature (°F)	90	353176D OPERATOR S/N
	Pressure (PSIG)	0	135746 MOTOR S/N
	Relative Humidity (%)	100	Y249628A2
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.5 E05	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 08		P&ID: M121/G6		
Loc Dwg: E321/E5		Elec Scheme: E121/5		VDR ID: E21-FO05A			
Mfgr Model Ref: V.P. M152A-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 08		P&ID: M121/E6	
Loc Dwg: E320/E5		Elec Scheme: E121/8			VDR ID: E21-FO05B		
Mfr Model Ref: V.P. M152A-5							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-O, AC-CLASS B NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF A,C D,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Temperature (*F)	90		SEE NOTE (2)	001		REF A,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Pressure (PSIG)	0		SEE NOTE (3)	001		REF A,G	TYPE TEST/ ANALYSIS	SEE NOTE (1)
	Relative Humidity (%)	100		100	001		REF A,B,C D,E,G	TYPE TEST	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	7.5 E05		2.0 E07	001		REF A,F	TYPE TEST	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1. SEE ACTION ITEM 19. 2. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 250F IN REFERENCE A, AND QUALIFIED TO 300F BY ANALYSIS IN REFERENCE G. 3. REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 25 PSIG IN REFERENCE A, AND QUALIFIED TO 105 PSIG BY ANALYSIS IN

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DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. B0027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. B0058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . BECHTEL ENGINEERING ANALYSIS OF LIMITORQUE INSULATION CLASS B MOTOR OPERATORS DATED 3/26/82 (CHRON 6775).	REFERENCE G.

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2135 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-O, AC-CLASS B Purchase Order Number: M-133A Function/Service: REACTOR CORE COOLING /CORE SPRAY PUMP 1P-211B DISCHARGE ISOLATION Accuracy: Spec: NA Location: RB-N Floor Elevation: 786'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353179K OPERATOR S/N 141418 MOTOR S/N Y249590A1
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.5 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CORE SPRAY Plant I.D. Number: MO-2115 Component: MOTOR OPERATOR WITH MOTOR BRAKE Manufacturer: LIMITORQUE Model Number: SMB-O, AC-CLASS B Purchase Order Number: M-133A Function/Service: REACTOR CORE COOLING /CORE SPRAY PUMP 1P-211A DISCHARGE ISOLATION Accuracy: Spec: NA Location: RB-S Floor Elevation: 786'-0"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 353179K OPERATOR S/N 141417
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.5 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 08		P&ID: M121/E5		
Loc Dwg: E320/F5		Elec Scheme: E121/8		VDR ID: E21-FOO4B			
Mfgr Model Ref: V.P. M133A-40							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 08 P&ID: M121/G5							
Loc Dwg: E321/D5 Elec Scheme: E121/8 VDR ID: E21-FOO4A							
Mfgr Model Ref: V.P. M133A-40							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF C,D	TYPE TEST	NONE
	Temperature (*F)	130		SEE NOTE (1)	001		REF B,C D,E	TYPE TEST	NONE
	Pressure (PSIG)	0		105	001		REF B,C	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF A,B C,D,E	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		2.0 E08	001		REF. C,D,F	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. G	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT NO. B0003, PROJECT NO. 600461, QUALIFICATION TYPE TEST REPORT (CHRON 7155), LIMITORQUE VALVE ACTUATORS FOR CLASS 1E SERVICE OUTSIDE PRIMARY CONTAINMENT. TEST PERFORMED NOV. 13, 1974 TO JAN. 23, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). B . REPORT NO. B0009, PROJECT NO. 600426, QUALIFICATION TYPE	1 . REPRESENTATIVE VALVE OPERATORS WERE TESTED TO 310F IN REFERENCE D, TO 340F IN REFERENCES B AND C, AND A SIMILAR SIZE VALVE OPERATOR (SMB-00) SUCCESSFULLY PASSED A HIGH TEMPERATURE TEST OF 385F IN REFERENCE E. 2 . QUALIFIED LIFE IS BASED ON OPERATION AT LEAST TWICE A YEAR AND LUBRICATION CHECKS AS FOLLOWS-

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11186-234-NP-1

DOCUMENTATION REFERENCES:	NOTES:
TEST REPORT (CHRON 7156). LIMITORQUE DC VALVE ACTUATORS FOR NUCLEAR POWER STATIONS. TEST PERFORMED SEPT 2, 1975 TO NOV 3, 1975 (TEST PROFILE IS FIGURE 1 OF THIS REPORT). C . LIMITORQUE SHOP ORDER NO. 600376A (CHRON 7157), QUALIFICATION TEST OF LIMITORQUE VALVE OPERATORS IN A SIMULATED REACTOR CONTAINMENT POST-ACCIDENT STEAM ENVIRONMENT, SEPT, 1972 (TEST PROFILE IS FIGURE 3 OF THIS REPORT). D . PROJECT NO. 600456 (CHRON 7158). NUCLEAR POWER STATION, QUALIFICATION TYPE TEST REPORT, LIMITORQUE VALVE ACTUATORS FOR PWR SERVICE. TEST PERFORMED JUNE 7, 1974 TO NOV 22, 1974. TEST PROFILE IS FIGURE 6 OF THIS REPORT. E . REPORT NO. 80027, PROJ NO. 600508 (CHRON 7159), LIMITORQUE VALVE ACTUATOR TEMPERATURE RELATED TO HIGH SUPERHEAT AMBIENT TEMPERATURES, DATED 10/18/78 (TEST PROFILE IS FIGURE 2 OF THIS REPORT). F . REPORT NO. 80058 (CHRON 7160), LIMITORQUE VALVE ACTUATOR QUALIFICATION FOR NUCLEAR POWER STATION SERVICE, DATED 1/11/80. G . AGING EVALUATION FORM L200-OOH DATED 7/8/82 (CHRON 8109).	A) MAIN GEAR CASE-CHECK LUBRICANT FOR PROPER LEVEL AND PRESENCE OF CONTAMINANTS AND LUBRICATE ZERK FITTING EVERY 18 MONTHS OR 500 CYCLES, WHICHEVER OCCURS FIRST. B) GEARED LIMIT SWITCH-INSPECT LUBRICATION EVERY 36 MONTHS OR 1000 CYCLES, WHICHEVER OCCURS FIRST.

L200-23

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: L200-23-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 238
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Equip ID: L200-23-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8401A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "A" LEAKAGE INBOARD BLEED VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188048
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8401B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "B" LEAKAGE INBOARD BLEED VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188047
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 05		P&ID: M184/F3		
Loc Dwg: E328/B6		Elec Scheme: E122/38		VDR ID: B21-F920A			
Mfgr Model Ref: APED		B21-3238					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C8							
Loc Dwg: E328/B6 Elec Scheme: E122/38 VDR ID: B21-F920B							
Mfr Model Ref: APED B21-3238							

L200-23

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLO
 Unit: 1
 Docket No: 50-331
 Equip ID: L200-23-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 239
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 Date: 07/09/82

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Equip ID: L200-23-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8401C Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "C" LEAKAGE INBOARD BLEED VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188052
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8401D Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "D" LEAKAGE INBOARD BLEED VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6" Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188046
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C3 Loc Dwg: E328/B6 Elec Scheme: E122/38 VDR ID: B21-F920C Mfgr Model Ref: APED B21-3238							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/F8 Loc Dwg: E328/B6 Elec Scheme: E122/38 VDR ID: B21-F920D Mfgr Model Ref: APED B21-3238							

L200-23

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: L200-23-005

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 240

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: L200-23-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-8402A Component: MOTOR OPERATOR	Temperature (°F)	130	374324A OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	188051
Model Number: SB-000, AC-CLASS H	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "A" LEAKAGE OUTBOARD BLEED VALVE	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	2.1 E07	
Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER
Plant I.D. Number: MO-8402B Component: MOTOR OPERATOR	Temperature (°F)	130	374324A OPERATOR S/N
Manufacturer: LIMITORQUE	Pressure (PSIG)	0	188053
Model Number: SB-000, AC-CLASS H	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "B" LEAKAGE OUTBOARD BLEED VALVE	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	2.1 E07	
Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 05		P&ID: M184/F3		
Loc Dwg: E328/B6	Elec Scheme: E122/38		VDR ID: B21-F921A				
Mfgr Model Ref: APED B21-3238							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 05		P&ID: M184/C8		
Loc Dwg: E328/A6	Elec Scheme: E122/38		VDR ID: B21-F921B				
Mfgr Model Ref: APED B21-3238							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: L200-23-007

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Equip ID: L200-23-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8402C Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "C" LEAKAGE OUTBOARD BLEED VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188049
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8402D Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "D" LEAKAGE OUTBOARD BLEED VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188050
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C3							
Loc Dwg: E328/C6 Elec Scheme: E122/38 VDR ID: B21-F921C							
Mfgr Model Ref: APED B21-3238							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 05		P&ID: M184/F8	
Loc Dwg: E328/B6		Elec Scheme: E122/38			VDR ID: B21-F921D		
Mfgr Model Ref: APED B21-3238							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: L200-23-009

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Equip ID: L200-23-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8403A Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "A" LEAKAGE TEST LINE BYPASS VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188056
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8403B Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "B" LEAKAGE TEST LINE BYPASS VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6"	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188057
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/F4 Loc Dwg: E328/B5 Elec Scheme: E122/38 VDR ID: B21-F922A Mfr Model Ref: APED B21-3238							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C8 Loc Dwg: E328/B4 Elec Scheme: E122/38 VDR ID: B21-F922B Mfr Model Ref: APED B21-3238							

L200-23

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: L200-23-011

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Equip ID: L200-23-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8403C Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "C" LEAKAGE TEST LINE BYPASS VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188055
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: MO-8403D Component: MOTOR OPERATOR Manufacturer: LIMITORQUE Model Number: SB-000, AC-CLASS H Purchase Order Number: APED Function/Service: PREVENT RADIOACTIVE RELEASE/MAIN STEAM LINE "D" LEAKAGE TEST LINE BYPASS VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	BILL OF MAT'L ORDER NUMBER 374324A OPERATOR S/N 188054
	Temperature (°F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: O5		P&ID: M184/C3		
Loc Dwg: E328/B5	Elec Scheme: E122/38		VDR ID: B21-F922C				
Mfgr Model Ref: APED B21-3238							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: O5 P&ID: M184/F8							
Loc Dwg: E328/B5 Elec Scheme: E122/38 VDR ID: B21-F922D							
Mfgr Model Ref: APED B21-3238							

L200-99

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION TRANSMITTER Manufacturer: LIMITORQUE Model Number: NONE NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE NOTE (1)	001		REF. (A)	ANALYSIS	SEE GENERAL NOTE 12
	Temperature (°F)	300		SEE NOTE (1)	002		REF. (A)	ANALYSIS	SEE GENERAL NOTE 12
	Pressure (PSIG)	1.5		SEE NOTE (1)	002		REF. (A)	ANALYSIS	SEE GENERAL NOTE 12
	Relative Humidity (%)	100		SEE NOTE (1)	001		REF. (A)	ANALYSIS	SEE GENERAL NOTE 12
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	8.1 E06		SEE NOTE (1)	002		REF. (A)	ANALYSIS	SEE GENERAL NOTE 12
	Aging	40 YEARS		SEE NOTE (1)	001		REF. (A)	ANALYSIS	SEE GENERAL NOTE 12
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. TELECON S PATEL OF BECHTEL POWER CORPORATION TO J B DRAB OF LIMITORQUE CORP. DATED 8/27/80 (CHRON 7266).	1. MANUFACTURER INFORMATION INDICATED THAT THE POSITION TRANSMITTERS ARE MADE UP COPPER WIRE ON CERAMIC TUBE AND ALUMINUM BAR AND FOOT. NONE OF THESE MATERIALS ARE SIGNIFICANTLY DEGRADED BY THE SERVICE ENVIRONMENT, THEREFORE THESE TRANSMITTERS ARE QUALIFIED BY ANALYSIS.

L200-99

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: L200-99-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: ZT-1947 Component: POSITION TRANSMITTER Manufacturer: LIMITORQUE Model Number: NONE Purchase Order Number: M-144A Function/Service: REACTOR CORE COOLING/ TRANSMIT VALVE POSITION SIGNAL Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 732'-0"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER Plant I.D. Number: ZT-2046 Component: POSITION TRANSMITTER Manufacturer: LIMITORQUE Model Number: NONE Purchase Order Number: M- 144A Function/Service: REACTOR CORE COOLING/ TRANSMIT VALVE POSITION SIGNAL Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 731'-9" Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	300	
	Pressure (PSIG)	1.5	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 EO6	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 13 P&ID: M113/C7 Loc Dwg: E316/E8 Elec Scheme: E121/58A VDR ID: NONE Mfr Model Ref: V.P. M-144A-120 & V.P. M-144A-166							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 13 P&ID: M113/C5 Loc Dwg: M265/D2 Elec Scheme: E121/58 VDR ID: NONE Mfr Model Ref: V.P. M-144A-120 & V.P. M-144A-166							

L280-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: FAN MOTOR Manufacturer: LOUIS-ALLIS COMPANY Model Number: COG4B TYPE 19236S-3E371 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	002		---	---	NONE
	Temperature (*F)	104		SEE GEN NOTE 7	002		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	002		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	002		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.0 E06		1.0 E06 SEE NOTE 1	002		REF. (A)	---	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE 1	002		REF. (A)	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. AGING EVALUATION FORM L280-01 DATED 7/8/82 (CHRON 8110).	1. QUALIFIED LIFE OF 40 YEARS REQUIRES SURVEILLANCE TO CHECK BEARING LUBRICATION, MOTOR MOUNTS AND SHAFT ALIGNMENT AT 12 MONTH INTERVALS.

L280-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 247
 Revision: 1
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Equip ID: L280-01-003

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	RAO DOSE ACCOUNTS FOR
Plant I.D. Number: 1V-EF-15A Component: FAN MOTOR	Temperature (°F)	104	DISTANCE FROM MAJOR SOURCE.
Manufacturer: LOUIS-ALLIS COMPANY	Pressure (PSIG)	0	DAEC CALC 221-004 REV 1
Model Number: COG4B TYPE 19236S-3E371 Purchase Order Number:	Relative Humidity (%)	100	SHEET 56
M-81	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/STANDBY GAS TREATMENT SYSTEM EXHAUST FAN	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.0 E06	
Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786'-0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	RAO DOSE ACCOUNTS FOR
Plant I.D. Number: 1V-EF-15B Component: FAN MOTOR	Temperature (°F)	104	DISTANCE FROM MAJOR SOURCE.
Manufacturer: LOUIS-ALLIS COMPANY	Pressure (PSIG)	0	DAEC CALC 221-004 REV 1
Model Number: COG4B TYPE 19236S-3E371 Purchase Order Number:	Relative Humidity (%)	100	SHEET 56
M-81	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/STANDBY GAS TREATMENT SYSTEM EXHAUST FAN	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.0 E06	
Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786'-0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/G2		
Loc Dwg: E315/G3	Elec Scheme: E113/11		VDR ID: NONE				
Mfr Model Ref:	WALKDOWN 8/81, SHEET 34						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/C2		
Loc Dwg: E315/F3	Elec Scheme: E113/16		VDR ID: NONE				
Mfr Model Ref:	WALKDOWN 8/81, SHEET 35						

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature ("F)	140		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NDNE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		SEE GEN NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: M302-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-3704 Component:	Temperature (°F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer:	Relative Humidity (%)	100	
MICRO SWITCH	Chemical Spray	NA	
Model Number:	Seismic	LATER	
DTF2-2RN-RH	Radiation (Rad)	1.3 E07	
Purchase Order Number:	Aging	40 YEARS	
M-137B	Submergence	NA	
Function/Service: POST ACCIDENT MONITORING/RADWASTE SYS ISOLATION DRYWELL FLOOR DRAIN SUMP DISCHRG VLV POSITION Accuracy: Spec:			
NA Location: TORUS ROOM SOUTH			
Floor Elevation: 716'-9"			
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-3705 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/RADWASTE SYS ISOLATION DRYWELL FLOOR DRAIN SUMP DISCHRG VLV POSITION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M137/H7 Loc Dwg: E317/F4 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: V.P. M137B-24-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M137/H7 Loc Dwg: E317/F4 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: V.P. M137B-22-5							

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 Facility: DUANE ARNOLD
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Equip ID: M302-02-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-3728 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/RADWASTE SYS ISOLATION DRYWELL FLOOR DRAIN SUMP DISCHRG VLV POSITION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-3729 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/RADWASTE SYS ISOLATION DRYWELL FLOOR DRAIN SUMP DISCHRG VLV POSITION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M137/D7							
Loc Dwg: E316/D6		Elec Scheme: E122/9		VDR ID: NONE			
Mfgr Model Ref: V.P. M137B-24-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M137/D7	
Loc Dwg: E316/D6		Elec Scheme: E122/9		VDR ID: NONE			
Mfgr Model Ref: V.P. M137B-22-5							

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Equip ID: M302-02-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4311 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/MAKEUP NITROGEN GAS INLET ISOLATION VALVE POSITION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4312 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/CONTAIN- MENT NITROGEN GAS PURGE SUPPLY VALVE POSITION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M143/F3	
Loc Dwg: E319/G7		Elec Scheme: E122/13		VDR ID: NONE			
Mfgr Model Ref: V.P. M137B-41-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M143/F3	
Loc Dwg: E318/D7	Elec Scheme: E122/12			VDR ID: NONE			
Mfgr Model Ref: V.P. M137B-41-3							

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Equip ID: M302-02-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4313 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M- 137B Function/Service: POST ACCIDENT MONITORING/SUPPRES- SION POOL NITROGEN GAS PURGE SUPPLY VALVE POSITION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-5703A Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP A BACKWASH INLET VALVE POSITION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/F3 Loc Dwg: E319/G7 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M137B-41-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M157/H7 Loc Dwg: E317/E5 Elec Scheme: E113/94 VDR ID: NONE Mfr Model Ref: V.P. M137B-24-5							

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Facility: DUANE ARNOLD

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Equip ID: M302-02-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-5703B Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137B Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP B BACKWASH INLET VALVE POSITION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-5704A Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: DTF2-2RN-RH Purchase Order Number: M-137A Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP A CLEANING WATER DISCHRG VLV POSITION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M157/G7	
Loc Dwg: E317/H7	Elec Scheme: E113/94			VDR ID: NONE			
Mfgr Model Ref: V.P. M137B-24-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M157/G6							
Loc Dwg: E317/E5 Elec Scheme: E113/94 VDR ID: NONE							
Mfgr Model Ref: V.P. M137A-62-2							

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Equip ID: M302-02-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-5704B Component:	Temperature (*F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer: MICRO SWITCH	Relative Humidity (%)	100	
Model Number: DTF2-2RN-RH	Chemical Spray	NA	
Purchase Order Number: M-137A	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP A CLEANING WATER DISCHRG VLV POSITION Accuracy: Spec:	Radiation (Rad)	1.3 E07	
NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-5718A Component:	Temperature (*F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer: MICRO SWITCH	Relative Humidity (%)	100	
Model Number: DTF2-2RN-RH	Chemical Spray	NA	
Purchase Order Number: M-137A	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP A CLEANING WATER INTAKE VALVE POSITION Accuracy: Spec:	Radiation (Rad)	1.3 E07	
NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M157/G6	
Loc Dwg: E317/G7		Elec Scheme: E113/94		VDR ID: NONE			
Mfr Model Ref: V.P. M137A-62-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M157/C8	
Loc Dwg: E317/E5	Elec Scheme: E113/94			VDR ID: NONE			
Mfr Model Ref: V.P. M137A-62-2							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

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Equip ID: M302-02-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-5718B Component:	Temperature ("F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer:	Relative Humidity (%)	100	
MICRO SWITCH	Chemical Spray	NA	
Model Number: DTF2-2RN-RH	Seismic	LATER	
Purchase Order Number: M-137A	Radiation (Rad)	1.3 E07	
Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP B CLEANING WATER INTAKE VALVE POSITION Accuracy: Spec:	Aging	40 YEARS	
NA Location: TORUS ROOM NORTH	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-5719A Component:	Temperature ("F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer:	Relative Humidity (%)	100	
MICRO SWITCH	Chemical Spray	NA	
Model Number: DTF2-2RN-RH	Seismic	LATER	
Purchase Order Number: M-137B	Radiation (Rad)	1.3 E07	
Function/Service: POST ACCIDENT MONITORING/REACTOR BUILDING-DRYWELL LOOP A BACKWASH OUTLET VALVE POSITION Accuracy: Spec:	Aging	40 YEARS	
NA Location: TORUS ROOM SOUTH	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M157/A8							
Loc Dwg: E316/C7 Elec Scheme: E113/94 VDR ID: NONE							
Mfgr Model Ref: V.P. M137A-62-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M157/B7	
Loc Dwg: E317/E5	Elec Scheme: E113/94			VDR ID: NONE			
Mfgr Model Ref: V.P. M137B-24-5							

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-5719B Component:	Temperature (°F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer:	Relative Humidity (%)	100	
MICRO SWITCH	Chemical Spray	NA	
Model Number: DTF2-2RN-RH	Seismic	LATER	
Purchase Order Number: M-137B	Radiation (Rad)	1.3 E07	
Function/Service: POST ACCIDENT MONITORING/DRYWELL LOOP B BACKWASH OUTLET VALVE POSITION	Aging	40 YEARS	
Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: 716' -10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M157/A7							
Loc Dwg: E316/C7 Elec Scheme: E113/94 VDR ID: NONE							
Mfgr Model Ref: V.P. M137B-24-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Temperature (°F)	150		160 SEE GENERAL NOTE 1	001		REF. (A)	TYPE TEST	SEE GEN NOTE 1
	Pressure (PSIG)	0		SEE GENERAL NOTE 1	001		---	---	NONE
	Relative Humidity (%)	100		100 SEE GENERAL NOTE 1	001		REF. (A)	---	SEE GEN NOTE 1
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.6 E06		1.0 E06	002		REF. (A)	TYPE TEST	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. MICRO SWITCH INTEROFFICE CORRESPONDENCE BETWEEN A. YUMANS AND V. HOCRAFFER, DATED NOVEMBER 10, 1981, (CHRON 5716).	

M302-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: M302-03-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 258
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: M302-03-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4303 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M-144D Function/Service: POST ACCIDENT MONITORING/REACTOR VESSEL CONTAINMENT PURGE OUTLET VALVE POSITION Accuracy: Spec: NA Location: H&V CONTROL VALVE RM Floor Elevation: 812' - 0"	Operating Time	30 DAYS	
	Temperature (°F)	150	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4306 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M-144D Function/Service: POST ACCIDENT MONITORING/CONTAINMENT TORUS PURGE INLET VALVE Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' - 6"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D7							
Loc Dwg: E322/D3 Elec Scheme: E122/13 VDR ID: NONE							
Mfgr Model Ref: V.P. M144D-2(4)-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M143/E2	
Loc Dwg: E318/E6		Elec Scheme: E122/13			VDR ID: NONE		
Mfgr Model Ref: V.P. M144D-2(5)-3							

M302-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: M302-03-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 259
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: M302-03-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-4307 Component:	Temperature (°F)	140	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer:	Relative Humidity (%)	100	
MICRO SWITCH	Chemical Spray	NA	
Model Number:	Seismic	LATER	
OPD-AR	Radiation (Rad)	5.6 E06	
Purchase Order Number:	Aging	40 YEARS	
M-144D	Submergence	NA	
Function/Service: POST ACCIDENT MONITORING/REACTOR VESSEL CONTAINMENT PURGE INLET VALVE POSITION Accuracy: Spec:			
NA Location: RHR VALVE ROOM			
Floor Elevation: 757' -6"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4308 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M- 144D Function/Service: POST ACCIDENT MONITORING/ INBOARD SUPPRESSION POOL PURGE INLET VALVE POSITION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature ("F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/E3 Loc Dwg: E318/E6 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M144D-2(6)-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/E3 Loc Dwg: E318/C6 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M144D-2(7)-3							

M302-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: M302-03-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 260
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Equip ID: M302-03-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4305 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M- 144D Function/Service: POST ACCIDENT MONITORING/ SUPPRESSION POOL VACUUM BREAKER ISOLATION VLV POSITN Accuracy: Spec: NA Location: NE CRNR RM Floor Elevation: 735' - 7"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-7602A Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M-144E Function/Service: POST ACCIDENT MONITORING/STANDBY GAS TREATMENT SYSTEM INLET VALVE POSITION Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786'-0"	Operating Time	30 DAYS	RAD DOSE ACCOUNTS FOR DISTANCE FROM MAJOR SOURCE SEE CALC 221-004 REV. 1
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	LESS THAN 1.0 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/B7 Loc Dwg: E316/E2 Elec Scheme: E122/23 VDR ID: NONE Mfr Model Ref: V.P. M144D-2(8)-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M176/A4 Loc Dwg: E315/G3 Elec Scheme: E113/64 VDR ID: NONE Mfr Model Ref: V.P. M144E-6-2							

M302-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
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Equip ID: M302-03-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-7602B Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M-144E Function/Service: POST ACCIDENT MONITORING/STANDBY GAS TREATMENT SYSTEM INLET VALVE POSITION Accuracy: Spec: NA Location: SGT ROOM Floor Elevation: 786'-0"	Operating Time	30 DAYS	RAD DOSE ACCOUNTS FOR DISTANCE FROM MAJOR SOURCE SEE CALC 221-004 REV 1
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	LESS THAN 1.0 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4301 Component: POSITION SWITCH Manufacturer: MICRO SWITCH Model Number: OPD-AR Purchase Order Number: M-144D Function/Service: POST ACCIDENT MONITORING/SUPPRESSION POOL PURGE OUTLET VALVE POSITION Accuracy: Spec: NA Location: NE CRNR RM Floor Elevation: 735'-7"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M176/A4	
Loc Dwg: E315/G3		Elec Scheme: E113/64		VDR ID: NONE			
Mfgr Model Ref: V.P. M144E-5-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M143/C8	
Loc Dwg: E316/E2		Elec Scheme: E122/13			VDR ID: NONE		
Mfgr Model Ref: V.P. M144D-2(8)-3							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 262
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Equip ID: M302-03-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-4304 Component:	Temperature (*F)	104	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer: MICRO SWITCH	Relative Humidity (%)	100	
Model Number: OPD-AR	Chemical Spray	NA	
Purchase Order Number: M-144D	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING SUPPRESSION POOL VACUUM BREAKER ISOLATION VLV POSITN Accuracy: Spec:	Radiation (Rad)	2.9 E05	
NA Location: NE CRNR RM	Aging	40 YEARS	
Floor Elevation: 735' - 7"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	RAD DOSE ACCOUNTS FOR DISTANCE FROM MAJOR SOURCE SEE CALC 221-004 REV 1
Plant I.D. Number: ZS-5825A Component:	Temperature (*F)	104	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer: MICRO SWITCH	Relative Humidity (%)	100	
Model Number: OPD-AR	Chemical Spray	NA	
Purchase Order Number: M-144E	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/ STANDBY GAS TREATMENT SYSTEM-AIR INTAKE VALVE POSITION Accuracy: Spec:	Radiation (Rad)	LESS THAN 1.0 E06	
NA Location: SGT ROOM	Aging	40 YEARS	
Floor Elevation: 786' - 0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M143/A7							
Loc Dwg: E316/E3 Elec Scheme: E122/23 VDR ID: NONE							
Mfgr Model Ref: V.P. M144D-2(9)-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: 36 P&ID: M158/F6							
Loc Dwg: E315/G5 Elec Scheme: E113/11 VDR ID: NONE							
Mfgr Model Ref: V.P. M144E-48-1							

M302-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: M302-03-019

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	RAD DOSE ACCOUNTS FOR DISTANCE FROM MAJOR SOURCE SEE CALC 221-004 REV 1
Plant I.D. Number: ZS-5825B Component:	Temperature ("F)	104	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer:	Relative Humidity (%)	100	
MICRO SWITCH	Chemical Spray	NA	
Model Number: OPD-AR	Seismic	LATER	
Purchase Order Number: M-144E	Radiation (Rad)	LESS THAN 1.0 E06	
Function/Service: POST ACCIDENT MONITORING/ STANDBY GAS TREATMENT SYSTEM-AIR INTAKE VALVE POSITION Accuracy: Spec:	Aging	40 YEARS	
NA Location: SGT ROOM	Submergence	NA	
Floor Elevation: 786'-0"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature ("F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M158/D6		
Loc Dwg: E315/F5	Elec Scheme: E113/11		VDR ID: NONE				
Mfgr Model Ref: V.P. M144E-48-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	009		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		63	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.0 E08	009		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		9 YEARS SEE NOTE (2)	009		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. ACME-CLEVELAND DEVELOPMENT CO. QUALIFICATION OF NAMCO CONTROLS LIMIT SWITCH MODEL EA-740 REVISION 1, DATED 2/22/79 (V.P. E57-1-1, 2-1). TEST PROFILE IS FIGURE 1 OF THIS REPORT. B. AGING EVALUATION FORM NO07-03 DATED 7/8/82 (CHRON 8111).	1. STEAM AND CHEMICAL SPRAY AS DEFINED IN IEEE 382-1972 PART III, TABLE 1 AND IEEE 323-1974 APPENDIX A, TABLE A1. 2. QUALIFIED LIFE MAY BE EXTENDED TO 40 YEARS REQUIRING REPLACEMENT OF COVER GASKETS AND OTHER ELASTOMER COMPONENTS AT 9 YEAR INTERVALS.

NO07-03

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: NO07-03-001

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 265

Revision: 1

Date: 07/09/82

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Equip ID: NO07-03-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION Plant I.D. Number: ZS-4412 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 Purchase Order Number: DCR-895 Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 761' - 4" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	FUNCTIONS FOR REACTOR PRO- TECTION ON MSLB ONLY, FUNCTIONS FOR ALL ACCIDENTS AS SAFETY DISPLAY INSTRUMENTA- TION
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION Plant I.D. Number: ZS-4413 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 Purchase Order Number: DCR-895 Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6" Flood Level Elevation: 760' - 0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 16		P&ID: M114/E3		
Loc Dwg: M340/D3	Elec Scheme: E122/11			VDR ID: NONE			
Mfgr Model Ref: V.P.	E57-1-1, 2-1						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 16		P&ID: M114/E2	
Loc Dwg: M268/G2		Elec Scheme: E122/11		VDR ID: NONE			
Mfr Model Ref: V.P. E57-1-1, 2-1							

NO07-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: NO07-03-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 266
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Equip ID: NO07-03-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
Plant I.D. Number: ZS-4415 Component:	Temperature (°F)	SEE GENERAL NOTE 6	
POSITION SWITCH	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer:	Relative Humidity (%)	100	
NAMCO	Chemical Spray	DEMIN WATER	
Model Number:	Seismic	LATER	
EA-740	Radiation (Rad)	2.1 E07	
Purchase Order Number:	Aging	40 YEARS	
DCR-895	Submergence	NA	
Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE			
Accuracy: Spec: NA Location: DRYWELL			
Floor Elevation: 761'-4"			
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION Plant I.D. Number: ZS-4416 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 Purchase Order Number: DCR-895 Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757' - 6"	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
	Temperature ("F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 16 P&ID: M114/D7 Loc Dwg: M340/C3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: V.P. E57-1-1, 2-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 16 P&ID: M114/D8 Loc Dwg: E328/D3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: V.P. E57-1-1, 2-1							

NO07-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: NO07-03-005

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 267
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 Date: 07/09/82

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Equip ID: NO07-03-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION Plant I.D. Number: ZS-4418 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 Purchase Order Number: DCR-895 Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 761'-4" Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION Plant I.D. Number: ZS-4419 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 Purchase Order Number: DCR-895 Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE Accuracy: Spec: NA Location: STEAM TUNNEL Floor Elevation: 757'-6" Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.4 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 16 P&ID: M114/D3							
Loc Dwg: M340/F3 Elec Scheme: E122/11 VDR ID: NONE							
Mfr Model Ref: V.P. E57-1-1, 2-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 16 P&ID: M114/D2							
Loc Dwg: E328/F4 Elec Scheme: E122/11 VDR ID: NONE							
Mfr Model Ref: V.P. E57-1-1, 2-1							

NO07-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: NO07-03-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: NO07-03-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
Plant I.D. Number: ZS-4420 Component:	Temperature ("F)	SEE GENERAL NOTE 6	
POSITION SWITCH	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer:	Relative Humidity (%)	100	
NAMCO	Chemical Spray	DEMIN WATER	
Model Number:	Seismic	LATER	
EA-740	Radiation (Rad)	2.1 E07	
Purchase Order Number:	Aging	40 YEARS	
DCR-895	Submergence	NA	
Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE			
Accuracy: Spec:			
NA Location: DRYWELL			
Floor Elevation: 761'-4"			
Flood Level Elevation: 744'-0"			
Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: REACTOR PROTECTION	Operating Time	1 HOUR	SEE REMARK FOR ZS-4412
Plant I.D. Number: ZS-4421 Component:	Temperature (°F)	300	
POSITION SWITCH	Pressure (PSIG)	1.8	
Manufacturer:	Relative Humidity (%)	100	
NAMCO	Chemical Spray	NA	
Model Number:	Seismic	LATER	
EA-740	Radiation (Rad)	9.4 E06	
Purchase Order Number:	Aging	40 YEARS	
DCR-895	Submergence	NA	
Function/Service: REACTOR SHUTDOWN/ TRIP ON CLOSURE OF MAIN STEAM LINE ISOLATION VALVE			
Accuracy: Spec:			
NA Location:			
STEAM TUNNEL			
Floor Elevation: 757' -6"			
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 16 P&ID: M114/E7 Loc Dwg: M340/E3 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: V.P. E57-1-1, 2-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 16 P&ID: M114/E8 Loc Dwg: E328/E4 Elec Scheme: E122/11 VDR ID: NONE Mfr Model Ref: V.P. E57-1-1, 2-1							

NO07-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: NO07-03-009

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Equip ID: NO07-03-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-1906A Component:	Temperature (°F)	SEE GENERAL NOTE 6	
POSITION SWITCH	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: NAMCO	Relative Humidity (%)	100	
Model Number: EA-740	Chemical Spray	DEMIN WATER	
Purchase Order Number: M-152	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/RHR LOOP A DISCHARGE TO LPCI	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-2002B Component:	Temperature (°F)	SEE GENERAL NOTE 6	
POSITION SWITCH	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: NAMCO	Relative Humidity (%)	100	
Model Number: EA-740	Chemical Spray	DEMIN WATER	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/RHR RECIRC INJECTION LOOP A	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NA Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M119/F7	
Loc Dwg: E329/C5		Elec Scheme: E121/58A			VDR ID: NONE		
Mfgr Model Ref: V.P.		E57-1-1, 2-1					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M120/E3		
Loc Dwg: E329/F5		Elec Scheme: E121/58		VDR ID: NONE			
Mfgr Model Ref: V.P.		E57-1-1, 2-1					

NO07-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: NO07-03-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	1 HOUR	
Plant I.D. Number: ZS-4639 Component:	Temperature (°F)	SEE GENERAL NOTE 6	
POSITION SWITCH	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: NAMCO	Relative Humidity (%)	100	
Model Number: EA-740	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-895	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/RECIRC WATER SAMPLE	Radiation (Rad)	2.1 E07	
Accuracy: Spec:	Aging	40 YEARS	
NA Location: DRYWELL	Submergence	NA	
Floor Elevation: 775' - 11"			
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2002A Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA-740 Purchase Order Number: DCR-895 Function/Service: POST ACCIDENT MONITORING/REACTOR RECIRC PUMP DISCHARGE VALVE OPEN-CLOSE ACTUATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' - 6"	Operating Time	30 DAYS	POSITION OF CV-2002 IS INDICATIVE OF RHR FLOW TO RCS
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M116/F6 Loc Dwg: E330/B5 Elec Scheme: E122/10 VDR ID: NONE Mfr Model Ref: V.P. E57-1-1, 2-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M120/F3 Loc Dwg: E329/F5 Elec Scheme: E121/58 VDR ID: NONE Mfr Model Ref: V.P. E57-1-1, 2-1							

NO07-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	POSITION OF CV-1906 IS
Plant I.D. Number: ZS-1906B Component: POSITION SWITCH	Temperature (°F)	SEE GENERAL NOTE 6	INDICATIVE OF RHR FLOW TO
Manufacturer: NAMCO	Pressure (PSIG)	SEE GENERAL NOTE 6	RCS
Model Number: EA-740	Relative Humidity (%)	100	
Purchase Order Number: DCR-895	Chemical Spray	DEMIN WATER	
Function/Service: POST ACCIDENT MONITORING/REACTOR RECIRC PUMP DISCHARGE VALVE OPEN-CLOSE ACTUATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	4.3 E07	
Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATE
Walkdown: -	Environment: HARSH	System: 36	P&ID: M119/E7				
Loc Dwg: E329/C5	Elec Scheme: E121/58A	VDR ID: NONE					
Mfgr Model Ref: V.P. E57-1-1, 2-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:	System:	P&ID:				
Loc Dwg:	Elec Scheme:	VDR ID:					
Mfgr Model Ref:							

NO07-04

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA170-41302 NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	140		194 SEE GEN NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		100 SEE GEN NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (1)	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. NAMCO TEST REPORT NO. QTR-107, REVISION 0, DATED 3/11/81 (V.P. 11186-223-M44668-9-1). B. AGING EVALUATION FORM NO07-04 DATED 6/18/82 (CHRON 8111).	1. A PERIODIC INSPECTION AND REPLACEMENT PROGRAM FOR ELASTOMER COMPONENTS AT 19 YEAR INTERVALS WILL BE IMPLEMENTED.

NO07-04

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: NO07-04-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: ZS-8773A Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA170-41302 Purchase Order Number: DCR-932A Function/Service: POST ACCIDENT MONITORING/1C-353 EXHAUST DUCT ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 EO6	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: ZS-8773B Component: POSITION SWITCH Manufacturer: NAMCO Model Number: EA170-41302 Purchase Order Number: DCR-932A Function/Service: POST ACCIDENT MONITORING/1C-353 EXHAUST DUCT ISOLATION Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 EO6	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M187/C3 Loc Dwg: E316/F7 Elec Scheme: E113/64 VDR ID: NONE Mfr Model Ref: V.P. 11186-234-44668-8-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M187/C2 Loc Dwg: E316/F7 Elec Scheme: E113/65 VDR ID: NONE Mfr Model Ref: V.P. 11186-234-44668-8-2							

N007-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-131 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (*F)	140		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	8.1 E06		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GENERAL NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

NO07-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
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Equip ID: NO07-05-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2234 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-131 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/HPCI SYSTEM DRAIN CONTROL Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2235 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-131 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/HPCI SYSTEM DRAIN CONTROL Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M122/C5 Loc Dwg: E317/A3 Elec Scheme: E121/26 VDR ID: NONE Mfr Model Ref: V.P. M141-38-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M122/C6 Loc Dwg: E317/A3 Elec Scheme: E121/26 VDR ID: NONE Mfr Model Ref: V.P. M141-38-3							

NO07-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: NO07-05-003

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Equip ID: NO07-05-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2435 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-131 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/COND PMP IP-228 DRAIN DISCHARGE CONTROL Accuracy: Spec: NA Location: RCIC ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 EO6	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2436 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-131 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/COND PMP IP-228 DRAIN DISCHARGE CONTROL Accuracy: Spec: NA Location: RCIC ROOM Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.9 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	NO	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M124/B5 Loc Dwg: M405/B6 Elec Scheme: E121/39 VDR ID: NONE Mfr Model Ref: V.P. M141-38-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	NO	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M124/B5 Loc Dwg: M405/B6 Elec Scheme: E121/39 VDR ID: NONE Mfr Model Ref: V.P. M141-38-3							

NO07-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: ZS-4640 Component:	Temperature (*F)	104	
POSITION SWITCH	Pressure (PSIG)	0	
Manufacturer: NAMCO	Relative Humidity (%)	100	
Model Number: SAI-131	Chemical Spray	NA	
Purchase Order Number: M-123	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/RECIRC WATER SAMPLE	Radiation (Rad)	1.8 E06	
Accuracy: Spec: NA Location: RWCU HEAT EXCH ROOM	Aging	40 YEARS	
Floor Elevation: 786'-0"	Submergence	NA	
Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 36 P&ID: M116/F7							
Loc Dwg: E321/E5 Elec Scheme: E122/10 VDR ID: NONE							
Mfgr Model Ref: WALKDOWN 10/81, SH 92 & 3/80, SH 54							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

NO07-06

Owner: IOWA ELECTRIC
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-31 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 1	003		---	---	SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	003		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	003		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	003		---	---	SEE GEN NOTE 1
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	8.1 E06		SEE GENERAL NOTE 1	003		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	003		---	---	SEE GEN NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

NO07-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: NO07-06-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4310 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-31 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/CONTAIN- MENT PURGE OUTLET BYPASS Accuracy: Spec: NA Location: H&V CONTROL VALVE RM Floor Elevation: 812'-0"	Operating Time	30 DAYS	
	Temperature ("F)	150	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2211 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-31 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/COND DRAIN CONT TO MAIN COND Accuracy: Spec: NA Location: HPCI ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/D7 Loc Dwg: E322/D4 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M141-44-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M122/D2 Loc Dwg: E317/C3 Elec Scheme: E121/26 VDR ID: NONE Mfr Model Ref: V.P. M1441-38-3							

NO07-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
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Equip ID: NO07-06-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2212 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-31 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/COND DRAIN CONT TO MAIN COND Accuracy: Spec: Location: HPCI ROOM Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	8.1 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-4309 Component: POSITION SWITCH Manufacturer: NAMCO Model Number: SAI-31 Purchase Order Number: M-141 Function/Service: POST ACCIDENT MONITORING/SUPPRES- SION POOL PURGE OUTLET BYPASS Accuracy: Spec: NA Location: NE CRNR RM Floor Elevation: 735' - 7"	Operating Time	30 DAYS	
	Temperature (°F)	104	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.9 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	NO	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M122/D2 Loc Dwg: E317/C3 Elec Scheme: E121/26 VDR ID: NONE Mfr Model Ref: V.P. M141-38-3							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M143/C7 Loc Dwg: E316/E2 Elec Scheme: E122/12 VDR ID: NONE Mfr Model Ref: V.P. M141-44-5							

NO70-02

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

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EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 NUREG 0588 Applicable: NO Accuracy: Demo: USAS C96.1	Operating Time	1 HOUR		SEE GEN NOTE 9	001		REF. (A)	TYPE TEST	SEE GEN NOTE 9, 12
	Temperature (°F)	300		349	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	1.5		.25	001		REF. (A)	TYPE TEST	SEE GEN NOTE 9
	Relative Humidity (%)	100		90	001		REF. (A)	TYPE TEST	SEE GEN NOTE 9, 12
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	7.2 E06		2.0 E08 SEE NOTE (1)	032		REF. (B)	ANALYSIS	NONE
	Aging	40 YEARS		28 YEARS SEE NOTE (1)	001		REF. (B)	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. GE LETTER G-KE-O-159, D. BUTCHER TO P. WARD DATED 9/30/80 (CHRON 2572) NSE 80224, 80229, 80247. B. AGING EVALUATION FORM NO70-02 DATED 7/8/82 (CHRON 8112).	1. QUALIFIED LIFE OF 28 YEARS IS BASED ON SIMILARITY TO PYCO MODEL 02-9039-08-6. VISUAL INSPECTION OF THE COMPONENTS TERMINAL CONNECTIONS, WIRE INSULATION, AND SEALS WILL BE PERFORMED ONCE EVERY REFUELING CYCLE TO MONITOR FOR AGING DEGRADATION UNTIL OR UNLESS THE QUALIFIED LIFE IS OTHERWISE CONFIRMED.

N070-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: N070-02-001

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Equip ID: N070-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2262A Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI LEAK DET-VENT DUCT INLET Accuracy: Spec: USAS C96.1 Location: HPCI ROOM Floor Elevation: 716'-9" Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.5	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 EO3	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2262B Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI LEAK DET-VENT DUCT INLET Accuracy: Spec: USAS C96.1 Location: HPCI ROOM Floor Elevation: 716'-9" Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.5	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 EO3	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M122/A4 Loc Dwg: E317/C2 Elec Scheme: E124/6 VDR ID: E41-NO28A Mfr Model Ref: V.P. APED E41-13-2,SH 25							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M122/A4 Loc Dwg: E317/C2 Elec Scheme: E124/6 VDR ID: E41-NO28B Mfr Model Ref: V.P. APED E41-13-2,SH 25							

N070-02

Owner: IDWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: N070-02-003

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Equip ID: N070-02-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2263A Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.5	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI LEAK DET-VENT DUCT OUTLET	Radiation (Rad)	2.1 EO3	
Accuracy: Spec: USAS C96.1 Location: HPCI ROOM	Aging	40 YEARS	
Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: 717' -2" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2263B Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.5	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI LEAK DET-VENT DUCT OUTLET	Radiation (Rad)	2.1 EO3	
Accuracy: Spec: USAS C96.1 Location: HPCI ROOM	Aging	40 YEARS	
Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: 717' -2" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M122/A3				
Loc Dwg: M661/D4	Elec Scheme: E124/6	VDR ID: E41-NO29A					
Mfr Model Ref: V.P. APED E41-13-2, SH 25							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M122/A3				
Loc Dwg: M661/D4	Elec Scheme: E124/6	VDR ID: E41-NO29B					
Mfr Model Ref: V.P. APED E41-13-2, SH 25							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: NO70-02-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2264A Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI LEAK DET-EMERG AREA COOLER Accuracy: Spec: USAS C96.1 Location: HPCI ROOM Floor Elevation: 731'-9"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.5	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E03	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2264B Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/HPCI LEAK DET-EMERG AREA COOLER Accuracy: Spec: USAS C96.1 Location: HPCI ROOM Floor Elevation: 731'-9"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.5	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E03	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M122/A3 Loc Dwg: E317/C3 Elec Scheme: E124/7 VDR ID: E41-N030A Mfr Model Ref: V.P. APED E41-13-2,SH 25							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M122/A3 Loc Dwg: E317/C3 Elec Scheme: E124/7 VDR ID: E41-N030B Mfr Model Ref: V.P. APED E41-13-2,SH 25							

NO70-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: NO70-02-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2522A Component:	Temperature (°F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT	Radiation (Rad)	1.0 E06	
Accuracy: Spec: 6F Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2522B Component:	Temperature (°F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT	Radiation (Rad)	1.0 E06	
Accuracy: Spec: 6F Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M125/B4				
Loc Dwg: M646/C3	Elec Scheme: E124/6	VDR ID: E51-NO26A					
Mfr Model Ref: V.P. APED E51-16-1,SH 23							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M125/B3				
Loc Dwg: M660/H8	Elec Scheme: E124/6	VDR ID: E51-NO26B					
Mfr Model Ref: V.P. APED E51-16-1,SH 23							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: N070-02-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2522C Component:	Temperature (°F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: 6F Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2522D Component:	Temperature (°F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: 6F Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M125/A4							
Loc Dwg: M660/F7 Elec Scheme: E124/6 VDR ID: E51-NO26C							
Mfgr Model Ref: V.P. APED E51-16-1,SH 23							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M125/A3							
Loc Dwg: M660/D5 Elec Scheme: E124/6 VDR ID: E51-NO26D							
Mfgr Model Ref: V.P. APED E51-16-1,SH 23							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: N070-02-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2523A Component: TEMPERATURE ELEMENT	Temperature (°F)	277	
Manufacturer: NECI	Pressure (PSIG)	1.2	
Model Number: N145C3023	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT	Seismic	LATER	
Accuracy: Spec: 6F	Radiation (Rad)	1.0 EO6	
Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716'-9"			
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2523B Component: TEMPERATURE ELEMENT	Temperature (°F)	277	
Manufacturer: NECI	Pressure (PSIG)	1.2	
Model Number: N145C3023	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT	Seismic	LATER	
Accuracy: Spec: 6F	Radiation (Rad)	1.0 EO6	
Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716'-9"			
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M125/B4				
Loc Dwg: E316/E3	Elec Scheme: E124/6	VDR ID: E51-N027A					
Mfr Model Ref: V.P. APED E51-16-1,SH 23							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M125/B3				
Loc Dwg: E316/E3	Elec Scheme: E124/6	VDR ID: E51-N027B					
Mfr Model Ref: V.P. APED E51-16-1,SH 23							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: NO70-02-020

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2523C Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT Accuracy: Spec: 6F Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature ("F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2523D Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL AREA LEAK DET-VENT Accuracy: Spec: 6F Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M125/A4 Loc Dwg: E316/E3 Elec Scheme: E124/6 VDR ID: E51-NO27C Mfr Model Ref: V.P. APED E51-16-1, SH 23							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M125/A3 Loc Dwg: E316/E3 Elec Scheme: E124/6 VDR ID: E51-NO27D Mfr Model Ref: V.P. APED E51-16-1, SH 23							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: N070-02-022

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2526A Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL LEAK DET AMB TEMPERATURE Accuracy: Spec: 6F Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2526B Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL LEAK DET AMB TEMPERATURE Accuracy: Spec: 6F Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (*F)	277	
	Pressure (PSIG)	1.2	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M125/B4 Loc Dwg: M646/F4 Elec Scheme: E124/7 VDR ID: E51-NO25A Mfr Model Ref: V.P. APED E51-16-1,SH 19							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M125/B2 Loc Dwg: M646/B8 Elec Scheme: E124/7 VDR ID: E51-NO25B Mfr Model Ref: V.P. APED E51-16-1,SH 19							

N070-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: N070-02-023

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Equip ID: N070-02-024

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2526C Component:	Temperature (*F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL LEAK DET AMB TEMPERATURE	Radiation (Rad)	1.0 E06	
Accuracy: Spec: 6F Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2526D Component:	Temperature (*F)	277	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.2	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/SUPPRESSION POOL LEAK DET AMB TEMPERATURE	Radiation (Rad)	1.0 E06	
Accuracy: Spec: 6F Location: TORUS ROOM NORTH	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment: HARSH			System: 27		P&ID: M125/A4	
Loc Dwg: M660/D4		Elec Scheme: E124/7			VDR ID: E51-NO25C		
Mfr Model Ref: V.P. APED E51-16-1,SH 19							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	YES	NO	LATER
Walkdown: -	Environment:		HARSH		System: 27		P&ID: M125/A2
Loc Dwg: M646/B2	Elec Scheme: E124/7			VDR ID: E51-NO25D			
Mfr Model Ref:	V.P. APED E51-16-1, SH 19						

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: NO70-02-031

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Equip ID: NO70-02-032

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2453 Component: TEMPERATURE ELEMENT	Temperature (°F)	300	
Manufacturer: NECI	Pressure (PSIG)	0.1	
Model Number: N145C3023	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: PRIMARY CONTAINMENT ISOLATION/RCIC EQUIP ROOM STM LEAK DET	Seismic	LATER	
Accuracy: Spec: 6F	Radiation (Rad)	2.1 E03	
Location: RCIC ROOM	Aging	40 YEARS	
Floor Elevation: 716'-9"			
Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4447 Component: TEMPERATURE ELEMENT	Temperature (°F)	300	
Manufacturer: NECI	Pressure (PSIG)	1.8	
Model Number: N145C3023	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: POST ACCIDENT MONITDRING/MAIN STEAM LINE TUNNEL TEMP DIFFERENTIAL	Seismic	LATER	
Accuracy: Spec: USAS C96.1	Radiation (Rad)	7.2 E06	
Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757'-6"			
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	YES	NO	LATER
Walkdown: -	Environment: HARSH		System: 27		P&ID: M124/C7		
Loc Dwg: M661/B5		Elec Scheme: E124/7		VDR ID: E51-NO11			
Mfr Model Ref: V.P.		APED E51-16-1,SH 19					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	NO	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M114/G3							
Loc Dwg: E328/F2 Elec Scheme: E124/7 VDR ID: B21-NO14							
Mfr Model Ref: GE DATA SHEET 234A9301RS SH 16, & CHRON 2572							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: N070-02-034

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4451A Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE TUNNEL HI VENT INLET DIFFERENTIAL TEMPERATURE Accuracy: Spec: USAS C96.1 Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.2 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: TE-4451B Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3023 Purchase Order Number: APED Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE TUNNEL HI VENT OUTLET DIFFERENTIAL TEMPERATURE Accuracy: Spec: USAS C96.1 Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.2 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	NO	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M114/G2 Loc Dwg: E328/D3 Elec Scheme: E124/6 VDR ID: B21-N016A Mfr Model Ref: GE DATA SHEET 234A9301RS SH 18, & CHRON 2572							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	NO	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M114/G2 Loc Dwg: E328/F4 Elec Scheme: E124/6 VDR ID: B21-N016B Mfr Model Ref: GE DATA SHEET 234A9301RS SH 18, & CHRON 2572							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	1 HOUR	
Plant I.D. Number: TE-2265 Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.5	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3023	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/HPCI EQUIPMENT LEAK DETECTION SYSTEM	Radiation (Rad)	2.1 EO3	
Accuracy: Spec: USAS C96.1 Location:	Aging	40 YEARS	
HPCI ROOM Floor Elevation: 716'-9"	Submergence	NA	
Flood Level Elevation: 717'-2" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	YES	NO	NO	LATE
Walkdown: - Environment: HARSH System: 36 P&ID: M122/A2							
Loc Dwg: M660/C3 Elec Scheme: E124/7 VDR ID: E41-N024							
Mfgr Model Ref: GE DATA SHEET 234A9301RS SH 16, & CHRON 2572							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: N145C3044 NUREG 0588 Applicable: NO Accuracy: Demo: USAS C96.1	Operating Time	30 DAYS		SEE GENERAL NOTE 1	001		---		SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	001		---		SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	001		---		SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	001		---		SEE GEN NOTE 1
	Chemical Spray	DEMIN WATER		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GENERAL NOTE 1	001		---		SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-3724 Component:	Temperature (°F)	SEE GEN NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GEN NOTE 6	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: N145C3044	Chemical Spray	DEMIN WATER	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/DRYWELL EQUIPMENT DRAIN SUMP	Radiation (Rad)	4.3 E07	
Accuracy: Spec: 2F Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 742' - 9"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 36		P&ID: M137/B7		
Loc Dwg: E331/E5	Elec Scheme: E125/5		VDR ID: G11-NO10				
Mfgr Model Ref: V.P. APED G11-24 AND G11-61-19							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLO
 Unit: 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: NECI Model Number: 136B3184 NUREG 0588 Applicable: NO Accuracy: Demo: USAS C96.1	Operating Time	30 DAYS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Temperature (°F)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Pressure (PSIG)	SEE GEN NOTE 6		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Relative Humidity (%)	100		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Chemical Spray	DEMIN WATER		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Aging	40 YEARS		SEE GENERAL NOTE 1	001		---	---	SEE GEN NOTE 1
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES

NO70-08

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: NO70-08-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAY	
Plant I.D. Number: TE-4403 Component:	Temperature (°F)	SEE GEN NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GEN NOTE 6	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: 136B3184	Chemical Spray	DEMIN WATER	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE B RELIEF TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: USAS C96.1 Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 773' -9"	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION	Operating Time	30 DAYS	
Plant I.D. Number: TE-4404 Component:	Temperature (°F)	SEE GEN NOTE 6	
TEMPERATURE ELEMENT	Pressure (PSIG)	SEE GEN NOTE 6	
Manufacturer: NECI	Relative Humidity (%)	100	
Model Number: 136B3184	Chemical Spray	DEMIN WATER	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: POST ACCIDENT MONITORING/MAIN STEAM LINE C RELIEF TEMPERATURE	Radiation (Rad)	4.3 E07	
Accuracy: Spec: USAS C96.1 Location: DRYWELL	Aging	40 YEARS	
Floor Elevation: 773' -9"	Submergence	NA	
Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 36	P&ID: M114/E6				
Loc Dwg: E330/C4	Elec Scheme: E121/2	VDR ID: B21-NO03A					
Mfr Model Ref: V.P. APED B21-33-4 AND B21-32							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 36	P&ID: M114/D5				
Loc Dwg: E330/F4	Elec Scheme: E121/2	VDR ID: B21-NO03B					
Mfr Model Ref: V.P. APED B21-33-4 AND B21-32							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: OKONITE Model Number: NA NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		130 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GEN NOTE 6		345	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		112	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. OKONITE REPORT NO. NQRN-1 AND OKONITE LETTER, J.S. LASKY TO J.L. HURLEY DATED 6/4/80 (CHRON 1462). TEST PROFILE IS APPENDIX 5 OF THIS REPORT. B. AGING EVALUATION FORM 0004-02 DATED 6/18/82 (CHRON 8113).	1. SPRAY SOLUTIONS OF BORIC ACID AND SODIUM THIOSULFATE AND SODIUM HYDROXIDE IN TAP WATER USED IN TEST EXCEEDS REQUIREMENT OF DEMINERALIZED WATER SPRAY.

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Equip ID: 0004-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS Plant I.D. Number: CABLE-INSTR-OKO Component: 600V CABLE Manufacturer: OKONITE Model Number: NA Purchase Order Number: E-O19A Function/Service: SUPPORT/SUPPLY INSTRUMENT SIGNAL Accuracy: Spec: NA Location: VARIOUS Floor Elevation: VARIOUS Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS ROOM. TEMPERATURE, PRESSURE AND CHEMICAL SPRAY IS FROM DRYWELL.
	Temperature (°F)	SEE GEN NOTE 6	
	Pressure (PSIG)	SEE GEN NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS Plant I.D. Number: CABLE-POWER-OKO Component: 600V CABLE Manufacturer: OKONITE Model Number: NA Purchase Order Number: E-O19 Function/Service: SUPPORT/SUPPLY POWER TO EQUIPMENT Accuracy: Spec: NA Location: VARIOUS Floor Elevation: VARIOUS Flood Level Elevation: NA Above Flood Level: Yes: X No:	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS ROOM. TEMPERATURE, PRESSURE AND CHEMICAL SPRAY IS FROM DRYWELL.
	Temperature (°F)	SEE GEN NOTE 6	
	Pressure (PSIG)	SEE GEN NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 32		P&ID: NA	
Loc Dwg: NA	Elec Scheme: NA			VDR ID: NONE			
Mfgr Model Ref:	MRS-E-O19A						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 32		P&ID: NA	
Loc Dwg: NA	Elec Scheme: NA			VDR ID: NONE			
Mfgr Model Ref:	P.O. E-O19BC						

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS ROOM. TEMPERATURE, PRESSURE AND CHEMICAL SPRAY IS FROM DRYWELL
Plant I.D. Number: CABLE-CONTROL-OKO Component: 600V CABLE	Temperature (°F)	SEE GEN NOTE 6	
Manufacturer: OKONITE	Pressure (PSIG)	SEE GEN NOTE 6	
Model Number: NA	Relative Humidity (%)	100	
Purchase Order Number: E-019	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/SUPPLY CONTROL SIGNAL	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: NA	Elec Scheme: NA		VDR ID: NONE				
Mfgr Model Ref:	P.O E-019BC						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

P129-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE SWITCH Manufacturer: PENN Model Number: A-19ABB-6 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature ("F)	104		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM NO. 25

P129-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P129-02-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 302
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 Date: 07/09/82

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Equip ID: P129-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TS-5808A Component:	Temperature (°F)	104	
TEMPERATURE SWITCH	Pressure (PSIG)	0	
Manufacturer: PENN	Relative Humidity (%)	100	
Model Number: A-19ABB-6	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS ELECTRICAL HEATER HI LIMIT	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA	Aging	40 YEARS	
Location: SGT ROOM	Submergence	NA	
Floor Elevation: 786'-0"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: STANDBY GAS TREATMENT	Operating Time	30 DAYS	
Plant I.D. Number: TS-5808B Component:	Temperature (°F)	104	
TEMPERATURE SWITCH	Pressure (PSIG)	0	
Manufacturer: PENN	Relative Humidity (%)	100	
Model Number: A-19ABB-6	Chemical Spray	NA	
Purchase Order Number: M-81	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/SGTS ELECTRICAL HEATER HI LIMIT	Radiation (Rad)	1.6 E08	
Accuracy: Spec: NA	Aging	40 YEARS	
Location: SGT ROOM	Submergence	NA	
Floor Elevation: 786'-0"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 10		P&ID: M158/G5		
Loc Dwg: E315/G5		Elec Scheme: E113/13			VDR ID: NONE		
Mfr Model Ref:		WALKDOWN 10/81 SH 54					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 10		P&ID: M158/C5	
Loc Dwg: E315/F5	Elec Scheme: E113/13				VDR ID: NONE		
Mfr Model Ref:	WALKDOWN 10/81 SH 55						

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N NUREG 0588 Applicable: NO Accuracy: Demo: 20%	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	SEE GEN NOTE 6		340	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		65	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		5.0 E07	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. WYLE LABORATORIES TEST REPORT NO. 58572 DATED NOV 12, 1980 (CHRON 7314). TEST PROFILE IS SHOWN IN TABLE I, PAGE 13 OF THIS REPORT. B. AGING EVALUATION FORM P381-01 DATED 6/18/82 (CHRON 8114).	1. ACCIDENT CONDITIONS WYLE LAB TEST REPORT SECTION 3.6.1 STATES THIS EQUIPMENT SPECIMEN WAS SUBJECTED TO DIRECT SPRAY IMPINGEMENT. LOCA TEST SETUP INCLUDED STEAM, PRESSURE AND HOT WATER SPRAY. DURATION 0 5 3 6 1 5 SEC MIN HRS HRS DAY DAYS

P381-01

Owner: IOWA ELECTRIC
Facility: DUANE ARNOLD
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DOCUMENTATION REFERENCES:

NOTES:

TEMP. (F)	340	340	340	320	250	200
PRESSURE	65	65	45	45	25	20
(PSIG)						
RELATIVE HUMIDITY	100%	100%	100%	100%	100%	100%

THIS IS MORE SEVERE THAN DEMINERALIZED WATER.

P381-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: P381-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4400A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4400B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 35		P&ID: M114/E4		
Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E4							
Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE							
Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

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 Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: P381-01-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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 Date: 07/09/82

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Equip ID: P381-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4400C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A- 17- 1N Purchase Order Number: DCR- 1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744' -0"	Submergence	
Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4401A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E4 Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E4 Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-005

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: P381-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4401B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4401C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A- 17- 1N Purchase Order Number: DCR- 1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'- 11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'- 0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E4 Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E4 Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: P381-01-007

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Equip ID: P381-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4402A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4402B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C6 Loc Dwg: M331/C4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C6 Loc Dwg: M331/C4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-009

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Equip ID: P381-01-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4402C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature ("F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0"	Submergence	
Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4403A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C6 Loc Dwg: M331/C3 Elec Scheme: E121/2B VDR ID: NONE Mfgr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C5 Loc Dwg: M338/C4 Elec Scheme: E121/2B VDR ID: NONE Mfgr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: P381-01-011

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Equip ID: P381-01-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4403B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4403C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C5 Loc Dwg: M338/C4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C5 Loc Dwg: M338/C4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: P381-01-013

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Equip ID: P381-01-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4404A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4404B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11" Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C5 Loc Dwg: M338/F4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C5 Loc Dwg: M338/F4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

P381-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-015

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 312
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P381-01-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4404C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4405A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C5							
Loc Dwg: M338/F4 Elec Scheme: E121/2B VDR ID: NONE							
Mfrgr Model Ref: IE PO 33857, DATA SHEET M496, SH 12 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 35		P&ID: M114/C4		
Loc Dwg: M331/F4 Elec Scheme: E121/2B VDR ID: NONE							
Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

P381-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-017

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 313
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P381-01-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4405B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4405C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C4 Loc Dwg: M331/F4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/C4 Loc Dwg: M331/F4 Elec Scheme: E121/2B VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

P381-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-019

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 314
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P381-01-020

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4406A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	
	Temperature (*F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4406B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	
	Temperature (*F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
Flood Level Elevation: 744' - 0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E6							
Loc Dwg: M331/F4 Elec Scheme: E121/2C VDR ID: NONE							
Mfgr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 35		P&ID: M114/E6	
Loc Dwg: M331/F4		Elec Scheme: E121/2C			VDR ID: NONE		
Mfgr Model Ref:		IE PO 33857, DATA SHEET M496, SH 13 REV 1					

P381-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-021

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 315
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P381-01-022

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4406C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11" Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4407A Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775'-11" Flood Level Elevation: 744'-0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E6							
Loc Dwg: M331/F4 Elec Scheme: E121/2C VDR ID: NONE							
Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E6							
Loc Dwg: M331/F3 Elec Scheme: E121/2C VDR ID: NONE							
Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

P381-01

Owner: IOWA ELECTRIC
 Facility: DUANE, ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P381-01-023

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 316
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P381-01-024

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4407B Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: PS-4407C Component: PRESSURE SWITCH Manufacturer: PRESSURE CONTROLS Model Number: A-17-1N Purchase Order Number: DCR-1021 Function/Service: POST ACCIDENT MONITORING/ PRESSURE INDICATION Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 775' - 11"	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 EO7	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E6 Loc Dwg: M331/F3 Elec Scheme: E121/2C VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M114/E6 Loc Dwg: M331/F3 Elec Scheme: E121/2C VDR ID: NONE Mfr Model Ref: IE PO 33857, DATA SHEET M496, SH 13 REV 1							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 317
 Revision 1
 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 NUREG 0588 Applicable: NO Accuracy: Demo: USAS C96.1	Operating Time	1 HOUR		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	214		346	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	1.1		113	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.0 EO6		2.0 EO8	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		28 YEARS	001		REF. (B)	TYPE TEST	NONE SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. PYCO QUALIFICATION TEST REPORT 770831, DATED 8/31/77 (CHRON 7229). PRESSURE AND TEMPERATURE PROFILE IS FIGURE 1 OF THIS REPORT. B. AGING EVALUATION FORM P427-01 DATED 7/8/82 (CHRON 8115).	1. NEW ENVIRONMENTAL QUALIFICATION TEST SCHEDULED FOR COMPLETION 4TH QUARTER 1982 WILL BE EVALUATED FOR APPLICABILITY.

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 318
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P427-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2742A Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU EQUIPMENT ROOM HIGH AMBIENT TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786' -0" Flood Level Elevation: 786' -3" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2742B Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU EQUIPMENT ROOM HIGH AMBIENT TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786' -0" Flood Level Elevation: 786' -3" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/AB							
Loc Dwg: M657/E4 Elec Scheme: E124/7 VDR ID: G31-NO16A Mfr Model Ref: V.P. APED G31-22-4, SH 4, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	M127/	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/AB							
Loc Dwg: M657/E3 Elec Scheme: E124/7 VDR ID: G31-NO16B Mfr Model Ref: V.P. APED G31-22-4, SH 4, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: P427-01-003

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 319

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: P427-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2742C Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU EQUIPMENT ROOM HIGH AMBIENT TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0" Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 E06	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2742D Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU EQUIPMENT ROOM HIGH AMBIENT TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0" Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 E06	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/E4 Elec Scheme: E124/7 VDR ID: G31-NO16C Mfr Model Ref: V.P. APED G31-22-4, SH 4, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/E6 Elec Scheme: E124/7 VDR ID: G31-NO16D Mfr Model Ref: V.P. APED G31-22-4, SH 4, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-005

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 320
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P427-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2742E Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU EQUIPMENT ROOM HIGH AMBIENT TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECESSARILY SUPPLIED AND IS GEARED TO MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2742F Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU EQUIPMENT ROOM HIGH AMBIENT TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: E657/F6 Elec Scheme: E124/7 VDR ID: G31-NO16E Mfr Model Ref: V.P. APED G31-22-4, SH 4, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/E5 Elec Scheme: E124/7 VDR ID: G31-NO16F Mfr Model Ref: V.P. APED G31-22-4, SH 4, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-007

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 321
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: P427-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2743B Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT INLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 786'-3" Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2743C Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT INLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 786'-3" Above Flood Level: Yes: X No:		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: -	Environment: HARSH		System: 27		P&ID: M127/A8		
Loc Dwg: M657/E3	Elec Scheme: E124/6			VDR ID: G31-NO22B			
Mfr Model Ref:	V.P. APED G31-22-4, SH 5, QSR-110-A-01						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8							
Loc Dwg: M657/E4 Elec Scheme: E124/6 VDR ID: G31-NO22C							
Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-009

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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 Date: 07/09/82

11186-234-NP-1

Equip ID: P427-01-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2743D Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT INLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0" Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2743E Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT INLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0" Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LDCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/F6 Elec Scheme: E124/6 VDR ID: G31-NO22D Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/E6 Elec Scheme: E124/6 VDR ID: G31-NO22E Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-011

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11186-234-NP-1

Equip ID: P427-01-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2743F Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: O2-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT INLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECESSARILY SUPPLIED AND IS GEARED TO MODEL NUMBER N145C3224
	Temperature ("F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 786'-7"			
Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2744A Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: O2-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT OUTLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECESSARY SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 786'-3" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8							
Loc Dwg: M657/E5 Elec Scheme: E124/6 VOR ID: G31-NO22F							
Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8							
Loc Dwg: M657/F4 Elec Scheme: E124/6 VOR ID: G31-NO23A							
Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-013

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Sheet No. 324
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11186-234-NP-1

Equip ID: P427-01-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2744B Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT OUTLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (*F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 786'-3" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2744C Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT OUTLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (*F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 786'-3" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8							
Loc Dwg: M657/F4 Elec Scheme: E 124/6 VDR ID: G31-NO23B Mfr Model Ref: V. P. APED G31-22-4, SH 5, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8							
Loc Dwg: M657/E4 Elec Scheme: E124/6 VDR ID: G31-NO23C							
Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-015

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Sheet No. 325
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Equip ID: P427-01-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2744D Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: O2-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT OUTLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786' - 0" Flood Level Elevation: 786' - 7" Above Flood Level: Yes: ☒ No: ☐	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature ("F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2744E Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: O2-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT OUTLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786' - 0" Flood Level Elevation: 786' - 7" Above Flood Level: Yes: ☒ No: ☐	Operating Time	1 HOUR	THIS INSTRUMENT IS NECI SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature ("F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 EO6	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/E4 Elec Scheme: E124/6 VDR ID: G31-NO23D Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/A8 Loc Dwg: M657/E4 Elec Scheme: E124/6 VDR ID: G31-NO23E Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

P427-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: P427-01-017

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 Date: 07/09/82

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Equip ID: P427-01-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2744F Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT OUTLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU HEAT EXCH ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECESSARILY SUPPLIED AND IS GEARED TO THE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 E06	
	Aging	40 YEARS	
	Submergence	NA	
	Flood Level Elevation: 786'-7" Above Flood Level: Yes: X No:		

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-2743A Component: TEMPERATURE ELEMENT Manufacturer: PYCO Model Number: 02-9039-08-6 Purchase Order Number: APED Function/Service: PRIMARY CONTAINMENT ISOLATION/RWCU ROOM AIR VENT INLET HIGH TEMPERATURE Accuracy: Spec: ASA C96.1 Location: RWCU PUMP ROOM Floor Elevation: 786'-0"	Operating Time	1 HOUR	THIS INSTRUMENT IS NECESSARY SUPPLIED AND IS GE MODEL NUMBER N145C3224
	Temperature (°F)	214	
	Pressure (PSIG)	1.1	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.0 E06	
	Aging	40 YEARS	
	Flood Level Elevation: 786'-3" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/AB Loc Dwg: M657/F5 Elec Scheme: E124/6 VDR ID: G31-NO23F Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	NO	NO	NO	NO	YES	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M127/AB Loc Dwg: M657/D4 Elec Scheme: E124/6 VDR ID: G31-NO22A Mfr Model Ref: V.P. APED G31-22-4, SH 5, QSR-110-A-01							

RO98-01

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT QUALIFICATION REPORT
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: RAYCHEM Model Number: NA NUREG 0588 Applicable: NO Accuracy: Demo:	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	SEE GEN NOTE 6		357	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		70	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08 SEE NOTE (2)	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. THE FRANKLIN INSTITUTE RESEARCH LABORATORIES TECHNICAL REPORT NO. F-C4033-1 DATED JANUARY 1975 (CHRON 7511). TEMPERATURE AND PRESSURE PROFILE IS PAGE 6 OF THIS REPORT. B. AGING EVALUATION FORM RO98-01 DATED 6/18/82 (CHRON 8116).	1. SPRAY SOLUTION OF H3BO3 AND NA2S2O3 AND NAOH IN TAP WATER USED IN TEST EXCEEDS REQUIREMENT OF DEMINERALIZED WATER SPRAY. 2. TEST MODEL WAS IRRADIATED WITH 50 MRADS DURING AGING AND 150 MRADS DURING LOCA SIMULATION TEST. TOTAL IRRADIATION IS 200 MRADS.

RO98-01

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: RO98-01-001

EQUIPMENT QUALIFICATION REPORT
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS ROOM
Plant I.D. Number: CABLE-COAX-RAY Component: 600V CABLE	Temperature (°F)	SEE GEN NOTE 6	
Manufacturer: RAYCHEM	Pressure (PSIG)	SEE GEN NOTE 6	
Model Number: NA	Relative Humidity (%)	100	
Purchase Order Number: E-023A	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/SUPPLIES INSTRUMENTATION SIGNALS	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: NA	Elec Scheme: NA		VDR ID: NONE				
Mfgr Model Ref:	P.O. E-023A, REV. 2						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

R098-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SPLICING KITS Manufacturer: RAYCHEM Model Number: WCSF-N NUREG 0588 Applicable: NO Accuracy: Demo:	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	SEE GEN NOTE 6		357	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		70	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (2)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08 SEE NOTE 1)	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. THE FRANKLIN INSTITUTE RESEARCH LABORATORIES TECHNICAL REPORT NO. F-C4033-3 DATED JANUARY, 1975 (CHRON 7774). TEMPERATURE AND PRESSURE PROFILE IS PAGE 6 OF THIS REPORT. B. AGING EVALUATION FORM R098-02 DATED 6/18/82 (CHRON 8116).	1. TEST MODEL WAS IRRADIATED WITH 50 MRADS DURING AGING AND 150 MRADS DURING LOCA SIMULATION TEST. TOTAL IRRADIATION IS 200 MRADS. 2. SPRAY SOLUTION OF H3BO3 AND N2S2O3 AND NAOH IN TAP WATER USED IN. TEST EXCEEDS REQUIREMENT OF DEMINERALIZED WATER SPRAY

RO98-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS ROOM
Plant I.D. Number: SPlicing KITS Component: SPlicing KITS	Temperature (°F)	SEE GEN NOTE 6	
Manufacturer: RAYCHEM	Pressure (PSIG)	SEE GEN NOTE 6	
Model Number: WCSF-N	Relative Humidity (%)	100	
Purchase Order Number: E-054	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/CABLE CONNECTIONS	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfr Model Ref: DCR-777 & LTR FROM J. KUSTER (CHRON 7776)							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfr Model Ref:							

R352-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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 Date: 07/09/82

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: ROCKBESTOS Model Number: FIREWALL III, EP NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		365 DAYS	001		REF. A,B,C	TYPE TEST	NONE
	Temperature (°F)	SEE GENERAL NOTE 6		346	001		REF. A,B,C	TYPE TEST	NONE
	Pressure (PSIG)	SEE GENERAL NOTE 6		113	001		REF. A,B,C	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. A,B,C	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. A,B,C	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08	001		REF. A,B,C	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. D	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	---

DOCUMENTATION REFERENCES	NOTES
A . QUALIFICATION OF FIREWALL III CLASS 1E ELECTRIC CABLES (CHEMICALLY CROSS LINKED INSULATION) QR #1807, REV. 3 DATED 12/28/80 (CHRON 7911). TEST PROFILE IS PAGE 8 OF THIS REPORT. B . QUALIFICATION OF FIRE WALL III CLASS 1E ELECTRIC CABLES (IRRADIATION CROSS LINKED INSULATION) QR #1806, REV. 3	1. REPRESENTATIVE CABLE SAMPLES WERE SUBJECTED TO SPRAY AT A RATE OF 0.15 GPM PER SQUARE FOOT OF SPRAY AREA WITH SOLUTION OF 0.28 MOLAR BORIC ACID (3000 PPM BORON) AND SODIUM HYDROXIDE TO ADJUST PH BETWEEN 9-11 AT 77F. THIS IS MORE SEVERE THAN DEMINERALIZED WATER SPRAY.

R352-01

Owner: IOWA ELECTRIC
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DOCUMENTATION REFERENCES:	NOTES:
DATED 5/1/81 (CHRON 7912). TEST PROFILE IS PAGE 8 OF THIS REPORT. C . QUALIFICATION OF FIREWALL EP CLASS 1E ELECTRIC CABLES QR #1804 DATED 4/6/81 (CHRON 7913). TEST PROFILE IS PAGE 4 OF THIS REPORT. D . AGING EVALUATION FORM R352-01 DATED 6/18/82 (CHRON 8117).	

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Equip ID: R352-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS
Plant I.D. Number: CABLE-POWER-ROC Component: 600V CABLE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: ROCKBESTOS	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: FIREWALL III, EP	Relative Humidity (%)	100	
Purchase Order Number: 46201, 52796	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/SUPPLY POWER	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS
Plant I.D. Number: CABLE-CONTROL-ROC Component: 600V CABLE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: ROCKBESTOS	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: FIREWALL III, EP	Relative Humidity (%)	100	
Purchase Order Number: 46201, 52796	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/TRANSMIT CONTROL SIGNAL	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	1.6 E08	
Location: VARIOUS	Aging	40 YEARS	
Floor Elevation: VARIOUS	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfr Model Ref: IE PO 46201, 52796							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfr Model Ref: IE PO 46201, 52796							

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 Facility: DUANE ARNOLD
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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS FROM SGTS
Plant I.D. Number: CABLE-INSTR-ROC Component: 600V CABLE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: ROCKBESTOS	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: FIREWALL III, EP	Relative Humidity (%)	100	
Purchase Order Number: 46201, 52796	Chemical Spray	DEMIN WATER	
Function/Service: SUPPORT/TRANSMIT INSTRUMENT SIGNAL	Seismic	LATER	
Accuracy: Spec: NA Location: VARIOUS	Radiation (Rad)	1.6 E08	
Floor Elevation: VARIOUS	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec: Location: Floor Elevation:	Aging		
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfr Model Ref: IE PO 46201, 52796							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfr Model Ref:							

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 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: ROCKBESTOS Model Number: RSS-6-104, 109 CELLULAR DIELECTRIC NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. A	TYPE TEST	NONE
	Temperature (°F)	90		SEE NOTE (1)	001		REF. A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		104	001		REF. A	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. A	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.7 E05		2.0 E08	001		REF. A	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . REPORT ON QUALIFICATION TESTS FOR SECOND GENERATION SOLID DIELECTRIC COAXIAL CONSTRUCTIONS AND CELLULAR DIELECTRIC COAXIAL CONSTRUCTIONS FOR CLASS 1E SERVICE IN NUCLEAR GENERATING STATIONS, PART 2, REPORT #2806 (CHRON 7955). TEST PROFILE IS ON PAGE 15 OF THIS REPORT. B . NSAC/INPO SIGNIFICANT EVENT REPORT, ROCKBESTOS COAXIAL	1. REPRESENTATIVE CABLE SAMPLE WAS TESTED TO 340F BY REFERENCE A; BUT CABLE TYPE IS LIMITED TO 230F BY REFERENCE B.

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DOCUMENTATION REFERENCES:	NOTES:
CABLE (RSS-6-100 TO RSS-6-112) DATED 2/8/82 (CHRON 6462). C . AGING EVALUATION FORM R352-02 DATED 7/8/82 (CHRON 8117).	

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	
Plant I.D. Number: CABLE-COAX1-ROC Component:	Temperature ("F)	90	
600V CABLE	Pressure (PSIG)	0	
Manufacturer: ROCKBESTOS	Relative Humidity (%)	100	
Model Number: RSS-6-104, 109 CELLULAR DIELECTRIC Purchase Order Number:	Chemical Spray	NA	
46201	Seismic	LATER	
Function/Service: SUPPORT/TRANSMIT INSTRUMENT SIGNAL	Radiation (Rad)	4.7 E05	
Accuracy: Spec: NA Location: RB-S	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature ("F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec: Location:	Aging		
Floor Elevation:	Submergence		
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: NA	Elec Scheme: NA		VDR ID: NONE				
Mfgr Model Ref:	CHRON 8022, 4634						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

R352-03

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: ROCKBESTOS Model Number: RSS-6-104, 109 SOLID DIELECTRIC NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature ("F)	SEE GENERAL NOTE 6		346	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GENERAL NOTE 6		113	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. REPORT ON QUALIFICATION TESTS FOR SECOND GENERATION SOLID DIELECTRIC COAXIAL CONSTRUCTIONS AND CELLULAR DIELECTRIC COAXIAL CONSTRUCTIONS FOR CLASS 1E SERVICE IN NUCLEAR GENERATING STATIONS. REPORT #2806 (CHRON 7955). TEST PROFILE IS APPENDIX IV OF THIS REPORT. B. AGING EVALUATION FORM R352-03 DATED 7/8/82 (CHRON 8117).	1. TEST MODEL WAS CONTINUOUSLY SPRAYED AT A RATE OF 0.15 GPM PER SQUARE FOOT OF SPRAY AREA WITH A SOLUTION OF 0.28 MOLAR BORIC ACID (3000 PPM BORON) AND SODIUM HYDROXIDE TO ADJUST PH BETWEEN 9-11 AT 77F. THIS IS MORE SEVERE THAN DEMINERALIZED WATER SPRAY.

R352-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	
Plant I.D. Number: CABLE-COAX1-ROC Component: 600V CABLE	Temperature (*F)	90	
Manufacturer: ROCKBESTOS	Pressure (PSIG)	0	
Model Number: RSS-6-104, 109 CELLULAR DIELECTRIC Purchase Order Number: 46201	Relative Humidity (%)	100	
Function/Service: SUPPORT/TRANSMIT INSTRUMENT SIGNAL	Chemical Spray	NA	
	Seismic	LATER	
Accuracy: Spec: NA Location: RB-S	Radiation (Rad)	4.7 E05	
Floor Elevation: 757'-6"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (*F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:	Submergence		
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: Environment: HARSH System: 32 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfgr Model Ref: CHRON 8022, 4634							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: 600V CABLE Manufacturer: ROCKBESTOS Model Number: RSS-6-104, 109 SOLID DIELECTRIC NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (*F)	SEE GENERAL NOTE 6		346	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GENERAL NOTE 6		113	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.6 E08		2.0 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. REPORT ON QUALIFICATION TESTS FOR SECOND GENERATION SOLID DIELECTRIC COAXIAL CONSTRUCTIONS AND CELLULAR DIELECTRIC COAXIAL CONSTRUCTIONS FOR CLASS 1E SERVICE IN NUCLEAR GENERATING STATIONS. REPORT #2806 (CHRON 7955). TEST PROFILE IS APPENDIX IV OF THIS REPORT. B. AGING EVALUATION FORM R352-03 DATED 7/8/82 (CHRON 8117).	1. TEST MODEL WAS CONTINUOUSLY SPRAYED AT A RATE OF 0.15 GPM PER SQUARE FOOT OF SPRAY AREA WITH A SOLUTION OF 0.28 MOLAR BORIC ACID (3000 PPM BORON) AND SODIUM HYDROXIDE TO ADJUST PH BETWEEN 9-11 AT 77F. THIS IS MORE SEVERE THAN DEMINERALIZED WATER SPRAY.

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EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ANCILLARY COMPONENTS	Operating Time	30 DAYS	RAD DOSE IS WORST CASE FROM SGTR
Plant I.D. Number: CABLE-COAX2-ROC Component: 600V CABLE	Temperature (°F)	SEE GENERAL NOTE 6	
Manufacturer: ROCKBESTOS	Pressure (PSIG)	SEE GENERAL NOTE 6	
Model Number: RSS-6-104, 109 SOLID DIELECTRIC Purchase Order Number: 57028	Relative Humidity (%)	100	
Function/Service: SUPPORT/TRANSMIT INSTRUMENT SIGNAL	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	1.6 E08	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
	Aging		
Accuracy: Spec: NA Location: VARIOUS Floor Elevation: VARIOUS			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 32		P&ID: NA		
Loc Dwg: NA	Elec Scheme:		VDR ID: NONE				
Mfgr Model Ref: IE PO 57028							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:	Elec Scheme:		VDR ID:				
Mfgr Model Ref:							

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: TEMPERATURE ELEMENT Manufacturer: ROSEMOUNT Model Number: 104MA23ABBB NUREG 0588 Applicable: NO Accuracy: Demo: NONE	Operating Time	1 HOUR		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Temperature (°F)	300		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Pressure (PSIG)	1.8		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Relative Humidity (%)	100		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	7.2 E06		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 31.

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Equip ID: R369-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4443A Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL A HIGH TEMPERATURE ZONE 1 Accuracy: Spec:	Radiation (Rad)	7.2 EO6	
NONE Location: STEAM TUNNEL Floor Elevation: 757' -6"	Aging	40 YEARS	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4443B Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL A HIGH TEMPERATURE ZONE 2 Accuracy: Spec:	Radiation (Rad)	7.2 EO6	
NONE Location: STEAM TUNNEL Floor Elevation: 757' -6"	Aging	40 YEARS	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	ND	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 27		P&ID: M114/H2		
Loc Dwg: E328/D3	Elec Scheme: E122/9			VDR ID: NONE			
Mfr Model Ref:	CHRON 1474, 1572, & 1700/DATA SHEET M435						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M114/H2							
Loc Dwg: E328/D3 Elec Scheme: E122/9 VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

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Equip ID: R369-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4443C Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL A HIGH TEMPERATURE ZONE 3 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4443D Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL A HIGH TEMPERATURE ZONE 4 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 27		P&ID: M114/H1	
Loc Dwg: E328/D3		Elec Scheme: E122/9		VDR ID: NONE			
Mfr Model Ref: CHRON		1474, 1572, & 1700/DATA SHEET M435					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 27		P&ID: M114/H1		
Loc Dwg: E328/D4	Elec Scheme: E122/9			VDR ID: NONE			
Mfr Model Ref:	CHRON 1474, 1572, & 1700/DATA SHEET M435						

R369-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: R369-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4444A Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL B HIGH TEMPERATURE ZONE 1 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4444B Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL B HIGH TEMPERATURE ZONE 2 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 27		P&ID: M114/H2		
Loc Dwg: E328/D2	Elec Scheme: E122/9			VDR ID: NONE			
Mfr Model Ref:	CHRON 1474, 1572, & 1700/DATA SHEET M435						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 27		P&ID: M114/H2	
Loc Dwg: E328/D3	Elec Scheme: E122/9			VDR ID: NONE			
Mfr Model Ref:	CHRON 1474, 1572, & 1700/DATA SHEET M435						

R369-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: R369-01-007

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Equip ID: R369-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-4444C Component: TEMPERATURE ELEMENT Manufacturer: ROSEMOUNT Model Number: 104MA23ABBB Purchase Order Number: M-170 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL B HIGH TEMPERATURE ZONE 3 Accuracy: Spec: NONE Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.2 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION Plant I.D. Number: TE-4444D Component: TEMPERATURE ELEMENT Manufacturer: ROSEMOUNT Model Number: 104MA23ABBB Purchase Order Number: M-170 Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL B HIGH TEMPERATURE ZONE 4 Accuracy: Spec: NDNE Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	1 HOUR	
	Temperature (°F)	300	
	Pressure (PSIG)	1.8	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	7.2 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M114/H1 Loc Dwg: E328/D3 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: CHRDN 1474, 1572, & 1700/DATA SHEET M435							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M114/H1 Loc Dwg: E328/D4 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

R369-01

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: R369-01-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4445A Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL C HIGH TEMPERATURE ZONE 1 Accuracy: Spec:	Radiation (Rad)	7.2 EO6	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4445B Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL C HIGH TEMPERATURE ZONE 2 Accuracy: Spec:	Radiation (Rad)	7.2 EO6	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M114/H2				
Loc Dwg: E328/E2	Elec Scheme: E122/9	VDR ID: NONE					
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M114/H2				
Loc Dwg: E328/E3	Elec Scheme: E122/9	VDR ID: NONE					
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: R369-01-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4445C Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL C HIGH TEMPERATURE ZONE 3 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4445D Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL C HIGH TEMPERATURE ZONE 4 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 27		P&ID: M114/H1		
Loc Dwg: E328/E3	Elec Scheme: E122/9			VDR ID: NONE			
Mfr Model Ref:	CHRON 1474, 1572, & 1700/DATA SHEET M435						

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M114/H1							
Loc Dwg: E328/E4 Elec Scheme: E122/9 VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

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Owner: IOWA ELECTRIC
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Equip ID: R369-01-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4446A Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL D HIGH TEMPERATURE ZONE 1 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4446B Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL D HIGH TEMPERATURE ZONE 2 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M114/H2							
Loc Dwg: E328/E2 Elec Scheme: E122/9 VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 27		P&ID: M114/H2	
Loc Dwg: E328/E3		Elec Scheme: E122/9			VDR ID: NONE		
Mfr Model Ref:		CHRON 1474, 1572, & 1700/DATA SHEET M435					

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: R369-01-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4446C Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL D HIGH TEMPERATURE ZONE 3 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4446D Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM TUNNEL D HIGH TEMPERATURE ZONE 4 Accuracy: Spec:	Radiation (Rad)	7.2 E06	
NONE Location: STEAM TUNNEL	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M114/H1							
Loc Dwg: E328/E3 Elec Scheme: E122/9 VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -		Environment: HARSH		System: 27		P&ID: M114/H1	
Loc Dwg: E328/E4		Elec Scheme: E122/9		VDR ID: NONE			
Mfr Model Ref:		CHRON 1474, 1572, & 1700/DATA SHEET M435					

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: R369-01-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4477A Component:	Temperature ("F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE A ZONE 1	Radiation (Rad)	1.0 E06	
Accuracy: Spec: NONE Location: TURBINE BLDG.	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4477B Component:	Temperature ("F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE A ZONE 2	Radiation (Rad)	1.0 E06	
Accuracy: Spec: NONE Location: TURBINE BLDG.	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M103/E6				
Loc Dwg: E309/D8	Elec Scheme: E122/9	VDR ID: NONE					
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH	System: 27	P&ID: M103/F8				
Loc Dwg: E308/D7	Elec Scheme: E122/9	VDR ID: NONE					
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: R369-01-020

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4478A Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE B ZONE 1	Radiation (Rad)	1.0 E06	
Accuracy: Spec: NONE Location:	Aging	40 YEARS	
TURBINE BLDG. Floor Elevation: 757' -6"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4478B Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE B ZONE 2	Radiation (Rad)	1.0 E06	
Accuracy: Spec: NONE Location:	Aging	40 YEARS	
TURBINE BLDG. Floor Elevation: 757' -6"	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M103/F7							
Loc Dwg: E309/D7 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	NO	YES	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 27 P&ID: M103/F8							
Loc Dwg: E308/C7 Elec Scheme: E122/9 VDR ID: NONE Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435							

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Equip ID: R369-01-022

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4479A Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE C ZONE 1	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: NONE Location: TURBINE BLDG.	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4479B Component:	Temperature (*F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE C ZONE 2	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: NONE Location: TURBINE BLDG.	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM			
	NO	YES	NO	NO	NO	NO	LATER			
Walkdown: -	Environment: HARSH		System: 27		P&ID: M103/F6					
Loc Dwg: E309/E8	Elec Scheme: E122/9		VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435										

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM			
	NO	YES	NO	NO	NO	NO	LATER			
Walkdown: -	Environment: HARSH		System: 27		P&ID: M103/G8					
Loc Dwg: E308/D7	Elec Scheme: E122/9		VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435										

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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Equip ID: R369-01-024

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4480A Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE D ZONE 1	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: NONE Location: TURBINE BLDG.	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: LEAK DETECTION	Operating Time	1 HOUR	
Plant I.D. Number: TE-4480B Component:	Temperature (°F)	300	
TEMPERATURE ELEMENT	Pressure (PSIG)	1.8	
Manufacturer: ROSEMOUNT	Relative Humidity (%)	100	
Model Number: 104MA23ABBB	Chemical Spray	NA	
Purchase Order Number: M-170	Seismic	LATER	
Function/Service: PRIMARY CONTAINMENT ISOLATION/MAIN STEAM LINE D ZONE 2	Radiation (Rad)	1.0 EO6	
Accuracy: Spec: NONE Location: TURBINE BLDG.	Aging	40 YEARS	
Floor Elevation: 757' -6"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM			
	NO	YES	NO	NO	NO	NO	LATER			
Walkdown: -	Environment: HARSH		System: 27		P&ID: M103/F6					
Loc Dwg: E309/E8	Elec Scheme: E122/9		VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435										

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM			
	NO	YES	NO	NO	NO	NO	LATER			
Walkdown: -	Environment: HARSH		System: 27		P&ID: M103/F8					
Loc Dwg: E308/D7	Elec Scheme: E122/9		VDR ID: NONE							
Mfr Model Ref: CHRON 1474, 1572, & 1700/DATA SHEET M435										

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: MOTOR-OPERATED BLOWER Manufacturer: SIEMENS Model Number: 2CH6 041-1U NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	104		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.1 E07		NONE	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	---		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 12.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 354
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID: S188-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	
Plant I.D. Number: 1K-25A Component:	Temperature (*F)	104	
MOTOR-OPERATED BLOWER	Pressure (PSIG)	0	
Manufacturer: SIEMENS	Relative Humidity (%)	100	
Model Number: 2CH6 041-1U	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/MAIN STEAM LINE LEAKAGE EXHAUST BLOWER	Radiation (Rad)	1.1 E07	
Accuracy: Spec: NA Location: A CRD RR Floor Elevation: 771' - 10"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	
Plant I.D. Number: 1K-25B Component:	Temperature (*F)	104	
MOTOR-OPERATED BLOWER	Pressure (PSIG)	0	
Manufacturer: SIEMENS	Relative Humidity (%)	100	
Model Number: 2CH6 041-1U	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/MAIN STEAM LINE LEAKAGE EXHAUST BLOWER	Radiation (Rad)	1.1 E07	
Accuracy: Spec: NA Location: A CRD RR Floor Elevation: 771' - 10"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C5							
Loc Dwg: M644/B6 Elec Scheme: E122/37 VDR ID: B21-C918							
Mfr Model Ref: WALKDOWN 8/81, SHEET 274 & V.P. B21-3830-6-1							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 05		P&ID: M184/C5	
Loc Dwg: M644/C6 Elec Scheme: E122/37 VDR ID: B21-C918							
Mfr Model Ref: WALKDOWN 8/81, SHEET 274 & V.P. B21-3830-6-1							

S223-01

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: FLOW TRANSMITTER Manufacturer: S.K. INSTRUMENT Model Number: 20-9651-8550 NUREG 0588 Applicable: NO Accuracy: Demo: 5%	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	130		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	2.1 E07		NONE SEE NOTE (1)	001		REF. (A)	---	SEE NOTE (1)
	Aging	40 YEARS		NONE SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. LETTER, A.LIEBY TO C. DERN DATED 2/6/79 (CHRON 7725).	1. SEE ACTION ITEM 10.

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: S223-01-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: S223-01-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	
Plant I.D. Number: FM-8408A Component:	Temperature (*F)	130	
FLOW TRANSMITTER	Pressure (PSIG)	0	
Manufacturer: S.K. INSTRUMENT	Relative Humidity (%)	100	
Model Number: 20-9651-8550	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: MITIGATE RADIOACTIVE RELEASE/MAIN STEAM LINE "A" LEAKAGE FLOW	Radiation (Rad)	2.1 E07	
Accuracy: Spec: 10% Location:	Aging	40 YEARS	
STEAM TUNNEL Floor Elevation: 757'-6"	Submergence	NA	
Flood Level Elevation: 760'-0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT.	Operating Time	30 DAYS	
Plant I.D. Number: FM-8408B Component: FLOW TRANSMITTER	Temperature (*F)	130	
Manufacturer: S.K. INSTRUMENT	Pressure (PSIG)	0	
Model Number: 20-9651-8550	Relative Humidity (%)	100	
Purchase Order Number: APED	Chemical Spray	NA	
Function/Service: MITIGATE RADIOACTIVE RELEASE/MAIN STEAM LINE "B" LEAKAGE FLOW	Seismic	LATER	
Accuracy: Spec: 10% Location: STEAM TUNNEL	Radiation (Rad)	2.1 E07	
Floor Elevation: 757' -6"	Aging	40 YEARS	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/F4 Loc Dwg: E328/B5 Elec Scheme: E122/37 VDR ID: B21-N923A Mfr Model Ref: TELECON-CHRON 6477, AMETEK LTR-CHRON 2344							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C8 Loc Dwg: E328/B5 Elec Scheme: E122/37 VDR ID: B21-N923B Mfr Model Ref: TELECON-CHRON 6477, AMETEK LTR-CHRON 2344							

S223-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: S223-01-003

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Equip ID: S223-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: FM-8408C Component: FLOW TRANSMITTER Manufacturer: S.K. INSTRUMENT Model Number: 20-9651-8550 Purchase Order Number: APED Function/Service: MITIGATE RADIOACTIVE RELEASE/MAIN STEAM LINE "C" LEAKAGE FLOW Accuracy: Spec: 10% Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: MAIN STEAM LINE ISOL VALVE LEAKAGE CONT. Plant I.D. Number: FM-8408D Component: FLOW TRANSMITTER Manufacturer: S.K. INSTRUMENT Model Number: 20-9651-8550 Purchase Order Number: APED Function/Service: MITIGATE RADIOACTIVE RELEASE/MAIN STEAM LINE "O" LEAKAGE FLOW Accuracy: Spec: 10% Location: STEAM TUNNEL Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	130	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	2.1 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 760' -0" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 05 P&ID: M184/C3							
Loc Dwg: E328/B5 Elec Scheme: E122/37 VDR ID: B21-N923C							
Mfr Model Ref: TELECON-CHRON 6477, AMETEK LTR-CHRON 2344							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment:		HARSH		System: 05		P&ID: M184/F8
Loc Dwg: E328/B5		Elec Scheme: E122/37			VDR ID: B21-N923D		
Mfr Model Ref:		TELECON-CHRON 6477, AMETEK LTR-CHRON 2344					

S382-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 12N-AA5 NUREG 0588 Applicable: NO Accuracy: Demo: 0.5%	Operating Time	1 HOUR		30 DAYS SEE GENERAL NOTE 4	001		REF. (A)	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	140		212 SEE GENERAL NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	0		0.25 SEE GENERAL NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100 SEE GENERAL NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.6 E05		2.0 E06 (	001		REF. (A)	ANALYSIS	NONE
	Aging	40 YEARS		16 YEARS SEE NOTE (1))	001		REF. (B)	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. EDS PROBLEM FILE NO. 0460-067-003, DATED MARCH 19, 1982 (CHRON 6863). B. AGING EVALUATION FORM S382-00 DATED 7/8/82 (CHRON 8118).	1. QUALIFIED LIFE MAY BE EXTENDED TO 40 YEARS BY PVC LEAD WIRE REPLACEMENT AT 16 YEAR INTERVALS, AND DIAPHRAGM AND O-RING REPLACEMENT AT 30 YEAR INTERVALS. RECALIBRATION IS REQUIRED.

S382-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: S382-02-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: S382-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-1917B Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 12N-AA5 Purchase Order Number: APED Function/Service: CORE COOLING/ RHR PUMP 1P-229B DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 1% Location: NW CRNR RM/1C-129B Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS- 1925B Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 12N-AA5 Purchase Order Number: APED Function/Service: CORE COOLING/ RHR PUMP 1P-229D DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 1% Location: NW CRNR RM/1C-129B Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 07		P&ID: M119/B6	
Loc Dwg: E316/E7		Elec Scheme: E121/56A			VDR ID: E11-NO16B		
Mfgr Model Ref: DATA		SHEET E11-14					

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: "	Environment:		HARSH		System: 07		P&ID: M119/B7
Loc Dwg: E316/E7		Elec Scheme:		E121/56A		VDR ID: E11-NO16D	
Mfgr Model Ref:		DATA SHEET E11-14					

S382-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: S382-02-003

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Equip ID: S382-02-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION	Operating Time	1 HOUR	
Plant I.D. Number: PS-2023B Component:	Temperature (°F)	140	
PRESSURE SWITCH	Pressure (PSIG)	0	
Manufacturer: STATIC-O-RING	Relative Humidity (%)	100	
Model Number: 12N-AA5	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: CORE COOLING/ RHR PUMP 1P-229A DISCHARGE PERMISSIVE TO ADS	Radiation (Rad)	9.6 E05	
Accuracy: Spec: 1% Location: SE CRNR RM/1C-129A	Aging	40 YEARS	
Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION	Operating Time	1 HOUR	
Plant I.D. Number: PS-2024B Component:	Temperature (°F)	140	
PRESSURE SWITCH	Pressure (PSIG)	0	
Manufacturer: STATIC-O-RING	Relative Humidity (%)	100	
Model Number: 12N-AA5	Chemical Spray	NA	
Purchase Order Number: APED	Seismic	LATER	
Function/Service: CORE COOLING/RHR PUMP 1P-229C DISCHARGE PERMISSIVE TO ADS	Radiation (Rad)	9.6 E05	
Accuracy: Spec: 1% Location: SE CRNR RM/1C-129A	Aging	40 YEARS	
Floor Elevation: 716' -9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 07	P&ID: M120/B4				
Loc Dwg: E317/E3	Elec Scheme: E121/56	VDR ID: E11-NO16A					
Mfr Model Ref: DATA SHEET E11-14							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATE
Walkdown: 7	Environment: HARSH	System: 07	P&ID: M120/B2				
Loc Dwg: E317/E3	Elec Scheme: E121/56	VDR ID: E11-NO16C					
Mfr Model Ref: DATA SHEET E11-14							

S382-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 NUREG 0588 Applicable: NO Accuracy: Demo: 0.5%	Operating Time	1 HOUR		30 DAYS SEE GENERAL NOTE 4	001		REF. (A)	TYPE TEST/ ANALYSIS	NONE
	Temperature (°F)	140		212 SEE GENERAL NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	0		0.25 SEE GENERAL NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100 SEE GENERAL NOTE 7	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.6 E05		2.0 E06	001		REF. (A)	ANALYSIS	NONE
	Aging	40 YEARS		16 YEARS SEE NOTE (1)	001		REF. (B)	ANALYSIS	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. EDS PROBLEM FILE NO. 0460-067-003, DATED MARCH 19, 1982 (CHRON 6863). B. AGING EVALUATION FORM S382-00 DATED 7/8/82 (CHRON 8118).	1. QUALIFIED LIFE MAY BE EXTENDED TO 40 YEARS BY PVC LEAD WIRE REPLACEMENT AT 16 YEAR INTERVALS, AND DIAPHRAGM AND O-RING REPLACEMENT AT 30 YEAR INTERVALS. RECALIBRATION IS REQUIRED.

S382-03

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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EQUIPMENT QUALIFICATION REPORT
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11186-234-NP-1

Equip ID: S382-03-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-1917A Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/ RHR PUMP 1P-229B DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: NW CRNR RM/1C-129B Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature ("F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-1925A Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/ RHR PUMP 1P-229D DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: NW CRNR RM/1C-129B Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature ("F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH		System: 07		P&ID: M119/B6		
Loc Dwg: E316/E7		Elec Scheme: E121/56A		VDR ID: E11-NO20B			
Mfgr Model Ref: DATA SHEET E11-14							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 07		P&ID: M119/B7	
Loc Dwg: E316/E7		Elec Scheme: E1221/56A			VDR ID: E11-NO20D		
Mfgr Model Ref: DATA SHEET E11-14							

S382-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
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 Equip ID: S382-03-003

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Equip ID: S382-03-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-2023A Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/ RHR PUMP 1P-229A DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: SE CRNR RM/1C-129A Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-2024A Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/ RHR PUMP 1P-229C DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: SE CRNR RM/1C-129A Floor Elevation: 716' -9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: 7 Environment: HARSH System: 07 P&ID: M120/B4 Loc Dwg: E317/E3 Elec Scheme: E121/56 VDR ID: E11-NO20A Mfr Model Ref: DATA SHEET E11-14							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: 7 Environment: HARSH System: 07 P&ID: M120/B2 Loc Dwg: E317/E3 Elec Scheme: E121/56 VDR ID: E11-NO20C Mfr Model Ref: V.P. APED-E11-14							

S382-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: S382-03-006

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: S382-03-007

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-2107A Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/CORE SPRAY PUMP IP211A DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: SE CRNR RM/1C-123 Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-2107B Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/CORE SPRAY PUMP IP211A DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: SE CRNR RM/1C-123 Floor Elevation: 716' - 9"	Operating Time	1 HOUR	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: 7 Environment: HARSH System: 07 P&ID: M121/E3 Loc Dwg: E317/D3 Elec Scheme: E121/9 VDR ID: E21-NO08A Mfr Model Ref: DATA SHEET E21-009							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: 7 Environment: HARSH System: 07 P&ID: M121/D3 Loc Dwg: E317/D3 Elec Scheme: E121/9 VDR ID: E21-009A Mfr Model Ref: DATA SHEET E21-009							

S382-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: S382-03-008

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 365
 Revision: 1
 Date: 07/09/82

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Equip ID: S382-03-009

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-2127A Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/ CORE SPRAY PUMP 1P-211B DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: . NW CRNR RM/1C-124 Floor Elevation: 716'-9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: AUTOMATIC DEPRESS- URIZATION Plant I.D. Number: PS-2127B Component: PRESSURE SWITCH Manufacturer: STATIC-O-RING Model Number: 5N-AA3 Purchase Order Number: APED Function/Service: CORE COOLING/ CORE SPRAY PUMP 1P-211B DISCHARGE PERMISSIVE TO ADS Accuracy: Spec: 2% Location: NW CRNR RM/1C-124 Floor Elevation: 716' -9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 07 P&ID: M121/C5 Loc Dwg: E316/E7 Elec Scheme: E121/10 VDR ID: E21-N008B Mfr Model Ref: DATA SHEET E21-009							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 07 P&ID: M121/C5 Loc Dwg: E316/E7 Elec Scheme: E121/10 VDR ID: E21-N009B Mfr Model Ref: DATA SHEET E21-009							

T020-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-001 NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	1 HOUR		SEE GENERAL NOTE 4	003		REF A,B	TYPE TEST	NONE
	Temperature (*F)	140		385	003		REF A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		66	003		REF A,B	TYPE TEST	NONE
	Relative Humidity (%)	100		100	003		REF A,B	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.6 E05		SEE NOTE (1)	003		REF A,B	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	003		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . TARGET ROCK LETTER CN7548 DATED 8/29/80 (CHRON 7308). B . TARGET ROCK QUALIFICATION REPORT 2375 DATED 12/22/80 (V.P. 11186-223-M45139-5-2). TEST PROFILE IS APPENDIX F SECTION 6 OF THIS REPORT (CHRON 7651). C . AGING EVALUATION FORM T020-01,02,03,04 DATED 6/18/82 (CHRON 8119).	1 . TEST MODEL WAS IRRADIATED TO 2.3 E07 RADS BEFORE DESIGN BASIS EVENT TESTING AND AN ADDITIONAL 1.1 E08 RADS AFTER. 2 . QUALIFIED LIFE OF 40 YEARS REQUIRES -O RING REPLACEMENT EVERY 5 YEARS -SOLENOID COIL REPLACEMENT EVERY 20 YEARS -ELECTRICAL SUBASSEMBLY REPLACEMENT EVERY 20 YEARS

T020-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-01-003

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Equip ID: T020-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	1 HOUR	
Plant I.D. Number: SV-1972 Component: SOLENOID VALVE	Temperature (°F)	140	
Manufacturer: TARGET ROCK	Pressure (PSIG)	0	
Model Number: 72V-001	Relative Humidity (%)	100	
Purchase Order Number: M-141C	Chemical Spray	NA	
Function/Service: CONTAINMENT ISOLATION /RHR HEAT EXCHANGER DISCHARGE SAMPLE B LINE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	9.6 E05	
Location: NW CRNR RM	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	1 HOUR	
Plant I.D. Number: SV-1973 Component: SOLENOID VALVE	Temperature (°F)	140	
Manufacturer: TARGET ROCK	Pressure (PSIG)	0	
Model Number: 72V-001	Relative Humidity (%)	100	
Purchase Order Number: M-141C	Chemical Spray	NA	
Function/Service: CONTAINMENT ISOLATION /RHR HEAT EXCHANGER DISCHARGE SAMPLE B LINE ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	9.6 E05	
Location: NW CRNR RM	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: 09 P&ID: M119/D3							
Loc Dwg: E316/E7 Elec Scheme: E122/13 VDR ID: NONE							
Mfr Model Ref: V.P. M141C-2-6							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	YES
Walkdown: - Environment: HARSH System: 09 P&ID: M119/D2							
Loc Dwg: E316/E7 Elec Scheme: E122/13 VDR ID: NONE							
Mfr Model Ref: V.P. M141C-2-6							

T020-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-01-005

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Equip ID: T020-01-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	1 HOUR	
Plant I.D. Number: SV-2051 Component:	Temperature (°F)	140	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: TARGET ROCK	Relative Humidity (%)	100	
Model Number: 72V-001	Chemical Spray	NA	
Purchase Order Number: M-141C	Seismic	LATER	
Function/Service: CONTAINMENT ISOLATION /RHR HEAT EXCHANGER DISCHARGE SAMPLE A LINE ISOLATION	Radiation (Rad)	9.6 E05	
Accuracy: Spec: NA Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL	Operating Time	1 HOUR	
Plant I.D. Number: SV-2052 Component:	Temperature (°F)	140	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: TARGET ROCK	Relative Humidity (%)	100	
Model Number: 72V-001	Chemical Spray	NA	
Purchase Order Number: M-141C	Seismic	LATER	
Function/Service: CONTAINMENT ISOLATION /RHR HEAT EXCHANGER DISCHARGE SAMPLE A LINE ISOLATION	Radiation (Rad)	9.6 E05	
Accuracy: Spec: NA Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 716' - 9"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 09	P&ID: M120/D7				
Loc Dwg: E317/E3	Elec Scheme: E122/13	VDR ID: NONE					
Mfr Model Ref: V.P. M141C-2-6							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH	System: 09	P&ID: M120/D7				
Loc Dwg: E317/E3	Elec Scheme: E122/13	VDR ID: NONE					
Mfr Model Ref: V.P. M141C-2-6							

T020-02

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE INTEGRAL LIMIT SW Manufacturer: TARGET ROCK Model Number: 72V001 (ZS) NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	1 HOUR		SEE GENERAL NOTE 4	001		REF. A,B	TYPE TEST	NONE
	Temperature (°F)	140		385	001		REF. A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		66	001		REF. A,B	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. A,B	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	9.6 E05		SEE NOTE (1)	001		REF. A,B	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . TARGET ROCK LETTER CN7548 DATED 8/29/80 (CHRON 7308). B . TARGET ROCK QUALIFICATION REPORT 2375 DATED 12/22/80 (V.P. 11186-223-M45139-5-2). TEST PROFILE IS APPENDIX F SECTION 6 OF THIS REPORT (CHRON 7651). C . AGING EVALUATION FORM T020-01,02,03,04 DATED 6/18/82 (CHRON 8119).	1 . TEST MODEL WAS IRRADIATED TO 2.3 E07 RADS BEFORE DESIGN BASIS EVENT TESTING AND AN ADDITIONAL 1.1 E08 RADS AFTER. 2 . QUALIFIED LIFE OF 40 YEARS REQUIRES -O RING REPLACEMENT EVERY 5 YEARS -SOLENOID COIL REPLACEMENT EVERY 20 YEARS -ELECTRICAL SUBASSEMBLY REPLACEMENT EVERY 20 YEARS

T020-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-02-001

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Equip ID: T020-02-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-1972 Component: SOLENOID VALVE INTEGRAL LIMIT SW Manufacturer: TARGET ROCK Model Number: 72V001 (ZS) Purchase Order Number: M-141C Function/Service: POST ACCIDENT MONITORING/RHR SPRAY WATER SAMPLE LOOP B Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716' -9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M119/D3 Loc Dwg: E316/E8 Elec Scheme: E122/13 VDR ID: NONE Mfr Model Ref: V.P. M141C-2-6							

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-1973 Component: SOLENOID VALVE INTEGRAL LIMIT SW Manufacturer: TARGET ROCK Model Number: 72V001 (ZS) Purchase Order Number: M-141C Function/Service: POST ACCIDENT MONITORING/RHR SPRAY WATER SAMPLE LOOP B Accuracy: Spec: NA Location: NW CRNR RM Floor Elevation: 716' -9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: - Environment: HARSH System: 36 P&ID: M119/D2 Loc Dwg: E316/E8 Elec Scheme: E122/13 VDR ID: NONE Mfr Model Ref: V.P. M141C-2-6							

T020-02

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-02-003

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Sheet No. 371
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 Date: 07/09/82

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Equip ID: T020-02-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2051 Component: SOLENOID VALVE INTEGRAL LIMIT SW Manufacturer: TARGET ROCK Model Number: 72V001 (ZS) Purchase Order Number: M-141C Function/Service: POST ACCIDENT MONITORING/RHR SPRAY WATER SAMPLE LOOP A Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716' -9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: SAFETY DISPLAY INSTRUMENTATION Plant I.D. Number: ZS-2052 Component: SOLENOID VALVE INTEGRAL LIMIT SW Manufacturer: TARGET ROCK Model Number: 72V001 (ZS) Purchase Order Number: M-141C Function/Service: POST ACCIDENT MONITORING/RHR SPRAY WATER SAMPLE LOOP A Accuracy: Spec: NA Location: SE CRNR RM Floor Elevation: 716' -9"	Operating Time	1 HOUR	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	9.6 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 36		P&ID: M120/D7	
Loc Dwg: E317/D3		Elec Scheme: E122/13		VDR ID: NONE			
Mfr Model Ref: V.P. M141C-2-6							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -	Environment: HARSH			System: 36		P&ID: M120/D8	
Loc Dwg: E317/D3	Elec Scheme: E122/13			VDR ID: NONE			
Mfr Model Ref: V.P. M141C-2-6							

T020-03-

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 81K002 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		REF A,B	TYPE TEST	NONE
	Temperature (°F)	140		385	001		REF A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		66	001		REF A,B	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF A,B	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		SEE NOTE (1)	001		REF A,B	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . TARGET ROCK TWX DATED 9/14/81 (CHRON 4848). B . TARGET ROCK QUALIFICATION REPORT 2375 DATED 12/22/80 (V.P. 11186-223-M45139-5-2). TEST PROFILE IS APPENDIX F SECTION 6 OF THIS REPORT (CHRON 7651). C . AGING EVALUATION FORM T020-01,02,03,04 DATED 6/18/82 (CHRON 8119).	1 . TEST MODEL WAS IRRADIATED TO 2.3 E07 RADS BEFORE DESIGN BASIS EVENT TESTING AND AN ADDITIONAL 1.1 E08 RADS AFTER. 2 . QUALIFIED LIFE OF 40 YEARS REQUIRES -O RING REPLACEMENT EVERY 5 YEARS -ELECTRICAL SUBASSEMBLY REPLACEMENT EVERY 20 YEARS -SOLENOID COIL REPLACEMENT EVERY 20 YEARS

TO20-03

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: TO20-03-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: TO20-03-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: SV-8772B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 81K002 Purchase Order Number: DCR-932A Function/Service: POST ACCIDENT MONITORING/POST ACCIDENT ISOLATION VALVE Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: SV-8772A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 81K002 Purchase Order Number: DCR-932A Function/Service: POST ACCIDENT MONITORING/POST ACCIDENT ISOLATION VALVE Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9"	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M187/E1 Loc Dwg: E316/D8 Elec Scheme: E112/19 VDR ID: NONE Mfr Model Ref: V.P. 11186-223-45139-6-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M187/E1 Loc Dwg: E316/D8 Elec Scheme: E112/19 VDR ID: NONE Mfr Model Ref: V.P. 11186-223-45139-6-2							

T020-04

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

Sheet No: 374

Revision 1

Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-002 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		REF A,B	TYPE TEST	NONE
	Temperature (°F)	140		385	001		REF A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		66	001		REF A,B	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF A,B	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		SEE NOTE (1)	001		REF A,B	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . TARGET ROCK LETTER CN7548 DATED 8/29/80 (CHRON 7308). B . TARGET ROCK QUALIFICATION REPORT 2375 DATED 12/22/80 (V.P. 11186-223-M45139-5-2). TEST PROFILE IS APPENDIX F SECTION 6 OF THIS REPORT (CHRON 7651). C . AGING EVALUATION FORM T020-01,02,03,04 DATED 6/18/82 (CHRON 8119).	1 . TEST MODEL WAS IRRADIATED TO 2.3 E07 RADS BEFORE DESIGN BASIS EVENT TESTING AND AN ADDITIONAL 1.1 E08 RADS AFTER. 2 . QUALIFIED LIFE OF 40 YEARS REQUIRES -O RING REPLACEMENT EVERY 5 YEARS -SOLENOID COIL REPLACEMENT EVERY 20 YEARS -ELECTRICAL SUBASSEMBLY REPLACEMENT EVERY 20 YEARS

TO20-04

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
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EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: RESIDUAL HEAT REMOVAL SERVICE WATER	Operating Time	30 DAYS	
Plant I.D. Number: SV-1942 Component: SOLENOID VALVE	Temperature (°F)	140	
Manufacturer: TARGET ROCK	Pressure (PSIG)	0	
Model Number: 72V-002	Relative Humidity (%)	100	
Purchase Order Number: M141	Chemical Spray	NA	
Function/Service: REACTOR CORE COOLING/ RHR SERVICE WATER SUPPLY TO RHR SYSTEM VENT LOOP B ISOLATION	Seismic	LATER	
Accuracy: Spec: NA	Radiation (Rad)	5.9 E06	
Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 731'-4"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec:	Aging		
Location:			
Floor Elevation:			
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 13		P&ID: M113/F8		
Loc Dwg: E317/E3		Elec Scheme: E121/46		VDR ID: NONE			
Mfgr Model Ref: V.P. M141-3-6							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown:	Environment:		System:		P&ID:		
Loc Dwg:		Elec Scheme:		VDR ID:			
Mfgr Model Ref:							

T020-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		REF A,B	TYPE TEST	NONE
	Temperature (°F)	140		385	013		REF A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		66	001		---	---	NONE
	Relative Humidity (%)	100		100	001		REF A,B	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		SEE NOTE (1)	013		REF A,B	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . TARGET ROCK LETTER CN7548 DATED 8/29/80 (CHRON 7308). B . TARGET ROCK TEST REPORT 2302 DATED 5/9/79, CHRON 7305 (TEST PROFILE IS APPENDIX B OF THIS REPORT). C . AGING EVALUATION FORM T020-05.06 DATED 6/18/82 (CHRON 8119).	1 . TEST MODEL WAS IRRADIATED TO 2.3 E07 RADS BEFORE DESIGN BASIS EVENT TESTING AND AN ADDITIONAL 1.3 E07 RADS AFTER. 2 . QUALIFIED LIFE OF 40 YEARS REQUIRES -O RING REPLACEMENT EVERY 5 YEARS -ELECTRICAL SUBASSEMBLY REPLACEMENT EVERY 20 YEARS -SOLENOID COIL REPLACEMENT EVERY 20 YEARS

T020-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-05-001

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Equip ID: T020-05-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8101A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: RB-S Floor Elevation: 757'-6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8101B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: RB-N Floor Elevation: 757'-6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/F5							
Loc Dwg: E319/E6 Elec Scheme: E122/29 VDR ID: NONE							
Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 29		P&ID: M181/F4	
Loc Dwg: E318/E4	Elec Scheme: E122/29			VDR ID: NONE			
Mfr Model Ref: V.P. M123C-1-5							

TO20-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: TO20-05-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: TO20-05-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8102A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M- 123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: RB-S Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature ("F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8102B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: RB-N Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/F5 Loc Dwg: E319/E6 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/F4 Loc Dwg: E318/E4 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: T020-05-005

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Equip ID: T020-05-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8103A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: RB-S Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature ("F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8103B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: RB-N Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature ("F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/F5							
Loc Dwg: E319/E6 Elec Scheme: E122/29 VDR ID: NONE							
Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/F4							
Loc Dwg: E318/E4 Elec Scheme: E122/29 VDR ID: NONE							
Mfr Model Ref: V.P. M123C-1-5							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: T020-05-007

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Equip ID: T020-05-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: SV-8104A Component:	Temperature (°F)	90	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: TARGET ROCK	Relative Humidity (%)	100	
Model Number: 72V-003	Chemical Spray	NA	
Purchase Order Number: M-123C	Seismic	LATER	
Function/Service: CONTAINMENT ISOLATION / OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec:	Radiation (Rad)	4.7 E05	
NA Location: RB-S	Aging	40 YEARS	
Floor Elevation: 757' - 6"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: SV-8104B Component:	Temperature (°F)	90	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: TARGET ROCK	Relative Humidity (%)	100	
Model Number: 72V-003	Chemical Spray	NA	
Purchase Order Number: M-123C	Seismic	LATER	
Function/Service: CONTAINMENT ISOLATION / OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec:	Radiation (Rad)	4.7 E05	
NA Location: RB-N	Aging	40 YEARS	
Floor Elevation: 757' - 6"			
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 29		P&ID: M181/F5		
Loc Dwg: E319/E6	Elec Scheme: E122/29		VDR ID: NONE				
Mfgr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH		System: 29		P&ID: M181/F4		
Loc Dwg: E318/F4	Elec Scheme: E122/29		VDR ID: NONE				
Mfgr Model Ref: V.P. M123C-1-5							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: T020-05-010

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8105A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M- 123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: RB-S Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8105B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: RB-N Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
	Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/E5 Loc Dwg: E319/E6 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/E4 Loc Dwg: E318/E5 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

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Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

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Equip ID: T020-05-011

EQUIPMENT QUALIFICATION REPORT
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Date: 07/09/82

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Equip ID: T020-05-012

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8106A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: RB-S Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8106B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: RB-N Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (°F)	90	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	4.7 E05	
	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/E5							
Loc Dwg: E319/E6 Elec Scheme: E122/29 VDR ID: NONE							
Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/E4							
Loc Dwg: E318/E5 Elec Scheme: E122/29 VDR ID: NONE							
Mfr Model Ref: V.P. M123C-1-5							

TO20-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: TO20-05-014

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: SV-8107A Component:	Temperature (*F)	140	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: TARGET ROCK	Relative Humidity (%)	100	
Model Number: 72V-003	Chemical Spray	NA	
Purchase Order Number: M-123C	Seismic	LATER	
Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec:	Radiation (Rad)	1.3 E07	
NA Location: TORUS ROOM NORTH	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: SV-8107B Component:	Temperature (*F)	140	
SOLENOID VALVE	Pressure (PSIG)	0	
Manufacturer: TARGET ROCK	Relative Humidity (%)	100	
Model Number: 72V-003	Chemical Spray	NA	
Purchase Order Number: M-123C	Seismic	LATER	
Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec:	Radiation (Rad)	1.3 E07	
NA Location: TORUS ROOM SOUTH	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/D5							
Loc Dwg: E316/D3 Elec Scheme: E122/29 VDR ID: NONE							
Mfgr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/D4							
Loc Dwg: E317/F7 Elec Scheme: E122/29 VDR ID: NONE							
Mfgr Model Ref: V.P. M123C-1-5							

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Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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Equip ID: TO20-05-016

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8108A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8108B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/E5 Loc Dwg: E316/D3 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/E4 Loc Dwg: E317/F7 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

TO20-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: TO20-05-017

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Equip ID: TO20-05-018

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8109A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8109B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /INBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/D5 Loc Dwg: E317/E4 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/D4 Loc Dwg: E316/E6 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

TO20-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: TO20-05-019

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Equip ID: TO20-05-020

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8110A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM A Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-8110B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-003 Purchase Order Number: M-123C Function/Service: CONTAINMENT ISOLATION /OUTBOARD ISOLATION OF CONTAINMENT ATMOSPHERE MONITORING VALVE SYSTEM B Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/D5							
Loc Owg: E317/E4 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M181/D4							
Loc Dwg: E316/E6 Elec Scheme: E122/29 VDR ID: NONE Mfr Model Ref: V.P. M123C-1-5							

TO20-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNDLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GENERAL NOTE 4	001		REF A,B	TYPE TEST	NONE
	Temperature (°F)	140		385	001		REF A,B	TYPE TEST	NONE
	Pressure (PSIG)	0		66	001		---	---	NONE
	Relative Humidity (%)	100		100	001		REF A,B	TYPE TEST	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	1.3 E07		SEE NOTE (1)	005		REF A,B	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	001		REF. C	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A . TARGET ROCK LETTER CN7548 DATED 8/29/80 (CHRON 7308). B . TARGET ROCK TEST REPORT 2302 DATED 5/9/79, CHRON 7305 (TEST PROFILE IS APPENDIX B OF THIS REPORT). C . AGING EVALUATION FORM TO20-05,06 DATED 6/18/82 (CHRON 8119).	1 . TEST MODEL WAS IRRADIATED TO 2.3 E07 RADS BEFORE DESIGN BASIS EVENT TESTING AND AN ADDITIONAL 1.3 E07 RADS AFTER. 2 . QUALIFIED LIFE OF 40 YEARS REQUIRES -O RING REPLACEMENT EVERY 5 YEARS -SOLENOID COIL REPLACEMENT EVERY 20 YEARS -ELECTRICAL SUBASSEMBLY REPLACEMENT EVERY 20 YEARS

T020-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-06-001

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Equip ID: T020-06-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4331A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 Purchase Order Number: M-141C Function/Service: CONTAINMENT ISOLATION /CONTAINMENT SPRAY HEADER NITROGEN ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4331B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 Purchase Order Number: M-141C Function/Service: CONTAINMENT ISOLATION /CONTAINMENT SPRAY HEADER NITROGEN ISOLATION Accuracy: Spec: NA Location: RHR VALVE ROOM Floor Elevation: 757' -6"	Operating Time	30 DAYS	
	Temperature (*F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	5.6 E06	
	Aging	40 YEARS	
	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2 Loc Dwg: E319/G6 Elec Scheme: E122/34 VDR ID: NONE Mfr Model Ref: V.P. M141C-27-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2 Loc Dwg: E319/G6 Elec Scheme: E122/34 VDR ID: NONE Mfr Model Ref: V.P. M141C-27-5							

T020-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: T020-06-003

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: T020-06-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: SV-4332A Component: SOLENOID VALVE	Temperature (°F)	90	
Manufacturer: TARGET ROCK	Pressure (PSIG)	0	
Model Number: 72V-004	Relative Humidity (%)	100	
Purchase Order Number: M-141C	Chemical Spray	NA	
Function/Service: CONTAINMENT ISOLATION /CONTAINMENT SPRAY HEADER NITROGEN ISOLATION	Seismic	LATER	
Accuracy: Spec: NA Location: RB-S	Radiation (Rad)	7.5 E05	
Floor Elevation: 786' - 0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL	Operating Time	30 DAYS	
Plant I.D. Number: SV-4332B Component: SOLENOID VALVE	Temperature (°F)	90	
Manufacturer: TARGET ROCK	Pressure (PSIG)	0	
Model Number: 72V-004	Relative Humidity (%)	100	
Purchase Order Number: M-141C	Chemical Spray	NA	
Function/Service: CONTAINMENT ISOLATION /CONTAINMENT SPRAY HEADER NITROGEN ISOLATION	Seismic	LATER	
Accuracy: Spec: NA Location: RB-S	Radiation (Rad)	7.5 E05	
Floor Elevation: 786' - 0"	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2							
Loc Dwg: E321/F6 Elec Scheme: E122/33 VDR ID: NONE							
Mfgr Model Ref: V.P. M141C-27-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2							
Loc Dwg: E321/F6 Elec Scheme: E122/33 VDR ID: NONE							
Mfgr Model Ref: V.P. M141C-27-5							

TO20-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: TO20-06-005

EQUIPMENT QUALIFICATION REPORT DATA SHEET

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Equip ID: TO20-06-006

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4333A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 Purchase Order Number: M-141C Function/Service: CONTAINMENT ISOLATION /TORUS SPRAY HEADER NITROGEN ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4333B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 Purchase Order Number: M-141C Function/Service: CONTAINMENT ISOLATION /TORUS SPRAY HEADER NITROGEN ISOLATION Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9" Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2							
Loc Dwg: E317/F6 Elec Scheme: E122/34 VDR ID: NONE							
Mfr Model Ref: V.P. M141C-27-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2							
Loc Dwg: E317/E6 Elec Scheme: E122/34 VDR ID: NONE							
Mfr Model Ref: V.P. M141C-27-5							

TO20-06

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: TO20-06-007

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Equip ID: TO20-06-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4334A Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 Purchase Order Number: M-141C Function/Service: CONTAINMENT ISOLATION /TORUS SPRAY HEADER NITROGEN ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: CONTAINMENT ATMOSPHERE CONTROL Plant I.D. Number: SV-4334B Component: SOLENOID VALVE Manufacturer: TARGET ROCK Model Number: 72V-004 Purchase Order Number: M-141C Function/Service: CONTAINMENT ISOLATION /TORUS SPRAY HEADER NITROGEN ISOLATION Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716' - 9" Flood Level Elevation: 716' - 10" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 29 P&ID: M143/C2							
Loc Dwg: E316/D6 Elec Scheme: E122/33 VDR ID: NONE							
Mfgr Model Ref: V.P. M141C-27-5							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: -	Environment: HARSH			System: 29		P&ID: M143/C2	
Loc Dwg: E316/D6	Elec Scheme: E122/33			VDR ID: NONE			
Mfgr Model Ref: V. P.	M141C-27-5						

V115-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 392
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EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: RADIATION ELEMENT Manufacturer: VICTOREEN Model Number: 877-1 NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	002		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	SEE GEN NOTE 6		357	002		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GEN NOTE 6		133	002		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	002		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	002		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.2 E08	002		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS SEE NOTE (2)	002		REF. (B)	---	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. QUALIFICATION TYPE TEST DATA REPORT FOR CLASS 1E VICTOREEN HIGH RANGE CONTAINMENT RADIATION AREA MONITOR SYSTEM 950.301 (V.P. 11186-211-37439-2(6)-1). TEST PROFILE IS FIGURE VI-1 OF THIS REPORT. B. AGING EVALUATION FORM V115-01 DATED 6/18/82 (CHRON 8120).	1. SPRAY MAKEUP WAS 0.28M H3BO3 IN WATER WITH SUFFICIENT NAOH TO ADJUST PH TO 11.0 AT 77F. THIS IS A MORE SEVERE SPRAY THAN DEMINERALIZED WATER. 2. DETECTOR CONTAINS NO AGING SUSCEPTABLE MATERIALS; BUT UNIT SHOULD BE RETURNED TO THE FACTORY FOR CALIBRATION EVERY 5 YEARS.

V115-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: V115-01-002

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Equip ID: V115-01-004

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: RE-9184A Component: RADIATION ELEMENT Manufacturer: VICTOREEN Model Number: 877-1 Purchase Order Number: DCR-909 Function/Service: POST ACCIDENT MONITORING/RADIATION MONITORING Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' -6" Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: RE-9184B Component: RADIATION ELEMENT Manufacturer: VICTOREEN Model Number: 877-1 Purchase Order Number: DCR-909 Function/Service: POST ACCIDENT MONITORING/RADIATION MONITORING Accuracy: Spec: NA Location: DRYWELL Floor Elevation: 757' -6" Flood Level Elevation: 744' -0" Above Flood Level: Yes: X No:	Operating Time	30 DAYS	
	Temperature (°F)	SEE GENERAL NOTE 6	
	Pressure (PSIG)	SEE GENERAL NOTE 6	
	Relative Humidity (%)	100	
	Chemical Spray	DEMIN WATER	
	Seismic	LATER	
	Radiation (Rad)	4.3 E07	
	Aging	40 YEARS	
	Submergence	NA	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M148/C5 Loc Dwg: E329/E5 Elec Scheme: E63 VDR ID: NONE Mfr Model Ref: DCR-909 ITEM NO.6.2A							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M148/C4 Loc Dwg: E329/C4 Elec Scheme: E63 VDR ID: NONE Mfr Model Ref: DCR-909 ITEM NO.6.2A							

V115-01

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
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 Equip ID: V115-01-006

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Equip ID: V115-01-008

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: RE-9185A Component: RADIATION ELEMENT Manufacturer: VICTOREEN Model Number: 877-1 Purchase Order Number: DCR-909 Function/Service: POST ACCIDENT MONITORING/RADIATION MONITORING Accuracy: Spec: NA Location: TORUS ROOM NORTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS Plant I.D. Number: RE-9185B Component: RADIATION ELEMENT Manufacturer: VICTOREEN Model Number: 877-1 Purchase Order Number: DCR-909 Function/Service: POST ACCIDENT MONITORING/RADIATION MONITORING Accuracy: Spec: NA Location: TORUS ROOM SOUTH Floor Elevation: 716'-9"	Operating Time	30 DAYS	
	Temperature (°F)	140	
	Pressure (PSIG)	0	
	Relative Humidity (%)	100	
	Chemical Spray	NA	
	Seismic	LATER	
	Radiation (Rad)	1.3 E07	
	Aging	40 YEARS	
	Flood Level Elevation: 716'-10" Above Flood Level: Yes: X No:	Submergence	

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M148/C5 Loc Dwg: E316/F6 Elec Scheme: E63 VDR ID: NONE Mfr Model Ref: DCR-909 ITEM NO.6.2A							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	LATER
Walkdown: - Environment: HARSH System: 35 P&ID: M148/C4 Loc Dwg: E317/G2 Elec Scheme: E63 VDR ID: NONE Mfr Model Ref: DCR-909 ITEM NO.6.2A							

V115-02

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT
EVALUATION SHEET

Sheet No: 395

Revision: 1

Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: CABLE ASSEMBLY Manufacturer: VICTOREEN Model Number: 878-1-9 NUREG 0588 Applicable: YES Accuracy: Demo: NA	Operating Time	30 DAYS		30 DAYS	001		REF. (A)	TYPE TEST	NONE
	Temperature (°F)	SEE GENERAL NOTE 6		357	001		REF. (A)	TYPE TEST	NONE
	Pressure (PSIG)	SEE GENERAL NOTE 6		133	001		REF. (A)	TYPE TEST	NONE
	Relative Humidity (%)	100		100	001		REF. (A)	TYPE TEST	NONE
	Chemical Spray	DEMIN WATER		SEE NOTE (1)	001		REF. (A)	TYPE TEST	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	4.3 E07		2.2 E08	001		REF. (A)	TYPE TEST	NONE
	Aging	40 YEARS		40 YEARS	001		REF. (B)	TYPE TEST	NONE
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
A. QUALIFICATION TYPE TEST DATA REPORT FOR CLASS 1E VICTOREEN HIGH RANGE CONTAINMENT RADIATION AREA MONITOR SYSTEM 950.301 (V.P. 11186-211-37439-2(6)-1). TEST PROFILE IS FIGURE VI-1 OF THIS REPORT. B. AGING EVALUATION FORM V115-02 DATED 6/18/82 (CHRON 8120).	1. SPRAY MAKE-UP WAS 0.28M BORIC ACID IN WATER WITH SUFFICIENT NAOH TO ADJUST PH TO 11.0 AT 77F. THIS IS MORE SEVERE THAN DEMINERALIZED WATER SPRAY.

V115-02

Owner: IOWA ELECTRIC
 Facility: OUANE ARNOLD
 Unit: 1
 Docket No: 50-331
 Equip ID: V115-02-001

EQUIPMENT QUALIFICATION REPORT DATA SHEET

Sheet No. 396
 Revision: 1
 Date: 07/09/82

11186-234-NP-1

Equip ID:

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: NUREG 0578 MODIFICATIONS	Operating Time	30 DAYS	THE REQUIRED ENVIRONMENT IS THE WORST CASE TEMPERATURE, HUMIDITY, PRESSURE AND RADIATION CONDITIONS IN THE DRYWELL.
Plant I.D. Number: INSTRUMENT CABLE Component:	Temperature (°F)	SEE GENERAL NOTE 6	
CABLE ASSEMBLY	Pressure (PSIG)	SEE GENERAL NOTE 6	
Manufacturer: VICTOREEN	Relative Humidity (%)	100	
Model Number: 878-1-9	Chemical Spray	DEMIN WATER	
Purchase Order Number: DCR-909	Seismic	LATER	
Function/Service: SUPPORT/POST ACCIDENT RADIATION MONITORING	Radiation (Rad)	4.3 E07	
Accuracy: Spec: NA Location: VARIOUS Floor Elevation: VARIOUS	Aging	40 YEARS	
Flood Level Elevation: NA Above Flood Level: Yes: X No:	Submergence	NA	

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System:	Operating Time		
Plant I.D. Number:	Temperature (°F)		
Component:	Pressure (PSIG)		
Manufacturer:	Relative Humidity (%)		
Model Number:	Chemical Spray		
Purchase Order Number:	Seismic		
Function/Service:	Radiation (Rad)		
Accuracy: Spec: Location: Floor Elevation:	Aging		
Flood Level Elevation: Above Flood Level: Yes: No:	Submergence		

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	NO	NO	NO	NO	NO	NO
Walkdown: - Environment: HARSH System: 35 P&ID: NA							
Loc Dwg: NA Elec Scheme: NA VDR ID: NONE							
Mfgr Model Ref: DCR-909 ITEM NO. 6.2B							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
Walkdown: Environment: System: P&ID:							
Loc Dwg: Elec Scheme: VDR ID:							
Mfgr Model Ref:							

W120-05

Owner: IOWA ELECTRIC
 Facility: DUANE ARNOLD
 Unit: 1
 Docket No: 50-331

EQUIPMENT QUALIFICATION REPORT EVALUATION SHEET

Sheet No: 397
 Revision 1
 Date: 07/09/82

11186-234-NP-1

EQUIPMENT DESCRIPTION	ENVIRONMENT				DOCUMENTATION REFERENCES			QUALIFICATION METHOD(S)	OUTSTANDING ITEMS
	Parameter	Required		Qualification	Reqd.		Qual.		
Component: FAN MOTOR Manufacturer: WESTINGHOUSE Model Number: TEFC NUREG 0588 Applicable: NO Accuracy: Demo: NA	Operating Time	30 DAYS		SEE GEN NOTE 4	001		---	---	NONE
	Temperature (°F)	140		SEE GEN NOTE 7	001		---	---	NONE
	Pressure (PSIG)	0		SEE GEN NOTE 7	001		---	---	NONE
	Relative Humidity (%)	100		SEE GEN NOTE 7	001		---	---	NONE
	Chemical Spray	NA		---	---		---	---	NONE
	Seismic	LATER		---	---		---	---	---
	Radiation (Rad)	5.9 E06		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Aging	40 YEARS		SEE NOTE (1)	001		---	---	SEE NOTE (1)
	Submergence	NA		---	---		---	---	NONE

DOCUMENTATION REFERENCES	NOTES
	1. SEE ACTION ITEM 14.

W120-05

Owner: IOWA ELECTRIC

Facility: DUANE ARNOLD

Unit: 1

Docket No: 50-331

Equip ID: W120-05-001

EQUIPMENT QUALIFICATION REPORT
DATA SHEET

Sheet No. 398

Revision: 1

Date: 07/09/82

11186-234-NP-1

Equip ID: W120-05-002

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ENGINEERED SAFEGUARD ROOMS H & V	Operating Time	30 DAYS	
Plant I.D. Number: 1V-AC-11 Component:	Temperature (°F)	140	
FAN MOTOR	Pressure (PSIG)	0	
Manufacturer: WESTINGHOUSE	Relative Humidity (%)	100	
Model Number: TEFC	Chemical Spray	NA	
Purchase Order Number: M-095	Seismic	LATER	
Function/Service: SUPPORT/RHR AND CORE SPRAY PUMP ROOM COOLING	Radiation (Rad)	5.9 E06	
Accuracy: Spec: NA Location: NW CRNR RM	Aging	40 YEARS	
Floor Elevation: 747'-6"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

EQUIPMENT DESCRIPTION	ENVIRONMENT		
	Parameter	Required	Remarks
System: ENGINEERED SAFEGUARD ROOMS H & V	Operating Time	30 DAYS	
Plant I.D. Number: 1V-AC-12 Component:	Temperature (°F)	140	
FAN MOTOR	Pressure (PSIG)	0	
Manufacturer: WESTINGHOUSE	Relative Humidity (%)	100	
Model Number: TEFC	Chemical Spray	NA	
Purchase Order Number: M-095	Seismic	LATER	
Function/Service: SUPPORT/RHR AND CORE SPRAY PUMP ROOM COOLING	Radiation (Rad)	5.9 E06	
Accuracy: Spec: NA Location: SE CRNR RM	Aging	40 YEARS	
Floor Elevation: 747'-0"	Submergence	NA	
Flood Level Elevation: NA Above Flood Level: Yes: X No:			

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 18		P&ID: M171/A6	
Loc Dwg: M646/E7		Elec Scheme: E113/147			VDR ID: NONE		
Mfr Model Ref: V.P. M95-59-2 AND M95-32-2							

Accidents:	LOCA	MSLB	FWLB	HPCI	RCIC	RWCU	SCRM
	YES	YES	YES	YES	YES	YES	LATER
Walkdown: -		Environment: HARSH		System: 18		P&ID: M171/A6	
Loc Dwg: M660/E3		Elec Scheme: E113/147		VDR ID: NONE			
Mfr Model Ref: V.P. M95-59-2 AND M95-32-2							