



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

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Direct Dial Number

June 30, 1983

SNRC-928

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Environmental Qualification
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Dear Mr. Denton:

As part of our effort to provide complete and current information to NRC Staff acceptance review questions, we hereby submit the attached updated FSAR Table 3.11.1-2 entitled "Environmental Qualification for Class IE BOP Equipment Contained in BOP Specifications". We intend to submit this table in the next formal FSAR revision of Section 3.11. We are planning an August 1983 FSAR amendment submittal and will make every effort to include a rewrite of Section 3.11 at that time. The contents of this table were updated to eliminate all the "laters" in the existing table. This table, along with information presented in the Shoreham Environmental Qualification Report for Class IE Equipment and the Mechanical Equipment Environmental Conformance Report, collectively provide the information originally sought by NRC request 223.11. Our revised response to NRC request 223.11 will be included in the aforementioned formal submittal.

Should you have any questions, please do not hesitate to call this office.

Very truly yours,

J. L. Smith
Manager Special Projects
Shoreham Nuclear Power Station

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cc: J. Higgins
All Parties Listed on Attachment 1

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TABLE 3.11.1-2

ENVIRONMENTAL QUALIFICATION FOR CLASS IE EQUIPMENT
CONTAINED IN BOP SPECIFICATIONS

| <u>Specification Description</u> | <u>LOCATION</u> | | | | | <u>Special Environmental Qual- ification for Equipment in Potential Harsh Environment</u> |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------------|----------------------------------|---|
| | <u>Reactor Building (1)</u> | | <u>Balance of Plant (2)</u> | | | |
| | <u>Primary Contmt</u> | <u>Secondary Contmt</u> | <u>MCC Room</u> | <u>Diesel Room(4)</u> | <u>General Plant Area(5)</u> | |
| 4KV Switchgear (SH1-039) | | X(7) | | | X | Requires modification in containment |
| Centrifugal Pumps (SH1-62G) | | | X | | | Equipment is qualified |
| Position Switches (SH1-088 Field Spec) | | X | | | | Equipment is qualified |
| Carbon Steel MOVs (SH1-88AD-88V) | X | X | | X | X | Equipment is qualified |
| Centrifugal Fans (SH1-102) | | X | | | | Equipment is qualified |
| Charcoal Filter Trains (SH1-105) | | X | | | | Some equipment is qualified Test is in progress for the remaining equipment |
| Ventilation butterfly valves (SH1-111) | | X | | | | Equipment is qualified |
| 480V Motor Control Centers (SH1-115) | | X(6) | X | X | X | Equipment in test program |

TABLE 3.11.1-2

ENVIRONMENTAL QUALIFICATION FOR CLASS IE EQUIPMENT
CONTAINED IN BOP SPECIFICATIONS

LOCATION

| <u>Specification Description</u> | <u>Reactor Building (1)</u> | | <u>Balance of Plant (2)</u> | | | <u>Special Environmental Qualification for Equipment in Potential Harsh Environment</u> |
|--|-----------------------------|-------------------------|-----------------------------|-----------------------|------------------------------|---|
| | <u>Primary Contmt</u> | <u>Secondary Contmt</u> | <u>MCC Room</u> | <u>Diesel Room(4)</u> | <u>General Plant Area(5)</u> | |
| 120V AC & DC Distribution Boards (SH1-124) | | | X | X | X | Equipment is qualified |
| Cable (SH1-127 thru 131) (eg. SH1-129 Coaxial and Transaxial) | X | X | X | X | X | Equipment is qualified |
| Cable (SH1-129 Coax and Triax) | X(8) | X | X | X | X | Equipment is qualified |
| Reactor Containment Electrical Penetrations (SH1-134) | X | X | | | | Equipment is qualified |
| Miscellaneous Electrical Accessories (SH1-159) | X | X | X | X | X | Equipment is qualified |
| DC Motor Control Centers (SH1-168) | | X(6) | X | | | Equipment is qualified |
| Primary Containment Isolation Butterfly Valves (SH1-172) | X | X | | | | Equipment is qualified |
| Drywell Floor Relief Valves (SH1-175) | X | | | | | Equipment is qualified |

TABLE 3.11.1-2

ENVIRONMENTAL QUALIFICATION FOR CLASS IE EQUIPMENT
CONTAINED IN BOP SPECIFICATIONS

LOCATION

| <u>Specification Description</u> | <u>Reactor Building (1)</u> | | <u>Balance of Plant (2)</u> | | | <u>Special Environmental Qualification for Equipment in Potential Harsh Environment</u> |
|--|-----------------------------|-------------------------|-----------------------------|-----------------------|------------------------------|---|
| | <u>Primary Contmt</u> | <u>Secondary Contmt</u> | <u>MCC Room</u> | <u>Diesel Room(4)</u> | <u>General Plant Area(5)</u> | |
| Motor Operated Butterfly Valves (SH1-197) | | X | | | | Equipment is qualified |
| Manually Operated Diaphragm Valves (SH1-203) | | X | | X | X | Equipment is qualified |
| Manually operated stainless steel valves 2 in. and smaller (SH1-214) | X | X | | X | X | Equipment is qualified |
| Special Check Valves (SH1-232) | X | X | | | | Equipment is qualified |
| Loop Level Pumps (SH1-235) | | X | | | | Equipment is qualified |
| Miscellaneous Transformers (SH1-248) | | | X | X | X | Equipment is qualified |
| Motor Operation Carbon Steel Valves (SH1-253) | X | X | | X | X | Equipment is qualified |
| Axial Flow Fans (SH1-270) | | X | | X | X | Equipment is qualified |

TABLE 3.11.1-2

ENVIRONMENTAL QUALIFICATION FOR CLASS IE EQUIPMENT
CONTAINED IN BOP SPECIFICATIONS

| <u>Specification Description</u> | <u>LOCATION</u> | | | | | <u>Special Environmental Qual- ification for Equipment in Potential Harsh Environment</u> |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------------|----------------------------------|---|
| | <u>Reactor Building (1)</u> | | <u>Balance of Plant (2)</u> | | | |
| | <u>Primary Contmt</u> | <u>Secondary Contmt</u> | <u>MCC Room</u> | <u>Diesel Room(4)</u> | <u>General Plant Area(5)</u> | |
| Unit Coolers (SH1-276) | | X | X | X | X | Equipment is qualified |
| Bronze Valves 3 in. & Smaller (SH1-281) | | X | | | | Equipment is qualified |
| Hydrogen Recombiner Units (SH1-289) | | X | | | X | Some equipment is qualified Test is in progress for the remainder of equipment |
| Electrical Motor Operated Control Valves (SH1-310) | | X | | | | Test program planned |
| Air Operated Control Valves (SH1-318) | X | X | | | | Equipment is qualified |
| Auto Temp Controls for HVAC (SH1-319) | | X | | X | X | Some equipment is qualified Test is in progress for the remainder of equipment |
| Radiation Monitoring System (SH1-332) | | X | | | X | Reg. Guide 1.97 |
| Gas Analyzers (SH1-344) | | X | | | | Equipment is qualified |

TABLE 3.11.1-2

ENVIRONMENTAL QUALIFICATION FOR CLASS 1E EQUIPMENT
CONTAINED IN BOP SPECIFICATIONS

LOCATION

| <u>Specification Description</u> | <u>Reactor Building (1)</u> | | <u>Balance of Plant (2)</u> | | | <u>Special Environmental Qualification for Equipment in Potential Harsh Environment</u> |
|--|-----------------------------|-------------------------|-----------------------------|-----------------------|------------------------------|---|
| | <u>Primary Contmt</u> | <u>Secondary Contmt</u> | <u>MCC Room</u> | <u>Diesel Room(4)</u> | <u>General Plant Area(5)</u> | |
| Pressure & Temperature Switches (SH1-348) | | X | | | | Equipment is in test program |
| Electronic Transmitters & Resistance Temperature Detectors (SH1-406) | X | X | | | X | Equipment is qualified |
| Resistance Temperature Detectors (SH1-406A) | X | X | | | X | Equipment is qualified |
| Level Switches (SH1-407) | | X | | X | X | Equipment is in test program |
| Air Operator Butterfly Valves (SH1-423) | | X | | | | Equipment is qualified |
| Automatic Transfer Switches (SH1-438) | | | X | | | Equipment is qualified |
| 480V Motor Generator Sets (SH1-439) | | | X | | | Motor Generators are qualified, Control Cabinets are in test program. |
| Instrument Cable (SH1-455) | X | X | X | X | X | Equipment is qualified |
| Electrical Containment Penetrations (SH1-456) | X(9) | X | | | | Equipment is qualified |

TABLE 3.11.1-2

ENVIRONMENTAL QUALIFICATION FOR CLASS IE EQUIPMENT
CONTAINED IN BOP SPECIFICATIONS

LOCATION

| <u>Specification Description</u> | <u>Reactor Building (1)</u> | | <u>Balance of Plant (2)</u> | | | <u>Special Environmental Qual- ification for Equipment in Potential Harsh Environment</u> |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------------|----------------------------------|---|
| | <u>Primary Contmt</u> | <u>Secondary Contmt</u> | <u>MCR Room</u> | <u>Diesel Room(4)</u> | <u>General Plant Area(5)</u> | |
| Leakage Return Pump (SH1-457) | | X | | | | Equipment is qualified |
| Level Transmitters (SH1-473) | | X | | | | Equipment is qualified |
| Post Accident Radiation Monitoring System (SH1-475) | X | | | | | Equipment in test program |
| Control & Inst Cable (SH1-484) | X | X | X | X | X | Equipment is qualified |
| Thermocouple Extension Wire (SH1-485) | X | X | X | X | X | Equipment is qualified |
| Solenoid Valves (S15.54) | | X | | | | Equipment is qualified |
| Solenoid Valves (Field Purchased) | | X | | | | Equipment is qualified |
| Limit Switches (Field Purchased) | X | | | | | Equipment is qualified |

- NOTES:
- (1) Service conditions for qualification of equipment in the primary containment, secondary containment and MCC rooms are given in the Environmental Qualification Report (EQR)
 - (2) Considered mild environment
 - (3) Deleted
 - (4) Equipment in diesel rooms purchased for conventional industrial application with special consideration for temperature (see Section 9.4.10) (40-120 F).
 - (5) Equipment in general plant areas have been purchased for conventional industrial application.
 - (6) MCCs and distribution panels in reactor building (other than MCC room) are not required in the event of a line break in the secondary containment; those that are required are located in the MCC rooms. Those in reactor building were therefore purchased for conventional industrial application.
 - (7) System located in reactor building but not required for pipe break in the secondary containment.
 - (8) A subset of SH1-129 cable is restricted from primary containment Class IE use.
 - (9) Except Environment Qualification Report Zone A-22