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the southern electric system

NED-84-161

March 30, 1984

Director of Nuclear Reactor Regulation
Attention: Mr. John F. Stolz, Chief
Operating Reactors Branch No. 4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNITS 1, 2
RESOLUTION OF ISSUES RELATED TO ENVIRONMENTAL
QUALIFICATION OF ELECTRICAL EQUIPMENT

Gentlemen:

On February 14, 1984 Georgia Power Company (GPC) met with members of the NRC staff to discuss the ongoing program developed for the qualification of electrical equipment at Plant Hatch under 10 CFR 50.49. GPC agreed to submit the minutes of that meeting, including details on the Hatch qualification program and schedule for its completion. This submittal fulfills that commitment.

The six major issues discussed in the February 14, 1984 meeting were: (1) the need to establish that the harsh environment post-accident profiles used for equipment qualification envelope the Plant Hatch worst case conditions and have been approved by the NRC; (2) the GPC methodology for indentifying and environmentally qualifying the electrical equipment identified in 10 CFR 50.49(b); (3) the adequacy of proposed resolutions for equipment qualification discrepancies listed in the Franklin Research Center Technical Evaluation Report and NRC Safety Evaluation Report of March 31, 1983; (4) the requirement for submittal of Justifications for Continued Operation (JCOs) for equipment within the scope of 10 CFR 50.49(b) which is not currently considered to be fully qualified and which does not have an up to date NRC approved JCO; (5) GPC's practices for review and usage of I & E Information Notices, especially those which could potentially impact equipment qualification; and (6) the GPC plans for maintenance of the qualified status of equipment covered by this rule throughout the life of Plant Hatch.

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GPC agreed during the meeting to submit the post-accident drywell pressure/temperature profiles used in qualifying Hatch equipment including the details of the methodology used in developing profiles for worst case small and intermediate High Energy Line Breaks (HELBs) inside containment. GPC submitted those documents by the agreed upon date of February 24, 1984 (letter no. NED-84-079) after an agreement by the NRC staff that they would review these profiles and comment on their acceptability with regard to the regulations within a two weeks of their submittal. Since the staff has been unable to complete that review, GPC submits this report on the Hatch qualification program under the assumption that the accident profiles are acceptable.

The February 24, 1984 submittal made by GPC documents the approach used in meeting the requirements of 10 CFR 50.49 (e)(1). Specifically, that equipment important to safety, as defined by 10 CFR 50.49(b), be qualified to the most severe design basis accident during or following which the equipment is required to remain functional. All design basis events both inside and outside containment, including flooding, which could potentially result in a harsh environment have been identified and evaluated. For areas outside containment which may experience HELBs, temperature/pressure profiles that envelope the worst case conditions were developed using methods and assumptions that are documented in the Plant Hatch Final Safety Analysis Reports (FSARs). For equipment inside containment, both Loss of Coolant Accidents (LOCAs) and Main Steam Line Breaks (MSLBs) were evaluated. A plant specific analysis of the LOCA for each Hatch unit is documented in the FSARs, while the MSLB analysis for each unit is contained in the General Electric Company proprietary document, NSEO-52-0583, which was contained in GPC's February 24, 1984 submittal. Equipment inside the drywell will be qualified to the temperature/pressure profiles for both of these accidents.


GPC's methodology for identifying and environmentally qualifying the electrical equipment identified in 10 CFR 50.49(b) is discussed in detail in Enclosure 1 to this letter. GPC has established a Central Qualification Documentation File and a Master List of equipment requiring qualification for Plant Hatch. The Master List includes all harsh environment equipment (nonsafety-related as well as safety-related) that is relied upon to remain functional during and following a design basis event. In addition, it contains certain post-accident monitoring equipment within the scope of Regulatory Guide 1.97, rev. 2. It should be noted that GPC is presently not committed to all of the positions of Regulatory Guide 1.97; however, instrumentation which has been or will be classified by GPC as within the scope of Categories 1 or 2 of that document, will be qualified to the requirements of 10 CFR 50.49.

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The Technical Evaluation Report for Plant Hatch prepared by the Franklin Research Center reviewed all equipment that was identified as requiring qualification under the rule and listed qualification discrepancies for certain equipment items. The proposed resolutions for these discrepancies, as discussed in the February 14, 1984 meeting, are summarized in tabular form in Enclosure 2 to this letter. The table indicates whether the equipment is considered to be fully qualified at the present time or whether the necessary action to implement the proposed resolution is still in progress. The current GPC schedule for final qualification of most equipment items conforms to the deadline requirements of 10 CFR 50.49(g). Hatch-2 equipment is scheduled for final qualification during the refueling/pipe replacement outage currently in progress and is due for completion by the end of this year. Hatch-1 equipment qualification should be completed during the refueling outage scheduled for later this year. Each of these outages is the second refueling outage taken after March 31, 1982 (10 CFR 50.49(g) qualification deadline) for the respective unit. For a limited number of equipment items, potential problems exist which could necessitate a request for extension of the outage-based qualification deadlines. However, GPC intends to meet the final regulatory deadline of March 31, 1985. The items for which a deadline extension request may be submitted in the near future are noted in Enclosure 2.

Although the requirements of 10 CFR 50.49(i) do not apply to Plant Hatch due to the date of issue of the Plant Operating Licenses, the approach taken in generating each individual JCO for Hatch equipment is consistent with the requirements of that section of the rule. GPC originally submitted JCOs as part of the response (dated October 31, 1980) to I&E Bulletin 79-01B for Plant Hatch. These JCOs were updated and reaffirmed in the GPC response to 10 CFR 50.49, submitted on May 20, 1983. Enclosure 3 to this letter presents additional JCOs for Plant Hatch equipment within the scope of 10 CFR 50.49(b) that is presently not considered to be fully qualified and for which an NRC approved JCO does not exist. The previously approved JCOs are still valid for all other equipment items which are not yet fully qualified.

GPC has implemented internal procedures for review and usage of I & E Notice qualification related information. These types of procedures, which are also in place at several outside support organizations which assist GPC with the Hatch effort, ensure that all such notices receive redundant reviews. This ensures that any information applicable to equipment qualification is factored into the implementation and development of the Hatch program. Once the current qualification program is completed, future I & E Notices will receive similar reviews to determine if the qualification of any piece of equipment is affected.

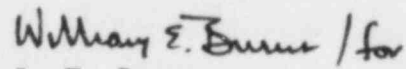
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During the February 14, 1984 meeting, the NRC and GPC discussed the program being implemented at Hatch which is designed to maintain qualification of equipment throughout the life of the plant. This program includes periodic inspection and preventive maintenance of equipment within the scope of 10 CFR 50.49. A computer program, in conjunction with plant procedural controls, will help to ensure that each equipment item receives adequate and regular attention. It will also perform a trending analysis based on plant equipment failure data. This program is summarized in Enclosure 4 to this letter.

As was requested by the NRC, GPC has closely modeled the format of this Hatch submittal to that of the November 23, 1983 submittal made by Wisconsin Electric Power Company for the Point Beach Nuclear Plant. GPC foresees no further submittals for the Hatch 10 CFR 50.49 program with the possible exception of requests for extension of the qualification deadlines as previously mentioned.

Sincerely yours,


L. T. Gucwa

CBS

Enclosures

xc: J. T. Beckham, Jr.
H. C. Nix, Jr.
J. P. O'Reilly (NRC- Region II)
Senior Resident Inspector

ENCLOSURE 1

METHODOLOGY TO IDENTIFY EQUIPMENT
WITHIN THE SCOPE OF 10CFR 50.49(b) RULE

FOR

E. I. HATCH NUCLEAR PLANT, UNITS 1&2

METHODOLOGY TO IDENTIFY EQUIPMENT
WITHIN THE SCOPE OF 10CFR 50.49(b)
FOR
E. I. HATCH NUCLEAR PLANT UNITS 1&2

10CFR 50.49(b) requires that equipment required to assure the integrity of the reactor coolant pressure boundary, to assure the capability to shutdown the reactor and to mitigate the consequences of accidents which could result in potential offsite exposures comparable to the 10 CFR Part 100 limits be considered as part of the environmental qualification program. The rule further requires that support equipment and some post-accident monitoring equipment be included within the scope of the qualification effort.

Georgia Power has approached the qualification effort in a deliberate and systematic manner. From the onset, the approach taken to identify equipment has met the requirements as outlined in 10CFR 50.49.

The various steps taken within the equipment identification process are outlined below:

1. An engineering task force comprised of senior engineering personnel familiar with the operation of Plant Hatch reviewed all plant systems and identified which systems would be required to mitigate the consequences of HELB or LOCA events. The location of the components as well as their safety status was not considered in the selection of the master list of components. In addition, support equipment for the master list components was identified and included during the initial task force effort.

Documents utilized for this review included the plant P&ID's, appropriate plant operating and emergency procedures, plant Technical Specifications, the FSAR and to some extent the proposed BWR emergency procedure guidelines.

2. The master list was reviewed by a third party organization which is familiar with the operation of Plant Hatch.
3. To gain further assurance that the master list was comprehensive, Georgia Power operations department reviewed and concurred with the list.

Upon completion of the above noted series of evaluations the master list components were located to determine their inplant location. Equipment located in a harsh environment and required to operate for the event which created the harsh environment was considered part of the qualification effort. In addition, any component part of the equipment which is included in the master list and located in a harsh environment and required to function was included.

During this effort essential equipment was used to the maximum extent possible; however, the safety classification (safety related or not safety related) of equipment was not a prerequisite for selecting equipment. If equipment was required it was listed as is required by 10CFR 50.49(b.2).

It can be seen by the above that equipment considered in the E. I. Hatch Nuclear Plant qualification effort fully meets the requirements of 10CFR 50.49. It should be noted that the issuance of the 10CFR 50.49 rule did not require that Georgia Power Company add any equipment to the qualification program.

All design modifications to Plant Hatch are reviewed to determine if the qualification program is affected by the design modification.

10CFR 50.49(b.3) requires that certain post-accident monitoring equipment be included in the qualification program. Specifically Category 1 and 2 instruments as defined in Reg. Guide 1.97 Rev. 2 are required to be qualified per NUREG-0588. Georgia Power Company recognizes this requirement. The Reg. Guide 1.97 issue is being resolved under a separate program and schedule and, when resolved, any Reg. Guide 1.97 instrumentation within the scope of Categories 1 or 2 will be considered within the scope of the environmental qualification program.

ENCLOSURE 2

LIST OF EQUIPMENT REQUIRING ENVIRONMENTAL QUALIFICATION -
QUALIFIED ITEMS, AND OPEN ITEMS WITH PROPOSED RESOLUTIONS

E. I. HATCH NUCLEAR PLANT, UNITS 1&2

LIST OF EQUIPMENT REQUIRING ENVIRONMENTAL QUALIFICATION,
QUALIFIED ITEMS, AND OPEN ITEMS WITH PROPOSED RESOLUTIONS

E. I. HATCH NUCLEAR PLANT, UNITS 1&2

INTRODUCTION

The following tables include:

- 1) Information and clarifications addressing the discrepancies identified by the Nuclear Regulatory Commission (NRC) in the Safety Evaluation Report (SER) and in the Franklin Research Center (FRC) Technical Evaluation Report (TER).
- 2) Items determined by FRC to be "Qualified" (NRC Category I.A) or "Equipment not within the scope of the review" (NRC Category III B).
- 3) Items not addressed in the SER or TER that are:
 - a) Open items on the GPC Master List; proposed resolutions are identified for these open items.
 - b) Qualified items on the GPC Master List.
 - c) Part of new design changes, which, when installed, will be part of the GPC Master List.

Items are grouped by unit TER item number, equipment type, common discrepancy and common resolution.

The NRC Categories identified in the TER were:

- I.A. Equipment qualified.
- I.B. Equipment qualification pending modification.
- II.A. Equipment qualification not established.
- II.C. Equipment satisfies all requirements except qualified life or replacement schedule justified.
- III.B. Equipment not within the scope of the review.

The NRC category given in the tables is the same as that in the TER, or has been revised to reflect GPC's proposed or completed resolution.

The open items for each unit will be resolved by the end of their respective 1984 outages except for a few items which potentially will need an extension. See Footnote A.

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|---|------|----------------------|---|-------------------|---|--|
| 001 004 007 011 017 018 022 024 179 180 | 1 | MOTOR OPERATED VALVE | T48-MOV-F013A,B E11-MOV-F104A,B,F015A E11-MOV-F103A,B,F023 E21-MOV-F001A,B E41-MOV-F004,F042 P42-MOV-F052 P42-MOV-F051 P41-MOV-F049,F050 E11-MOV-F119A,B E41-MOV-F059 E21-MOV-F015A,B E21-MOV-F031A,B E11-MOV-F007A,B,F015B E11-MOV-F006A,B,C,D E11-MOV-F004A,B,C,D E11-MOV-F003A,B E11-MOV-F011A,B E11-MOV-F060A,B E11-MOV-F026A,B E11-MOV-F040A,B E11-MOV-F047A,B | I.A (WAS II.C) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. EVIDENCE DOCUMENTING SIMILARITY BETWEEN INSTALLED EQUIPMENT AND TEST SPECIMEN OBTAINED. ENGINEERING EVALUATION PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE LIMITORQUE SMB MOTOR OPERATORS. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| 002 003 005 006 013 016 021 178 | 1 | MOTOR OPERATED VALVE | E41-MOV-F003 B21-MOV-F019 E11-MOV-F020A,B E51-MOV-F031 G31-MOV-F001 E11-MOV-F022 E41-MOV-F041 E51-MOV-F000 G31-MOV-F004 E41-MOV-F001 E41-MOV-F012 E41-MOV-F011 E11-MOV-F000 | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE MOTOR OPERATORS WILL BE REPLACED WITH QUALIFIED LIMITORQUE SMB MOTOR OPERATORS. |
| 008 009 012 014 019 020 023 | 1 | MOTOR OPERATED VALVE | B21-MOV-F016 E51-MOV-F007 E11-MOV-F017A,B E41-MOV-F002 | II.A | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED | EVIDENCE DOCUMENTING SIMILARITY BE- TWEEN INSTALLED EQUIPMENT AND TEST SPECIMEN OBTAINED. ENGINEERING EVALUATION PERFORMED AND VENDOR |

TABLE I-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|---|------|----------------------|--|-------------------|---|--|
| | | | E11-MOV-F016A,B E11-MOV-F049 E51-MOV-F013 E11-MOV-F027A,B E11-MOV-F024A,B E11-MOV-F040 E11-MOV-F073A,B E11-MOV-F075A,B E11-MOV-F091A,B E41-MOV-F111 E41-MOV-F104 E51-MOV-F105 E51-MOV-F104 E11-MOV-F140A E11-MOV-F140B | | INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE LIMITORQUE SMB MOTOR OPERATORS. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. A DEADLINE EXTENSION MAY BE REQUIRED FOR SOME OF THESE ITEMS. SEE FOOTNOTE A. |
| 010 014 015 019 | 1 | MOTOR OPERATED VALVE | B31-MOV-F031A,B E11-MOV-F009 E21-MOV-F005A,B E21-MOV-F004A,B E11-MOV-F021A,B | I.B (WAS II.A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | THE MOTOR OPERATOR WILL BE REPLACED WITH QUALIFIED LIMITORQUE SMB MOTOR OPERATORS. A DEADLINE EXTENSION MAY BE REQUIRED FOR SOME OF THESE ITEMS. SEE FOOTNOTE A. |
| 025 026 027 028 029 030 031 032 040 041 042 043 044 045 047 050 177 | 1 | SOLENOID VALVE | SEE ATTACHED LIST IN FOOTNOTE B | I.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. THE SOLENOID VALVES WERE REPLACED WITH QUALIFIED ASCO NP SERIES SOLENOID VALVES. THE CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| 033 034 035 036 037 038 | 1 | SOLENOID VALVE | T48-SV-F118A,B E41-SV-F053 E11-SV-F074A,B T48-SV-F338 T48-SV-F339 T48-SV-F340 T48-SV-F341 P33-SV-F005A,B,C,D | I.A (WAS II.A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION NOT EVALUATED PROPERLY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND VENDOR QUALIFICATION OF THE TARGET ROCK 73K SOLENOID VALVES. |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|----------------|---|-------------------|--|---|
| | | | | | | MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| #39 | 1 | SOLENOID VALVE | B21-ADV-F013A,C, E,F,J,K&L | I.A (WAS II.C) | QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED. | ALL DISCREPANCIES RESOLVED. TEST REPORT DOCUMENTS THE PERFORMANCE OF THERMAL AGING. ENGINEERING EVALUATION PERFORMED USING TEST DATA AND SPECIFIC SERVICE TEMPERATURES ESTABLISHING QUALIFICATION OF THE TARGET ROCK 1/2 SMS-A-01-1 SOLENOID VALVES. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| #46 | 1 | SOLENOID VALVE | C11-SV-F117(*) C11-SV-F118(*) | I.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION PERFORMED ESTABLISHING QUALIFICATION OF THE ASCO HVA SOLENOID VALVES. |
| #48 #52 | 1 | SOLENOID VALVE | E41-SV-F122 E41-SV-F121 B21-SV-F111 B21-SV-F112 B21-SV-F113 | II.A | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | QUALIFICATION DOCUMENTATION OBTAINED. ENGINEERING EVALUATION BEING PERFORMED TO ESTABLISH QUALIFICATION OF THE VALCOR V526 SOLENOID VALVES. B21-SV-F113 NO LONGER PERFORMS A SAFETY FUNCTION. IT WILL BE DELETED FROM THE 10CFR50.49 MASTER EQUIPMENT LIST. |
| #49 | 1 | SOLENOID VALVE | B21-ADV-F022A,B,C&D B21-ADV-F028A,B,C&D | II.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION BEING PERFORMED ESTABLISHING QUALIFICATION OF THE AVCO C4988 SOLENOID VALVES. |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|--|------|--------------------|--|-------------------|---|--|
| 051 | 1 | SOLENOID VALVE | E21-AOV-F006A,B E21-AOV-F037A,B | I.A (WAS II.C) | QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. SOLENOID VALVES WERE ENERGIZED DURING THERMAL AGING. ENGINEERING ANALYSIS PERFORMED USING TEST DATA AND SPECIFIC SERVICE TEMPERATURES ESTABLISHING QUALIFICATION OF THE ASCO NP SERIES SOLENOID VALVES. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| 053 054 055 056 058 059 060 061 062 063 064 065 066 067 068 069 | 1 | LIMIT SWITCH | SEE ATTACHED LIST IN FOOTNOTE C. | I.A. (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. THE LIMIT SWITCHES WERE REPLACED WITH QUALIFIED NAMCO MODELS EA180 AND EA740 LIMIT SWITCHES. THE CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| 057 | 1 | LIMIT SWITCH | B21-AOV-F022A,B,C,D B21-AOV-F028A,B,C,D | I.A (WAS II.C) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. THE LIMIT SWITCHES WERE REPLACED WITH QUALIFIED NAMCO MODEL EA740 LIMIT SWITCHES. TEST REPORT ESTABLISHED QUALIFICATION. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. THE CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| 070 071 | 1 | TEMPERATURE SWITCH | T41-TIS-N022A,B(*) T41-TIS-N019A,B(*) T41-TIS-N020A,B(*) T41-TIS-N021A,B(*) | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE TEMPERATURE INDICATING SWITCHES WILL BE REPLACED WITH QUALIFIED PYCO 122-7026 TEMPERATURE ELEMENTS AND QUALIFIED SIGMA TEMPERATURE INDICATING SWITCHES (IN MILD |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | MRC CATEGORY | DISCREPANCY FROM MRC REQUIREMENTS | RESOLUTION |
|--|------|----------------------|--|-------------------|--|---|
| 072 073 074 075 076 077 078 079 080 081 082 083 086 107 108 109 110 114 115 125 126 127 128 129 | 1 | WSSS INSTRUMENTATION | SEE ATTACHED LIST IN FOOTNOTE D. | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ENVIRONMENT). A DEADLINE EXTENSION MAY BE REQUIRED FOR SOME OF THESE ITEMS. SEE FOOTNOTE A. SEE FOOTNOTE D. |
| 084 | 1 | FLOW SWITCH | T41-FS-N002A,B T41-FS-N003A,B T41-FS-N004A,B T41-FS-N005A,B T46-FS-N011A,B | II.A | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. CRITERIA REGARDING RADIATION NOT SATISFIED. | ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS BEING PERFORMED TO ESTABLISH QUALIFICATION OF THE DIETZ 13001MA5 FLOW SWITCHES. |
| 085 | 1 | PRESSURE SWITCH | T48-DPS-W210 T48-DPS-W211 | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE PRESSURE SWITCHES WILL BE REPLACED WITH QUALIFIED ROSEMOUNT 1153 SERIES B TRANSMITTERS AND QUALIFIED FOXBORO TRIP MODULES (IN MILD ENVIRONMENT). |
| 087 | 1 | PRESSURE SWITCH | E11-PS-W017A,B,C,D | I.B (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). CRITERIA REGARDING AGING | THE PRESSURE SWITCHES WILL BE REPLACED WITH QUALIFIED STATIC-O-RING MODEL 4N6 PRESSURE SWITCHES. |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|--------------------------|---|-------------------------------|--|--|
| 088 089 | 1 | PRESSURE SWITCH | B21-PS-N301A,B,C,D, B21-PS-N301E,F,G,H, B21-PS-N301J,K,L | I.A (WAS II.A AND I.B.) | SIMULATION NOT SATISFIED (IF REQUIRED). PEAK TEMPERATURE INADEQUATE. PEAK PRESSURE INADEQUATE. DURATION INADEQUATE. CRITERIA REGARDING RADIATION NOT SATISFIED. CRITERIA REGARDING FUNCTIONAL TESTING NOT SATISFIED. | ALL DISCREPANCIES RESOLVED. THE PRESSURE SWITCHES WERE REPLACED WITH QUALIFIED PRESSURE CONTROLS, INC. MODEL A17-IP PRESSURE SWITCHES. QUALIFICATION DOCUMENTATION WAS OBTAINED. ENGINEERING EVALUATION PERFORMED ESTABLISHING QUALIFICATION. |
| 090 091 092 093 | 1 | ELECTRICAL TAPE | ELECTRICAL TAPE, INSIDE AND OUTSIDE CONTAINMENT OKOMITE MODEL T35 & T95 | I.A | NONE | N/A |
| 094 | 1 | HPCI TURBINE CONTROLS | E41-C002 | II.A | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ENGINEERING EVALUATION DETERMINED WHICH TERRY TURBINE CONTROL ELECTRICAL COMPONENTS REQUIRE ENVIRONMENTAL QUALIFICATION. DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS BEING PERFORMED TO ESTABLISH QUALIFICATION OF RELIANCE AND GE PUMP MOTORS; SQUARE-D TERMINAL BLOCKS, LEVEL AND PRESSURE SWITCHES; AND WOODWARD MAGNETIC PICKUP AND HYDRAULIC ACTUATOR. THE SKINNER SOLENOID VALVE |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|------------------------------------|--|-----------------------------|---|---|
| | | | | | | (E41-SV-F124) WILL BE REPLACED. (SEE TER ITEMS-FOOTNOTE H) |
| 095 096 | 1 | CONTROL SWITCH | C82 CONTROL SWITCH C82 TRANSFER SWITCH | I.A (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED AND ENGINEERING ANALYSIS PERFORMED ESTABLISHING QUALIFICATION OF THE ELECTROSWITCH SERIES 20 SWITCHES. |
| 097 | 1 | PANELBOARD IN MCC R24-S011/S012 | PANELBOARD IN MCC R24-S011/S012 | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE PANELBOARD WILL BE REPLACED WITH QUALIFIED PLANT PANELBOARD. |
| 098 118 119 | 1 | HYDRAULIC OPERATED VALVE | T48-HOV-F112A,B T48-E/S-K011A,B T48-FIT-N014A,B(*) | III.B (WAS I.B AND II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE HYDRAULIC OPERATED VALVE ASSEMBLIES WILL BE REPLACED WITH DRAGON NEEDLE VALVES (NON ELEC- TRICAL). VALVE WILL BE DELETED FROM 10CFR50.49 EQUIPMENT LIST. ASSOCIATED POWER SUPPLY T48-E/S-K011A,B AND FLOW LOOP CONTROL FLOW TRANS- MITTER T48-FIT-N014A,B WILL BE DELETED FROM THE 10CFR50.49 EQUIPMENT LIST. |
| 099 | 1 | H2 AND O2 ANALYZER | P33-P001A,B | I.B (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE H2 AND O2 ANALYZERS WILL BE REPLACED WITH QUALIFIED COMSIP INC. MARK K-IV H2 AND O2 ANALYZERS AND SAMPLE LINE THERMOM HEAT TRACE. A DEADLINE EXTENSION MAY BE REQUIRED FOR THIS EQUIP- MENT. SEE FOOTNOTE A. |
| 100 101 | 1 | TRANSFORMER | R11-S040 | I.B. | DOCUMENTED EVIDENCE OF | FAILURE OF THESE TRANS- |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY (WAS 11.A) | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|-------------------|--|----------------------------|---|---|
| 102 103 104 | 1 | CABLE SPLICE | CABLE SPLICE, INSIDE AND OUTSIDE CONTAINMENT RAYCHEM MODEL HVT1A20C RAYCHEM MODEL WCSF0706H | I.A | QUALIFICATION INADEQUATE. | FORMERS WILL NOT INHIBIT THE SAFETY FUNCTION OF ANY ASSOCIATED EQUIPMENT (I.E., THEY FAIL SAFE). TWO OF THE CIRCUITS ARE BEING RELOCATED TO MILD ENVIRONMENT TRANSFORMERS. |
| 105 | 1 | RADIATION MONITOR | D11-RE-N003A,B | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | QUALIFIED VICTOREEN MODEL 877-1 RADIATION MONITORS WERE INSTALLED. QUALIFICATION REPORT OBTAINED. ENGINEERING EVALUATION BEING PERFORMED TO ESTABLISH QUALIFICATION. THE D11-RE-N003A,B ARE NOT REPLACING THE EXISTING D11-RE-N022A,B, BUT WILL BE THE QUALIFIED PRIMARY CONTAINMENT RADIATION MONITORS. |
| 106 | 1 | RADIATION MONITOR | D11-RE-N022A,B | III.B (WAS 11.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THESE RADIATION MONITORS NO LONGER PERFORM A SAFETY FUNCTION AND WILL BE DELETED FROM THE 10CFR50.49 EQUIPMENT LIST. THE SAFETY FUNCTION IS NOW PERFORMED BY QUALIFIED VICTOREEN 877-1, RADIATION DETECTOR D11-RE-N003A,B. SEE TER ITEM NO. 105 |
| 111 117 | 1 | TRANSMITTER | T48-LT-N021A,B T48-LT-N010A,B T48-PT-N003A,B | I.A | NONE | N/A |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|------------------------|--|--------------------|---|--|
| 112 113 181 | 1 | TRANSMITTER | T48-PT-N023A,B T48-PT-N020A,B T48-PT-N001 T48-LI-N010A,B T48-PT-N020A,B T46-DPT-N005B,C | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE PRESSURE TRANSMITTERS WILL BE REPLACED WITH QUALIFIED ROSEMOUNT 1153 SERIES B TRANSMITTERS. SEE TER ITEM NO. 111. |
| 116 181 | 1 | TRANSMITTER | T48-PT-N008B T48-PT-N009B T48-LI-N021A,B | I.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. THE PRESSURE TRANSMITTERS WERE REPLACED WITH QUALIFIED ROSEMOUNT 1153 SERIES B TRANSMITTERS. T48-PT-N008B AND T48-PT-N009B WERE RETAGGED AS T48-PT-N023A,B. T48-PT- N008B AND T48-PT-N009B WILL BE DELETED FROM THE 10CFR50.49 EQUIPMENT LIST. SEE TER ITEM NO. 111. |
| 120 121 | 1 | POWER SUPPLY | T48 E/S K001 T48 E/S K007A,B | III.B (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | REPLACEMENT INSTRUMENT POWER SUPPLIES LOCATED IN A MILD ENVIRONMENT (MAIN CONTROL ROOM). EQUIPMENT WILL BE DELETED FROM THE 10CFR50.49 EQUIPMENT LIST. |
| 122 123 124 | 1 | TEMPERATURE ELEMENT | T48-TE-N009A,B,C,D T47-TE-N003(*) T47-TE-N009(*) | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE TEMPERATURE ELEMENTS WILL BE REPLACED WITH QUALIFIED PYCO 122-7026 TEMPERATURE ELEMENTS. A DEADLINE EXTENSION MAY BE REQUIRED FOR SOME OF THESE ITEMS. SEE FOOTNOTE A. |
| 130 | 1 | ELECTRICAL PENETRATION | T52 | I.A | NONE | N/A |
| 131 174 175 | 1 | TERMINAL BLOCK | TERMINAL BLOCK STATES TYPE ZWH AND NT. | I.A | NONE | N/A SEE FOOTNOTE E. |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL GUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATAGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|---------------------|------|---------------------------------------|---|-------------------|---|---|
| 132 | 1 | RECIRCULATION PUMP TRIP SWITCHGEAR | RPT SWITCHGEAR | I.A (WAS II.A) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). PROGRAM NOT ESTABLISHED TO IDENTIFY AGING DEGRADATION. CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQUIRED). PEAK TEMPERATURE INADEQUATE. PEAK PRESSURE INADEQUATE. STEAM EXPOSURE (IF REQUIRED) INADEQUATE. CRITERIA REGARDING RADIATION NOT SATISFIED. | ALL DISCREPANCIES RESOLVED. THE SWITCHGEAR WILL PERFORM ITS FUNCTION PRIOR TO BEING SUBJECTED TO THE EFFECTS OF THE HARSH ENVIRONMENT. MAINTENANCE AND SURVEILLANCE PROGRAM WILL ADDRESS QUALIFIED LIFE. |
| 133 134 135 136 137 | 1 | MOTOR CONTROL CENTER MOTOR STARTER | R27-S005 R27-S035 R27-S037 R27-S036 R24-S022 R24-S021A R27-S006 R24-S011 R24-S012 R24-S013 R24-S010A R24-S010B | II.A | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQUIRED). DURATION INADEQUATE. REQUIRED PROFILE ENVELOPED INADEQUATELY. CRITERIA REGARDING RADIATION NOT SATISFIED. | ACCIDENT TESTING PERFORMED TO QUALIFY 2 OF 3 TYPES OF HATCH MCC. THIRD MANUFACTURED TO THE SAME INDUSTRIAL STANDARDS AND QUALIFIED BY SIMILARITY. ENGINEERING EVALUATION IS BEING PERFORMED FOR RADIATION DEGRADATION OF MATERIAL BELOW 5.1 E4 RADS. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| 138 139 | 1 | PUMP MOTOR | E21-C001A E21-C001B E11-C002A E11-C002B | I.A (WAS II.A) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED | ALL DISCREPANCIES RESOLVED. ENGINEERING EVALUATION OF TEST REPORT PERFORMED ESTABLISHING QUALIFICATION |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | NPL NUMBER | MRC CATEGORY | DISCREPANCY FROM MRC REQUIREMENTS | RESOLUTION |
|--|------|-------------------|--|---------------------|--|--|
| 140 141 | 1 | COOLING FAN MOTOR | E11-C002C E11-C002D | | (IF REQUIRED). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQUIRED). PEAK TEMPERATURE INADEQUATE. DURATION INADEQUATE. | OF THE GE PUMP MOTORS. DETAILED RESPONSE TO TER CONCERNS ADDRESSED IN MAY 16, 1983 RESPONSE TO MRC SER FOR 10CFR50.49 FOR HNP. |
| | | | T46-C001A T46-C001B T41-B003A T41-B003B T41-B004A T41-B004B T41-B005A T41-B005B T41-B002A T41-B002B | I.A (WAS II.A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE JOY- RELANCE FAN MOTORS. |
| 142 143 | 1 | ELECTRICAL CABLE | ELECTRICAL CABLE GENERAL ELECTRIC MODEL S15727511 | I.A | NONE | N/A |
| 144 148 154 155 159 173 | 1 | CABLE AND WIRE | N3-04 H1-16 N3-03 M2-16 N1-4 | I.B (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE INSTRUMENT CABLES WILL BE REPLACED WITH QUALIFIED BRAND-REX TYPE M08 CABLES. |
| 145 | 1 | ELECTRICAL CABLE | J2-03 J2-04 (ELECTRICAL CABLE FOR D11-RE-M022A,B) | III.B (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | (SEE TER 106) |
| 146 147 149 150 151 152 153 156 157 158 160 161 162 163 | 1 | CABLE AND WIRE | K1-01 M27-16T C9-14T C7-14T C4-14T C2-14T C17 | I.A (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF GE, OKONITE, |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|---|------|--|--|--------------|---|--|
| 164 165 166 167 168 169 170 171 172 | 1 | ELECTRICAL CABLE SPLICES AND CONNECTORS | C4-16T N2-5 C2-9T C4-6T C4-12T C2-12T N2-7 H04 B22 A1-03S A1-250S B3-350A D1-6 D1-04 D1-02 | | | BOSTRAD INSULATED WIRE, CONTINENTAL WIRE AND ANACONDA WIRES AND CABLES. |
| 176 | 1 | ELECTRICAL CABLE | ELECTRICAL CABLE SPLICES AND CONNECTORS | 111.B | NONE | N/A |
| SEE FOOTNOTE F | 1 | TEMPERATURE ELEMENT | 631-TE-N016C 631-TE-N016F | 1.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | QUALIFIED VICTOREEN CABLE 87815 WAS INSTALLED. QUAL- IFICATION REPORT OBTAINED. ENGINEERING EVALUATION BEING PERFORMED TO ESTABLISH QUALIFICATION. SEE TER ITEM NO. 105. |
| | | PRESSURE SWITCH | B31-PS-N018A B31-PS-N018B | 1.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE RESOLUTION FOR TER ITEM NO. 72. |
| | | PRESSURE SWITCH | P52-PIS-N021 | 1.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE RESOLUTION FOR TER ITEM NO. 85. |
| | | MOTOR OPERATED VALVE | E41-MOV-F006 E41-MOV-F007 | 1.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE RESOLUTION FOR TER ITEM NO. 2 |
| SEE FOOTNOTE G | 1 | SOLENOID VALVE | T40-ADV-F103 | 1.A | NONE | THE SOLENOID VALVES IN- |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|-------------------------|---|--------------|-----------------------------------|---|
| SEE FOOTNOTE H | 1 | | E41-ADV-F025 T4B-ADV-F333B | | | STALLED ARE QUALIFIED ASCO NP SERIES SOLENOID VALVES. |
| | | MOTOR OPERATED VALVE | E41-MOV-F008 E11-MOV-F010 | I.A | NONE | THE MOTOR OPERATORS INSTALLED ARE QUALIFIED LIMITORQUE MOTOR OPERATORS. |
| | | CONTROL CABLE | C12-14T | I.A | NONE | THE CONTROL CABLE INSTALLED IS QUALIFIED OKONITE MODEL 12/C CABLE. |
| | | ELECTRICAL CABLE | M-5-20 B1-6 C4-16T | I.A | NONE | SEE TER ITEM NO. 146. |
| | | SOLENOID VALVE | C11-SV-F040 T41-ADV-F040A T41-ADV-F040B C11-SV-F110A C11-SV-F110B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED ASCO NP SERIES SOLENOID VALVES. |
| | | SOLENOID VALVE | P70-SV-F005 P70-SV-F066 P70-SV-F067 P70-SV-F004 P33-SV-F005 P33-SV-F013 E41-SV-F124 | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED TARGET ROCK SERIES 82VV SOLENOID VALVES. |
| | | SOLENOID VALVE | P70-SV-F001B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED IS A QUALIFIED VALCOR MODEL V526-5920-5 SOLENOID VALVE. |
| | | LIMIT SWITCH | T41-ADV-F040A T41-ADV-F040B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED NAMCO EA100 LIMIT SWITCHES. |
| | | TRANSMITTER | P70-FI-N020A P70-FI-N020B P70-FI-N022A | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED ROSEMOUNT 1153 SERIES B TRANSMITTERS. |

TABLE 1-UNIT 1 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|---------------------|--|--------------|-----------------------------------|---|
| | | | P70-FI-N0220 | | | |
| | | PRESSURE SWITCH | P70-PS-N006A P70-PS-N006B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED ITT BARTON 580A-2 PRESSURE SWITCHES. |
| | | TEMPERATURE ELEMENT | T48-TE-N301A T48-TE-N302A T48-TE-N303A T48-TE-N304A T48-TE-N305A T48-TE-N306A T48-TE-N307A T48-TE-N308A T48-TE-N309A T48-TE-N310A T48-TE-N311A | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED PYCO 122-4030 TEMPERATURE ELEMENTS. A DEADLINE EXTENSION MAY BE REQUIRED ON THESE TEMPERATURE ELEMENTS. SEE FOOTNOTE A. |

FOOTNOTE A - TABLE 1

The following items may require a deadline extension beyond the end of the 1984 outage but no later than March 31, 1985 for complete qualification. GPC will formally request extensions on an as needed basis.

| TER ITEM NO. | MPL NO. | EQUIPMENT DESCRIPTION | OUTSTANDING ITEM |
|--------------|--------------------|--|--|
| 19 | E11-MOV-F021A,B | Limiter Motor Operated Valves | Seismic analysis contracted to vendor may not be completed before deadline. |
| 99 | P33-P001A,3 | Comsip, Inc. H ₂ & O ₂ Analyzers | Qualification testing on Thermon Manufacturing Heat Tracing for sample lines may not be completed before deadline. |
| 122, 123 | T48-TE-N009A,B,C,D | Pyco, Inc. RTD Temperature Elements | Complete Qualification test documentation may not be available before deadline. |
| 124 | T47-TE-N003 | Pyco, Inc. RTD Temperature Element | Complete Qualification Test Documentation may not be available before deadline. |
| 124 | T47-TE-N009 | Pyco, Inc. RTD Temperature Element | Complete Qualification Test Documentation may not be available before deadline. |
| 70 | T41-TE-N022A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| 71 | T41-TE-N019A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| 71 | T41-TE-N020A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| 71 | T41-TE-N021A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| New | T48-TE-N301A-11A | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |

FOOTNOTE B TABLE 1-UNIT 1 ASCO SERIES SOLENOID VALVES

| TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER |
|-----------------|--|-----------------|--|-----------------|---|
| 025 | P70-AOV-F004 P70-AOV-F005 | | T48-AOV-F332A T48-AOV-F332B T48-AOV-F333A | | 611-AOV-F019 611-AOV-F020 |
| 026 | E11-AOV-F122A E11-AOV-F122B | 031 032 | C11-SV-F009 T41-AOV-F023A(*) T41-AOV-F023B T41-AOV-F032A T41-AOV-F032B | 045 047 | P41-AOV-F066 P41-AOV-F067 B31-AOV-F019 E11-AOV-F053A E11-AOV-F053B E41-AOV-F026 E41-AOV-F028 E41-AOV-F029 P33-AOV-F002 P33-AOV-F010 P41-AOV-F040A P41-AOV-F040B T41-AOV-F011B T46-AOV-F005 T48-AOV-F104 T48-AOV-F319 T48-AOV-F320 T48-AOV-F334A T48-AOV-F334B T48-AOV-F335A T48-AOV-F335B |
| 027 | E11-AOV-F051A E11-AOV-F051B | | E21-AOV-F019A E21-AOV-F019B E41-AOV-F051 E51-AOV-F003 G11-AOV-F003 T41-AOV-F031A T41-AOV-F031B T41-AOV-F044A T41-AOV-F044B | | |
| 028 | B31-AOV-F020 P33-AOV-F003 P33-AOV-F004 P33-AOV-F006 P33-AOV-F007 P33-AOV-F011 P33-AOV-F012 P33-AOV-F014 P33-AOV-F015 P70-AOV-F002 P70-AOV-F003 | 040 041 | T46-AOV-F001A T46-AOV-F001B T46-AOV-F002A T46-AOV-F002B | | |
| 029 | P41-AOV-F035A P41-AOV-F035B P41-AOV-F036A P41-AOV-F036B P41-AOV-F037A P41-AOV-F037B P41-AOV-F037C P41-AOV-F037D P41-AOV-F039A P41-AOV-F039B | 042 043 | G51-AOV-F011 G51-AOV-F012 E11-AOV-F065A E11-AOV-F065B E11-AOV-F065C E11-AOV-F065D T48-AOV-F307 T48-AOV-F308 T48-AOV-F309 T48-AOV-F318 T48-AOV-F324 T48-AOV-F326 | 050 177 | G51-AOV-F013 G51-AOV-F021 T48-AOV-F310 T48-AOV-F311 |
| 030 | T48-AOV-F113 T48-AOV-F114 T48-AOV-F115 T48-AOV-F116 T48-AOV-F321 T48-AOV-F322 T48-AOV-F325 T48-AOV-F327 | 044 | G11-AOV-F004 | | |

(*) These MPL numbers are corrections of what was identified in the TER.

FOOTNOTE C TABLE 1-UNIT 1 NAMCO EA180 & 740 LIMIT SWITCHES

| TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER |
|-----------------|--|-----------------|--|-----------------|--|
| 053 | E21-ADV-F037A E21-ADV-F037B | | P70-ADV-F005 T48-ADV-F104 | | T48-ADV-F310 T48-ADV-F311 T48-ADV-F318 T48-ADV-F324 T48-ADV-F326 T48-ADV-F332A T48-ADV-F332B T48-ADV-F333A T48-ADV-F333B |
| 054 | E11-ADV-F122A E11-ADV-F122B | 063 | 051-ADV-F013 051-ADV-F021 | | |
| 055 | 031-ADV-F019 | 064 | E41-ADV-F025 E41-ADV-F026 E41-ADV-F028 E41-ADV-F029 | | |
| 056 | E21-ADV-F006A E21-ADV-F006B | | | | |
| 058 | 051-ADV-F011 051-ADV-F012 | 065 | 031-ADV-F020 P33-ADV-F003 P33-ADV-F011 | 069 | P33-ADV-F004 P33-ADV-F006 P33-ADV-F007 P33-ADV-F012 P33-ADV-F014 P33-ADV-F015 T48-ADV-F113 T48-ADV-F114 T48-ADV-F115 T48-ADV-F116 T48-ADV-F321 T48-ADV-F322 T48-ADV-F325 T48-ADV-F327 |
| 059 | P41-ADV-F066 P41-ADV-F067 | | | | |
| 060 | T46-ADV-F001A T46-ADV-F001B T46-ADV-F002A T46-ADV-F002B T46-ADV-F003A T46-ADV-F003B T46-ADV-F004A T46-ADV-F004B T46-ADV-F005 | 066 | 011-ADV-F003 011-ADV-F004 011-ADV-F019 011-ADV-F020 | | |
| | | 067 | T41-ADV-F011B T48-ADV-F319 T48-ADV-F320 T48-ADV-F334A T48-ADV-F334B T48-ADV-F335A T48-ADV-F335B | | |
| 061 | T41-ADV-F023A T41-ADV-F023B T41-ADV-F031 T41-ADV-F031B T41-ADV-F032A T41-ADV-F032B T41-ADV-F044A T41-ADV-F044B | 068 | E11-ADV-F065A E11-ADV-F065B E11-ADV-F065C E11-ADV-F065D E21-ADV-F019A E21-ADV-F019B E41-ADV-F051 E51-ADV-F003 T48-ADV-F103 T48-ADV-F307 T48-ADV-F308 T48-ADV-F309 | | |
| 062 | P33-ADV-F002 P33-ADV-F010 P70-ADV-F002 P70-ADV-F003 P70-ADV-F004 | | | | |

FOOTNOTE D - TABLE 1

The NSSS instrumentation equipment is being replaced with an Analog Transmitter Trip System (ATTS) supplied by General Electric, ATTS meets the requirements of NUREG-0588 and consists of the following equipment:

- 1) Qualified ITT Barton Transmitters, models 763 & 764.
- 2) Qualified Weed Instruments RTD Temperature Element, catalog/model No. 1AOD/611-1B-C-4-C-2-A1-0.
- 3) Qualified Pressure Controls, Inc. Pressure Switch, model A17-1P.
- 4) Qualified cables and terminal blocks.

Associated trip units and controls are located in the Main Control Room (Mild Environment).

See attached list of equipment

FOOTNOTE D TABLE 1-UNIT 1 MSSS INSTRUMENTATION

| TER ITEM NUMBER | NPL NUMBER | TER ITEM NUMBER | NPL NUMBER | TER ITEM NUMBER | NPL NUMBER |
|-----------------|--|-----------------|--|-----------------|---|
| 072 | E41-PS-N010 E41-PS-N012A E41-PS-N012B E41-PS-N012C E41-PS-N012D E41-PS-N017A E41-PS-N017B | 077 | B21-DPIS-N021C E51-DPIS-N017 E51-DPIS-N018 E11-PS-N010A E11-PS-N010B E11-PS-N010C E11-PS-N010D E11-PS-N011A E11-PS-N011B E11-PS-N011C E11-PS-N011D | 082 | B21-PS-N021D B21-PS-N021E B21-PS-N021F E11-PS-N016A E11-PS-N016C E11-PS-N020A E11-PS-N020C E21-PS-N009A E21-PS-N009B E41-PS-N001A E41-PS-N001B E41-PS-N001C E41-PS-N001D E41-PS-N027 E51-PS-N019A E51-PS-N019B E51-PS-N019C E51-PS-N019D |
| 073 | C71-PS-N002A C71-PS-N002B C71-PS-N002C C71-PS-N002D | 078 | B21-LIS-N024A B21-LIS-N024B B21-LIS-N025A B21-LIS-N025B B21-LIS-N031A B21-LIS-N031B B21-LIS-N031C B21-LIS-N031D B21-LIS-N042A B21-LIS-N042B B21-LITS-N026A B21-LITS-N026B B21-LITS-N036 B21-LITS-N037 | 083 | E41-PS-N015A E41-PS-N015B |
| 074 | E41-PS-N004 E41-PS-N005 | 079 | E11-PS-N016B E11-PS-N016D E11-PS-N020B E11-PS-N020D E21-PS-N008A E21-PS-N008B | 086 | E51-PS-N012A E51-PS-N012B E51-PS-N012C E51-PS-N012D |
| 075 | E11-PS-N016B E11-PS-N016D E11-PS-N020B E11-PS-N020D E21-PS-N008A E21-PS-N008B | 080 | B21-DPIS-N006A B21-DPIS-N006B B21-DPIS-N006C B21-DPIS-N006D B21-DPIS-N007A B21-DPIS-N007B B21-DPIS-N007C B21-DPIS-N007D B21-DPIS-N008A B21-DPIS-N008B B21-DPIS-N008C B21-DPIS-N008D B21-DPIS-N009A B21-DPIS-N009B B21-DPIS-N009C B21-DPIS-N009D B21-DPIS-N021B | 107 | E11-FT-N015A E11-FT-N015B |
| 076 | B21-DPIS-N006A B21-DPIS-N006B B21-DPIS-N006C B21-DPIS-N006D B21-DPIS-N007A B21-DPIS-N007B B21-DPIS-N007C B21-DPIS-N007D B21-DPIS-N008A B21-DPIS-N008B B21-DPIS-N008C B21-DPIS-N008D B21-DPIS-N009A B21-DPIS-N009B B21-DPIS-N009C B21-DPIS-N009D B21-DPIS-N021B | 081 | E11-DPIS-N021A E11-DPIS-N021B E21-FIS-N006A E21-FIS-N006B E41-FS-N006 B21-LIS-N017A B21-LIS-N017B B21-LIS-N017C B21-LIS-N017D B21-PS-N021A | 108 | C32-PT-N003A C32-PT-N003B |
| | | | | 109 | B21-LT-N027 |
| | | | | 110 | E21-FT-N003A E21-FT-N003B E41-FT-N008 |
| | | | | 114 | E11-DPT-N002A |

FOOTNOTE D TABLE 1-UNIT 1 NSSS INSTRUMENTATION

| TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER |
|-----------------|---------------|-----------------|--------------|
| | E11-DPT-N002B | | 831-TE-N016B |
| 115 | 631-FT-N012 | | 831-TE-N016D |
| | 631-FT-N036 | | 831-TE-N016E |
| | 631-FT-N041 | | 831-TE-N022A |
| 125 | B21-TS-N010A | | 831-TE-N022B |
| | B21-TS-N010B | | 831-TE-N022C |
| | B21-TS-N010C | | 831-TE-N022D |
| | B21-TS-N010D | | 831-TE-N022E |
| | B21-TS-N011A | | 831-TE-N022F |
| | B21-TS-N011B | | 831-TE-N023A |
| | B21-TS-N011C | | 831-TE-N023B |
| | B21-TS-N011F | | 831-TE-N023C |
| | B21-TS-N012A | | 831-TE-N023D |
| | B21-TS-N012B | | 831-TE-N023E |
| | B21-TS-N012C | 129 | 831-TE-N023F |
| | B21-TS-N012D | | E51-TE-N021A |
| | B21-TS-N013A | | E51-TE-N021B |
| | B21-TS-N013B | | E51-TE-N022A |
| | B21-TS-N013C | | E51-TE-N022B |
| | B21-TS-N013D | | E51-TE-N023A |
| 126 | E41-TE-N030A | | E51-TE-N023B |
| | E41-TE-N030B | | E51-TE-N026A |
| | E41-TE-N046A | | E51-TE-N026C |
| | E41-TE-N046B | | |
| | E51-TE-N026B | | |
| | E51-TE-N026D | | |
| 127 | E51-TE-N025A | | |
| | E51-TE-N025B | | |
| | E51-TE-N025C | | |
| | E51-TE-N025D | | |
| 128 | E51-TE-N027A | | |
| | E51-TE-N027B | | |
| | E51-TE-N027C | | |
| | E51-TE-N027D | | |
| | 631-TE-N016A | | |

FOOTNOTE E - TABLE 1

A review, of all equipment inside containment that could be affected by leakage current across terminals, was performed. The results indicate that there would be less than 5% error in instrument reading.

FOOTNOTE F - TABLE 1

This equipment was not addressed in the TER. However, the equipment is part of GPC's List of Equipment Requiring Environmental Qualification - Open Items.

FOOTNOTE G - TABLE 1

This equipment was not addressed in the TER. However, the equipment is part of GPC's List of Equipment Requiring Environmental Qualification - Qualified Items.

FOOTNOTE H - TABLE 1

This equipment was not addressed in the TER. This equipment is part of new design changes and not currently installed. When installed, the equipment will be added to GPC List of Equipment Requiring Environmental Qualification - Qualified Items.

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER | ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION | |
|-----|--|------|----------------------|--|--|-----------------------------------|---|--|
| 001 | 013 014 015 023 024 026 027 028 033 034 035 187 | 2 | MOTOR OPERATED VALVE | 2E11-MOV-F049 2E11-MOV-F140A,B 2E11-MOV-F009 2E41-MOV-F002 2B21-MOV-F019 2E51-MOV-F008 2E41-MOV-F111 2E41-MOV-F104 2E11-MOV-F040 2E11-MOV-F119A,B 2E11-MOV-F010 2E11-MOV-F027B 2E11-MOV-F073A,B 2E11-MOV-F075A 2E32-MOV-F003B,K,F,P(*) 2E51-MOV-F105 2T49-MOV-F005A,B 2E51-MOV-F007 2B31-MOV-F001 2B21-MOV-F016 2T49-MOV-F004A,B | 2E32-MOV-F001B,F,K,P 2P42-MOV-F052 2P42-MOV-F051 | I.A (WAS II.A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQ.) | ALL DISCREPANCIES RESOLVED. EVIDENCE DOCUMENTING SIMILARITY BETWEEN INSTALLED EQUIPMENT AND TEST SPECIMEN OBTAINED. ENGINEERING EVALUATION PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE LIMITORQUE SMB MOTOR OPERATORS. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| 002 | 003 004 009 012 017 018 019 029 031 036 037 188 | 2 | MOTOR OPERATED VALVE | 2E11-MOV-F024A,B 2E11-MOV-F023 2E41-MOV-F003 2B31-MOV-F004 2E51-MOV-F104 2E11-MOV-F017A,B 2E11-MOV-F015A,B 2E41-MOV-F001 2E41-MOV-F041 2E41-MOV-F059 2E41-MOV-F007 2E11-MOV-F011A,B 2E11-MOV-F026A,B 2E11-MOV-F003B 2E11-MOV-F048A,B 2E11-MOV-F004A,B,C,D 2E11-MOV-F006B 2E11-MOV-F007A,B | 2E21-MOV-F015A,B 2E21-MOV-F031A,B 2E21-MOV-F104A,B 2E11-MOV-F103A,B 2E11-MOV-F091A,B 2T49-MOV-F002A,B 2T49-MOV-F001A,B 2E11-MOV-F068A,B 2T49-MOV-F006A,B 2P64-MOV-F047 2P64-MOV-F045 2E11-MOV-F104A,B 2E11-MOV-F103A,B | I.A (WAS II.C) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. EVIDENCE DOCUMENTING SIMILARITY BETWEEN INSTALLED EQUIPMENT AND TEST SPECIMEN OBTAINED. ENGINEERING EVALUATION PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE LIMITORQUE SMB MOTOR OPERATORS. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|--|------|----------------------|---|-------------------|--|---|
| | | | 2E11-MOV-F006A,C,D 2E11-MOV-F047A,B 2E21-MOV-F001A,B | | | |
| 005 025 030 | 2 | MOTOR OPERATED VALVE | 2E11-MOV-F016A,B 2E11-MOV-F021A 2B31-MOV-F031A,B | I.B (WAS II.A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | THE MOTOR OPERATORS WILL BE REPLACED WITH QUALIFIED LIMITORQUE SMB MOTOR OPERATORS. A DEADLINE EXTENSION MAY BE REQUIRED FOR SOME OF THESE ITEMS. SEE FOOTNOTE A. |
| 006 007 008 010 020 021 022 032 190 192 | 2 | MOTOR OPERATED VALVE | 2E51-MOV-F031 2E11-MOV-F075B 2E11-MOV-F027A 2E51-MOV-F013 2E11-MOV-F008 2E41-MOV-F006 2E11-MOV-F003A 2E11-MOV-F021B 2E41-MOV-F008 2E41-MOV-F004 2E41-MOV-F042 2E41-MOV-F012 2E41-MOV-F011 2E32-MOV-F002B,F,K,P 2E32-MOV-F009 2E32-MOV-F008 2E32-MOV-F007 2E32-MOV-F006 2E11-MOV-F028A,B | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE MOTOR OPERATORS WILL BE REPLACED WITH QUALIFIED LIMITORQUE SMB MOTOR OPERATORS. A DEADLINE EXTENSION MAY BE REQUIRED FOR SOME OF THESE ITEMS. SEE FOOTNOTE A. |
| 011 016 | 2 | MOTOR OPERATED VALVE | 2E21-MOV-F004A,B 2E21-MOV-F005A,B | I.B (WAS II.C) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | SEE TER ITEM NO. 006. |
| 038 039 040 | 2 | SOLENOID VALVE | SEE ATTACHED LIST IN | I.A | DOCUMENTED EVIDENCE OF | ALL DISCREPANCIES RESOLVED. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|---|------|----------------|--|-------------------|--|---|
| #41 #42 #43 #44 #45 #46 #47 #48 #49 #50 #51 #52 #55 #56 #57 #58 #59 #60 #61 #62 | | | FOOTNOTE B. | (WAS I.B) | QUALIFICATION INADEQUATE. | THE SOLENOID VALVES WERE REPLACED WITH QUALIFIED ASCO NP SERIES SOLENOID VALVES. THE CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| #48 | 2 | SOLENOID VALVE | 2C11-SV-F117(*) 2C11-SV-F118(*) | I.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION PERFORMED ESTABLISHING QUALIFICATION OF THE ASCO NVA SOLENOID VALVES. |
| #53 #54 | 2 | SOLENOID VALVE | 2G11-AOV-F#20 2G11-AOV-F#19 2G11-AOV-F#04 2G11-AOV-F#03 2B21-AOV-F#77A,B 2B21-AOV-F#76A,B | I.A (WAS II.C) | QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. SOLENOID VALVES WERE ENERGIZED DURING THERMAL AGING. ENGINEERING ANALYSIS PERFORMED USING TEST DATA AND SPECIFIC SERVICE TEMPERATURES ESTABLISHING QUALIFICATION AT OPERATING TEMPERATURE OF THE ASCO NP SERIES SOLENOID VALVES. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| #63 #65 #66 | 2 | SOLENOID VALVE | 2E11-SV-F079A,B 2E11-SV-F#08A,B 2E11-SV-F#74A,B 2E41-SV-F#53 | I.A (WAS II.A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION NOT EVALUATED PROPERLY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE TARGET ROCK 75F SOLENOID VALVES. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| #64 | 2 | SOLENOID VALVE | B21-AOV-F#13A,C, | I.A | QUALIFIED LIFE OR REPLACEMENT | ALL DISCREPANCIES RESOLVED. |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | NPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|------------------------|------|----------------|---|-------------------|---|---|
| | | | E,H,K,L&M | (WAS II.C) | SCHEDULE NOT ESTABLISHED (IF REQ.). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQUIRED). | TEST REPORT DOCUMENTS THE PERFORMANCE OF THERMAL AGING. ENGINEERING EVALUATION PERFORMED USING TEST DATA AND SPECIFIC SERVICE TEMPER- ATURES ESTABLISHING QUALIFI- CATION OF THE TARGET ROCK 1/2-SMS-A-#1-1 SOLENOID VALVES. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| 067 068 069 | 2 | SOLENOID VALVE | 2B21-SV-F112 2B21-SV-F113 2B21-SV-F111 2E41-SV-F121 | II.A | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | QUALIFICATION DOCUMENTATION OBTAINED. ENGINEERING EVALUATION BEING PERFORMED TO ESTABLISH QUALIFICATION OF THE VALCOR V526 SOLENOID VALVES. 2B21- SV-F113 NO LONGER PERFORMS A SAFETY FUNCTION. IT WILL BE DELETED FROM THE 10CFR50.49 MASTER EQUIPMENT LIST. |
| 070 073 074 076 080 | 2 | LIMIT SWITCH | 2G51-AOV-F013 2B21-AOV-F028A,B,C,D 2B21-AOV-F022A,B,C,D 2G51-AOV-F011 2G51-AOV-F012 2G11-AOV-F003 2G11-AOV-F004 2G11-AOV-F019 2G11-AOV-F020 2T48-AOV-F212 2T48-AOV-F209 2T48-AOV-F210 2T48-AOV-F211 | I.A (WAS II.C) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR RE- PLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). | ALL DISCREPANCIES RESOLVED. ENGINEERING ANALYSIS PERFORMED USING TEST DATA AND SPECIFIC SERVICE TEMPERATURES ESTABLISHING QUALIFICATION OF THE NAMCO EA180 AND 740 LIMIT SWITCHES. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| 071 072 | 2 | LIMIT SWITCH | 2B21-AOV-F028A,B,C,D 2B21-AOV-F022A,B,C,D | III.B | NONE | REPLACED BY TER ITEMS 73 AND 74. |
| 075 | 2 | LIMIT SWITCH | SEE ATTACHED LIST IN | I.A | DOCUMENTED EVIDENCE OF | ALL DISCREPANCIES RESOLVED. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|--|------|----------------------|----------------------------------|-------------------|---|---|
| 077 078 079 081 082 083 084 085 086 087 088 089 | | | FOOTNOTE C. | (WAS I.B) | QUALIFICATION INADEQUATE. | THE LIMIT SWITCHES WERE REPLACED WITH QUALIFIED NAMCO EA740 AND EA180 LIMIT SWITCHES. THE CONDUIT ENTRANCES WERE SEALED WITH QUALIFIED SEALS. |
| 090 | 2 | CONTROL SWITCH | C82 TRANSFER SWITCH | I.A (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQ.) PEAK TEMPERATURE INADEQUATE. PEAK PRESSURE INADEQUATE. DURATION INADEQUATE. REQUIRED PROFILE ENVELOPED INADEQUATELY. STEAM EXPOSURE (IF REQUIRED) INADEQUATE. CRITERIA REGARDING RADIATION NOT SATISFIED. CRITERIA REGARDING TEST FAILURES OR SEVERE ANOMALIES (IF ANY) NOT SATISFIED. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS PERFORMED ESTABLISHING QUALIFICATION OF THE GENERAL ELECTRIC SB-1 CONTROL SWITCH. |
| 091 | 2 | PRESSURE SWITCH | 2T48-DPS-W210 2T48-DPS-W211 | I.B (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE PRESSURE SWITCHES WILL BE REPLACED WITH QUALIFIED ROSEMOUNT 1153 SERIES B PRESSURE TRANSMITTERS AND QUALIFIED FOXBORO TRIP MODULES (IN MILD ENVIRONMENT). |
| 092 093 094 095 2 096 097 098 099 | | NSSS INSTRUMENTATION | SEE ATTACHED LIST IN FOOTNOTE D. | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE FOOTNOTE D. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|--|------|-----------------|---|--------------------|---|--|
| 101 102 103 104 105 108 109 110 112 113 114 115 116 117 118 122 123 124 126 127 128 129 130 132 181 182 183 184 185 186 | | | | | | |
| 100 | 2 | PRESSURE SWITCH | 2B21-PS-M301A,B,C,D, 2B21-PS-M301E,F,G,H, 2B21-PS-M301K,L,M | I.A. (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. QUALIFICATION REPORT OBTAINED. ENGINEERING EVALUATION OF REPORT PERFORMED ESTABLISHING QUALIFICATION OF THE PCI A17-1P PRESSURE SWITCHES. |
| 106 111 | 2 | PRESSURE SWITCH | 2B21-PS-M301A,B,C,D, E,F,G,H,K,L,M | I.A. (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. THE PRESSURE SWITCHES WERE REPLACED WITH QUALIFIED PRESSURE CONTROLS, INC. MODEL A17-1P PRESSURE SWITCHES. SEE TER ITEM NO. 100. |
| 107 | 2 | PRESSURE SWITCH | 2E11-PS-M017A,B,C,D | II.A. | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQUIRED). PEAK TEMPERATURE INADEQUATE. PEAK PRESSURE INADEQUATE. DURATION INADEQUATE. | ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVALUATION IS BEING PER- FORMED TO ESTABLISH QUALIFICATION OF THE SOR 7924-100 PRESSURE SWITCHES. MAINTENANCE AND SURVEILLANCE PROGRAM WILL ADDRESS QUALIFIED LIFE. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | MRC CATEGORY | DISCREPANCY FROM MRC REQUIREMENTS | RESOLUTION |
|---|------|-----------------------|---|------------------|--|--|
| CRITERIA REGARDING RADIATION NOT SATISFIED. CRITERIA REGARDING FUNCTIONAL TESTING NOT SATISFIED. | | | | | | |
| 119 120 121 | 2 | TEMPERATURE ELEMENT | 2T48-TE-N009A,B,C 2T48-TE-N075 2T47-TE-N003(*) 2T47-TE-N009(*) | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE TEMPERATURE ELEMENTS WILL BE REPLACED WITH QUALIFIED PYCO 122-7026 TEMPERATURE ELEMENTS A DEADLINE EXTENSION MAY BE REQUIRED FOR THESE ITEMS. SEE FOOTNOTE A. |
| 125 | 2 | FLOW ELEMENT | 2E32-FE-N006B,F,K,P | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS BEING PERFORMED TO ESTABLISH QUALIFICATION OF THE ANTEK 1.0-3K-16HC-177 FLOW ELEMENT. REPLACEMENT OF TEFLON WASHER AND SHIELDING OF ELECTRICAL CONNECTOR REQUIRED FOR QUALIFICATION. |
| 131 191 | 2 | TRANSMITTER | 2T48-LT-N021A 2T48-LT-N010A 2T48-PT-N023A,B 2T48-PT-N020A,B | I.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. THE PRESSURE TRANSMITTERS WERE REPLACED WITH QUALIFIED ROSEMOUNT 1153 SERIES B TRANSMITTERS. SEE TER ITEM NO. 133. |
| 133 | 2 | TRANSMITTER | 2T48-PT-N003A,B 2T48-PT-N023A,B 2T48-LT-N021A 2T48-PT-N020A,B 2T48-LT-N010A | I.A | NONE | N/A |
| 134 136 137 151 2 | 2 | HPCI TURBINE CONTROLS | 2E41-C002-1 2E41-C002-3 2E41-C002-2 2E41-C002 | II.A AND I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ENGINEERING EVALUATION DETERMINED WHICH TERRY TURBINE CONTROL ELECTRICAL COMPONENTS REQUIRE ENVIRONMENTAL QUAL - |

(*) These MPL numbers are corrections of what was identified in the TER.

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-------------|------|-------------------|--|---------------------|--|---|
| 135 | 2 | PUMP MOTOR | 2E21-C001A, B 2E11-C002A, B, C, D | I. A (WAS II. A) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQ.). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQ.). PEAK TEMPERATURE INADEQUATE. DURATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. ENGINEERING EVALUATION OF TEST REPORT PERFORMED ESTABLISHING QUALIFICATION OF THE 6E PUMP MOTORS. DETAILED RESPONSE TO TER CONCERNS ADDRESSED IN SUBMITTAL. |
| 138 | 2 | COOLING FAN MOTOR | 2T41-B002A, B 2T41-B003A, B 2T41-B004A, B 2T41-B005A, B | I. A (WAS II. A) | ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS PERFORMED AND VENDOR CONCURRENCE OBTAINED TO ESTABLISH SIMILARITY AND QUALIFICATION OF THE JOY-RELIANCE 36-21-1750 MOTORS. |
| 139 | 2 | BLOWER MOTOR | 2E32-C001 2E32-C002A 2E32-C002E | I. B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS BEING PERFORMED TO ESTABLISH QUALIFICATION. REPLACEMENT OF GASKET REQUIRED FOR QUALIFICATION OF THE SIEMENS 2CH6-042-1U BLOWER MOTORS. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------|------|------------------------|--|--------------------|---|--|
| 140 | 2 | ELECTRICAL PENETRATION | 2T52 | I.A | NONE | N/A |
| 141 | 2 | HEATER | 2E32-B001B 2E32-B001F 2E32-B001K 2E32-B001P | I.A (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING ANALYSIS PERFORMED ESTABLISHING QUALIFI- CATION OF THE GE 47DS18673 HEATERS. |
| 142 | 2 | H2 AND O2 ANALYZER | 2P33-P001A,B | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THE H2 AND O2 ANALYZERS WILL BE REPLACED WITH QUAL- IFIED COMSIP INC. MARK K IV H2 AND O2 ANALYZERS AND SAMPLE LINE THERMON HEAT TRACE. A DEADLINE EXTENSION MAY BE REQUIRED FOR THESE ITEMS. SEE FOOTNOTE A. |
| 143 | 2 | RADIATION MONITOR | 2D11-RE-N022A,B | III.B (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THESE RADIATION MONITORS NO LONGER PERFORM A SAFETY FUNCTION AND WILL BE DELETED FROM THE 10CFR50.49 EQUIPMENT LIST. THE SAFETY FUNCTION IS NOW PERFORMED BY QUALIFIED 2D11-RE-N003A,B (SEE TER ITEM NO.144) |
| 144 | 2 | RADIATION MONITOR | 2D11-RE-N003A,B | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | QUALIFIED VICTOREEN MODEL 877-1 RADIATION MONITORS WERE INSTALLED. QUALIFICATION REPORT OBTAINED. ENGINEERING EVALUATION BEING PERFORMED TO ESTABLISH QUAL- IFICATION. THE 2D11-RE-N003A,B ARE NOT REPLACING THE EXISTING 2D11-RE-N022A,B BUT WILL BE THE QUALIFIED PRIMARY CONT- AINMENT RADIATION MONITORS. |
| 145 | 2 | TRANSFORMER | 2R11-S033 2R11-S031 | I.A. (WAS II.A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | ALL DISCREPANCIES RESOLVED. FAILURE OF THESE TRANS- |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER | ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----|-------------|------|--|--|--------------------|---|--|
| | | | | | | | FORMERS WILL NOT INHIBIT THE SAFETY FUNCTION OF ANY ASSOCIATED EQUIPMENT (i.e., THEY FAIL SAFE). |
| 146 | | 2 | INSTRUMENT POWER SUPPLY | 2T4B-E/S-K019A,B 2T4B-E/S-K020A,B 2T4B-E/S-K007A,B 2T4B-E/S-K009A,B | III.B (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | REPLACEMENT INSTRUMENT POWER SUPPLIES LOCATED IN A MILD ENVIRONMENT (MAIN CONTROL ROOM). EQUIPMENT WILL BE DELETED FROM 79-01B EQUIPMENT LIST. |
| 147 | 148 149 | 2 | MOTOR CONTROL CENTER AND MOTOR STARTER | 2R24-S018A 2R24-S018B 2R24-S012 2R24-S011 2R27-S093 2R27-S096 2R24-S022 2R24-S021 2R27-S095 2R27-S094 | II.A. | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED. (IF REQUIRED). CRITERIA REGARDING AGING SIMULATION NOT SATISFIED (IF REQUIRED). DURATION INADEQUATE. REQUIRED PROFILE ENVELOPED INADEQUATELY. CRITERIA REGARDING RADIATION NOT SATISFIED. | ACCIDENT TESTING PERFORMED TO QUALIFY 2 OF 3 TYPES OF HATCH MCC. THIRD MANUFACTURED TO SAME INDUSTRIAL STANDARDS AND QUALIFIED BY SIMILARITY. ENGINEERING EVALUATION IS BEING PERFORMED FOR RADIATION DEGRADATION OF MATERIAL BELOW 5.1E4 RADS. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |
| 150 | | 2 | RECIRCULATION PUMP TRIP SWITCHGEAR | RPT SWITCHGEAR | I.A (WAS II.A) | AGING DEGRADATION EVALUATED INADEQUATELY. QUALIFIED LIFE OR REPLACEMENT SCHEDULE NOT ESTABLISHED (IF REQUIRED). PROGRAM NOT ESTABLISHED TO IDENTIFY AGING DEGRADATION. CRITERIA REGARDING AGING SIMULATION NOT SATISFIED | ALL DISCREPANCIES RESOLVED. THE SWITCHGEAR WILL PERFORM ITS FUNCTION PRIOR TO BEING SUBJECTED TO HARSH ENVIRONMENT. MAINTENANCE AND SURVEILLANCE PROGRAM ADDRESSES QUALIFIED LIFE. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|-----------------------------------|------|--|---|---------------------|---|--|
| 152 154 155 | 2 | TERMINAL BLOCK | TERMINAL BLOCKS, STATES TYPE ZMM AND NT | I. A | NONE | N/A SEE FOOTNOTE F. |
| 153 | 2 | TERMINAL BLOCK | BUCHANAN PHENOLIC | I. B (WAS II. A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | THESE TERMINAL BLOCKS WILL BE REPLACED WITH QUALIFIED STATES TYPE ZMM AND NT TERMINAL BLOCKS. |
| 156 157 158 159 | 2 | CABLE SPLICE | CABLE SPLICE, INSIDE AND OUTSIDE CONTAINMENT. | I. A | NONE | N/A |
| 160 161 162 163 164 165 166 | 2 | ELECTRICAL CABLE SPLICES AND CONNECTORS | ELECTRICAL CABLE SPLICES AND CONNECTORS. | III. B | NONE | N/A |
| 167 168 175 176 2 177 178 179 | 2 | CABLE AND WIRE | H04 C18 C32 N07 B02 C19 N01 C17 C20 M19 C11 H02 C21 H01 C25 B09 C24 B08 C23 B07 C22 B06 C33 B04 C30 B03 C29 B01 C27 B17 C26 B13 D09 B12 D08 B11 C42 | I. A (WAS II. A) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. ADEQUATE SIMILARITY BETWEEN EQUIPMENT AND TEST SPECIMEN NOT ESTABLISHED. | ALL DISCREPANCIES RESOLVED. ADDITIONAL DOCUMENTATION OBTAINED. ENGINEERING EVAL- UATION PERFORMED AND VENDOR CONCURRENCE OBTAINED ESTABLISHING SIMILARITY AND QUALIFICATION OF THE GE, OKONITE AND BRAND-REX CABLES AND WIRES. |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|----------------------------|------|------------------------|--|------------------|---|---|
| | | | ND C40 A06 C36 C20 K01 C19 M13 | | | |
| 169 170 171 172 173 174 | 2 | ELECTRICAL CABLE | INTERNAL PANEL WIRING, GENERAL ELECTRIC SI5727511 | I.A | NONE | N/A |
| 180 | 2 | ELECTRICAL CABLE | ELECTRICAL CABLE FOR 2D11-RE-M003A,B (SEE TER ITEM NO 144) | II.A | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | QUALIFIED VICTOREEN CABLE 87815 WAS INSTALLED. QUALIFI- CATION REPORT OBTAINED. ENGINEERING EVALUATION BEING PERFORMED TO ESTABLISH QUALIFI- CATION. |
| 189 | 2 | MOTOR OPERATED VALVE | 2T48-MOV-F027 | I.A (WAS I.B) | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE RESOLUTION FOR #1 TER ITEM NO. 001. |
| SEE FOOTNOTE F | 2 | PRESSURE SWITCH | 2P52-PS-M002 | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE RESOLUTION FOR TER ITEM NO. 091. |
| | | PRESSURE SWITCH | 2B31-PS-M018A 2B31-PS-M018B | I.B | DOCUMENTED EVIDENCE OF QUALIFICATION INADEQUATE. | SEE RESOLUTION FOR TER ITEM NO. 092. |
| SEE FOOTNOTE G | 2 | LIMIT SWITCH | 2D11-AOV-F051 2D11-AOV-F053 2P33-AOV-F005 2P33-AOV-F006 | I.A | NONE | THE ITEMS INSTALLED ARE QUALIFIED NAMCO EA180 LIMIT SWITCHES. |
| | | POWER CABLE | C35 C41 | I.A | NONE | THE ITEMS INSTALLED ARE QUALIFIED OKONITE MODELS 4/C AND 5/C POWER CABLES. |
| | | ELECTRICAL HEAT SHRINK | PWD HEAT SHRINK PWE HEAT SHRINK | I.A | NONE | THE ITEMS INSTALLED ARE QUALIFIED RAYCHEM CORP. HEAT SHRINK. |
| | | ELECTRICAL TAPE | JACKETING AND TERMINAL ELECTRICAL TAPE. | I.A | NONE | THE ITEMS INSTALLED ARE QUALIFIED OKONITE MODEL T35 AND T95 INSULATING |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| TER | ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | NRC CATEGORY | DISCREPANCY FROM NRC REQUIREMENTS | RESOLUTION |
|----------------|-------------|------|------------------|--|--------------|-----------------------------------|--|
| | | | | | | | TAPE. |
| | | | ELECTRICAL CABLE | A05 C37 | I.A | NONE | SEE RESOLUTION TO TER ITEM NO. 107. |
| SEE FOOTNOTE H | 2 | | PRESSURE SWITCH | 2P70-PS-N006A 2P70-PS-N006B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED ITT BARTON MODEL 580-A-2 PRESSURE SWITCHES. |
| | | | TRANSMITTER | 2P70-FI-N020A 2P70-FI-N020B 2P70-FI-N022A 2P70-FI-N022B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED ROSEMOUNT 1153 SERIES B TRANSMITTERS. |
| | | | SOLENOID VALVE | 2C11-SV-F040 2E11-SV-F213 2E11-SV-F214 2E11-SV-F215 2E11-SV-F216 2E11-SV-F217 2E11-SV-F218 2E11-SV-F219 2E11-SV-F220 2C11-SV-F110A 2C11-SV-F110B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED ASCO NP SERIES SOLENOID VALVES. |
| | | | SOLENOID VALVE | 2P70-SV-F004 2P70-SV-F005 2P70-SV-F066 2P70-SV-F067 2E41-SV-F124 | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED TARGET ROCK SERIES 82VV SOLENOID VALVES. |
| | | | SOLENOID VALVE | 2P70-SV-F001B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED IS A QUALIFIED VALCOR MODEL V526-5920-5 SOLENOID VALVE. |
| | | | LIMIT SWITCH | 2E11-AOV-F041A 2E11-AOV-F041B | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED |

TABLE 2-UNIT 2 EQUIPMENT REQUIRING ENVIRONMENTAL QUAL.

| ITEM NUMBER | UNIT | EQUIPMENT TYPE | MPL NUMBER | MRC CATEGORY | DISCREPANCY FROM MRC REQUIREMENTS | RESOLUTION |
|-------------|------|---------------------|---|--------------|-----------------------------------|---|
| | | | 2E11-ADV-F041C 2E11-ADV-F041D | | | MANCO EA180 LIMIT SWITCHES. |
| | | TEMPERATURE ELEMENT | 2T48-TE-N301A 2T48-TE-N302A 2T48-TE-N303A 2T48-TE-N304B 2T48-TE-N305A 2T48-TE-N306A 2T48-TE-N307A 2T48-TE-N308A 2T48-TE-N309A 2T48-TE-N310A 2T48-TE-N311A | I.B | NOT INSTALLED. | THE EQUIPMENT TO BE INSTALLED ARE QUALIFIED PYCO 122-4030 TEMPERATURE ELEMENTS. A DEAD LINE EXTENSION MAY BE REQUIRED FOR THESE TEMP. ELEMENTS. SEE FOOTNOTE A. |

FOOTNOTE A - TABLE 2

The following items may require a deadline extension beyond the end of the 1984 outage but no later than March 31, 1985 for complete qualification. GPC will formally request extensions on an as needed basis.

| TER ITEM NO. | MPL NO. | EQUIPMENT DESCRIPTION | OUTSTANDING ITEM |
|--------------|---|--|--|
| 25, 21 | 2E11-MOV-F021A,B | Limitorque Motor Operated Valves | Seismic analysis contracted to vendor may not be completed before deadline. |
| 25, 5 | 2E11-MOV-F016A,B | Limitorque Motor Operated Valves | Seismic analysis contracted to vendor may not be completed before deadline. |
| 32 | 2E41-MOV-F012 | Limitorque Motor Operated Valve | Seismic analysis contracted to vendor may not be completed before deadline. |
| 142 | 2P33-P001A,B | Comsip, Inc. H ₂ & O ₂ Analyzers | Qualification testing on Thermon Manufacturing Heat Tracing for sample lines may not be completed before deadline. |
| 119, 120 | 2T48-TE-N009A,B,C,D | Pyco, Inc. RTD Temperature Elements | Complete Qualification test documentation may not be available before deadline. |
| 120 | 2T48-TE-N075 | Pyco, Inc. RTD Temperature Element | Complete Qualification Test Documentation may not be available before deadline. |
| 121 | 2T47-TE-N003 | Pyco, Inc. RTD Temperature Element | Complete Qualification Test Documentation may not be available before deadline. |
| 121 | 2T47-TE-N009 | Pyco, Inc. RTD Temperature Element | Complete Qualification Test Documentation may not be available before deadline. |
| NEW | 2T41-TE-N022A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| NEW | 2T41-TE-N019A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| NEW | 2T41-TE-N020A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| NEW | 2T41-TE-N021A,B | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |
| NEW | 2T48-TE-N301A-3A 2T48-TE-N304B 2T48-TE-N305-11A | Pyco, Inc. RTD Temperature Elements | Complete Qualification Test Documentation may not be available before deadline. |

FOOTNOTE B TABLE 2-UNIT 2 ASCO SERIES SOLENOID VALVES

| TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER |
|-----------------|----------------|-----------------|-------------------|-----------------|----------------|
| #38 | 2P78-AOV-F001A | #42 | 2E11-AOV-F051A | #52 | 2E21-AOV-F019B |
| | 2P78-AOV-F004 | | 2E11-AOV-F051B | | 2E41-AOV-F051 |
| | 2P78-AOV-F005 | | 2E11-AOV-F053A | | 2E51-AOV-F003 |
| | 2T48-AOV-F113 | | 2E11-AOV-F053B | | |
| | 2T48-AOV-F114 | | | | 2651-AOV-F011 |
| | 2T48-AOV-F115 | #43 | 2P41-AOV-F040A | | 2651-AOV-F012 |
| | 2T48-AOV-F116 | | 2P41-AOV-F040B | | 2651-AOV-F013 |
| | 2T48-AOV-F321 | #44 | | #55 | 2P41-AOV-F066 |
| | 2T48-AOV-F322 | | 2T46-AOV-F001B | | 2P41-AOV-F067 |
| | 2T48-AOV-F325 | #45 | 2B21-AOV-F028A | #56 | |
| | 2T48-AOV-F327 | | 2B21-AOV-F028B | | 2T48-SV-F365 |
| | 2T48-AOV-F332A | #46 | 2B21-AOV-F028C | #57 | 2T48-SV-F366 |
| | 2T48-AOV-F332B | | 2B21-AOV-F028D | | 2T48-SV-F367 |
| | 2T48-AOV-F333A | #47 | 2B21-AOV-F022A(*) | #58 | 2T48-SV-F368 |
| | 2T48-AOV-F333B | | 2B21-AOV-F022B(*) | | 2T48-SV-F369 |
| | 2T48-AOV-F334A | #48 | 2B21-AOV-F022C(*) | #59 | 2T48-SV-F370 |
| | 2T48-AOV-F334B | | 2B21-AOV-F022D(*) | | 2T48-SV-F371 |
| | 2T48-AOV-F335A | #49 | | #60 | 2T48-SV-F372 |
| | 2T48-AOV-F335B | | 2T41-AOV-F003B | | 2T48-SV-F377 |
| #39 | 2D11-AOV-F050 | #40 | 2T41-AOV-F011B | #61 | 2T48-SV-F378 |
| | 2D11-AOV-F051 | | 2T41-AOV-F023A | | 2T48-SV-F379 |
| | 2D11-AOV-F052 | | | | 2T48-SV-F380 |
| | 2D11-AOV-F053 | | 2C11-SV-F009 | | |
| | 2P78-AOV-F002 | | 2T48-AOV-F307 | #62 | 2T48-SV-F373 |
| | 2P78-AOV-F003 | | 2T48-AOV-F308 | | 2T48-SV-F374 |
| | 2T48-AOV-F103 | | 2T48-AOV-F309 | #63 | 2T48-SV-F375 |
| | 2T48-AOV-F104 | | 2T48-AOV-F310 | | 2T48-SV-F376 |
| | 2T48-AOV-F118A | | 2T48-AOV-F311 | #64 | |
| | 2T48-AOV-F118B | | 2T48-AOV-F318 | | 2P41-AOV-F035A |
| | 2T48-AOV-F338 | | 2T48-AOV-F319 | #65 | 2P41-AOV-F035B |
| | 2T48-AOV-F339 | | 2T48-AOV-F320 | | 2P41-AOV-F036A |
| | 2T48-AOV-F340 | | 2T48-AOV-F324 | #66 | 2P41-AOV-F036B |
| | 2T48-AOV-F341 | | 2T48-AOV-F326 | | 2P41-AOV-F037A |
| #40 | 2E11-AOV-F065A | #50 | 2T48-AOV-F209 | #67 | 2P41-AOV-F037B |
| | 2E11-AOV-F065B | | 2T48-AOV-F210 | | 2P41-AOV-F037C |
| | 2E11-AOV-F065C | | 2T48-AOV-F211 | | 2P41-AOV-F037D |
| | 2E11-AOV-F065D | | 2T48-AOV-F212 | | 2P41-AOV-F039A |
| #41 | | #51 | | #68 | 2P41-AOV-F039B |
| | 2B31-AOV-F019 | | 2E21-AOV-F019A | | |

(*) These MPL numbers are corrections of what was identified in the TER.

FOOTNOTE B TABLE 2-UNIT 2 ASCO SERIES SOLENOID VALVES

| TER ITEM NUMBER | MPL NUMBER |
|-----------------|----------------|
| | 2651-ADV-F017 |
| | 2P33-ADV-F002 |
| | 2P33-ADV-F003 |
| | 2P33-ADV-F004 |
| | 2P33-ADV-F005 |
| | 2P33-ADV-F006 |
| | 2P33-ADV-F007 |
| | 2P33-ADV-F010 |
| | 2P33-ADV-F011 |
| | 2P33-ADV-F012 |
| | 2P33-ADV-F013 |
| | 2P33-ADV-F014 |
| | 2P33-ADV-F015 |
| 060 | 2E41-ADV-F025 |
| | 2E41-ADV-F026 |
| 061 | 2E41-ADV-F028 |
| | 2E41-ADV-F029 |
| 062 | 2E11-ADV-F122A |
| | 2E11-ADV-F122B |
| | 2E21-ADV-F037A |
| | 2E21-ADV-F037B |

FOOTNOTE C TABLE 2-UNIT 2 NAMCO EA180 & 740 LIMIT SWITCHES

| TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER |
|-----------------|--|-----------------|---|-----------------|---|
| 075 | 2B21-ADV-F076A 2B21-ADV-F076B 2B21-ADV-F077A 2B21-ADV-F077B | | 2T48-ADV-F333B 2T48-ADV-F338 2T48-ADV-F339 | | 2T48-ADV-F104 2T48-ADV-F113 2T48-ADV-F114 2T48-ADV-F115 2T48-ADV-F116 2T48-ADV-F118A 2T48-ADV-F118B |
| 077 | 2B31-ADV-F019 2E11-ADV-F122A 2E11-ADV-F122B 2E21-ADV-F037A 2E21-ADV-F037B | 082 | 2T48-ADV-F363A 2T48-ADV-F363B | | 2T48-ADV-F321 2T48-ADV-F322 2T48-ADV-F325 2T48-ADV-F327 |
| 078 | 2T48-ADV-F103 2T48-ADV-F341 2T48-ADV-F361A 2T48-ADV-F361B 2T48-ADV-F362A 2T48-ADV-F362B 2T48-ADV-F364A 2T48-ADV-F364B | 083 | 2E41-ADV-F025 2E41-ADV-F026 2E41-ADV-F028 2E41-ADV-F029 | | |
| | | 084 | 2B31-ADV-F020 2P33-ADV-F002 2P33-ADV-F010 2P70-ADV-F001A 2P70-ADV-F002 2P70-ADV-F003 2P70-ADV-F004 2P70-ADV-F005 2T41-ADV-F003B 2T41-ADV-F011B 2T41-ADV-F023A 2T48-ADV-F319 2T48-ADV-F320 | 088 | 2P33-ADV-F003 2P33-ADV-F004 2P33-ADV-F011 2P33-ADV-F012 |
| 079 | 2E11-ADV-F065A 2E11-ADV-F065B 2E11-ADV-F065C 2E11-ADV-F065D 2E21-ADV-F019A 2E21-ADV-F019B 2E41-ADV-F051 2E51-ADV-F003 2T48-ADV-F307 2T48-ADV-F308 2T48-ADV-F309 2T48-ADV-F310 2T48-ADV-F311 2T48-ADV-F318 2T48-ADV-F324 2T48-ADV-F326 | | | 089 | 2P41-ADV-F066 2P41-ADV-F067 2T46-ADV-F001B |
| | | 085 | 2D11-ADV-F050 2D11-ADV-F052 2G51-ADV-F017 | | |
| | | 086 | 2T48-ADV-F334A 2T48-ADV-F334B 2T48-ADV-F335A 2T48-ADV-F335B 2T48-ADV-F340 | | |
| | | 087 | 2P33-ADV-F007 2P33-ADV-F013 2P33-ADV-F014 2P33-ADV-F015 | | |
| 081 | 2T48-ADV-F332A 2T48-ADV-F332B 2T48-ADV-F333A | | | | |

FOOTNOTE D - TABLE 2

The NSSS instrumentation equipment is being replaced with an Analog Transmitter Trip System (ATTS) supplied by General Electric. ATTS meets the requirements of NUREG 0588 and consists of the following equipment:

- 1) Qualified ITT Barton Transmitters, models 763 & 764.
- 2) Qualified Weed Instruments RTD Temperature Element, catalog/model No. 1AOD/611-1B-C-4-C-2-A1-0.
- 3) Qualified Pressure Controls, Inc. Pressure Switch, model A17-1P.
- 4) Qualified cables and terminal blocks.

Associated trip units and controls are located in the Main Control Room (Mild Environment).

See attached list of equipments.

FOOTNOTE D TABLE 2-UNIT 2 NSSS INSTRUMENTATION

| TER ITEM NUMBER | NPL NUMBER | TER ITEM NUMBER | NPL NUMBER | TER ITEM NUMBER | NPL NUMBER |
|-----------------|--|-----------------|--|-----------------|---|
| 092 | 2E41-DPIS-N004 2E41-DPIS-N005 | | 2E51-PS-N012C 2E51-PS-N012D | | 2B21-TS-N010B 2B21-TS-N010C 2B21-TS-N010D 2B21-TS-N011A 2B21-TS-N011B 2B21-TS-N011C 2B21-TS-N011D 2B21-TS-N012A 2B21-TS-N012B 2B21-TS-N012C 2B21-TS-N012D 2B21-TS-N013A 2B21-TS-N013B 2B21-TS-N013C 2B21-TS-N013D |
| 093 | 2E41-FS-N006 | 104 | 2E11-PS-N016A 2E11-PS-N016B 2E11-PS-N016C 2E11-PS-N016D 2E11-PS-N020A 2E11-PS-N020B 2E11-PS-N020C 2E11-PS-N020D 2E21-PS-N008A 2E21-PS-N008B 2E21-PS-N009A 2E21-PS-N009B | | |
| 094 | 2E21-FIS-N006A 2E21-FIS-N006B | | | | |
| 095 | 2E41-LS-N015A 2E41-LS-N015B | | | | |
| 096 | 2B21-LIS-N031A 2B21-LIS-N031B 2B21-LIS-N031C 2B21-LIS-N031D 2B21-LIS-N042A 2B21-LIS-N042B | | | | |
| 097 | 2B21-LITS-N037 | 105 | 2B21-PS-N021D 2B21-PS-N021F 2E41-PS-N001A 2E41-PS-N001B 2E41-PS-N001C 2E41-PS-N001D 2E51-PS-N019A 2E51-PS-N019B 2E51-PS-N019C 2E51-PS-N019D | 114 | 2E41-TE-N030A 2E41-TE-N030B |
| 098 | 2B21-LITS-N036 | | | 115 | 2E41-TE-N046A 2E41-TE-N046B |
| 099 | 2B21-LIS-N017A 2B21-LIS-N017B 2B21-LIS-N017C 2B21-LIS-N017D | | | 116 | 2E51-TE-N021A 2E51-TE-N021B 2E51-TE-N022A 2E51-TE-N022B 2E51-TE-N023A 2E51-TE-N023B |
| 101 | 2E11-PS-N010A 2E11-PS-N010B 2E11-PS-N010C 2E11-PS-N010D 2E11-PS-N011A 2E11-PS-N011B 2E11-PS-N011C 2E11-PS-N011D | 108 | 2E41-PS-N012A 2E41-PS-N012B 2E41-PS-N012C 2E41-PS-N012D | 117 | 2E51-TE-N025A 2E51-TE-N025B 2E51-TE-N025C 2E51-TE-N025D 2E51-TE-N026A 2E51-TE-N026B 2E51-TE-N026C 2E51-TE-N026D 2E51-TE-N027A 2E51-TE-N027B 2E51-TE-N027C |
| 102 | 2C71-PS-N002A 2C71-PS-N002B 2C71-PS-N002C 2C71-PS-N002D | 109 110 | 2E41-PS-N010 2B21-PS-N021A 2B21-PS-N021E | | |
| 103 | 2E51-PS-N012A 2E51-PS-N012B | 112 | 2E41-PS-N017A 2E41-PS-N017B 2E41-PS-N027 | | |
| | | 113 | 2B21-TS-N010A | | |

FOOTNOTE D TABLE 2-UNIT 2 NSSS INSTRUMENTATION

| TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER | TER ITEM NUMBER | MPL NUMBER |
|-----------------|--|--|---|-----------------|--------------------------------|
| | 2E51-TE-N027D | 128 | 2B21-PT-N051A 2B21-PT-N051B | | 2B21-DPIS-N009D |
| 118 | 2631-TE-N016A 2631-TE-N016B 2631-TE-N016C 2631-TE-N016D 2631-TE-N016E 2631-TE-N016F 2631-TE-N022A 2631-TE-N022B 2631-TE-N022C 2631-TE-N022D 2631-TE-N022E 2631-TE-N022F 2631-TE-N023A 2631-TE-N023B 2631-TE-N023C 2631-TE-N023D 2631-TE-N023E 2631-TE-N023F | 129 130 132 181 182 183 | 2E41-FT-N008 2E11-DPT-N002A 2E11-DPT-N002B 2E32-PT-N050 2E32-PT-N058 2E32-PT-N060 2B21-LITS-N026A 2B21-LITS-N026B 2B21-LIS-N024A 2B21-LIS-N024B 2B21-LIS-N025A 2B21-LIS-N025B 2E11-DPIS-N021A 2E11-DPIS-N021B | 186 | 2B21-PS-N021B 2B21-PS-N021C |
| 122 | 2631-FT-N012 2631-FT-N036 2631-FT-N041 | 184 | 2E51-DPIS-N017 2E51-DPIS-N018 | | |
| 123 | 2E11-FT-N015A 2E11-FT-N015B | 185 | 2B21-DPIS-N006A 2B21-DPIS-N006B 2B21-DPIS-N006C 2B21-DPIS-N006D 2B21-DPIS-N007A 2B21-DPIS-N007B 2B21-DPIS-N007C 2B21-DPIS-N007D 2B21-DPIS-N008A(*) 2B21-DPIS-N008B(*) 2B21-DPIS-N008C(*) 2B21-DPIS-N008D(*) 2B21-DPIS-N009A 2B21-DPIS-N009B 2B21-DPIS-N009C | | |
| 124 | 2E21-FT-N003A 2E21-FT-N003B | | | | |
| 126 | 2B21-LT-N027 | | | | |
| 127 | 2E32-PT-N051B 2E32-PT-N051F 2E32-PT-N051K 2E32-PT-N051P 2E32-PT-N061B 2E32-PT-N061F 2E32-PT-N061K 2E32-PT-N061P | | | | |

(*) These MPL numbers are corrections of what was identified in the TER.

FOOTNOTE E - TABLE 2

A review, of all equipment inside containment that could be affected by leakage current across terminals, was performed. The results indicate that there would be less than 5% error in instrument reading.

FOOTNOTE F - TABLE 2

This equipment was not addressed in the TER. However, the equipment is part of GPC's List of Equipment Requiring Environmental Qualification - Open Items.

FOOTNOTE G - TABLE 2

This equipment was not addressed in the TER. However, the equipment is part of GPC's List of Equipment Requiring Environmental Qualification - Qualified Items.

FOOTNOTE H - TABLE 2

This equipment was not addressed in the TER. This equipment is part of new design changes and not currently installed. When installed, the equipment will be added to GPC's List of Equipment Requiring Environmental Qualification - Qualified Items.

ENCLOSURE 3

JUSTIFICATION FOR CONTINUED OPERATION

JUSTIFICATION FOR CONTINUED OPERATION

Georgia Power Company has complied with the NRC SER requirements to provide a Justification for Continued Operation for all equipment which is included in the environmental qualification program for which qualification to the DOR Guidelines or NUREG 0588 could not be demonstrated by June 30, 1982.

Although the requirements of 10CFR 50.49 (i) do not apply to plant Hatch due to the date of the E. I. Hatch Nuclear Plant Operating Licences, the approach taken in generating the individual justifications for continued operation is consistent with the requirements of that section of the rule. Each component's function relative to the event which creates the harsh environment was reviewed. If an alternate systems approach could not be taken to circumvent the postulated failure, a comprehensive review of the failure mechanism was completed. Credit was then taken for partial test data, limited administrative controls, or the relative time within which the equipment was required to operate within the harsh environment. It was shown in all cases that there was a high degree of assurance that the equipment would function as designed or there was a way to circumvent the postulated failure. In all cases, the failure mode of a piece of equipment was reviewed to assure that its failure would not mislead an operator into taking an inappropriate action.

No new justifications for continued operation (JCO) were required as the result of the issuance of 10CFR 50.49; however, three JCO's have not been formally approved by the NRC. Two of the justifications are as a result of SER concerns and one is the result of a piece of new equipment which has been installed since the report was issued.

The three justifications which have not been approved by the NRC are attached for your review.

JUSTIFICATION FOR CONTINUED OPERATION

UNIT 1

TER EQUIPMENT ITEM NO. 84

Dietz Flow Switches

T41-FS N002A,B
T41-FS N003A,B
T41-FS N004A,B
T41-FS N005A,B
T46-FS N011A,B

The present cooler logic requires the control switch for one unit to be on "Auto" and the redundant unit on "Standby". Subsequent to ECCS pump initiation the cooler on "Auto" comes on and in case of a malfunction the standby cooler comes on based on low flow for the lead cooler.

The system operating procedure is being changed to require the control switches for both coolers to be placed in "Auto". This justifies continued operation since both coolers will come on and stay on upon system initiation.

JUSTIFICATION FOR CONTINUED OPERATION

UNIT 1

TER EQUIPMENT ITEM NO. 87

Static-O-Ring Pressure Switches

E11-N017 B&D

These pressure switches provide a pressure available signal which permits the operation of valve E11-F068B. The function of valve E11-F068B is to control the RHR service water pressure such that it is greater than the RHR pressure. The higher service water pressure insures that any leakage will be into the RHR System and not into Service Water System. The E11-N017B&D pressure switches prevent opening of the E11-F068B valve if the RHR Service Water System is not in operation. The switches will be subjected to a high temperature condition during a HPCI steam line rupture. The switches will experience a high temperature environment in excess of their qualification profile for less than 3 minutes. It is not credible to assume that the switches will reach an equilibrium temperature in excess of 200°F within this 3 minute period. The switches have been qualified at 200°F for 6 hours. Thus, the system has a high probability to operate as designed.

Based on the above, continued operation is justified.

JUSTIFICATION FOR CONTINUED OPERATION

UNIT 2

TER EQUIPMENT ITEM NO. 7

Limiter Motorized Valve Actuator

2E11-MOV F075B

Valve 2E11-F075B is the RHR service water inlet valve to the RHR System . The motor on the subject valve has been replaced with a motor which has been rewound with Class F insulation. Test information to demonstrate complete acceptability of the motor has not been located to date.

Valve 2E11-F075B is normally closed and will only be opened in the very unlikely event that both trains of the LPCI system in addition to the core spray system fail to operate after a LOCA. The valve is backed up by valve 2E11-F073B which is fully qualified to assure that RHR service water is not inadvertently injected into the LPCI System.

Since the valve is only required to operate after a LOCA with concurrent failure of both trains of LPCI there is a high degree of confidence that operation of the valve will not be required. If service water injection is required the "A" loop can be used to inject service water into the reactor.

Based on the above, continued operation is justified.

ENCLOSURE 4
PROGRAM FOR CONTINUED COMPLIANCE
WITH
THE 10 CFR 50.49 RULE

PROGRAM FOR CONTINUED COMPLIANCE
WITH
THE 10 CFR 50.49 RULE

The 10 CFR 50.49 Rule requires that a record of qualification be maintained in an auditable form to verify that each item within the scope of the Rule is qualified and remains qualified to its end of life condition. To meet this requirement GPC has established a Program for Continued Compliance with the 10 CFR 50.49 Rule. The Program will include an Administrative Procedure, a Computerized Maintenance/Surveillance Program, Central File, Training and Internal Audits.

The Administrative Procedures was developed to ensure that all Class 1E safety-related electrical equipment within the scope of the 10 CFR 50.49 Rule remains environmentally qualified. The procedure addresses design control, procurement, warehousing, maintenance, surveillance and trending analysis.

The Maintenance/Surveillance Program is a computerized program. It was developed to schedule preventive maintenance requirements and to help evaluate trends. The program listing consists of component description, plant locations, preventive maintenance procedure number, installation date, qualified life, maintenance interval, replacement data and maintenance request numbers and description.

The Equipment Qualification central file is located at the plant site and maintained to support environmental qualification of Class 1E safety-related electrical equipment within the scope of the 10 CFR 50.49 Rule. The Central File consists of a controlled Master List, SCEW Sheets, Qualification Data Packages and Replacement Component Evaluations (RCE). The RCE is completed and signed by a qualified Systems Engineer prior to any maintenance requirements on equipment within the scope of the 10 CFR 50.49 Rule.

Current plant procedures require training of appropriate personnel with issuance of new procedures, which result from changes to NRC regulation. Appropriate personnel include those with responsibilities controlled by the Administrative Procedure such as design control, procurement, warehousing, and maintenance and also the Systems Engineer, who is responsible for Surveillance and Trending Analysis. The training is provided as instructional information by the appropriate Department Management. Furthermore, management is required to conduct the training within one week of issuance of new procedures. Management is also required to maintain a training log.

To ensure that the Program for Continued Compliance with the 10 CFR 50.49 Rule is implemented and adhered to GPC has scheduled periodic QA audits. These audits will ensure that procedures and controls are in place and satisfied.