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United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

**REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS
RELOCATION OF OVERCURRENT PROTECTIVE DEVICES
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354**

In accordance with the provisions of 10 CFR 50.90, PSEG Nuclear LLC (PSEG) hereby transmits a request for amendment of the Technical Specifications (TS) for Hope Creek Generating Station. In accordance with 10 CFR 50.91(b)(1), a copy of this submittal has been sent to the State of New Jersey.

The proposed amendment relocates TS 3/4.8.4.1, "Primary Containment Penetration Conductor Overcurrent Protective Devices," and TS 3/4.8.4.5, "Class 1E Isolation Breaker Overcurrent Protective Devices," to the Hope Creek Generating Station Updated Final Safety Analysis Report (UFSAR). Relocation of Primary Containment Penetration Conductor Overcurrent Protective Devices and Class 1E Isolation Breaker Overcurrent Protective Devices from the TS to the UFSAR is consistent with the NRC Final Policy Statement on TS Improvements for Nuclear Power Reactors. In addition, as a result of the proposed changes, subsequent revisions to Primary Containment Penetration Conductor Overcurrent Protective Devices and Class 1E Isolation Breaker Overcurrent Protective Devices may be processed in accordance with 10 CFR 50.59 as opposed to 10 CFR 50.90, which minimizes resource demands upon PSEG and the NRC.

Attachment 1 provides a description of the proposed changes. Attachment 2 provides the existing TS pages marked-up to show the proposed changes. For your information, Attachment 3 provides the existing TS Bases pages marked-up to reflect the associated changes to the TS.

PSEG requests implementation within 60 days of receipt of the approved amendment. Approval of this change is requested by April 3, 2006 to support Hope Creek Generating Station refueling outage RF 13.

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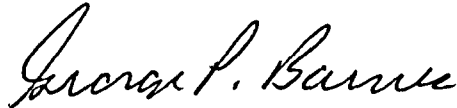
OCT 11 2005

Should you have any questions regarding this request, please contact Mr. Paul Duke at (856) 339-1466.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 10/11/05
(Date)

Sincerely,



George P. Barnes
Site Vice President
Hope Creek Generating Station

Attachments (3)

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**HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354**

**CHANGE TO TECHNICAL SPECIFICATIONS
RELOCATION OF PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES**

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CHANGES TO TECHNICAL SPECIFICATIONS

1. DESCRIPTION

The proposed amendment relocates Technical Specification (TS) 3/4.8.4.1, "Primary Containment Penetration Conductor Overcurrent Protective Devices," and TS 3/4.8.4.5, "Class 1E Isolation Breaker Overcurrent Protective Devices," to the Hope Creek Generating Station Updated Final Safety Analysis Report (UFSAR).

2. PROPOSED CHANGE

The proposed change will relocate Primary Containment Penetration Conductor Overcurrent Protective Devices and Class 1E Isolation Breaker Overcurrent Protective Devices from the TS to the UFSAR. The elimination of TS 3/4.8.4.1 and TS 3/4.8.4.5 results in deletion of some information from TS Bases 3/4.8.4, "Electrical Equipment Protective Devices."

3. BACKGROUND

Relocation of Primary Containment Penetration Conductor Overcurrent Protective Devices and Class 1E Isolation Breaker Overcurrent Protective Devices from the TS to the UFSAR is consistent with the NRC Final Policy Statement on TS Improvements for Nuclear Power Reactors (58 FR 39132). The Final Policy Statement on TS Improvements for Nuclear Power Reactors establishes a specific set of objective criteria as guidance for determining which regulatory requirements and operating restrictions should be included in TS. It encourages licensees to implement a voluntary program to update TS to be consistent with improved vendor-specific Standard Technical Specifications issued by the NRC.

Additionally, as a result of the proposed change, subsequent revisions to Primary Containment Penetration Conductor Overcurrent Protective Devices and Class 1E Isolation Breaker Overcurrent Protective Devices may be processed in accordance with 10 CFR 50.59 as opposed to 10 CFR 50.90, which minimizes resource demands upon PSEG Nuclear LLC (PSEG) and the NRC.

The proposed change is consistent with NUREG-1433, "Standard Technical Specifications General Electric Plants, BWR/4," which did not retain limiting conditions for operation, surveillance requirements or a bases for Primary Containment Penetration Conductor Overcurrent Protective Devices or for Class 1E Isolation Breaker Overcurrent Protective Devices.

4. TECHNICAL ANALYSIS

The regulatory requirements related to the content of the TS are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific

categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

On February 6, 1987, the NRC published its Interim Policy Statement on TS Improvements for Nuclear Power Plants in the Federal Register (52 FR 3788). In part, the Interim Policy Statement provided the criteria to be utilized in determining which requirements need to be governed by the TS.

In 1987, based on the Interim Policy Statement, the four nuclear steam supply system owners groups submitted proposals identifying requirements in the existing TS that could be relocated from the TS to other licensee controlled documents.

The NRC staff reviewed the owners group submittals and published its conclusion in the report dated May 9, 1988, "NRC Staff Review of Nuclear Steam Supply System Vendor Owners Groups' Application of the Commission's Interim Policy Statement Criteria to Standard Technical Specifications," (Split Report). The Split Report identified those TS requirements that must be retained in the new improved TS (having met one or more of the criteria) and those TS requirements that could be relocated (having met none of the criteria.) The Split Report identified Overcurrent Protection Devices Limiting Condition for Operation (LCO) as an item that could be relocated from the TS to other licensee controlled documents.

Supplement 1 to the Boiling Water Reactor Owners' Group (BWROG) Report NEDO-31466, "Technical Specification Screening Criteria Application and Risk Assessment," was completed in February 1990. The original report documented the evaluation of the LCOs from the lead plants for the BWROG TS Improvement program (Hatch-2 and Grand Gulf). NEDO-31466, Supplement 1 documents the application of the TS screening criteria to 70 additional LCOs identified in a review of other plant specific TS and the BWR Standard TS. To ensure consistency of evaluation and to provide a common basis of comparison, the original screening criteria interpretations utilized by the BWROG in the development of the original report were applied in the development of the supplemental report. NEDO-31466, Supplement 1 identified 49 LCOs to be retained in TS and 21 LCOs that did not meet any of the criteria and could be relocated. Hope Creek Class 1E Isolation Breaker Overcurrent Protective Devices was identified in NEDO-31466, Supplement 1 as an item that could be relocated from the TS to other licensee controlled documents.

On July 22, 1993, the NRC published the Final Policy Statement on TS Improvements for Nuclear Power Reactors (58 FR 39132). The Final Policy Statement reflected public comments on the Interim Policy Statement and experience gained in developing the new improved TS. The Final Policy Statement LCO criteria were subsequently incorporated into 10 CFR 50.36(c)(2)(ii). In accordance with the Final Policy Statement the criteria of 10

CFR 50.36(c)(2)(ii) were applied against Primary Containment Penetration Conductor Overcurrent Protective Devices and Class 1E Isolation Breaker Overcurrent Protective Devices LCOs and provided the following results:

Primary Containment Penetration Conductor Overcurrent Protective Devices

Criterion 1 - Installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary.

The purpose of this criterion is to detect excessive reactor coolant pressure boundary leakage. The containment penetration conductor overcurrent protection devices are installed to minimize the damage from a fault in a component inside containment, or in cabling which penetrates containment. Primary Containment Penetration Conductor Overcurrent Protective Devices do not involve installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary. Consequently, Primary Containment Penetration Conductor Overcurrent Protective Devices do not meet Criterion 1.

Criterion 2 - A process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident (DBA) or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture those process variables that have initial values assumed in the design basis accident and transient analyses, and which are monitored and controlled during power operation. The containment penetration conductor overcurrent protection devices are installed to minimize the damage from a fault in a component inside containment, or in cabling which penetrates containment. The containment penetration conductor overcurrent protection devices do help preserve the assumptions of the accident analysis by enhancing proper equipment operation. However, Primary Containment Penetration Conductor Overcurrent Protective Devices do not involve a process variable, design feature, or operating restriction that is an initial condition of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Consequently, Primary Containment Penetration Conductor Overcurrent Protective Devices do not meet Criterion 2.

Criterion 3 - A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture only those structures, systems, and components (SSC) that are part of the primary success path of the safety analysis (an examination of the actions required to mitigate the consequences of the design basis accidents and transients). The primary success path of a safety analysis consists of the combinations and sequences of equipment needed to operate, so that the plant response to the design basis accidents and transients limits the consequences of these events to within the appropriate acceptance criteria. Also, captured by this criterion are those support and actuation systems that are necessary for items in the primary success path to successfully function, but it does not include backup and diverse equipment. The containment penetration conductor overcurrent protection devices are installed to minimize the damage from a fault in a component inside containment, or in cabling which penetrates containment. Primary Containment Penetration Conductor Overcurrent Protective Devices do not involve a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Consequently, Primary Containment Penetration Conductor Overcurrent Protective Devices do not meet Criterion 3.

Criterion 4 - A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The purpose of this criterion is to capture only those SSC that operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Requirements proposed for relocation do not contain constraints of prime importance in limiting the likelihood or severity of the accident sequences that are commonly found to dominate risk. NEDO-31466, "Technical Specification Screening Criteria Application and Risk Assessment," performed a risk assessment to review plant safety risks associated with relocating LCOs from the TS as discussed in sections 3.5, 6.1, 6.2, and 6.8 and summarized in Table 4-1 (item 276). Primary Containment Penetration Conductor Overcurrent Protective Devices were found to be a non-significant contributor to risk. PSEG has reviewed the NEDO-31466 risk assessment, considers it applicable to Hope Creek, and concurs with its conclusions. Additionally, the Final Policy Statement does not list Primary Containment Penetration Conductor Overcurrent Protective Devices among the four LCOs to be retained because operating experience or probabilistic risk assessment has shown them to be significant to public health and safety. Consequently, Primary Containment Penetration Conductor Overcurrent Protective Devices do not meet Criterion 4.

Primary Containment Penetration Conductor Overcurrent Protective Devices LCO does not meet any 10 CFR 50.36(c)(2)(ii) criterion as described above; therefore, it may be relocated to the UFSAR. All changes to the UFSAR are subject to evaluation in accordance with 10 CFR 50.59 provisions. 10 CFR 50.59 provides sufficient regulatory controls to address future changes to these requirements.

Class 1E Isolation Breaker Overcurrent Protective Devices

Criterion 1 - Installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary.

The purpose of this criterion is to detect excessive reactor coolant pressure boundary leakage. The Class 1E isolation breaker overcurrent protective devices sense and protect the Class 1E buses from overcurrent conditions during all modes. However, failure of an overcurrent protection device during a transient or accident condition would not prevent safety functions from occurring. The Class 1E onsite AC sources and offsite power sources and their distribution system are of sufficient capacity and capability to supply power to both Class 1E and non-Class 1E loads during all plant conditions. Class 1E Isolation Breaker Overcurrent Protective Devices do not involve installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary. Consequently, Class 1E Isolation Breaker Overcurrent Protective Devices do not meet Criterion 1.

Criterion 2 - A process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident (DBA) or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture those process variables that have initial values assumed in the design basis accident and transient analyses, and which are monitored and controlled during power operation. The Class 1E isolation breaker overcurrent protective devices sense and protect the Class 1E buses from overcurrent conditions during all modes. However, failure of an overcurrent protection device during a transient or accident condition would not prevent safety functions from occurring. The Class 1E onsite AC sources and offsite power sources and their distribution system are of sufficient capacity and capability to supply power to both Class 1E and non-Class 1E loads during all plant conditions. Class 1E Isolation Breaker Overcurrent Protective Devices do not involve a process variable, design feature, or

operating restriction that is an initial condition of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Consequently, Class 1E Isolation Breaker Overcurrent Protective Devices do not meet Criterion 2.

Criterion 3 - A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

The purpose of this criterion is to capture only those structures, systems, and components (SSC) that are part of the primary success path of the safety analysis (an examination of the actions required to mitigate the consequences of the design basis accidents and transients). The primary success path of a safety analysis consists of the combinations and sequences of equipment needed to operate, so that the plant response to the design basis accidents and transients limits the consequences of these events to within the appropriate acceptance criteria. Also, captured by this criterion are those support and actuation systems that are necessary for items in the primary success path to successfully function, but it does not include backup and diverse equipment. The Class 1E isolation breaker overcurrent protective devices sense and protect the Class 1E buses from overcurrent conditions during all modes. However, failure of an overcurrent protection device during a transient or accident condition would not prevent safety functions from occurring. The Class 1E onsite AC sources and offsite power sources and their distribution system are of sufficient capacity and capability to supply power to both Class 1E and non-Class 1E loads during all plant conditions. Class 1E Isolation Breaker Overcurrent Protective Devices do not involve a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Consequently, Class 1E Isolation Breaker Overcurrent Protective Devices do not meet Criterion 3.

Criterion 4 - A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

The purpose of this criterion is to capture only those SSC that operating experience or probabilistic risk assessment has shown to be significant to public health and safety. Requirements proposed for relocation do not contain constraints of prime importance in limiting the likelihood or severity of the accident sequences that are commonly found to dominate risk. NEDO-31466, Supplement 1 performed a risk assessment to

review plant safety risks associated with relocating LCOs from the TS as discussed in section 6 and summarized in Table 4-1 (item 375). Class 1E Isolation Breaker Overcurrent Protective Devices were found to be a non-significant contributor to risk. PSEG has reviewed the NEDO-31466, Supplement 1 risk assessment, considers it applicable to Hope Creek, and concurs with its conclusions. Additionally, the Final Policy Statement does not list Class 1E Isolation Breaker Overcurrent Protective Devices among the four LCOs to be retained because operating experience or probabilistic risk assessment has shown them to be significant to public health and safety. Consequently, Class 1E Isolation Breaker Overcurrent Protective Devices do not meet Criterion 4.

Class 1E Isolation Breaker Overcurrent Protective Devices LCO does not meet any 10 CFR 50.36(c)(2)(ii) criterion as described above; therefore, it may be relocated to the UFSAR. All changes to the UFSAR are subject to evaluation in accordance with 10 CFR 50.59 provisions. 10 CFR 50.59 provides sufficient regulatory controls to address future changes to these requirements.

5. REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

PSEG Nuclear LLC (PSEG) has evaluated whether or not a significant hazards consideration is involved with the proposed changes to Technical Specification (TS) 3/4.8.4.1 and TS 3/4.8.4.5 by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment" as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes do not increase the probability of any previously evaluated accident. No safety function has been altered. The proposed changes relocate the Primary Containment Penetration Conductor Overcurrent Protective Devices Limiting Condition for Operation (LCO) and Class 1E Isolation Breaker Overcurrent Protective Devices LCO requirements from the TS to the Hope Creek Generating Station Updated Final Safety Analysis Report (UFSAR). Relocation of the Primary Containment Penetration Conductor Overcurrent Protective Devices LCO and Class 1E Isolation Breaker Overcurrent Protective Devices LCO requirements is consistent with the NRC Final Policy Statement on TS Improvements and 10 CFR 50.36. In part, the Final Policy Statement

provides screening criteria to evaluate TS requirements for the purpose of relocation to other licensee-controlled documents. LCOs which do not meet any of the Final Policy Statement criteria and any 10 CFR 50.36(c)(2)(ii) criteria may be proposed for relocation. The Primary Containment Penetration Conductor Overcurrent Protective Devices LCO and Class 1E Isolation Breaker Overcurrent Protective Devices LCO requirements do not satisfy any of the Final Policy Statement screening criteria. The proposed changes do not affect any operational characteristic, function, or reliability of any structure, system, or component (SSC). Thus the consequences of accidents previously analyzed are unchanged between the existing TS requirements and the proposed changes.

Based upon the above, the proposed change will not involve a significant increase in the probability or consequences of an accident previously analyzed.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated in the UFSAR. No new accident scenarios, failure mechanisms, or limiting single failures are introduced as a result of the proposed changes. Specifically, no new hardware is being added to the plant as part of the proposed change, no existing equipment is being modified, and no significant changes in operations are being introduced.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed changes will not alter any assumptions, initial conditions, or results of any accident analyses. The proposed changes relocate the Primary Containment Penetration Conductor Overcurrent Protective Devices LCO and Class 1E Isolation Breaker Overcurrent Protective Devices LCO requirements from the TS to the UFSAR consistent with the NRC Final Policy Statement on TS Improvements and 10 CFR 50.36.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, PSEG concludes that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

The following regulatory requirements are applicable:

10 CFR 50.36(c)(2)(ii) – A limiting condition for operation must be included in TS for any item meeting one or more of the following four criteria:

1. installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary;
2. a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
3. a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; and
4. a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Existing TS requirements that fall within or satisfy any of the criteria in 10 CFR 50.36 must be retained in the TS, while those TS requirements that do not fall within or satisfy these criteria may be relocated to other licensee controlled documents. The Primary Containment Penetration Conductor Overcurrent Protective Devices LCO and Class 1E Isolation Breaker Overcurrent Protective Devices LCO requirements do not meet any of the criteria set out in 10 CFR 50.36 and may therefore be eliminated from TS.

In conclusion, based on the considerations discussed above:

- 1) There is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner;
- 2) Such activities will be conducted in compliance with the Commission's regulations; and

- 3) Issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6. ENVIRONMENTAL CONSIDERATION

PSEG has determined the proposed amendment relates to changes in a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or relates to changes in an inspection or a surveillance requirement. The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment of the proposed change is not required.

7. REFERENCES

1. The NRC has approved a similar license amendment for Millstone Nuclear Power Station, Unit 3 when it issued Amendment No. 192 on January 19, 2001 (TAC No. MA8747)

TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES

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Technical Specification

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TS 3/4.8.4.5

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ELECTRICAL POWER SYSTEMS

3/4.8.4.1 DELETED

PRIMARY CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.1 All primary containment penetration conductor overcurrent protective devices shown in Table 3.8.4.1-1 shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

a. With one or more of the primary containment penetration conductor overcurrent protective devices shown in Table 3.8.4.1-1 inoperable, declare the affected system or component inoperable and apply the appropriate ACTION statement for the affected system, and

1. For 4.16 kV circuit breakers, de-energize the 4.16 kV circuit(s) by tripping the associated redundant circuit breaker(s) within 72 hours and verify the redundant circuit breaker to be tripped at least once per 7 days thereafter.

2. For 480 volt circuit breakers, remove the inoperable circuit breaker(s) from service by disconnecting* the breaker within 72 hours and verify the inoperable breaker(s) to be disconnected at least once per 7 days thereafter.

Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. The provisions of Specification 3.0.4 are not applicable to overcurrent devices in 4.16 kV circuits which have their redundant circuit breakers tripped or to 480 volt circuits which have the inoperable circuit breaker disconnected.*

SURVEILLANCE REQUIREMENTS

4.8.4.1 Each of the primary containment penetration conductor overcurrent protective devices shown in Table 3.8.4.1-1 shall be demonstrated OPERABLE:

a. At least once per 18 months:

1. By verifying that each of the medium voltage 4.16 kV circuit breakers are OPERABLE by performing:

a) A CHANNEL CALIBRATION of the associated protective relays, and

b) An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breakers and overcurrent control circuits function as designed.

*After being disconnected, these breakers shall be maintained disconnected under administrative control.

Pages 3/4 8-25 through
3/4 8-29 have been deleted

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. By selecting and functionally testing a representative sample of at least 10% of each type of lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis. Testing of these circuit breakers shall consist of injecting a current with a value between 150% and 300% of the pickup of the long time delay trip element and verifying that the circuit breaker operates within the time delay bandwidth for that current specified by the manufacturer. The instantaneous element shall be tested by injecting a current in excess of 120% the pickup value of the element and verifying that the circuit breaker trips instantaneously with no intentional time delay. Molded case circuit breaker testing shall also follow this procedure except that generally no more than two trip elements, time delay and instantaneous, will be involved. Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation. For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.
- b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations

TABLE 3.8.4.1-1

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

1. 4160-VOLT CIRCUIT BREAKERS

CIRCUIT BREAKER NO.	LOCATION	SYSTEMS OR EQUIPMENT POWERED
1AN205	1AN205	Reactor Recirculation Pump 1AP201
1BN205	1BN205	Reactor Recirculation Pump 1BP201
1CN205	1CN205	Reactor Recirculation Pump 1AP201
1DN205	1DN205	Reactor Recirculation Pump 1BP201

2. 480-VOLT MOLDED CASE CIRCUIT BREAKERS

Primary and backup breakers have the same device numbers and are located in the same Motor Control Center cubicle.

CIRCUIT BREAKER NO.	LOCATION	TYPES	SYSTEMS OR EQUIPMENT POWERED
52-411065	10B411	IM HFB150 TM HFB150	RHR Head Spray Valve 1BC-HV-F022
52-451061	10B451	IM HFB150 TM HFB150	RHR Shutdown Cooling Suction Inboard Valve 1BC-HV-F009
52-212021	10B212	IM HFB150 TM HFB150	RWCU Suction Isolation Inboard Valve 1BG-HV-F001
52-212101	10B212	IM HFB150 TM HFB150	PCIGS Drywell Supply Header A Isolation Valve 1KL-HV-5152A
52-212181	10B212	IM HFB150 TM HFB150	Main Steam Line Drain Inboard Valve 1AB-HV-F016
52-212183	10B212	IM HFB150 TM HFB150	PCIGS Drywell Suction Inboard Valve 1KL-HV-5148
52-232061	10B232	IM HFB150 TM HFB150	Drywell Supply Header A Isolation Valve 1KL-HV-5124A
52-232103	10B232	IM HFB150 TM HFB150	Drywell Equip. Drain Sump Isolation Valve 1HB-HV-F019
52-232104	10B232	IM HFB150 TM HFB150	HPCI Warmup Bypass Line Isolation Valve 1FD-HV-F100
52-232181	10B232	IM HFB150 TM HFB150	Chilled Water Loop A Supply Isolation Valve 1GB-HV-9531B1
52-232182	10B232	IM HFB150 TM HFB150	Chilled Water Loop A Return Isolation Valve 1GB-HV-9531B2
52-232183	10B232	IM HFB150 TM HFB150	Chilled Water Loop B Supply Isolation Valve 1GB-HV-9531B3

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

2. 480-VOLT MOLDED CASE CIRCUIT BREAKERS (Continued)

CIRCUIT BREAKER NO.	LOCATION	TYPES	SYSTEMS OR EQUIPMENT POWERED
52-232193	10B232	IM HFB150 TM HFB150	Chilled Water Loop B Return Isolation Valve 1GB-HV-9531B4
52-232203	10B232	IM HFB150 TM HFB150	HPCI Turbine Steam Supply Isolation Valve 1FD-HV-F002
52-242021	10B242	IM HFB150 TM HFB150	Drywell Floor Drain Sump Isolation Valve 1HB-HV-F003
52-242061	10B242	IM HFB150 TM HFB150	Drywell Supply Header B Isolation Valve 1KL-HV-5124B
52-242101	10B242	IM HFB150 TM HFB150	PCIGS Drywell Supply Header B Isolation Valve 1KL-HV-5152B
52-242102	10B242	IM HFB150 TM HFB150	RCIC Turbine Steam Supply Isolation Valve 1FC-HV-F007
52-242103	10B242	IM HFB150 TM HFB150	RCIC Warmup Bypass Line Isolation Valve 1FC-HV-F076
52-242172	10B242	IM HFB150 TM HFB150	Reactor Recirc Pumps Cooling Supply Isolation 1ED-HV-2554
52-242173	10B242	IM HFB150 TM HFB150	Reactor Recirc Pumps Cooling Return Isolation 1ED-HV-2556
52-252021	10B252	IM HFB150 TM HFB150	Drywell Cooler A Fan 1A1V212
52-252022	10B252	IM HFB150 TM HFB150	Drywell Cooler B Fan 1B1V212
52-252031	10B252	IM HFB150 TM HFB150	Drywell Cooler C Fan 1C1V212
52-252032	10B252	IM HFB150 TM HFB150	Drywell Cooler D Fan 1D1V212
52-252041	10B252	IM HFB150 TM HFB150	Drywell Cooler E Fan 1E1V212
52-252042	10B252	IM HFB150 TM HFB150	Drywell Cooler F Fan 1F1V212
52-252051	10B252	IM HFB150 TM HFB150	Drywell Cooler G Fan 1G1V212
52-252052	10B252	IM HFB150 TM HFB150	Drywell Cooler H Fan 1H1V212

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

2. 480-VOLT MOLDED CASE CIRCUIT BREAKERS (Continued)

CIRCUIT BREAKER NO.	LOCATION	TYPES	SYSTEMS OR EQUIPMENT POWERED
52-252063	10B252	IM HFB150 TM HFB150	Drywell Equip Drain Sump Pump 1AP267
52-252064	10B252	IM HFB150 TM HFB150	Drywell Floor Drain Sump Pump 1CP267
52-252073	10B252	IM HFB150 TM HFB150	Feedwater Inlet A Shutoff 1AE-HV-F011A
52-262021	10B262	IM HFB150 TM HFB150	Drywell Cooler A Fan 1A2V212
52-262022	10B262	IM HFB150 TM HFB150	Drywell Cooler B Fan 1B2V212
52-262031	10B262	IM HFB150 TM HFB150	Drywell Cooler C Fan 1C2V212
52-262032	10B262	IM HFB150 TM HFB150	Drywell Cooler D Fan 1D2V212
52-262041	10B262	IM HFB150 TM HFB150	Drywell Cooler E Fan 1E2V212
52-262042	10B262	IM HFB150 TM HFB150	Drywell Cooler F Fan 1F2V212
52-262051	10B262	IM HFB150 TM HFB150	Drywell Cooler G Fan 1G2V212
52-262052	10B262	IM HFB150 TM HFB150	Drywell Cooler H Fan 1H2V212
52-262063	10B262	IM HFB150 TM HFB150	Drywell Equip Drain Sump Pump 1BP267
52-262064	10B262	IM HFB150 TM HFB150	Drywell Floor Drain Sump Pump 1DP267
52-253012*	10B253	IM HFB150 TM HFB150	Recirc Pump Motor Hoist 1AH201 Disconnect Switch 1AS204
52-253021	10B253	IM HFB150 TM HFB150	Recirc Pump 1BP201 Suction Valve 1BB-HV-F023B
52-253031	10B253	IM HFB150 TM HFB150	Recirc Pump 1BP201 Discharge Valve 1BB-HV-F031B
52-253053	10B253	IM HFB150 TM HFB150	Reactor Vessel Head Vent. Inboard Isolation 1BB-HV-F001

TABLE 3.8.4.1-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

2. 480-VOLT MOLDED CASE CIRCUIT BREAKERS (Continued)

CIRCUIT BREAKER NO.	LOCATION	TYPES	SYSTEMS OR EQUIPMENT POWERED
52-253064	10B253	IM HFB150 TM HFB150	Reactor Vessel Head Vent to Steam Line 1BB-HV-F005
52-263011	10B263	IM HFB150 TM HFB150	Reactor Vessel Head Vent Outboard Isolation 1BB-HV-F002
52-263012*	10B263	IM HFB150 TM HFB150	Recirc Pump Motor Hoist 1BH201 Disconnect Switch 1BS204
52-263042*	10B263	IM HFB150 TM HFB150	Main Steam Relief Valve Hoist 10H202 Disconnect Switch 10S207
52-263054	10B263	IM HFB150 TM HFB150	RWCU Suction from Recirc Loop A 1BG-HV-F100
52-263081	10B263	IM HFB150 TM HFB150	RWCU Suction from RPV Drain Valve 1BG-HV-F101
52-263082	10B263	IM HFB150 TM HFB150	RWCU Suction Valve 1BG-HV-F102
52-263083	10B263	IM HFB150 TM HFB150	RWCU Suction from Recirc Loop B Valve 1BG-HV-F106
52-264053	10B264	IM HFB150 TM HFB150	Recirc Pump A Discharge Valve 1BB-HV-F031A
52-264062	10B264	IM HFB150 TM HFB150	Feedwater Inlet B Shutoff Valve 1AE-HV-F011B
52-264071	10B264	IM HFB150 TM HFB150	Reactor Recirc Pump 1AP201 Space Heater 1AS220
52-264072	10B264	IM HFB150 TM HFB150	Reactor Recirc Pump 1BP201 Space Heater 1BS220
52-264083	10B264	IM HFB150 TM HFB150	Recirc Pump A Suction Valve 1BB-HV-F023A

* These breakers shall be administratively maintained open in
 OPERATIONAL CONDITIONS 1, 2 and 3 and are not required to be
 tested.

Pages 3/4 8-42 through
3/4 8-43 have been deleted

ELECTRICAL POWER SYSTEMS

3/4 8.4.5 DELETED

CLASS 1E ISOLATION BREAKER OVERCURRENT PROTECTIVE DEVICES

LIMITING CONDITION FOR OPERATION

3.8.4.5 All Class 1E isolation breaker (tripped by a LOCA signal) overcurrent protective devices shown in Table 3.8.4.5-1 shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With one or more of the overcurrent protective devices shown in Table 3.8.4.5-1 inoperable, declare the affected isolation breaker inoperable and remove the inoperable circuit breaker(s) from service within 72 hours and verify the inoperable breaker(s) to be disconnected at least once per 7 days thereafter.
- b. The provisions of Specification 3.0.4 are not applicable to overcurrent devices in 480 volt circuits which have the inoperable circuit breaker disconnected.

SURVEILLANCE REQUIREMENTS

4.8.4.5 Each of the Class 1E isolation breaker overcurrent protective devices shown in Table 3.8.4.5-1 shall be demonstrated OPERABLE:

- a. At least once per 18 months:
By selecting and functionally testing a representative sample of at least 10% of each type of lower voltage circuit breakers. Circuit breakers selected for functional testing shall be selected on a rotating basis. Testing of these circuit breakers shall consist of injecting a current with a value between 150% and 300% of the pickup of the long time delay trip element and a value between 150% and 250% of the pickup of the short time delay, and verifying that the circuit breaker operates within the time delay band width for that current specified by the manufacturer. The instantaneous element shall be tested by injecting a current in excess of 120% of the pickup value of the element and verifying that the circuit breaker trips instantaneously with no intentional time delay. Molded case circuit breaker testing shall also follow this procedure except that generally no more than two trip elements, time delay and instantaneous, will be involved. For circuit breakers equipped with solid state trip devices, the functional testing may be performed with use of portable instruments designed to verify the time-current characteristics and pickup calibration of the trip elements. Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation. For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 10% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested.
- b. At least once per 60 months by subjecting each circuit breaker to an inspection and preventive maintenance in accordance with procedures prepared in conjunction with its manufacturer's recommendations.

TABLE 3.8.4.5-1
CLASS 1E ISOLATION BREAKER
OVERCURRENT PROTECTIVE DEVICES
(BREAKER TRIPPED BY A LOCA SIGNAL)

480 VAC POWER CIRCUIT BREAKERS

1. TYPE AKR-5A-30

<u>Class 1E Circuit Breaker No.</u>	<u>Class 1E Bus</u>	<u>Non-Class 1E Load Description</u>
52-41011	10B410	Reactor Auxiliaries Cooling System Pump 1AP209
52-41014	10B410	Radwaste and Service Area MCC 10B313
52-41024	10B410	Reactor Building Supply Air Handling Unit 1BVH300
52-42011	10B420	Reactor Auxiliaries Cooling System Pump 1BP209
52-42014	10B420	Radwaste and Service Area MCC 10B323
52-42024	10B420	Reactor Building Exhaust Fan 1BV301
52-43024	10B430	Reactor Building Supply Air Handling Unit 1CVH300
52-43014	10B430	Control Rod Drive Pump 1AP207
52-44014	10B440	Control Rod Drive Pump 1BP207
52-44024	10B440	Reactor Building Supply Air Handling Unit 1AVH300
52-44034	10B440	Radwaste Area Supply Fan 0BV316
52-45011	10B450	Reactor Area MCC 10B252
52-45014	10B450	Radwaste Area Exhaust Fan 0AV305
52-45024	10B450	Emergency Instrument Air Compressor 10K100

TABLE 3.8.4.5-1 (Continued)

480 VAC POWER CIRCUIT BREAKERS

1. Type AKR-5A-30 (Continued)

<u>Class 1E Circuit Breaker No.</u>	<u>Class 1E Bus</u>	<u>Non-Class 1E Load Description</u>
52-45034	10B450	Reactor Building Exhaust Fan 1CV301
52-46011	10B460	Reactor Area MCC 10B262
52-46014	10B460	Radwaste Area Exhaust Fan 08V305
52-47011	10B470	Reactor Area MCC 10B272
52-47014	10B470	Radwaste Area Exhaust Fan 0CV305
52-47024	10B470	Radwaste Area Supply Fan 0AV316
52-47031	10B470	Technical Support Center MCC 00B474
52-48011	10B480	Reactor Area MCC 10B282
52-48024	10B480	Reactor Building Exhaust Fan 1AV301

480 VAC MOLDED CASE CIRCUIT BREAKERS

1. Type HFB150

<u>Class 1E Circuit Breaker No.</u>	<u>Class 1E Bus</u>	<u>Non-Class 1E Load Description</u>
52-441043	10B441	NSSS Computer Inverter 10D485
52-451023	10B451	Public Address System Inverter 10D496
52-471023	10B471	Security System Inverter 0AD495

PROPOSED CHANGES TO TS BASES PAGES

The following Technical Specifications Bases for Hope Creek Generating Station, Facility Operating License No. NPF-57, is affected by this change request:

Technical Specification

Page

Bases 3/4.8.4

B 3/4 8-3

ELECTRICAL POWER SYSTEMSBASES
=====A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 31 days. During this 31 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function; (5) the TABLE 4.8.2.1-1 NOTATION 31 day ACTION time was derived taking into consideration that while battery capacity is degraded, sufficient capacity exists to perform the intended function while providing a time period adequate to permit full restoration of the battery cell parameters to normal limits.

3/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

~~Primary containment electrical penetrations and penetration conductors are protected by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance.~~

~~The surveillance requirements applicable to lower voltage circuit breakers provides assurance of breaker reliability by testing one representative sample of each manufacturers brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.~~

The OPERABILITY or bypassing of the motor operated valves thermal overload protection continuously or during accident conditions by integral bypass devices ensures that the thermal overload protection during accident conditions will not prevent safety related valves from performing their function. The Surveillance Requirements for demonstrating the OPERABILITY or bypassing of the thermal overload protection continuously or during accident conditions are in accordance with Regulatory Guide 1.106 "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977. The list of MOVs required to have thermal overload bypass circuitry is contained in UFSAR Table 8.3-11.