

JUN 17 2003



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U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Gentlemen:

**REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS  
DEPRESSURIZATION SYSTEMS – SUPPRESSION CHAMBER  
SURVEILLANCE REQUIREMENT  
HOPE CREEK GENERATING STATION  
FACILITY OPERATING LICENSE NPF-57  
DOCKET NO. 50-354**

Pursuant to 10 CFR 50.90, PSEG Nuclear LLC (PSEG) hereby requests a revision to the Technical Specification (TS) for the Hope Creek Generating Station. In accordance with 10CFR50.91(b)(1), a copy of this submittal has been sent to the State of New Jersey.

The proposed amendment will delete Surveillance Requirement (SR) 4.6.2.1.b.2.b, which is incorrectly worded, and is an unnecessary surveillance since TS 3.6.2.1, Action b requires a plant shutdown if the suppression chamber average water temperature cannot be restored in 24 hours, hence, superseding the surveillance requirements.

PSEG has evaluated the proposed changes in accordance with 10CFR50.91(a)(1), using the criteria in 10CFR50.92(c), and has determined this request involves no significant hazards considerations. An evaluation of the requested changes is provided in Attachment 1 to this letter. The marked up Technical Specification pages affected by the proposed changes are provided in Attachment 2.

PSEG requests approval of the proposed License Amendment by November 30, 2003 to be implemented within 60 days.

This submittal contains no commitments.

A001

JUN 17 2003

If you have any questions or require additional information, please contact Mr. John Nagle at (856) 339-3171.

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

Executed on

6/11/03  
(date)

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

**EVALUATION OF REVISIONS TO THE TECHNICAL SPECIFICATIONS**

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**REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS  
ADMINISTRATIVE CHANGES**

**1. DESCRIPTION**

The proposed amendment deletes Surveillance Requirement (SR) 4.6.2.1.b.2.b and corrects typographical errors in the Hope Creek Technical Specification (TS).

**2. PROPOSED CHANGE**

The following changes are proposed:

- a. Correct typographical errors on Index page x.
- b. Delete SR 4.6.2.1.b.2.b

**3. BACKGROUND**

As written, TS Surveillance Requirement (SR) 4.6.2.1.b.2 is performed when the suppression chamber average water temperature is greater than 95°F. The SR requires verification at least once per hour that suppression chamber average water temperature is less than or equal to 110°F, and that thermal power is less than or equal to 1% of rated thermal power (RTP). This surveillance is not consistent with TS 3.6.2.1 Action b which allows 24 hours to restore the average temperature when thermal power is greater than 1% RTP. The SR to verify thermal power is not applicable during the initial 24 hours.

The phrase "after the suppression chamber average water temperature has exceeded 95°F for more than 24 hours" was included in the original draft SR (Reference a), but was omitted from the SR during the licensing review (Reference b) and in Appendix A of the Hope Creek Operating License (Reference c) issued in July 1986.

The PSEG record of TS changes for the period of the NRC review (1985-1986) does not indicate that a change was made to SR 4.6.2.1.b.2. The omission of the phrase "after the suppression chamber average water temperature has exceeded 95°F for more than 24 hours" is being classified as an administrative error.

Vermont Yankee Amendment 163 (TAC NO. MA1721) revised the normal operating suppression pool water temperature. The surveillance requirements presently contained in the Hope Creek Technical Specifications are not contained in the Vermont Yankee Technical Specifications.

#### 4. TECHNICAL ANALYSIS

Currently LCO 3.6.2.1, Action b and its corresponding SR state the following:

LCO 3.6.2.1, Action b

With the suppression chamber average water temperature greater than 95°F and the THERMAL POWER greater than 1% of RATED THERMAL POWER, restore the average temperature to less than or equal to 95°F within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, except, as permitted above:

SR 4.6.2.1.b.2

The suppression chamber shall be demonstrated OPERABLE:

- b. At least once per 24 hours in OPERATIONAL CONDITION 1 or 2 by verifying the suppression chamber average water temperature to be less than or equal to 95°F, except:
  2. At least once per hour when suppression chamber average water temperature is greater than 95°F, by verifying:
    - a) Suppression chamber average water temperature to be less than or equal to 110°F, and
    - b) THERMAL POWER to be less than or equal to 1% of RATED THERMAL POWER.

PSEG originally planned to generate an LCR to conform the SR to the Action by revising the SR to begin the thermal power surveillance 24 hours after the suppression chamber average water temperature exceeded 95°F. Such a request would have re-established the original wording and intention of the SR.

In reviewing the action, however, the following features were observed:

- The action allows plant operators 24 hours to restore the temperature prior to reducing power.
- The action directs plant operators to reduce power and be in hot shutdown within the next 12 hours if the temperature cannot be restored.
- The action also directs plant operators to be in cold shutdown within the following 24 hours after achieving hot shutdown if the temperature cannot be restored.

Because the LCO action (1) allows plant operators 24 hours to restore the suppression chamber temperature prior to performing the surveillance and (2) requires a unit shutdown if the temperature cannot be restored, the surveillance to verify the thermal power once per hour is unwarranted. The intent of the LCO is to bring the unit to a safe shutdown in compliance with the action statement.

This request is not a relaxation of existing requirements since the LCO obliges plant operators to perform specific actions, which preclude any reason for the surveillance.

The General Electric BWR Standard Technical Specifications (STS) do not require a surveillance for thermal power when the suppression chamber water temperature exceeds 95°F (Reference d). General Electric used the following justification for removing this SR from the STS (Reference f):

"When suppression pool temperature is  $\geq [100^{\circ}\text{F}]$  and  $\leq [110^{\circ}\text{F}]$ , and power is greater than 1%, the LCO is not being met and ITS Required Action A.1 performs this Surveillance. In the event power is less than 1%, the LCO is being met and ITS SR 3.6.2.1.1 verification of temperature every 24 hours is sufficient. When power is  $\leq 1\%$  the plant is essentially shutdown, which is the action required should suppression pool temperature increase to  $\geq [110^{\circ}\text{F}]$ . Knowledge of the current power level is an inherent requirement for the operator at all times. Therefore, there is minimal significance to removing the 30 minute and hourly verification requirements in those conditions".

In conclusion, LCO 3.6.2.1, Action b and SR 4.6.2.1.2.b. are inconsistent and the surveillance requirement is unnecessary. This LCR requests that the SR be deleted from the TS. This request is not a relaxation of existing requirements since the LCO directs the plant operators to commence a plant shutdown if the suppression chamber temperature cannot be restored.

## **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 amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment" as discussed below:

Technical Specification (TS) 3.6.2 provides limiting conditions of operation (LCOs) for the suppression chamber water temperature to ensure the ability of the Hope Creek plant to maintain containment pressure acceptable post accident. Surveillance Requirement (SR) 4.6.2 provides required surveillances to ensure that the suppression chamber water temperature remains below the value used in the safety analyses.

Limitations on suppression chamber average water temperature ensure that containment conditions assumed in the safety analyses are met. Specifically, the limitations ensure that the peak primary containment pressure and temperature do not exceed the maximum allowable values during a postulated design basis accident (DBA) or any transient initiating a heatup of the suppression pool. The suppression pool provides the heat sink for the entire spectrum of postulated pipe breaks inside containment.

The proposed change does not affect the current safety analysis. The safety analyses were performed assuming an initial water temperature of 95°F. Immediately following the DBA blowdown, the water temperature is approximately 135°F well below the UFSAR (Section 5.4.7.1.1.3) limit set of 170°F. The surveillances for water temperature in SR 4.6.2 reflect the value used in the analysis and allow, for short periods of time, temperatures above this value because of the conservative maximum calculated temperature following blowdown. Therefore, the time period that the temperature is > 95° F is limited by LCO 3.6.2.1 Action b and it is short enough not to cause a significant increase in unit risk.

The proposed LCR removes a surveillance requirement verifying that thermal power is below 1% RATED THERMAL POWER (RTP). LCO 3.6.2.1, Action b, requires that the unit be shutdown if the water temperature cannot be restored below 95°F within 24 hours.

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 affect the allowable suppression chamber average water temperatures provided in the TS. The changes do not affect previously evaluated events described in the UFSAR including all DBAs and other operational transients.

The surveillance is extraneous because Action b of LCO 3.6.2 directs the plant operators to commence a plant shutdown if the suppression chamber temperature cannot be restored. These changes do not affect plant systems, structures or components (SSCs).

Therefore, the proposed changes do not involve a significant increase in the probability or radiological consequences of an accident previously evaluated.

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 affect the design function or operation of a plant SSC. No physical or procedural changes are associated with this LCR. As a result, no new credible failure mechanisms, malfunctions, or accident initiators are related to this change. Additionally, no new modes of plant operation have been created.

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 include the deletion of a surveillance requirement. This change is prompted by an LCO action statement, which prevents the plant from performing the surveillance. As a result, this change does not impact safety margins specified in the Hope Creek licensing basis.

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 LCR does not affect regulatory requirements and/or criteria.

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) the 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 would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change 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 assessment of the proposed change is not required.



**7. REFERENCES**

- a. NRC Letter from Walter R. Butler to R. L. Mittl (PSEG), Hope Creek Technical Specifications (first draft), Docket No. 50-354, dated July 3, 1985.
- b. NRC Letter from Elinor Adensam to Corbin A. McNeill (PSEG), Final Draft – Hope Creek Generating Station Technical Specifications, Docket No. 50-354, dated February 20, 1986.
- c. NUREG-1202, Technical Specifications for Hope Creek Generating Station, Docket No. 50-354, Appendix A to License No. NPF-57, July 1986.
- d. NUREG-1433, Standard Technical Specifications, General Electric Plants, BWR/4, Volumes 1 and 2, Revision 2, April 2001.
- e. NRC Letter from Richard P. Croteau to Gregory A. Maret (Vermont Yankee), Issuance of Amendment No. 163 to License No. DPR-28 (TAC NO. MA1721), December 28, 1998.
- f. BWR Owners' Group, Improved BWR Technical Specifications, Volume S2 (BWR/4), Standard Technical Specifications Updated Comparison, September 1994.

**HOPE CREEK GENERATING STATION  
FACILITY OPERATING LICENSE NPF-57  
DOCKET NO. 50-354  
REVISIONS TO THE TECHNICAL SPECIFICATIONS**

**TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES**

The following Technical Specifications for Facility Operating License No. NPF-57 are affected by this change request:

<b><u>Technical Specification</u></b>	<b><u>Page</u></b>
<b>Index</b>	<b>x</b>
<b>4.6.2.1.b.2.b</b>	<b>3/4 6-13</b>

## LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

Amendment No.

## CONTAINMENT SYSTEMS

### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION: (Continued)

3. With the suppression chamber average water temperature greater than 120°F, depressurize the reactor pressure vessel to less than 200 psig within 12 hours.
- c. With one drywell-to-suppression chamber bypass leakage in excess of the limit, restore the bypass leakage to within the limit prior to increasing reactor coolant temperature above 200°F.

### SURVEILLANCE REQUIREMENTS

#### 4.6.2.1 The suppression chamber shall be demonstrated OPERABLE:

- a. By verifying the suppression chamber water volume to be within the limits at least once per 24 hours.
- b. At least once per 24 hours in OPERATIONAL CONDITION 1 or 2 by verifying the suppression chamber average water temperature to be less than or equal to 95°F, except:
  1. At least once per 5 minutes during testing which adds heat to the suppression chamber, by verifying the suppression chamber average water temperature less than or equal to 105°F.
  2. At least once per hour when suppression chamber average water temperature is greater than 95°F, by verifying:
    - a) Suppression chamber average water temperature to be less than or equal to 110°F, ~~and~~
    - ~~b) THERMAL POWER to be less than or equal to 1% of RATED THERMAL POWER.~~
- c. At least once per 30 minutes in OPERATIONAL CONDITION 3 following a scram with suppression chamber average water temperature greater than 95°F, by verifying suppression chamber average water temperature less than or equal to 120°F.
- d. By an external visual examination of the suppression chamber after safety/relief valve operation with the suppression chamber average water temperature greater than or equal to 177°F and reactor coolant system pressure greater than 100 psig.
- e. At least once per 18 months by a visual inspection of the accessible interior and exterior of the suppression chamber.

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## CONTAINMENT SYSTEMS

### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION: (Continued)

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- c. At least once per 30 minutes in OPERATIONAL CONDITION 3 following a scram with suppression chamber average water temperature greater than 95°F, by verifying suppression chamber average water temperature less than or equal to 120°F.
- d. By an external visual examination of the suppression chamber after safety/relief valve operation with the suppression chamber average water temperature greater than or equal to 177°F and reactor coolant system pressure greater than 100 psig.
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