

Public Service
Electric and Gas
Company

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DEC 28 1995

LR-N95234
LCR 95-26

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

Gentlemen:

**EXIGENT LICENSE AMENDMENT APPLICATION
DEFINITION OF CHANNEL CALIBRATION
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NPF-57
DOCKET NO. 50-354**

Public Service Electric and Gas Company (PSE&G) hereby submits an application for exigent amendment to Appendix A of Facility Operating License NPF-57 for the Hope Creek Generating Station, and is being filed in accordance with 10CFR50.90. Pursuant to the requirements of 10CFR50.91(b)(1), a copy of this request for amendment has been sent to the State of New Jersey.

The proposed Technical Specification (TS) change contained herein represents a change to Definition 1.4 Channel Calibration. This submittal incorporates new wording to address a methodology for Resistance Temperature Detector (RTD) and thermocouple (T/C) calibrations, since these type sensors cannot be tested in a manner consistent with the current Hope Creek Technical Specification wording. This change makes Hope Creek's definition consistent with the definition for channel calibration in the improved Standard Technical Specifications (STS), NUREG 1433 "Standard Technical Specifications General Electric Plants, BWR/4," Revision 1.

The proposed change has been evaluated in accordance with 10CFR50.91(a)(1), using the criteria in 10CFR50.92(c), and it has been determined that this request involves no significant hazards considerations.

A description of the requested amendment, supporting information and analyses for the change, and the basis for a no significant hazards consideration determination are provided in Attachment 1. The Technical Specification page affected by the proposed change is provided in Attachment 2 with pen and ink changes.

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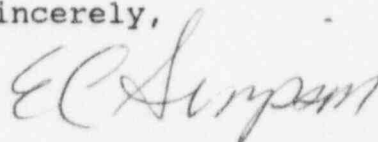
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The instrument channels affected by this calibration issue are required to be operable in Operational Conditions 1, 2 and 3. PSE&G has determined this issue impacts operability of the affected channels. Hope Creek is currently in Operational Condition 5 and the affected instrument channels are not required to be operable. However, the outage schedule indicates that we will be going to Operational Condition 3 on February 2, 1996. TS 3.0.4 prohibits entry into an operational condition when the Limiting Conditions for Operation are not met. PSE&G needs 3 days to implement the change. Therefore, PSE&G requests that this amendment request be approved no later than January 31, 1996. Since the schedule does not permit the NRC to publish this in the Federal Register with allowance for a 30 day public comment period, PSE&G requests that this be handled as an exigent request.

Should you have any questions regarding this request, we will be pleased to discuss them with you.

Sincerely,



Affidavit
Attachments (2)

C Mr. T. T. Martin, Administrator - Region I
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Mr. D. Jaffe, Licensing Project Manager - Hope Creek
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Mr. R. Summers (X24)
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33 Arctic Parkway
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Trenton, NJ 08625

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STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

E. C. Simpson, being duly sworn according to law deposes and says:

I am Senior Vice President - Nuclear Engineering of Public Service Electric and Gas Company, and as such, I find the matters set forth in the above referenced letter, concerning the Hope Creek Generating Station, are true to the best of my knowledge, information and belief.

E C Simpson

Subscribed and Sworn to before me
this 28 day of December, 1995

Elizabeth J. Kidd
Notary Public of New Jersey

ELIZABETH J. KIDD
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires April 25, 2000

My Commission expires on _____

ATTACHMENT 1

PROPOSED TECHNICAL SPECIFICATION CHANGE
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

I. Description of Change

The proposed change ensures the required testing methodology aligns with standard industry methodology for instrument channels having a thermocouple (T/C) or Resistance Temperature Detector (RTD) as a sensor in order to prevent unnecessary removal of these sensors.

Hope Creek Technical Specification (TS) Definition 1.4 pertaining to Channel Calibration is to be revised to replace the existing definition with the following:

A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel, including the required sensor, alarm, display, and trip functions, and shall include the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is calibrated.

II. Reason for the Proposed Change

Currently, channel calibrations for instrument channels having RTD or T/C sensors are completed by performing an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. This test methodology is consistent with standard industry practice and was considered to satisfy the surveillance requirements.

As a result of a technical adequacy review by Hope Creek's Technical Specification Surveillance Improvement Project (TSSIP) team, channel calibration surveillance test procedures were found to be inconsistent with the literal requirements in the current TS definition. This definition requires calibration of the sensor, including a resistance temperature detector (RTD) or thermocouple (T/C) sensor within the channel. Other BWR-4 TS, having the same definition for Channel Calibration, have a qualifying note, in individual TS instrumentation sections, that exempts RTDs and T/Cs from the sensor calibration requirement. Hope Creek has no such footnote(s).

The proposed change ensures the testing methodology aligns with standard industry methodology for instrument channels having a thermocouple or RTD as a sensor in order to prevent unnecessary removal of these sensors.

III. Justification for the Proposed Change

The intent of the surveillance requirements which calibrate instrument channels is to ensure the channel accurately reflects and responds to the actual state of the monitored parameter. Most instrument channels identified in the TS have a sensor that may vary its output with time without a corresponding change in the state of the monitored parameter. This is known as sensor drift. Periodic calibration of these sensors is necessary to ensure necessary accuracy levels are maintained.

RTDs and T/Cs, however, are relatively insensitive to sensor drift and are either accurate or not. Any change to their output, independent of the state of the monitored environment, will usually be observable by comparison with other devices measuring the same environment. Failures of these devices tend to be gross and readily observable.

In addition, it is difficult if not impossible to calibrate RTDs and T/Cs in place. Removal and subsequent re-installation of the sensors introduces a potential for an unidentified failure that outweighs the benefits of the sensor calibration. Calibration may also result in additional personnel radiation exposure which is inconsistent with ALARA goals. Deleting the requirement to calibrate RTDs and T/Cs prevents the diversion of plant personnel and resources for unnecessary testing.

For these reasons, IEEE Standard 338-1977, "IEEE Standard Criteria for the Periodic Testing of Nuclear Power Generating Station Safety Systems," provides the following guidance: "When complete checks, including those of the sensor, are not practicable, an analog or digital input for partial testing should be introduced and varied as appropriate."

A review of relevant UFSAR Sections revealed that calibrating the sensors for RTD and T/C Instrumentation Channels is not addressed in the UFSAR.

IV. Significant Hazards Consideration

Public Service Electric & Gas Company (PSE&G) has, pursuant to 10CFR50.92, reviewed the proposed change to determine whether this change involves a significant hazards consideration. PSE&G has determined that operation of Hope Creek in accordance with the proposed change:

1. **Will not involve a significant increase in the probability or consequences of an accident previously evaluated.**

Since no physical change is being made to the instrumentation channels, or to any system or component that interfaces with the instrumentation channels, there is no change in the probability of any accident analyzed in the UFSAR.

There is no change in the consequences of an accident. The proposed change continues to ensure the surveillance requirements meet the licensing basis. Also, the testing performed will continue to demonstrate the capability of the affected instrumentation channels to respond to changes in the state of the monitored parameters in a manner consistent with assumptions in the accident analysis.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. **Will not create the possibility of a new or different kind of accident from any previously evaluated.**

The proposed change does not result in any design or physical configuration changes to the instrumentation channels. Operation incorporating the proposed change will not impair the instrumentation channels from performing as provided in the design basis. By aligning the TS to be consistent with the current calibration practice we will prevent the possibility for unnecessary removal and potential damage of the temperature detectors (for sensor calibration). The instrument channels will continue to function as assumed in the accident analyses. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. **Will not involve a significant reduction in a margin of safety.**

Since the proposed change does not involve the addition or modification of plant equipment, is consistent with the intent of the existing Technical Specifications, is consistent with the current industry practices as outlined in NUREG 1433, "Standard Technical Specifications General Electric Plants, BWR/4," Revision 1 and is consistent with the design basis of the Instrumentation Systems and the accident analysis, no action will occur that will involve a significant reduction in a margin of safety.

4. **Conclusion**

Based upon the above, PSE&G has determined that the proposed change to the Hope Creek Technical Specifications does not involve a Significant Hazards Consideration.

ATTACHMENT 2

INSERTS AND MARKED-UP PAGE

TECHNICAL SPECIFICATIONS CHANGE
HOPE CREEK GENERATING STATION
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