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SUBJECT: Forwards Proposed Amends 163 & 116 to Licenses NPF-14 &
NPF-22, respectively, changing definition of channel calibr in S
TS 1.4. S

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OCT 08 1993

Director of Nuclear Reactor Regulation
Attention: Mr. C. L. Miller, Project Director
Project Directorate I-2
Division of Reactor Projects
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
PROPOSED AMENDMENTS 163 AND 116 TO
LICENSE NOS. NPF-14 AND NPF-22 :
CHANGES TO THE SSES TECHNICAL SPECIFICATION
DEFINITION OF CHANNEL CALIBRATION
PLA-4033 FILES A17-2/R41-2**

Docket Nos. 50-387
and 50-388

Dear Mr. Miller:

The purpose of this letter is to transmit proposed amendments to the Susquehanna Unit 1 and 2 Technical Specifications. The proposed change revises the existing definition of CHANNEL CALIBRATION in Technical Specification 1.4.

BACKGROUND

Technical Specification surveillance requirement 4.3.7.5 requires that accident monitoring instrumentation channels be demonstrated OPERABLE by performance of a CHANNEL CHECK and CHANNEL CALIBRATION for the instrumentation shown in Table 3.3.7.5-1 and at the frequencies shown in Table 4.3.7.5-1. Table 3.3.7.5-1 Accident Monitoring Instrumentation lists Suppression Chamber Water Temperature and Suppression Chamber Air Temperature as applicable to the TS 4.3.7.5 surveillance requirements. Similar requirements exist for Suppression Chamber Water Temperature instruments per Specification 4.6.2.1c.

Definition 1.4 CHANNEL CALIBRATION provides NRC's definition of channel calibration, as well as the components of channels that require calibration. According to the definition, channel calibration shall encompass the entire channel including the sensor, alarm, and/or trip functions.

During a 1991 inspection NRC opened an Unresolved Item regarding the TS 4.3.7.5 requirement to complete Resistance Temperature Detector (RTD) calibrations for Suppression Chamber Air and Water Temperature every refueling outage as listed in TS Table 4.3.7.5-1. PP&L's practice is to test and verify the channels as required, except for the sensor itself. The basis for this

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practice is that the design of the RTDs precludes the ability to calibrate the sensors without potentially damaging them during removal. This concern was discussed during initial licensing of both units with exceptions noted and granted by NRC; however, these discussions were not documented. The issue remains unresolved (Unresolved Item 50-387/91-04-01 Common) pending review of PP&L justification by NRC for not calibrating the sensors.

DESCRIPTION OF CHANGE

The attached marked-up change to Technical Specification Section 1.4 CHANNEL CALIBRATION reflects the change that will allow other, non-damaging, in-place qualitative methods to be used to verify RTD or thermocouple sensor behavior.

SAFETY ANALYSIS

The intent of the Technical Specification surveillance requirement to periodically calibrate RTDs that sense air and water temperatures is to ensure that the RTDs are sensing the actual temperatures. The term "calibration", however, implies activities that are not possible on RTD or thermocouple sensors. "Calibrations" typically require adjustments of devices to cause them to conform to a desired output. In this sense, RTD and thermocouple sensors can not be "calibrated" since there are no sensor adjustments that can be made. A more appropriate activity to require on an RTD or thermocouple is to cross compare RTD or thermocouple output indications with sensors measuring the same temperature.

The in-place cross comparison of RTD or thermocouple sensor output indications with other sensors measuring the same temperature is one method that can be used to verify the consistency of indications in a group of sensors such as the suppression chamber RTDs. The revised Technical Specification definition for CHANNEL CALIBRATION provides flexibility in choosing appropriate methods to verify the performance of RTDs or thermocouples. The proposed change is consistent with the intent of the Technical Specifications.

NO SIGNIFICANT HAZARDS CONSIDERATION

The proposed change does not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change is administrative in nature and does not involve any change to the configuration or method of operation of any plant equipment that is used to mitigate the consequences of an accident nor alter the conditions or assumptions in any of the Final Safety Analysis (FSAR) accident analyses. The revised

definition eliminates unnecessary and potentially damaging removal of RTD or thermocouple sensors in order to perform calibrations that are not, as outlined above, technically possible. Therefore, it can be concluded that the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

No new failure modes have been defined for any plant system or component important to safety nor has any new limiting failure been identified as a result of the proposed changes. There will be no change in the requirement to assess the entire RTD or thermocouple channel behavior including the sensor, alarm, display, and/or trip function. Therefore, it can be concluded that the proposed change does not create the possibility of a new or different kind of accident from those previously evaluated.

3. Involve a significant reduction in a margin of safety.

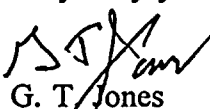
The proposed change is administrative in nature. Assessment of channel behavior will continue to be required. The additions to the CHANNEL CALIBRATION definition will provide greater flexibility in the use of the provision for surveillance testing, and have no adverse effect on safety. Also, the in-place qualitative assessment obviates the need to remove the RTD's or thermocouples, thereby eliminating the possibility of damaging them during removal. Therefore, it can be concluded that the proposed changes do not involve a significant reduction in a margin of safety.

IMPLEMENTATION

PP&L requests that this amendment be approved prior to the end of the U2 6RIO currently scheduled for completion on May 13, 1994.

Questions regarding the above proposal can be directed to Mr. J.B. Wesner at (215) 774-7911.

Very truly yours,


G. T. Jones

Attachments

cc: NRC Document Control Desk (original)
NRC Region I
Mr. G. S. Barber, NRC Sr. Resident Inspector - SSES
Mr. R. J. Clark, NRC Sr. Project Manager - Rockville
Mr. W. P. Dornsife, Pa. DER