

MAY 16 1984

Docket Nos.: STN 50-482
and STN 50-483
Mr. Donald F. Schnell
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Mr. Glenn L. Koester
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Gentlemen:

Subject: Request for Additional Information - I&C Technical Specifications

Reference: Nicholas A. Petrick (SNUPPS) letter to Harold R. Denton (NRC),
Subject: "Instrumentation and Control Systems Branch Questions on the SNUPPS Technical Specifications," April 23, 1984.

In the referenced letter the SNUPPS utilities provided responses to a staff request for additional information on the Callaway/Wolf Creek Technical Specifications. The staff has reviewed this document and has determined that additional information is required before it can completely resolve these issues. The specific requests are detailed in the enclosure.

In order to support the Callaway licensing schedule, your response must be received by this office no later than May 18, 1984. These concerns have been previously discussed with members of the SNUPPS staff. If you require any additional information, please contact the Licensing Project Managers.

Sincerely,

ORIGINAL SIGNED BY:
B. J. Youngblood, Chief
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Enclosure:
As stated

cc: See next page

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5/16/84	5/16/84	5/16/84	5/16/84	5/17/84

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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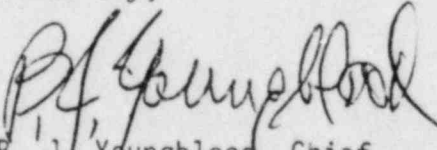
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ENCLOSURE

REQUEST FOR ADDITIONAL
INFORMATION

1. Technical Specification 2.2 (Table 2.2-1)

Upon request, the applicants supplied information discussing equations used for calculating the trip setpoints for Overtemperature ΔT and Overpower ΔT . The applicants have informed the staff that there are differences between the equations in the FSAR and those identified in the SNUPPS Technical Specifications. However, the technical specification equations contain all the components in the Overtemperature ΔT and Overpower ΔT circuitry which are important to the protection function and which are modeled in the analysis. Based on this, the staff recommends that the FSAR be revised to be consistent with the technical specification equations. This issue is considered resolved pending satisfactory revision of the FSAR.

2. Technical Specification Section 2.2 and 3/4.3.2 (Tables 2.2-1 and 3.3-4 respectively)

The staff requested the applicants to provide information to justify the omission of environmental errors for setpoint calculations related to diverse (backup) protection trip functions or to include appropriate errors for the backup trips. By letter (N. Petrick of SNUPPS to H. Denton of NRC) dated April 23, 1984, the applicants stated that this requirement should be reviewed as a generic issue prior to implementation. The applicant's basis for this determination is that the NRC staff has never questioned the exclusion of environmental errors (for diverse trips) on any other plant reviewed prior to SNUPPS.

The staff does not consider this issue to be generic. It should be noted that even though the SNUPPS setpoint methodology program is

the same as that reviewed and approved for use at Virgil Summer, the use (inclusion, exclusion) and values of the variables and design allowances associated with the setpoint calculations will vary from plant-to-plant. Such is the case with the environmental errors. The staff considers this to be plant specific since the actual installation of the equipment on each plant determines the need for the inclusion or exclusion of environmental errors for various parameters. Based on this, the staff considers the applicants above proposal (i.e., to handle this issue generically) unacceptable. Therefore, the staff continues to require the applicants to provide information prior to operation above 5% power to justify the omission of environmental errors for setpoint calculations related to the diverse trip functions or to incorporate environmental errors where appropriate.

3. Technical Specification Section 3/4.3.3 (Subsection 3.3.3.5 and 3.3.3.6 respectively)

A. The staff proposed that the SNUPPS Technical Specifications for remote shutdown be modified based on a December 30, 1982 memorandum from R. Mattson to D. Eisenhut. The applicants responded by letter (N. Petrick of SNUPPS to H. Denton of NRC) dated April 23, 1984. The applicants informed the staff that the recommendation for the imposition of limiting conditions for operation and surveillance requirements for the transfer switches, power, and control circuits appears to be unwarranted and should be treated as a generic issue.

The staff finds the applicants statement that such requirements are unwarranted to be unacceptable. The staff believes that the

changes recommended by the December 30, 1982 memorandum are necessary to adequately address the operability of the remote shutdown systems required under the provisions of GDC 19. Also, the subject memorandum was written in accordance with NRR Office Letter No. 38 for the purpose of proposing a change to the Standard Technical Specification. It should be noted that the December 30, 1982 memorandum requests that the necessary changes be implemented immediately on OL reviews and that this is allowed by NRR Office Letter No. 38.

Based on the above, the staff continues to require that Section 3/4.3.3 of the SNUPPS Technical Specifications should be modified to include the proposed recommendations.

- B. The staff proposed that the SNUPPS Technical Specifications for post accident monitoring be modified based on a October 12, 1983 memorandum from R. Mattson to D. Eisenhut. The applicants responded stating that the SNUPPS Technical Specifications for post accident monitoring instrumentation meets or exceeds the requirements of R.G. 1.97, Revision 2 with the exception of reactor coolant radiation level monitors and the containment isolation valve position indication.

The staff is aware (based on review of FSAR Appendix 7A) that an exception is being taken related to the installation of the reactor coolant radiation level monitors. Justification for this and other exceptions is currently under review by the staff. Until

the staff completes its review of the SNUPPS design for compliance to R.G. 1.97, Revision 2 recommendations, a license condition will be imposed requiring the satisfactory resolution of all such review findings. The staff is not aware of an exception related to containment isolation valve position indication. This parameter is considered to be Category 1 and should, therefore, be included in the technical specification post accident monitoring tables. Also, the technical specification tables do not include neutron flux indication which is a Category 1 variable.

It should be noted that the October 12, 1983 memorandum recommends revising Section 6.8.4 of the subject technical specifications to provide periodic surveillance of the Category 2 and 3 instrumentation and appropriate actions for cases when Category 2 and 3 instruments are inoperable. This was not addressed by the applicants.

The October 12, 1983 memorandum was written in accordance with NRR Office Letter No. 38 for the purpose of proposing changes to the Standard Technical Specifications and to request that these changes be implemented immediately on OL reviews as allowed by the office letter. Therefore, based on this and the above discussion, the staff continues to require modification of the SNUPPS Technical Specification Sections 3/4.3.3 and 6.8.4 as recommended by the subject memorandum.

4. Technical Specification Sections 3/4.5.1 and 3/4.5.2
(Subsections 4.5.1.1 and 4.5.2 respectively)

The applicants were requested to provide appropriate limiting conditions for operation and surveillance requirements related to the

interlocks associated with the accumulator isolation valves and the RHR suction isolation valves. By letter (N. Petrick of SNUPPS to H. Denton of NRC) dated April 23, 1984, the applicants informed the staff that the technical specifications were modified to replace the testing of the accumulator isolation valve interlocks with a surveillance requirement to verify the valve is open with power removed when above 1000 psig on a 31 day frequency. The applicants stated that this interlock is not required to operate. The staff finds this unacceptable.

The staff accepted the SNUPPS design on the basis that the emergency core cooling system (ECCS) depended on the proper functioning of the accumulator isolation valve interlocks. Refer to SNUPPS SER Section 7.6.2 for the staff's evaluation on this issue as it relates to compliance with BTP ICSB 4.

Based on the above, the staff continues to require appropriate limiting conditions for operation and surveillance requirements in the SNUPPS Technical Specifications for the accumulator isolation valve interlocks prior to fuel load. Otherwise, justification should be provided to show why the interlock is not required.

The applicants have verified that the reactor coolant system pressure channels associated with the RHR suction isolation valve interlocks are surveilled and calibrated periodically as part of the existing technical specifications. The staff finds this acceptable.

5. Technical Specification 3/4.7.5 (Subsection 4.7.5.2)

The staff recommended that the applicants revise the technical specifications prior to fuel load to include appropriate surveillance requirements and limiting conditions for operation for the temperature (85⁰F) actuation channel associated with the ultimate heat sink (UHS) cooling tower fans (Callaway only). The applicants responded stating that it would take about 6 hours to raise the UHS temperature from the auto start setpoint of 85⁰F to the Design Basis temperature of 95⁰F. Based on this, the applicants have stated that no technical specification is required for the auto start function. The staff finds this unacceptable.

The staff found the Callaway UHS system design to be acceptable based on the automatic start function associated with the UHS cooling tower fans being operable. It should be noted that the current technical specifications allow the UHS water temperature to be <95⁰F and still be considered operable. Therefore, the staff continues to require appropriate technical specifications for the subject automatic start function or the applicants should provide an analysis justifying that the automatic operation of the UHS cooling tower fans is not required. This should be resolved prior to fuel load.

6. Switchover of Charging Pump Suction to RWST on Low-Low VCT Level

The applicants were requested to provide appropriate limiting conditions for operation and surveillance requirements in the SNUPPS Technical Specifications for automatic switchover of the charging pump suction to the RWST on Low-Low VCT level. The applicants responded

that there is sufficient time available for the operator to respond to such a transient. The information supplied by the applicant is insufficient to allow the staff to perform an independent evaluation of the applicants' claim. Therefore, the applicants should provide the following additional information prior to fuel load:

- A. The minimum amount of time available to the operator to switch pump suction to the RWST assuming the worst-case scenario, and
- B. A description of the CR alarms and indications that will alert the operator of a loss of VCT inventory and the need for switch-over.

7. Indicator, Alarm, and Test Features Provided for the Instrumentation Used for Safety Functions

The applicants were requested to provide appropriate limiting conditions for operation for instrumentation used to initiate the safety functions identified in SNUPPS SER Section 7.3.2.9. The applicants have responded stating that the BOP ESFAS features that are safety-related have been identified in FSAR Section 7.3 and that the other instrumentation and controls are implicitly included in the technical specifications. The applicants are requested to supply information correlating each safety function identified in SER Section 7.3.2.9 with the existing technical specifications.