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SUBJECT: Application for amend to License NPF-21, revising Tech Spec 4.3.6-1 re control rod block instrumentation surveillance requirements.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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February 21, 1991
G02-91-036

Docket No. 50-397

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Subject: NUCLEAR PLANT NO. 2, OPERATING LICENSE NPF-21,
REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATION
TABLE 4.3.6-1 CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

- Reference:
- 1) GE Topical Report NEDC-30851 P-A Supplement 1, "Technical Specification Improvement Analysis for BWR Control Rod Block Instrumentation", dated October 1988 (originally submitted as NEDC-30851 P, Supp. 1, dated June 1986).
 - 2) Letter, C. E. Rossi (NRR) to D. N. Grace (BWROG), "General Electric Company (GE) Topical Report NEDC-30851P, Supplement 1, Technical Specification Improvement Analysis for BWR Control Rod Block Instrumentation", dated September 22, 1988.
 - 3) Letter, G02-89-161, G. C. Sorensen (SS) to NRC, "Request for Amendment to Technical Specification 3/4.3.1 Reactor Protection System Instrumentation and Closeout of Item 4.5.3 of Generic Letter 83-28", dated September 14, 1989.
 - 4) Letter, G02-89-162, G. C. Sorensen (SS) to NRC, "Request for Amendment to Technical Specification 3/4.3.1 Reactor Protection System Instrumentation and closeout of Item 4.5.3 of Generic Letter 83-28", dated September 14, 1989 (Proprietary information supporting Reference 3).
 - 5) Letter, C. E. Rossi (NRR) to R. F. Janecek (BWROG), "Staff Guidance for Licensee Determination that the Drift Characteristics for Instrumentation Used in RPS Channels are Bounded by NEDC-30851P Assumptions When the Functional Test Interval is Extended from Monthly to Quarterly", dated April 27, 1988.

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REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATION
TABLE 4.3.6-1 CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

In accordance with the Code of Federal Regulations, Title 10, Parts 50.90 and 2.101, the Supply System hereby submits a request for amendment to the WNP-2 Technical Specifications. Specifically, the Supply System is requesting that the subject table be modified, as attached, to incorporate changes to Control Rod Block Instrumentation surveillance frequencies recommended in Reference 1) and approved by the Staff in Reference 2). The proposed changes extend certain control rod block function (CRBF) instrumentation surveillance test intervals (STI's) from one to three months in complement with Reactor Protection System (RPS) instrumentation surveillance changes requested in References 3) and 4).

References 3) and 4) requested STI extensions of three months for RPS instrumentation based on a BWR Owners Group Technical Specification Improvement Program aimed at improving RPS reliability. Since some of the CRBF instrumentation, presently surveilled monthly, are utilized in the RPS, the BWROG undertook analyses to justify extending CRBF STIs to the same as that justified for the RPS. The analysis performed for the CRBF consisted of establishing an upper bound of the contribution of the failure of the CRBF to scram initiating frequency. If changes in CRBF STIs were found to have negligible impact on the upper bound value, the changes were acceptable.

The purpose of the rod block instrumentation is to mitigate rod withdrawal errors and prevent withdrawal of control rods when there is a high water level in the Scram Discharge Volume. The following provide signals to the rod block instrumentation: Average Power Range Monitor (APRM), Rod Block Monitor (RBM), Reactor Coolant system Recirculation Flow Sensor, and Scram Discharge Volume (SDV) instrumentation. Extending STIs for these instruments when viewed narrowly might seem to increase the unreliability of the rod block signal. However, the Reference 1) analysis summarized that this tendency is more than offset by the benefits associated with reduced testing (reduction in test-caused failures, reduction in excessive test cycles on equipment and the diversion of plant personnel and resources to perform unnecessary testing). Also Reference 1) concluded that the combined benefits of STI extension of both RPS and CRBF instrumentation offset any potential negative impact of extending rod block instrumentation test intervals.

Reference 2) provided the staff's safety evaluation of the BWROG Analyses (Reference 1) and found that the analyses was "acceptable to support the proposed extensions to control rod block function instrumentation test intervals from one to three months, since there will be no significant changes in the CRBF availability". In order to receive the requested extensions, the staff in Reference 2) provided the following guidance:

"For plant-specific application of the TS changes for control rod block instrumentation that are proposed, the individual plant licensee must:

- (1) Confirm the applicability of the generic analyses to the plant.

REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATION
TABLE 4.3.6-1 CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

- (2) Confirm that any increase in instrument drift due to the extended STIs is properly accounted for in the setpoint calculation methodology. (For additional information on this issue, see letter from C. E. Rossi to R. F. Janecek, dated April 27, 1988.) (Reference 5)

Accordingly in response to condition 1) the Supply System confirms that the generic analyses provided in Reference 1) is applicable to WNP-2. Further in response to condition 2), per the additional guidance provided by the staff in reference 5), the Supply System has reviewed drift characteristics of the subject technical specification instrumentation to be changed and confirmed that the setpoints will remain within existing allowances throughout the requested surveillance test interval extensions.

Appropriate detailed justification for each of the proposed changes is provided in Reference 1) which was in turn found acceptable by the staff in Reference 2). Further the combination of changes herein requested compliment the RPS changes requested in References 3) and 4) and in their entirety represent an increase in overall plant reliability and safety. As summarized in the Technical Evaluation Report (Enclosure 2 of Reference 2), the analyses "indicates that there will be no significant changes in the availability of the CRBF if these changes are implemented". And "in addition, there will be a negligible impact on the plant core melt frequency due to the decreased testing". The Supply System concurs and considers that these changes do not represent a significant hazard and provides the following in support of this position:

- 1) The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated because the changes have been shown to have insignificant impact to overall CRBF failure rates and operability. As shown by Reference 1) the changes have a negligible impact on CRBF availability. Hence the probability or consequences of previously evaluated accidents are not significantly increased due to these changes. As stated above, the changes have been found to have negligible impact on plant core melt frequency.
- 2) The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated because CRBF function is not being changed and availability is not significantly impacted. No new modes of plant operation are introduced with these changes. No new or different kind of accident is credible.

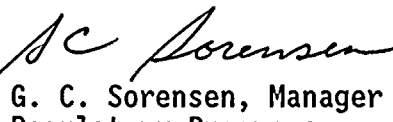
REQUEST FOR AMENDMENT TO TECHNICAL SPECIFICATION
TABLE 4.3.6-1 CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

- 3) The proposed changes do not involve a significant reduction in a margin of safety because, as shown in Reference 1) and found acceptable by the Staff in Reference 2), the changes have an insignificant impact on CRBF availability and as a result cannot conceivably involve a significant reduction in a margin of safety.

As discussed above, the Supply System considers that this change does not involve a significant hazards consideration, nor is there a potential for significant change in the types or significant increase in the amount of any effluents that may be released offsite, nor does it involve a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth on 10 CFR 51.22(c)(9) and therefore, per 10 CFR 51.22(b), an environmental assessment of the change is not required.

This Technical Specification Change has been reviewed and approved by the WNP-2 Plant Operations Committee (POC) and the Supply System Corporate Nuclear Safety Review Board (CNSRB). In accordance with 10 CFR 50.91, the State of Washington has been provided a copy of this letter.

Very truly yours,


G. C. Sorensen, Manager
Regulatory Programs

PLP/bk
Attachments


cc: RG Waldo - EFSEC
JB Martin - NRC RV
NS Reynolds - Winston & Strawn
PL Eng - NRC
DL Williams - BPA/399
NRC Site Inspector - 901A

STATE OF WASHINGTON)
COUNTY OF BENTON)

Subject: Request for Amendment to Tech Spec
Table 4.3.6-1 Control Rod Block Instru-
mentation Surveillance Requirements

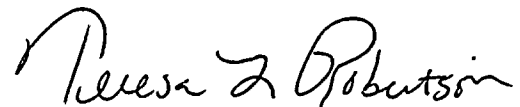
I, G. C. SORENSEN, being duly sworn, subscribe to and say that I am the Manager, Regulatory Programs, for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have full authority to execute this oath; that I have reviewed the foregoing; and that to the best of my knowledge, information, and belief the statements made in it are true.

DATE: 21 FEB, 1991


G. C. Sorensen, Manager
Regulatory Programs

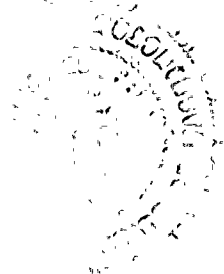
On this date personally appeared before me G. C. SORENSEN, to me known to be the individual who executed the foregoing instrument, and acknowledged that he signed the same as his free act and deed for the uses and purposes herein mentioned.

GIVEN under my hand and seal this 21st day of February 1991.


Notary Public in and for the
STATE OF WASHINGTON

Residing at Richland, WA

My Commission Expires 7/14/91





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