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SUBJECT: Application for amend to license NPF-21 requesting changes to TS by clarifying instrumentation testing requirements.

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January 6, 1994  
G02-94-005

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 SPECIFICATIONS  
TO CLARIFY INSTRUMENTATION TESTING 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 requests revision of the notes in the instrumentation section of the Technical Specifications to provide a defined period of time to perform surveillance testing without requiring entry into the associated Limiting Condition For Operation (LCO)/Action requirements. This amendment is required because the current Technical Specification requirements could, if certain equipment were to be found inoperable during surveillance testing, lead to an unnecessary plant shutdown or the need for a request for discretionary enforcement. The second portion of this proposed amendment requests deletion of the channel check requirements, contained in Technical Specification Surveillance 4.3.1.1, for the Reactor Steam Dome Pressure - High. No technically meaningful information is gained from performing this test.

The following Technical Specification tables each contain a Notation (a) to allow, for a defined time period, placing an instrumentation channel in an inoperable status for required surveillance testing without placing the trip system in the tripped condition: 1) Table 3.3.1-1, Reactor Protection System (RPS) Instrumentation; 2) Table 3.3.2-1, Isolation Actuation Instrumentation; 3) Table 3.3.3-1, Emergency Core Cooling System (ECCS) Actuation Instrumentation; 4) Table 3.3.4.1-1, Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip System (RPT) Instrumentation; 5) Table 3.3.4.2-1, End-Of-Cycle RPT (EOC-RPT) Instrumentation; and 6) Table 3.3.5-1, Reactor Core Isolation Cooling System (RCIC) Actuation Instrumentation. These Notation (a) references do not, however, provide relief from entry into the associated LCO when the channel is made inoperable for the performance of required surveillance testing. The Supply System has taken the position, consistent with the guidance provided in Generic Letter 91-18 and the Technical Specification definition of Operable, that the plant must enter the applicable LCO at the beginning of surveillance testing if the minimum operable channels per trip system required by the Technical Specifications is not met because of performance of the surveillance test.

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Based on a detailed review of the LCOs associated with the above Technical Specification tables and comparison to the table notes in NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4," dated September 28, 1992, the Supply System has concluded that the intent of the table notation is to provide a limited grace period to perform surveillance testing prior to entry into the associated LCO/Action Statement. Some of the WNP-2 Action Statements require action to be taken in the same, or in a shorter, period of time as the table notation.

One example, the Action Statement for the EOC-RPT Instrumentation, Technical Specification 3.3.4.2.b, requires that an inoperable channel be placed in the tripped condition within one hour, while Table 3.3.4.2-1 Notation (a) states that the channel does not have to be tripped for two hours during surveillance testing. These two requirements are in conflict. A second example is the RPS APRM Flow Biased Simulated Thermal Power - High trip which has a 6 hour allowed outage time by the note, and also has an Action Statement requirement to be in STARTUP within 6 hours from the time the minimum channels required criteria is not met. If the Action Statement is entered when the equipment is taken out of service for testing, and after 6 hours the testing demonstrates that the instrumentation is inoperable, the plant would have to be scrambled to meet the six hours to STARTUP criteria of the Action Statement. This would be an unnecessary plant transient.

The Supply System requests that the Notation (a) wording be changed consistent with the intent of NUREG 1433. It is requested that Notation (a) in Table 3.3.1-1 (RPS) be replaced with the following:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Limiting Conditions For Operation/Action Statement may be delayed for up to 6 hours provided the associated function maintains RPS trip capability.

The Supply System requests that Notation (a) in Table 3.3.2-1 (Isolation Actuation Instrumentation) be replaced with the following:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Limiting Conditions For Operation/Action Statement may be delayed for up to 6 hours provided the associated function maintains the isolation capability.

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The Supply System requests that Notation (a) in Table 3.3.3-1 (ECCS) be replaced with the following:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Limiting Conditions For Operation/Action Statement may be delayed for up to 6 hours provided the associated function or the redundant function maintains ECCS initiation capability.

The Supply System requests that Notation (a) in Table 3.3.4.1-1 (ATWS-RPT) be replaced with the following:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Limiting Conditions For Operation/Action Statement may be delayed for up to 2 hours provided the associated function maintains ATWS-RPT trip capability.

The Supply System requests that Notation (a) in Table 3.3.4.2-1 (EOC-RPT) be replaced with the following:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Limiting Conditions For Operation/Action Statement may be delayed for up to 2 hours provided the associated function maintains EOC-RPT trip capability.

Although NUREG-1433 allows 6 hours for completion of this testing, the allowable surveillance time period in this note in Table 3.3.4.2-1 is being maintained at 2 hours, consistent with the current Technical Specification requirement. The Supply System will maintain the 2 hour requirement until the remaining portions of the EOC-RPT Technical Specification are modified consistent with the improved Standard Technical Specifications.

The Supply System requests that Notation (a) in Table 3.3.5-1 (RCIC) be replaced with the following:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Limiting Conditions For Operation/Action Statement may be delayed for up to 6 hours provided the associated function maintains RCIC initiation capability.



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The wording provided above modifies the instrumentation section notes such that it is clear that the Action Statement need not be entered, for a limited time period, during the performance of surveillance testing. The Action Statement will be entered at the point in time where surveillance testing demonstrates that the instrumentation is incapable of performing the specified function. This clarification will provide the time needed through entry into the Action Statement at the time the equipment is shown to be incapable of performing the specified function, to either restore an instrument to an operable status or to proceed with an orderly plant shutdown. This will eliminate unneeded plant power reductions or scrams.

With regard to the proposed elimination of the channel check requirements for the Reactor Vessel Steam Dome Pressure - High, this change is requested based on the physical configuration of the plant and the lack of significant information being gained through performance of this channel check. Pressure switches are used at WNP-2 to perform this RPS function. These switches are either in the "tripped" or "not tripped" condition, depending on the sensed pressure relative to the trip setpoint. This channel check requirement is currently satisfied by verifying that each of the pressure switches are "not tripped" as indicated by the associated annunciators not being in alarm. This channel check methodology provides a comparison of the "tripped" or "not tripped" status of the pressure switches, but does not provide indication of the overall condition of the pressure switch over and above that provided by the annunciators. This testing satisfies the Technical Specification definition of a channel check in that it provides a comparison of the status of the four pressure switches that serve this trip function.

The RPS trip on Reactor Steam Dome Pressure - High is a one out of two, taken twice logic. That is, one of the two trip channels in each of the two trip systems must trip to result in a reactor scram. A trip of one of the channels results in a trip of one trip system which is called a half scram. This condition is annunciated in the main control room and immediate investigation and corrective action is initiated. Thus, the verification of this status on a 12 hour periodicity to satisfy the channel check requirements of the Technical Specifications does not provide information that is not constantly available to the plant Operations staff through the absence of the annunciator. Performance of a channel check for the Reactor Steam Dome Pressure - High was not a requirement of NUREG-0123, Standard Technical Specifications For General Electric Boiling Water Reactors, Revision 2, but was added in Revision 3 dated Fall 1980. The WNP-2 Technical Specifications were developed using NUREG-0123 as a base. As discussed above, the WNP-2 design does not readily support the channel check requirement and is similar in design to those plants that were licensed based on Revision 2 of NUREG-0123.

In accordance with Technical Specification Surveillance Requirement 4.4.6.2, the reactor steam dome pressure is verified to be less than 1020 psig at least once per 12 hours. This verification is performed using the output of pressure transmitters. These pressure transmitters are not used for the RPS Reactor Steam Dome Pressure - High trip function.





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Other Boiling Water Reactor plants, particularly those of newer design, use a pressure transmitter and an analog trip unit to perform this RPS function. For these plants the analog pressure transmitter outputs can be compared to satisfy the channel check requirements. Performance of a channel check for plants of this design provides information about the instrument condition that would not be readily apparent to the Operators.

The Supply System has evaluated the proposed changes to the Instrumentation Section table notations per the requirements of 10 CFR 50.92 and determined they do not represent an unreviewed safety question or a significant hazard. The proposed modifications of the Instrumentation Section table notations are consistent with the intent of the NRC recommended wording in NUREG-1433. The Supply System has evaluated these proposed changes per the requirements of 10 CFR 50.92 and determined they do not represent an unreviewed safety question or a significant hazards consideration because they do not:

- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed revised notation clarifies the intent of the current wording. These notes provide allowance for performance of required surveillance testing. This allowance is consistent with the low probability of an accident during the short time period allowed and required to complete these tests. Because the notes require redundant instrumentation be operable to perform the intended function, the consequences of an accident are not affected. Hence, the probability or consequences of previously evaluated accidents are not significantly increased.
- 2) Create the possibility of a new or different kind of accident from any previously evaluated. The proposed notation requires that the capability of accomplishing the intended function be maintained by redundant instrumentation while surveillance testing is in progress. Therefore, a new or different kind of accident as a result of this change is not credible.
- 3) Involve a significant reduction in a margin of safety. The margin of safety associated with plant instrumentation is the difference between the actual instrument trip setpoint and the trip setpoint required for accident mitigation. Because this proposed change does not modify the instrument trip setpoints, and because the notation requires that redundant instrumentation remain operable, the margin of safety is not significantly reduced.

The Supply System has evaluated the proposed removal of the channel check requirement for the Reactor Vessel Steam Dome Pressure - High instrumentation per the requirements of 10 CFR 50.92 and determined it does not represent an unreviewed safety question or a significant hazard. This proposed change is made to reflect the physical characteristics of the plant instrumentation. The Supply System has evaluated this proposed change per the requirements of 10 CFR 50.92 and determined it does not represent an unreviewed safety question or a significant hazards consideration because it does not:

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- 1) Involve a significant increase in the probability or consequences of an accident previously evaluated. Removal of the channel check requirement for the Reactor Steam Dome Pressure - High does not increase the probability of a previously analyzed accident since the status of these pressure switches is continuously monitored in the main control room through annunciation. Other Technical Specification required testing of these instruments, along with annunciation, ensure the instruments are capable of performing their intended function for previously analyzed accidents. Hence, the probability or consequences of previously evaluated accidents are not impacted.
- 2) Create the possibility of a new or different kind of accident from any previously evaluated. The proposed removal of the channel check requirements for the Reactor Steam Dome Pressure - High does not involve a physical change to the plant, nor does it result in a change in the reliability of the equipment. Therefore, a new or different kind of accident as a result of this change is not credible.
- 3) Involve a significant reduction in a margin of safety. The margin of safety associated with these pressure switches is the difference between the actual instrument trip setpoint and the trip setpoint required for accident mitigation. The trip setpoints are verified through performance of channel functional testing and channel calibrations in accordance with the Technical Specification requirements. The status of the instruments is continuously monitored by the annunciation system. The margin of safety is not significantly reduced.

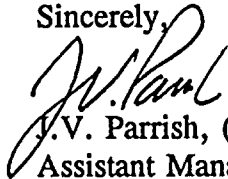
As discussed above, the Supply System considers that the proposed changes do not involve a significant hazards consideration, nor is there a potential for a change in the types or increase in the amount of any effluents that may be released offsite, nor do they involve an increase in individual or cumulative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

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This Technical Specification change has been reviewed and approved by the WNP-2 Plant Operations Committee 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.

Sincerely,



J.V. Parrish, (Mail Drop 1023)

Assistant Managing Director, Operations

DAS/bk

Attachments

cc: BH Faulkenberry - NRC RV  
NS Reynolds - Winston & Strawn  
W Bishop - EFSEC  
JW Clifford - NRR  
DL Williams - BPA  
NRC Site Inspector - 927N

STATE OF WASHINGTON )  
 )  
COUNTY OF BENTON )

Subject: Request for Amend to Clarify  
Instrumentation Testing Requirements

I, J. V. PARRISH, being duly sworn, subscribe to and say that I am the Assistant Managing Director, Operations for the WASHINGTON PUBLIC POWER SUPPLY SYSTEM, the applicant herein; that I have the 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 January 6, 1994

J. V. Parrish  
J. V. Parrish, Assistant Managing Director  
Operations

On this date personally appeared before me J. V. PARRISH, 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 6th day of January 1994.

Baird K. K.  
Notary Public in and for the  
STATE OF WASHINGTON

Residing at Kennelworth, WA

My Commission Expires 4/28/94

