



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 23, 1994

Docket No. 50-397

Mr. J. V. Parrish (Mail Drop 1023)
Assistant Managing Director, Operations
Washington Public Power Supply System
P.O. Box 968
Richland, Washington 99352-0968

Dear Mr. Parrish:

SUBJECT: COMMENTS REGARDING PROPOSED AMENDMENT TO TECHNICAL SPECIFICATION 3/4.3.3, "EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION," FOR DEGRADED VOLTAGE PROTECTION FOR WASHINGTON NUCLEAR PROJECT, UNIT NO. 2 (TAC NO. M84818)

By letter dated September 2, 1992, Washington Public Power Supply System (the Supply System) requested an amendment to technical specification (TS) 3/4.3.3, "Emergency Core Cooling System Actuation Instrumentation," for degraded voltage protection. After extensive discussions with the NRC staff, the Supply System submitted a modified request by letter dated October 6, 1993. The NRC staff has completed an initial screening of the modified request. We consider that the October 6, 1993, request contains insufficient information to conduct a review or to notice the request in the Federal Register, and are, therefore, returning the request. The staff has identified a number of concerns in the enclosure, along with examples. We request that you apply the concerns generically not only to this issue, should you decide to resubmit your request, but to other future submittals as well.

The concerns address both the safety analyses and the analyses conducted to address 10 CFR 50.92 (the Sholly analyses). As a general comment, both the safety and Sholly analyses docketed by the Supply System do not contain sufficient detail to allow the NRC staff to determine the adequacy of the requested change, or to process the initial Sholly Federal Register notice, without significant additional information. The Supply System staff has stated that its approach to documenting requests is to write to the level of a technical expert who fully understands the WNP-2 design. This approach results in leaving out many details from Supply System submittals as well as not documenting the justification for conclusions, and not including references to existing design and technical bases for many conclusions that support the Supply System's determination of acceptability of proposed changes. This requires the reviewers to either investigate design bases themselves, or to request additional information to identify the Supply System's intent. Submittals need to contain sufficient information to stand on their own merit. In addition, this approach does not present the Supply System's full knowledge of the proposed changes, leaving details unexplained.

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Mr. J. V. Parrish

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While not fully adopting the Improved Technical Specifications (ITS), the Supply System appears to have based a number of technical specification changes on the ITS. Therefore, it is crucial that in order to most effectively use the NRC technical resources available for these reviews and to keep the fee recoverable cost to the Supply System at a reasonable level, the Supply System submittals should fully describe and justify the changes and also provide the necessary references. In addition, if the Supply System intends to base its submittals on ITS, the Supply System needs to provide justification as to why the referenced version of the ITS is applicable to WNP-2.

We are closing the TAC that was opened for the September 2, 1992, submittal and will open a new TAC should the Supply System desire to pursue the September 2, 1992, amendment issue. Please contact us should you have any questions.

Sincerely,

Original Signed By:

James W. Clifford, Senior Project Manager
 Project Directorate V
 Division of Reactor Projects III/IV/V
 Office of Nuclear Reactor Regulation

Enclosure:
 As stated

cc w/enclosure:
 See next page

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Mr. J. V. Parrish

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 Project Directorate V
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NAME	DFoster-Curseen	JClifford	TQuay <i>TQE</i>
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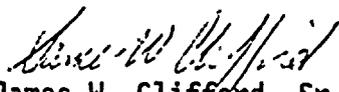
Mr. J. V. Parrish

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Sincerely,


James W. Clifford, Sr. Project Manager
Project Directorate V
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Office of Nuclear Reactor Regulation

Enclosure:
As stated

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See next page

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COMMENTS ON SUBMITTAL REGARDING
EMERGENCY CORE COOLING SYSTEM (ECCS) ACTUATION INSTRUMENTATION
DEGRADED VOLTAGE PROTECTION
WASHINGTON NUCLEAR PROJECT, UNIT NO. 2 (WNP-2)

The following comments are provided on the requested amendment to Technical Specification (TS) 3/4.3.3, "Emergency Core Cooling System Actuation Instrumentation," for degraded voltage protection. The amendment was requested in the Supply System's letter dated October 6, 1993. These comments need to be addressed in any subsequent submittal before the staff can process any related amendment request.

1. Page one, second paragraph: This paragraph states that the Supply System believes that the proposed change contains the same content as the Improved Technical Specifications (ITS) but retains the format of the current WNP-2 TS for consistency. This includes removal of information from the current TS that is not in the ITS. The Supply System did not specify what information was removed (other than one footnote), nor did the Supply System justify how the proposed TS modification conformed with the content of the ITS. The staff was unable to determine that the content of the proposed revision to the WNP-2 was the same as the ITS. For example, this paragraph states that the Loss of Voltage Allowable Values were modified and are now the same for all three divisions. The ITS, however, have different values for Divisions 1/2 and Division 3. No explanation is provided for how the proposal that uses the same values for all three divisions conforms to the content of the ITS that does not have the same values for all three divisions.

Another example is the ITS include separate values for LOCA and No LOCA Degraded Voltage Time Delay for Division 3, while the proposed WNP-2 amendment does not, with no explanation provided. A third example is that the ITS include a value for Time Delay for Undervoltage Loss of Voltage for all three divisions, while the proposed WNP-2 amendment does not, with no explanation provided. The Supply System needs to identify in its submittal all information that is different from the ITS, and document its justification for why the differences are acceptable, before the staff can conclude that the proposal conforms to the ITS for WNP-2.

2. Page two, first (partial) paragraph: This paragraph discusses removing information from the TS that is not part of the ITS, and stating that the information is in the WNP-2 FSAR and plant procedures. To ensure a complete docket, the submittal should discuss where in the FSAR and in which procedures the information is provided.

3. Page two, second, third, and fourth paragraphs: These paragraphs provide an explanation of how the degraded voltage and loss of voltage are intended to work to ensure core integrity is maintained. The discussion does not, however, provide any technical justification to support the specific values proposed. This justification should include a description of the new calculational methodology, including instrument drift and uncertainties, used to determine the new values. The description should be sufficiently detailed to justify the adequacy of the methodology, and prove that class 1E electrical equipment will operate as required to mitigate accidents FSAR-specified events. This should include the results of 10 CFR 50.46 calculations, if appropriate. Explanations of references, such as ISA RP 67.04, should also be provided, including sufficient information for independent NRC review if the reference has not been approved by the NRC staff for use in design analyses. A sample calculation would also be appropriate, to allow independent verification of the methodology used to determine the values.
4. Page two, fourth paragraph: This paragraph implies that the design calculations were modified solely to account for device uncertainties and drift. Were these factors not considered in the original calculations? Background information on why the values are being modified (e.g., in response to findings from an EDSFI) would aid in understanding the underlying problems that would assist the staff in its review of the submittal, in assignment of appropriate review priorities, and in ensuring a complete docket for tracking resolution of identified problems.
5. Page two, fourth paragraph: This paragraph references both NUREGs 1433 and 1434. The staff recognizes that no ITS specifically addresses the BWR-5 design, which makes it difficult for the staff to determine which aspect of which NUREG a BWR-5 utility considers applicable to its plant. The Supply System needs to be specific in its references to identify which of the proposed changes is based on which NUREG, and justify the applicability and acceptability of the reference for the specific attribute of the WNP-2 plant.
6. Page three, first paragraph: This paragraph states that placing an inoperable channel in trip would conservatively compensate for the inoperability. No explanation or justification is provided to explain why, or on what basis, this action is conservative for WNP-2.
7. Page three, first paragraph: The last sentence states that the referenced action statement (37) agrees with the intent of that imposed by the ITS, but no explanation is provided regarding what portion of the ITS the Supply System is referencing, nor is the basis for determining the intent of the ITS discussed.
8. Page three, second paragraph: The first two sentences provide a comparison of the proposed TS to the current TS, but provides some confusing information. The first sentence states that the revised action statement does not require declaring the associated DG inoperable



or impose the action required by TS 3.8.1.1 or 3.8.1.2 with one channel inoperable, yet the revised action statement would require entering the referenced TS if the channel were not placed in trip within one hour for some reason. This first sentence may then be an overstatement, or not fully consider the possible actions imposed by the revised action statement. As an additional comment, Action 37 should reference the specific TS for inoperability of the DG for ease of use and reducing potential confusion.

9. Page four, first full paragraph: This paragraph states that the changes in the table layout proposed for Table 3.3.3-2 are editorial and do not impact the technical requirements of the table. Our reading of the layout changes show that, for example, the allowable values for Division 3 Undervoltage Loss of Voltage are affected by this format change, since they are made the same as Divisions 1 and 2, without appropriate justification (see question 1 also).
10. Page four, first full paragraph: This paragraph discusses moving trip setpoints to controlled documents. The submittal should identify which controlled documents are to contain the information, for future cross referencing.
11. Page five, discussion of 10 CFR 92 criteria for Allowable Values, Section 1): The overall discussion relates to margin, rather than probability or consequences. It is not clear that any of the discussion relates to probability at all. The second sentence states that the revised calculation demonstrates that the original design is preserved, but does not provide a justification, and is an unsupported conclusion. This discussion needs to be modified to discuss probability and consequences, and conclusions need to be substantiated in the 50.92 discussion.
12. Page five, discussion of 10 CFR 92 criteria for Allowable Values, Section 2): It is not clear what meeting the original design requirements have to do with the possibility of a new or different kind of accident.
13. Page five, discussion of 10 CFR 50.92 criteria for Allowable Values, Section 3): This discussion does not provide sufficient information to determine the validity of the conclusion presented. The discussion needs to be expanded to explain what design requirements are being used for the evaluation, what the current margins are (including appropriate references), and the effects of the proposed changes on the design margins.
14. Page five, discussion of 10 CFR 50.92 criteria for allowed outage time, Section 1): The discussion that the probability of a previously evaluated accident not being 'significantly' affected because the action is conservative is confusing. The probability is certainly affected, and the effect may be significant. This part of the discussion does not



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address whether or not the effect increases or decreases the probability, although the final conclusion on the next page is for a reduced probability.

15. Page six, discussion of 10 CFR 50.92 criteria for allowed outage time, Section 2): The second sentence states that the only possible action that could occur over the time frame is an actual loss of power. This may be an overstatement, since any number of operator actions or spurious signals could occur over this time frame. The entire justification focuses on the likelihood of things happening, and is appropriate for probability discussions, not for evaluation of the likelihood of new or different kinds of accidents. This discussion needs to be redirected to address the possibility of new or different kind of accidents from those previously evaluated.
16. Page seven, discussion of 10 CFR 50.92 criteria for Action 37, Section 1): The second sentence makes what appears to be an inaccurate assumption, in that the revised action statement may, in fact, require entering an action for an inoperable DG with one LOP channel inoperable. The number of channels inoperable is not the criteria in the revised action statement that determines if entering the TS for inoperable DG is required although it could be one of the causes.

The third sentence states a conclusion (that the change in action does not inhibit the safety function required in the event of a LOP), that is not supported by the associated discussion.

In the third paragraph of this section, the second and third sentences try to make a case for an insignificant probability of occurrence of a LOP with concurrent alternate channel failure, but do not explain how this probability is affected by the change in action statement. These sentences would have the same validity (not supported by the associated discussion) regardless of whether or not the action statement is changed. It is not clear how these address a change in probability.

In the third paragraph of this section, the Supply System discusses the likelihood of repair work being completed in the allowed outage time of the current TS (96 hours) compared to the proposed TS (no time stated in the discussion). No justification is provided for the conclusion that repair work has a high probability of being successful within 96 hours, nor is justification or explanation provided for the duration or likelihood of successful repairs within the proposed time frame (no time stated in the discussion).

In the fourth paragraph, the last sentence states what appears to be an overall conclusion for the section that only addresses probability, not consequences. Overall, this section does not provide sufficient justification to reach conclusions regarding either probability or consequences.



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17. Page seven, discussion of 10 CFR 50.92 criteria for Action 37, Section 2): The first two sentences appear to contain conflicting information. The first sentence states that the instrumentation cannot initiate an accident, then the second sentence states that actuation (of what is not stated) would cause a LOP which is an analyzed event. This discussion needs to be clarified, and if instrumentation actuation is a potential cause of an event, the potential failure modes need to be discussed.
18. Page seven, discussion of 10 CFR 50.92 criteria for Action 37, Section 3): The second sentence discussing margin associated with placing the channel in trip in a short time frame is inconsistent with the other discussions, and with the purpose of this section which is to discuss not having to enter an action statement for an inoperable DG.

The second sentence also contains a conclusion that the margin of safety intended by the specification is preserved, but does not state what the intended margin of safety is, does not provide any reference to existing design basis documentation, and no basis is provided to support the conclusion. This section needs to be modified to address the correct issue, and any conclusions need to be fully explained and justified.

19. Page eight, discussion of 10 CFR 50.92 criteria for a 2-hour delay to allow surveillance testing, Section 1): It is not clear what the sixth sentence, regarding allowing performance of Surveillance Requirements required to assure OPERABILITY, has to do with an increase in the probability or consequences of an accident previously evaluated.

In the seventh sentence, the discussion is about the consequences of an event during surveillance testing. The change in allowable outage times would also affect the probability of an event previously evaluated during the allowed outage time for maintenance, but is not discussed.

20. Page eight, discussion of 10 CFR 50.92 criteria for a 2-hour delay to allow surveillance testing, Section 3): The second sentence states that the time allowed is acceptable. This addresses whether or not the change may be safe (which is part of the safety evaluation and not the 50.92 evaluation), but does not address any margin to safety.

The last sentence discusses that any reduction in a margin of safety will be insignificant because there is sufficient time to perform the surveillances in an orderly manner resulting in reduced potential for human error. It is not clear what this discussion, which appears to address the probability of events resulting from surveillances, has to do with margin of safety. This discussion needs to be revised to identify what margins of safety are of concern, and how the proposed change affects those margins.



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