WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352-0968 • (509) 372-5000

November 29, 1993
G02-93-275

Docket No. 50-397

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Gentlemen:

Subject: WNP-2, OPERATING LICENSE NO. NPF-21
NRC INSPECTION REPORT 93-23
RESPONSE TO NOTICE OF VIOLATION

The Washington Public Power Supply System hereby replies to the Notice of Violation contained in your letter dated October 29, 1993. Our reply, pursuant to the provisions of Section 2.201, Title 10, Code of Federal Regulations, consists of this letter and Appendix A (attached).

In Appendix A, the violation is addressed with an explanation of our position regarding validity, corrective action and date of full compliance.

In addition, the following is provided to clarify some statements in the inspection report in an attempt to avoid potential confusion.

Section 2.2.a Calculation Method

(1) Valve Factor Assumption (VF)

In discussing the valve factor assumption, the report mentions that the mean seat area of the valve was used in the calculation of valve factors. The Supply System has also used port diameter in the valve factor calculations. Reference was made to the mean seat area in Section 2.3.d, Design Basis Capability and in Attachment 1 of the inspection report.

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(3) Load Sensitive Behavior Assumption (LSB)

The following statement was included:

> "The licensee developed a criteria for their LSB margin which was the ratio of the stem factors for coefficient of friction (COFs) of 0.15 and 0.20. (Stem factor was a calculated parameter derived from the stem screw dimensions and an assumed COF.)"

This statement is not correct for LSB, but is applicable to Stem Lubrication Degradation (SLD) if "LSB" is replace by "SLD". This is the criterion for SLD margin.

Section 2.3.b Changes in Diagnostic Equipment

The report makes the following statements;

> "The licensee utilized the MOVATS torque Thrust cell (TTC) as the primary transducer.",
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> "The strain gages were calibrated in-situ." and
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> "TMD data continued to be used in cases where strain gage data was unavailable."

Regarding these statements:

- The Supply System utilizes various transducers which measure thrust (and torque) directly in conjunction with the MOVATS Data Acquisition Module.
- Yoke mounted strain gages are calibrated in-situ.
- The TMD testing methodology has not been used since R6 (1991).

Section 2.3.d Design-Basis Capability

On page 10, the inspectors noted:

> "The licensee indicated that neither published EPRI valve factor data nor plant specific test data for the 16 inch Velan valves was available."

However in the preceding paragraph, the inspectors discussed the differential pressure test results from R6 that indicated that both RHR-V-16A and 17A appeared to display high valve factors. These valves were not dynamically tested nor did the Supply System have test data. The information in this paragraph is incorrect.

Section 2.3.e Independent Review

This section mentions an "independent review of the diagnostic traces including a qualitative assessment of the trace characteristics...was not required by procedure" and that "the licensee had not identified any methods for resolution of potential conflicts" encountered in data review.

The Supply System has always required an independent review of our traces. We have recently re-emphasized expectations that this review include documentation of minor anomalies which may occur in the traces.

Conflicts will be resolved via normal administrative means. Minor conflicts may be documented and resolved in the valve test package. More significant issues will be addressed through the PER process.

Section 2.4 Periodic Verification

The report states the Supply System will perform periodic verification "every third refueling outage." The Supply System is planning to perform periodic verification every five years at this time. However, the Periodic Verification Program when fully developed will set test frequency.

Sincerely,

J. V. Parrish (Mail Drop 1023)
Assistant Managing Director, Operations

MGE/bk

Attachments

cc: BH Faulkenberry - NRC RV
NS Reynolds - Winston & Strawn
JW Clifford - NRR
DL Williams - BPA/399
NRC Site Inspector - 927N

Appendix A

During an NRC inspection conducted during the period of September 20-24, 1993, two violations of NRC requirements were identified. As one of the two violations was resolved during the associated inspection, only one of the two violations remians to be discussed in this NOV. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the remaining violation needing response is listed below:

B. 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," states, in part,

> Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings...and shall be accomplished in accordance with these instructions, procedures, or drawings.

Plant Procedure number 1.3.12, "Problem Evaluation Request" (PER), Paragraph 6.1, requires any person who observes an actual problem or perceives a potentially significant problem to initiate a PER. Paragraph 2.1.1. defines a "problem" as follows:

> A physical or performance characteristic of a system, component or part which does not conform to the requirements of design documents, applicable standards, procurement documents, or regulatory requirements for the item.

Contrary to the above, as of September 21, 1993, a PER was not initiated to identify that the torque switch setting of 22390 lb. thrust for motor operated valve RHR-V-16A did not meet the minimum thrust setpoint requirement of 39770 lb. As a result, the basis for the continued operability of the MOV with the torque switch setting less than the minimum requirement was not evaluated and documented.

This is a Severity Level IV violation (Supplement I).

Validity of Violation

The Supply System acknowledges the validity of the violation. The violation stated that a Problem Evaluation Request (PER) was not written when the engineering calculation procedure for motor operated valve (MOV) thrust calculations was revised to include a recommended setpoint calculation using a 0.5 valve factor and additional margin.

Due to WNP-2 test data and industry experience, MOV Program personnel determined that it would be prudent to increase the margin for MOV thrust settings. This was accomplished by increasing the specified percent of margin and by raising the valve factor used in the calculations.

Although a 0.5 valve factor was used for the recommended setpoint and the intention is to reset all MOVs to the higher recommended setpoint, the setpoint derived from a 0.3 valve factor was maintained as the design basis thrust requirement. The Setpoint Summary of the Manual Calculation for each MOV contains a note describing this methodology. It was this note that led the personnel involved to decide that, because the valves met the established design requirements, there was no condition that met the definition of a problem as described in PPM 1.3.12.

The PER procedure in effect during December of 1992, PPM 1.3.12 Revision 15, states:

> "A plant problem is identified as: 1) A physical or performance characteristic of a system, component or part which does not conform to the requirements of design documents, applicable standards, procurement documents, or regulatory commitment for that item, 2) Lack of required documentation to assure the item conforms to requirements, 3) An unauthorized deviation from approved procedures or instructions, or 4) A deficiency in the control system to meet QA program commitments or NRC regulatory criteria."

No PER was written when the new setpoint for RHR-V-16A was established because the previous setpoints were within the design basis, documentation was in place, procedures were followed and there was no deficiency in QA commitments or regulatory criteria.

During the NRC inspection, all MOVs set up to the old standards were reviewed against the new standards. Although some of the reviewed MOVs are set up lower than the new standards, no operability problems were identified.

In retrospect, as the new setpoints were calculated the personnel involved should have documented an operability assessment of the affected MOVs. The PER procedure is the process that required and would have documented this assessment. The root cause of the failure to perform and document an operability assessment was inadequate feedback in that plant and industry information was not recognized as a valid, immediate challenge to our design basis. Therefore, the risk and consequences associated with reliance on the old design parameters and methodology was not adequately assessed. Had the significance of the information been appreciated, it is the Supply System's firm belief that the PER process would have been invoked.

Corrective Steps Taken/Results Achieved

As indicated in the inspection report, an interim operability assessment of the valves with higher setpoints, due to the increased valve factor, was completed during the inspection. No operability issues were identified.

Corrective Action to be Taken

The MOV Program Plan and the Engineering Instructions for MOV calculations and evaluations will be revised to require that operability be documented in those situations where programmatic feedback or new industry information identifies a potential challenge to the ability of the equipment to perform under design basis conditions. This will be completed by January 15, 1994.

Date of Full Compliance

The Supply System was in full compliance when PER 293-1192 was written on September 28, 1993, to investigate these issues. Additionally, the interim operability of each valve was addressed during the time the inspectors were conducting the inspection, the week of September 20, 1993.

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SUBJECT: Responds to NRC 931029 ltr re violations noted in Insp Rept 50-397/93-23 on 930920-24.Corrective actions:MOV program plan & engineering instructions for MOV calculations & evaluations will be revised.

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