

**Washington Public Power Supply System**

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REGION V

Docket No. 50-397  
August 21, 1985

Mr. J. B. Martin, Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596

Subject: NUCLEAR PLANT NO. 2  
LICENSE NO. NPF-21  
NRC INSPECTION REPORT 85-17

The Washington Public Power Supply System hereby replies to the Notice of Violation contained in your letter dated July 22, 1985. Our reply pursuant to the provisions of Section 2.201, Title 10, Code of Federal Regulations, consists of this letter and Appendices A and B (attached).

In Appendix A, an explanation of our position regarding the validity of the violation, is provided. Appendix B includes an explanation of the conditions surrounding item 50-397-17-04 of the Surveillance Report.

Should you have any questions concerning our response, please do not hesitate to contact me.



G. C. Sorensen  
Manager, Regulatory Programs

GSC/mg  
Attachment

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Appendix A

During an NRC inspection conducted on May 6-10, 1985 violations of NRC requirements were identified. The violations involved compliance with ASME Code requirements for the testing of certain pumps and valves. In particular the issue of trending valve stroke times and the issue regarding summary listing of pump and valve testing status and corrective actions were raised. Each will be addressed separately. The following has been extracted from the Notice of Violation:

- A. Technical Specification 4.0.5.a states in part "Inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves shall be performed in accordance with Section XI of the ASME boiler and pressure vessel code and applicable addenda as required by 10 CFR50, Section 50.55a(g),...."
- 1. ASME Section XI, Subsection IWP-3417 corrective action states in part, "(a) if, for power operated valves, an increase in stroke time of 25% or more from the previous test for valves with full-stroke times greater than 10 sec., or 50% or more for valves with full-stroke times less than or equal to 10 sec. is observed, test frequency shall be increased to once each month until corrective action is taken, at which time the original test frequency shall be resumed. In any case, any abnormality or erratic action shall be reported."

Contrary to the above, at the time of the inspection, valve stroke test times were not compared against previous valve stroke test times. None of the licensee applicable procedures required that valve stroke times be evaluated, to determine whether changes in times had occurred from that previously found.

- 2. ASME Section XI states in part:
  - a. Subsection IWP-6210 Summary Listing, "A list of pumps shall be maintained to record the current status of the test program...."
  - b. Subsection IWP-6250 Record of Corrective Action, "The record shall include a summary of the corrections made, the subsequent inservice test, confirmation of operational adequacy (IWP-3111) and the signature of the individual responsible for corrective action and verification of results."
  - c. Subsection IWP-6210 Summary Listing, "A list of valves shall be maintained to record the current status of the test program."



Contrary to the above, at the time of the inspection, the licensee pump and valve inservice test program records did not provide a summary listing of pumps and valves to document the current status of testing. Also, the record did not include a summary of corrective actions taken with regard to pumps.

This is a severity Level V Violation (Supplement 1).

#### VALIDITY OF VIOLATION

Item A.1 The Supply System does not consider this violation valid. It is the Supply System's belief that the valve surveillance program currently being implemented fully complies with the intent of ASME Section XI requirements. The program was established to identify degradation of valve operability and simultaneously satisfy the requirements of ASME Section XI. As a result, valve stroke time acceptance criteria were established from actual stroke time data which had been evaluated and determined acceptable for each valve. This methodology results in a periodic comparison of actual versus required stroke times.

It is the Supply System's position that this process is an acceptable method of monitoring valve operability and potentially more conservative than one based on a literal interpretation of ASME requirements. Since the ASME code allows comparison with the "previous" test data, a literal interpretation would result in a continual updating of the acceptance criteria. This condition could effectively allow long term degradation of the component well beyond the one time limit (i.e. 25% or 50% increase) while still satisfying individual surveillance acceptance criteria. Thus, the method currently being implemented is considered to be preferable and does not violate the intent of ASME Section XI.

In order to clarify the Supply System's position regarding these surveillances, a relief request was submitted to the NRC in June 1985 as part of Revision 3 of the WNP-2 Pump and Valve Inservice Test Program Plan. The Supply System is currently awaiting reply from the Mechanical Engineering Branch of the NRC on this issue.

ITEM A.2 The Supply System does not consider this violation valid. The Supply System believes that it complies fully with all ASME requirements regarding Records of Inservice Tests. All required data and information is accessible in plant files. WNP-2's method of tracking surveillance status and representative corrective action files were demonstrated for the NRC Inspector, including both the current computer data base and hard copy files. Time constraints, unfortunately did not permit an in-depth explanation of the plant's files and tracking system. The following is offered to help clarify this matter.



The Supply System opted to integrate the ASME Pump and Valve Inservice Test Program with the overall Plant Technical Specification Surveillance Program. Frequently, ASME and other Technical Specification requirements are satisfied in a single surveillance procedure. Valve stroke timing is coordinated and is generally a prerequisite to pump operability tests. This is done to ensure as much as practical, testing components in a normal configuration. This approach allows for an integrated system test and reduces the number of times components must be operated for surveillance purposes. Integration of testing allows approximately 35 procedures to satisfy ASME requirements rather than a separate test for the almost 500 components in the Pump and Valve Program.

Surveillance procedures, which contain multiple components, are tracked for implementation, and the results filed by procedure number. It is administratively impractical to track by component number. The current status of pump and valve testing is directly correlated to the schedule for surveillance performance. Status of completed testing is contained in the Equipment History File. Surveillance procedure titles generally designate the system(s) or subsystem(s) addressed in the procedure, so it is a simple matter to associate a component with its surveillance.

The need for corrective action is documented on the surveillance procedure cover sheet with criteria violations tracked by an NCR. Corrective action is implemented via the Maintenance Work Request (MWR) process. All MWR's are filed by component number, including those generated by code testing. This provides a complete maintenance history for each component. A summary of component specific corrective MWR activities is available from the Equipment History File. Completion of the NCR will return the valve to an operable condition following the MWR activity or an engineering evaluation that may revise the criteria.





Appendix B

During the inspection conducted May 6-10, 1985 a concern was raised regarding stroke time data for hydraulic valves designated HY in the Reactor Recirculation System. This item, included as paragraph 4b of the inspection report was listed as an item of 'apparent violation' (50-397-17-04). The following has been extracted from the Inspection Report and is followed by a discussion of the concerns:

b. Valves

A small sample of completed valve test data sheets were examined for compliance with code and procedural requirements. Valves for which tests were reviewed included Hydraulic (HY) Valves, Main Steam Relief Valve (MSRV) Discharge Vacuum Breakers, Residual Heat Removal (RHR) Valves (Procedure 7.4.5.1.8) and Reactor Core Isolation Cooling (RCIC) Valves (Procedure 7.4.7.3.3). Other than the deficiencies already noted in paragraph 3 of this report only one discrepancy was noted. For the HY Valves stroke tested per procedure 7.4.0.5.12 no actual stroke times are recorded, only an indication that times were less than 15 seconds. This practice prevents trending of times and thus possible early identification of problems and is another example of failure to properly establish/implement code requirements and is an apparent violation of paragraph 4.0.5a of Technical Specifications WPPSS Nuclear Project No. 2, which was discussed in paragraph 3 (50-397-17-04).

Response

There are 16 HY Valves controlled by four Control Room console switches which provide isolation of the hydraulic lines in the Reactor Recirculation System. Since four valves are actuated by each switch, it is impractical to time all four valves. The procedure, in the past, has required that the slowest valve in a group be timed and data recorded (7.4.0.5.12.5 Step 1). The data was then required to be within the Technical Specification limit of 15 seconds.

The procedure has since been modified to include acceptance criteria on stroke time for the slowest valve. Although the 15 second Technical Specification limit for maximum stroke time is still being enforced, actual stroke time limits, which are normally more stringent than the Technical Specification limit, have been imposed. These limits are based on ASME Section XI code requirements for this valve type.



This methodology has been submitted to the NRC (June 1985) as a part of Revision 3 of the WNP-2 Pump and Valve Inservice Test Program Plan. The Supply System is currently awaiting reply from the Mechanical Engineering Branch of the NRC on this issue.

Regarding the NRC's concern with the trending of stroke times, it should be noted that stroke time trending is not a requirement of the code and thus, the lack of previous data trending for the HY Valves does not constitute a failure to implement code requirements.