



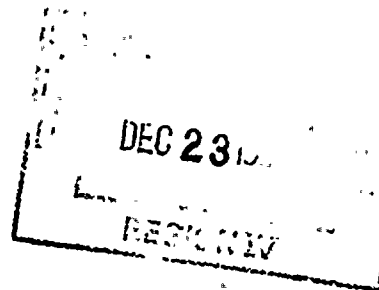
WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

December 16, 1994  
GO2-94-281

Docket No. 50-397

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



Gentlemen:

Subject: WNP-2, OPERATING LICENSE NPF-21  
NRC INSPECTION REPORT 94-28, RESPONSE TO NOTICE OF VIOLATION

Reference: Letter GI2-94-324, dated November 9, 1994, T.P. Gwynn (NRC) to J.V. Parrish (SS), "NRC Inspection Report 50-397/94-28 (Notice of Violation)"

The Washington Public Power Supply System hereby replies to the Notice of Violation. Our reply, pursuant to the provisions of Section 2.201, Title 10, Code of Federal Regulations, consists of this letter and Appendix A (attached). This letter is being submitted past the 30-day response period, in accordance with discussions between the Supply System and NRC staff on December 7, 1994.

Should you have any questions or desire additional information regarding this matter, please call me or D.A. Swank at (509)377-4563.

Sincerely,

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

CJF/ml  
Attachments

cc: LJ Callan - NRC RIV  
KE Perkins, Jr. - NRC RIV, Walnut Creek Field Office  
NS Reynolds - Winston & Strawn  
JW Clifford - NRC  
DL Williams - BPA/399  
NRC Sr. Resident Inspector - 927N

## Appendix A

### VIOLATION

"During an NRC inspection conducted on September 26 through October 7, 1994, a violation of NRC requirements, with two examples, was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violation is listed below:

- A. License Condition 2.C.14 requires that the licensee shall implement and maintain in effect all provisions of the approved fire protection program as described in Section 9.5.1 and Appendix F of the FSAR for the facility.

Appendix F to the FSAR Table F.3.1.C.8 states that fire protection systems are subject to applicable portions of the WNP-2 operating quality assurance program and that plant procedures require that conditions adverse to fire protection, such as failures, malfunctions, deficiencies, deviations, defective components, uncontrolled combustible material, and non-conformances are promptly identified and corrected.

Contrary to the above, conditions adverse to fire protection and deficiencies of the fire protection program were not promptly corrected as follows:

1. Deficiencies in the safe shutdown procedure and analysis for a control room fire were identified in Non-Conformance Report 292-1284, dated December 2, 1992. Comprehensive analysis for a control room fire and corrective actions were not initiated until May of 1994.
2. Fire barrier penetration seal installation and inspection deficiencies were identified by licensee personnel on September 1, 1993. Fire barrier penetration seals were not declared inoperable, compensatory measures were not initiated, and corrective actions were not initiated until February 15, 1994.

This is a Severity Level IV violation (Supplement I) (397/9428-01)."

### **Response to Violation**

The Supply System accepts this violation.

### **Reason For The Violation**

The violation was the result of inadequate initial assessment of the potential implications of specific fire protection issues.

### Example Number 1- Safe Shutdown Issues

A number of potential issues were identified in November 1992 regarding the adequacy of the procedures to be followed in shutting down the reactor in the event of a fire and regarding the analysis used to document the ability to safely shut down the reactor in event of a fire. Initial evaluation of the issues concluded that they were either organizational interface weaknesses or documentation problems in either analyses or plant procedures. A corrective action plan was formulated on December 2, 1992, involving seven distinct actions. Five of the actions, encompassing the organizational and procedural issues, were completed and closed between March 1993 and January 1994. The two other items, originally scheduled for resolution by September 1993, were combined in March 1993 and divided into 21 short-term and long-term closure items. That decision was made because the 21 issues were considered to be only documentation problems, since there was no evidence that any significant safe shutdown issues were involved. It was the expectation that the required analysis would be completed by September 1, 1993, to address the specific concerns. A management decision was subsequently made to defer resolution of the issues to focus resources on other higher priority matters. In the spring of 1994, a Quality Assurance (QA) audit re-assessed the 21 outstanding items and concluded that at least three could be significant in the event of a Control Room fire. Prompt action subsequently has been taken to resolve these 21 items, as detailed in NRC Inspection Report 94-28. The lack of timely action to resolve the items discussed in this example was due to the less than adequate initial evaluation of the potential significance of the items.

### Example 2 - Fire Barrier Penetration Seals

On September 1 and 2, 1993, an employee used the Supply System's employee concerns program to identify concerns about some aspects of the periodic inspection of fire barrier penetration seals. The initial concern was a question regarding adherence to the seal inspection procedure. At management's request, the employee clarified his concerns as being focused on (1) seals that were recessed from the surface of the barrier in which they were installed, (2) radial shrinkage of seals not being consistently documented or assessed, and (3) inadequate training of seal inspectors.

The employee concerns were evaluated and the employee was informed in mid-October 1993 that the Supply System's evaluation did not reveal any safety concerns or procedure non-compliances. The NRC subsequently conducted a special inspection (50-397/93-51) of the Supply System's employee concerns program on December 8-10, 1993. That inspection reviewed the handling of the employee's concerns and concluded they were not properly and/or completely resolved. Following the inspection, the Supply System committed to reevaluate the potential fire seal deficiencies.

The Supply System's reevaluation of the potential fire seal deficiencies began on December 15, 1993, to fulfill the commitment to the NRC. That evaluation led to the identification, on

December 28, of several seals which exhibited defects greater than the procedure acceptance criteria. That identification, in turn, led to the reinspection of a larger population of seals in an attempt to determine if the seal defect issue was a more widespread problem. That reinspection went far beyond the recess and shrinkage issues expressed by the employee and considered other aspects important to the qualification of the fire seals. The reinspection and a review of fire seal qualification documentation by a fire protection consultant resulted in identification of documentation and work practice problems regarding original installation, inspection, and repair. The scope of the reinspection and review was well beyond the limited employee concerns identified in September. A number of the seals were found to be either inoperable or questionable; however, they were observed to contain a substantial amount of seal material which would provide considerable resistance to fires. Although all seals observed to date have had a vast majority of the sealant present in the penetration, the results of the inspection and the conclusions of the fire protection consultant regarding the adequacy of the seal qualification documentation led the Supply System to conservatively declare all fire seals at WNP-2 inoperable on February 15, 1994. Concurrently, the seals in fire barriers protecting safe shutdown equipment were placed on hourly fire tours. As detailed in NRC Inspection Report 94-28, an aggressive program has been initiated by the Supply System to resolve both specific and programmatic deficiencies concerning fire barrier seals.

Individual fire seal deficiencies had been previously identified by the Problem Evaluation Request (PER) process. Those deficiencies were judged not to have a large overall significance. Likewise, the initial evaluation of the 1993 employee concerns concluded that the identified problems were not significant. However, the subsequent re-inspection and re-evaluation activity identified a broad range of weaknesses including many beyond those initially identified by the employee concerns program. The lack of timely action to resolve fire seal deficiencies was due to the less than adequate initial evaluation of the observed fire seal deficiencies.

Fire protection for WNP-2 relies upon a defense-in-depth philosophy. Although the ability of some of the seals to mitigate the spread of a fire may be degraded, these seals would have provided some control or delay in the spread of fire. Additionally, systems which provide detection and suppression remained operable and administrative controls for fire loading and combustible materials have remained in place. The extent of the problems with the seals has not yet been determined; however, compensatory actions described above have been taken to assure the early detection of fires. Prior to the implementation of the compensatory actions, the defense-in-depth provided by the fire protection system at WNP-2 would have limited the potential adverse consequences to the health and safety of the public.

#### **Immediate Corrective Action Taken and Results Achieved**

Aggressive efforts are underway to address deficiencies regarding penetration seals and safe shutdown issues as detailed in NRC Inspection Report 94-28. Compensatory measures are being taken and will be continued until these efforts are completed.

### **Corrective Action Taken To Avoid Further Violations**

The responsibility for fire protection program issues was centralized in one organization in the Spring of 1994 to provide a better focus for identification, evaluation, and resolution of fire protection issues such as fire barrier penetration seals, Thermo-Lag, and post-fire safe shutdown. Under the former organizational arrangement, the responsibility for fire protection was vested in more than one organization creating the potential for inconsistency, untimeliness, and/or incompleteness when evaluating fire protection issues. The responsibility for the fire penetration seal and Thermo-Lag surveillance and oversight now resides directly with the single centralized fire protection organization. Staff personnel have been hired and include qualified 'member grade' fire protection engineers with fire barrier and penetration seal experience. It is expected that these measures will effect progress to correct fire protection issues in the future.

The Supply System employee concerns program was significantly strengthened and is now administered by a dedicated staff. The thoroughness and propriety of steps taken in evaluating this specific employee concern were examined in detail. As a result of this examination and NRC Inspection 50-397/93-51, programmatic improvements to enhance the handling of employee concerns were embodied in a procedural revision released on April 4, 1994. Training was provided to management and supervisory personnel to emphasize the necessity of thoroughly evaluating and responding to employee concerns to assure identification of safety and quality issues on a timely basis.

The Problem Evaluation Request (PER) process was substantially strengthened to require a follow-up operability assessment in cases where the initial operability assessment was based on engineering judgement. This change is intended to require a formal re-examination of initial judgements, such as were made in the two examples cited in this violation.

These improvements are expected to enhance the timeliness of resolution of identified problems in all areas.

### **Date of Full Compliance**

The Supply System has been in full compliance since April of 1994 when the identified problems were recognized and compensatory actions were implemented.

