U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No.	50-397/93-32
Docket No.	50-397
License No.	NPF-21
Licensee:	Washington Public Power Supply System P.O. Box 968 Richland, Washington 99352
Facility Name:	Washington Nuclear Project No. 2 (WNP-2)
Inspection at:	WNP-2 Site near Richland, Washington
Inspection Conducted:	August 9-13, 1993
Inspector:	W. J. Wagner, Reactor Inspector
Approved by:	W. P. Ang, Chief Engineering Section

9-9-93
Date Signed

Inspection Summary:

Inspection during the period of August 9 - 13, 1993 (Report No. 50-397/93-32)

Areas Inspected: This routine announced inspection evaluated the adequacy of the licensee's fire protection/prevention program. Followup of Appendix "R" compliance concerns identified by NRR during a November 1991 visit was also performed. Inspection Procedures 64704 and 92701 were used as guidance for this inspection.

Results:

General Conclusions and Specific Findings:

Fire brigade performance during live fire practice sessions indicated preparedness and readiness to fight plant fires.

Safety Issues Management System (SIMS) Item:

None

Significant Safety Matters:

None

Summary of Violation or Deviations:

None.

Open Items Summary:

None.

DETAILS

1. Persons Contacted

Washington Public Power Supply System

*J. Benjamin, Quality Assessment Manager
K. Bleiler, Senior Fire Protection Training Specialist
R. Catlow, Fire Protection System Engineer
*D. Coleman, Regulatory Services Supervisor
J. Derryberry, Fire Protection Specialist
*C. Fies, Licensing Engineer
*J. Gearhart, Director, Quality Assurance
*D. Graham, Senior Fire Protection Specialist
*L. Harrold, Maintenance Division Manager
A. Hosler, Licensing Manager
*R. Koenigs, Design Engineering Manager
*D. Larson, Emergency Preparedness Manager
*K. Meehan, Emergency Planning Supervisor
*K. Newcomb, Fire Marshal
*S. Peck, Equipment Engineering Manager
*K. Pisarcik, Licensing Assistant
*J. Rhoads, Operating Events and Resolution Manager
*J. Sampson, Maintenance Division Manager
*G. Sorensen, Regulatory Programs Manager
*G. Smith, Operations Division Manager
*J. Swailes, Plant Manager
*D. Swank, Licensing Engineer
B. Van Erem, Procurement Engineering Supervisor
D. Walker, Manager, Health, Safety, and Fire Protection
*R. Webring, Technical Division Manager
*J. Wiles, Quality Assurance Engineer

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*R. Barr, Senior Resident Inspector

The inspector also held discussions with other licensee personnel during the course of the inspection.

*Denotes those attending the exit meeting on August 13, 1993.

2. Appendix "R" Compliance Concerns Identified By NRR During November 1991 Visit

During an NRR fact finding visit of WNP-2 Thermo-Lag fire barrier issues conducted on November 6 and 7, 1991, three concerns were identified. One concern involved Appendix "R" compliance and was resolved in NRC Inspection Report 50-397/93-11. The remaining two concerns were reviewed during this inspection and are discussed below.

a. Vendor Interface Program

Background

A fire barrier material vendor had informed the NRC of ampacity derating test results performed at the Underwriters Laboratories by means of a mailgram dated October 26, 1986. The vendor informed the licensee that the mailgram was sent to the licensee's purchasing organization. The NRR visit identified an apparent weakness in the licensee's vendor interface program in that the mailgram had apparently not been forwarded to the licensee's design engineering organization for evaluation and applicability to WNP-2.

Generic Letter 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events," required the licensee to establish a program to ensure that vendor information received is complete, current and controlled throughout the plant's operating life. Generic Letter 90-03, "Relaxation of Staff Position in Generic Letter 83-28, Item 2.2 Part 2 Vendor Interface for Safety-Related Components," provided guidance on what an adequate vendor interface program should include.

Inspector Review of Licensee Vendor Interface Program

The inspector reviewed the adequacy of the licensee's program for receiving and dealing with vendor supplied information. In addition, licensee staff awareness of their responsibilities for dissemination and processing of information received from vendors was assessed during discussions with the licensee.

Plant Procedures Manual (PPM) 1.6.3, Revision 11, "Vendors' Operating and Maintenance Manuals" provided the requirements for the licensee's vendor interface program. PPM 1.6.3 required that vendor manuals be received, reviewed, and distributed in a controlled manner. Section 5.1, "Vendor Interface Program," of PPM 1.6.3, contained provisions for annual contact with vendors of key safety-related components, as required by Generic Letter 90-03.

An example of annual vendor contact was reviewed by the inspector. The licensee sent a letter to Limitorque Corporation, dated September 29, 1992. This letter specifically asked if there had been developments or updates in recommended maintenance and operation practices which had been made in the time frame since their equipment was initially placed in service. The letter attached an "Annual Vendor Contact Reply Form" giving specifics about the equipment originally supplied. Limitorque's reply of October 21, 1992 informed the licensee that they were on distribution for periodic updates to maintenance publications and revisions to critical components.

PPM 1.6.3 also required the use of a "Manual Criteria Sheet" to confirm the completeness and technical adequacy of vendor supplied information. If the vendor information was other than a manual change, for example the vendor mailgram of October 26, 1986, then the vendor information was required to be reviewed by the Nuclear Safety Engineering (NSE) Department. After their initial review, NSE was required to discuss pertinent issues with affected departments, provide recommendations to the Plant Manager, and if practical, initiate changes to implement the recommended action. NSE also tracked actions or commitments generated by their review of vendor information.

Conclusion

The inspector concluded that the licensee's vendor interface program, implemented subsequent to Generic Letter 90-03, had adequate provisions for proper processing and tracking of vendor supplied information. Licensee personnel appeared knowledgeable in their responsibilities for dealing with vendor supplied information. The implementation of the licensee's vendor information program for Thermo-Lag material will be further reviewed in a future inspection.

The subject of the mailgram, ampacity derating test results, will be resolved by NRR as a result of the NRC Thermo-Lag action plan.

No violations or deviations of NRC requirements were identified.

b. Procurement Program

Background

Procurement Requirements Evaluations (PREs) were performed by the licensee's engineering staff to assure that design requirements were met in the procurement of materials. PRE 615, dated July 9, 1991, was inconsistent with its associated Purchase Order (PO) 218915 of July 9, 1991. Specifically, the PO included provisions for shelf-life requirements for Thermo-Lag material whereas the PRE did not address shelf-life requirements.

Inspector Review of Procurement Process

The inspectors' review of the procurement process revealed that the PRE process resulted in a list of standard procurement clauses. These clauses were then included in the associated PO and receipt inspection documents. The inspector reviewed one of the initial POs for Thermo-Lag, PO 085732, issued October 30, 1986. PO 085732 specified shelf-life requirements for Thermo-Lag material. PRE 615 Revision 0 was issued on March 3, 1987, four month after issuance of PO 085732, and did not include shelf-life until the issuance of Revision 3 on December 3, 1991. The inspector noted that the initial and subsequent purchase orders

specified shelf-life. The basis for the initial PO shelf life specification was not apparent. The inspector also reviewed Receipt Inspection Plan (RIP) 0239 generated as a result of PRE 615, Revision 3. The inspector found that RIP 0239 specified shelf-life and temperature limitations as characteristics to be inspected, and also provided adequate acceptance criteria.

The inspector reviewed three PREs of recent purchases of items dedicated for safety-related application. The purpose of this review was to verify evidence of consistency between the PRE requirements, the PO clauses, and the receipt inspection documents. PREs selected were numbers 4233 (8/12/92), 3656 (12/28/92) and 4234 (4/21/93). The inspector found that the procurement clauses and receipt inspection requirements specified on the PREs were appropriately included on the associated POs and RIPs.

Conclusion

The inspector concluded that the current procurement process was adequately assuring that specific attributes of the PREs were included in the purchase orders and receipt inspection documents. The licensee's evaluation of the adequacy of the shelf life of Thermo-Lag material purchased in accordance with PO 218915 without a corresponding PRE specified shelf life will be reviewed during a future inspection.

No violations or deviations of NRC requirements were identified.

3. Fire Protection/Prevention Program (64704)

a. Fire Brigade Readiness

The inspector observed practical training sessions that were in progress during this inspection. Training observed by the inspector included the proper methods for search and rescue in smoked filled confined spaces, hose and hose movements, ventilation, radiological controls, and a live fire exercise in the burn building. These training sessions were performed using personal fire protective equipment, self-contained breathing apparatus (SCBAs) and personal alarm safety system (PASS) devices.

The burn building drill scenario involved two fires in the building. The fire brigade was required to extinguish the first fire, in a safe and effective method, prior to proceeding to the second fire. The inspector's evaluation of this drill was that the fire brigade performed in a satisfactory manner under strenuous conditions representative of situations encountered in fire fighting. The inspector also observed that the pre-drill instructions provided valuable information on how to fight the particular fire scenario in a safe and efficient manner. The post-drill performance evaluation was helpful in providing the

post-drill performance evaluation was helpful in providing the fire brigade with an objective critique by pointing out weaknesses as well as strengths.

The inspector reviewed the fire brigade drill records and found that drills were conducted at the prescribed intervals, with participation by each fire brigade member.

The inspector concluded, based on the above observations, that the fire brigade was well prepared and ready to respond to similar fire situations encountered in the plant.

b. Plant Tour and Inspection of Plant Fire Protection Features

The inspector performed general area walkthrough inspections in the following plant areas: turbine generator building, diesel generator room D62, reactor building and the cable spreading room. Good housekeeping practices were observed in all areas, and hazardous chemicals and combustible materials were properly controlled. The inspector also verified that the following systems were operable in those areas: fire detection, hose stations, portable fire extinguishers, and the automatic fire suppression system.

During the inspection of the turbine building, the inspector observed that a directional water spray nozzle for the turbine bearing fire suppression system was not properly aimed at the main turbine generator bearing assembly. The licensee responded immediately to correct the nozzle misalignment. Further observations by the inspector revealed this to be an isolated case indicating that directional alignment of spray nozzles was not a programmatic concern.

The inspector observed a weekly operability test being performed to determine the operability of Diesel Fire Pump FP-P-110. This test was required by the National Fire Protection Association (NFPA) Codes standard NFPA 20, "Installation of Centrifugal Fire Pumps." The inspector observed that the equipment operator satisfactorily performed the operability test in accordance with the detailed instructions provided in Plant Procedures Manual (PPM) procedure number 15.1.4, "FP-P-110, Weekly, Operability Test."

The inspector questioned licensee personnel whether the carbon dioxide fire suppression system hoses were hydrostatically tested as specified by NFPA 12, "Carbon Dioxide Extinguishing Systems." Section 1-10.2.1 of the 1993 Edition of NFPA 12 required that all system hoses be tested every five years. The inspector was informed by the licensee that this test had not been performed. This carbon dioxide system was designed to automatically provide fire protection for the turbine generator exciter housing; the exciter housing was not classified as being safety-related. The

carbon dioxide system was designed to the 1973 Edition of NFPA 12 which, at that time, did not require the hoses to be tested. The licensee acknowledged that the current 1993 Code would provide a higher degree of fire protection assurance. Consequently, Maintenance Work Request AP4991 was initiated to hydrostatically test the carbon dioxide hoses.

c. Conclusion

The inspector concluded that the licensee's fire protection program was being adequately implemented in the areas addressed in this inspection report.

No violations or deviations of NRC requirements were identified.

4. Exit Meeting

The inspector met with the licensee management representatives noted in paragraph 1 on August 13, 1993. The scope of the inspection and the inspector's findings were discussed. Licensee representatives acknowledged the inspector's findings.

The licensee did not identify as proprietary any of the information provided to, or reviewed by, the inspector during this inspection.