

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-397/87-25
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, Benton County, Washington
Inspection conducted: August 24 - August 28, 1987

Inspector: C. W. Caldwell 9/14/87
C. W. Caldwell, Project Inspector Date Signed
Approved By: P. H. Johnson 9/15/87
P. H. Johnson, Chief, Date Signed
Reactor Projects Section 3

Inspection Summary:

Inspection on August 24 - August 28, 1987 (Report No. 50-397/87-25)

Areas Inspected: Routine project inspection in the areas of followup of inspector identified items, licensee actions on items of noncompliance, Part 21 program implementation, design changes and modifications, and followup of audit effectiveness. Inspection procedures 92701, 92702, 36100, 37700, 40702, and 30703 were covered.

Results: No violations or deviations were identified.

DETAILS

1. Persons Contacted

Licensee Personnel

- C. M. Powers, Plant Manager
- *J. W. Baker, Assistant Plant Manager
- D. S. Feldman, Plant Quality Assurance Manager
- A. G. Hosler, Nuclear Safety Assurance Group Manager
- K. D. Cowan, Plant Technical Manager
- S. L. McKay, Assistant Operations Manager
- M. C. Bartlett, Plant QA Supervisor
- R. L. Koenigs, Plant Technical Supervisor
- R. J. Barbee, Plant Engineering Supervisor
- *S. L. Washington, Lead Compliance Engineer
- *J. D. Arbuckle, Compliance Engineer
- J. M. Grazzani, NSAG Engineer

* Denotes those attending the final exit meeting on August 27, 1987.

The inspector also contacted licensee operators, engineers, technicians, and other personnel during the course of the inspection.

2. Licensee Actions On Previous NRC Inspection Findings

a. (Open) Followup Item (86-36-01) Organization and Administration

This item dealt with the inspector's comparison of the licensee's on-site organizational structure to that described in TS Section 6.2 and FSAR Section 13.1.2. The inspector found several discrepancies between the existing structure and that described in the TS and FSAR. In particular, no TS change had been made to reflect the addition of the Assistant Maintenance Manager, the FSAR did not provide the prerequisite education and experience for personnel filling the Assistant Maintenance Manager and the Assistant Operations Manager positions, nor were the job descriptions listed in the FSAR for these people as is done for other key plant positions. In addition, the inspector also found that the TS listed two Plant Engineering Supervisors while the FSAR listed only one. These discrepancies have not been corrected as of this inspection period since the licensee is in the process of determining what TS and FSAR documentation requirements are necessary for these plant personnel. This item will remain open pending further review.

b. (Open) Followup Item (85-11-05) Vendor Files

This item identified that inspection of vendor certified information files indicated that no licensee actions have been taken to assure that relevant information from vendors, concerning their components, (e.g. hardware changes) is incorporated into the respective file. Discussions with the licensee revealed that there were still actions



to be completed with regards to this concern. However, licensee management committed to a review of the Operating Experience Review files to determine what information needs to be sent to the vendor files. This action will be completed by November 20, 1987. This item will remain open.

c. (Open) Followup Item (87-11-01), Determination of Need for MOVATS Equipment to Be Under M&TE Program

This item identified that the equipment used for the Motor Operated Valve Analysis and Testing (MOVATS) program is not controlled under the Measuring and Test Equipment (M&TE) program. Discussions with licensee representatives revealed that they were still evaluating the need for this equipment to be under formal control. The inspector will review the licensee's evaluation at a later date. Therefore, this item will remain open.

d. (Closed) Part 21 Item (86-29-P), Air Operated Diaphragm Valves

The inspector reviewed the licensee's actions on a Part 21 report, 86-29-P, that discussed problems associated with ITT Air Operated Diaphragm Valves. This item was also identified to the licensee in IE Notice 87-02. This Part 21 concerned lack of seismic qualification of air operated valves in the range of less than 33 hertz. The licensee's investigation of the issue revealed that there are two ITT air operated valves in use at WNP-2. However, they are used in Quality Class II piping systems that were analyzed using static coefficients. The fact that the natural frequency of these valves is below 33Hz does not change the analysis. These valves were tested to 6.9g which gives added confidence that no damage would occur to these valves. The licensee also identified that there are 20 ITT valves used in safety related applications. However, none of these are air operated valves. Nineteen of these valves were qualified in their installed (skid mounted) configuration. The remaining valve is a rigid, manual valve whose qualification by analysis is not changed.

Within this area inspected, no violations or deviations were identified.

3. Licensee Actions on Items of Noncompliance

a. (Closed) Violation 86-22-01, Control of Flammable Liquids

This item identified several examples of licensee failure to control flammable liquids in safety related areas of the plant. As a result, the licensee corrected the identified discrepancies and revised PPM 1.3.35, "Fire Protection Program Controls" to include the assignment of area coordinators as specified in PPM 1.3.19, "Housekeeping." These area coordinators are tasked with patrolling their designated zone to look for housekeeping deficiencies such as uncontrolled flammable liquids. The inspector considers that the licensee's actions were appropriate but is also aware of similar discrepancies which have been found by licensee personnel and NRC inspectors subsequent to issue of this violation. This item is closed. However, control of flammable liquids will be closely monitored during future inspections.

b. (Closed) Violation 86-22-02, Control of Combustible Materials

This item dealt with numerous examples of licensee failure to control combustible materials in safety related areas of the plant. As a result, the licensee corrected the identified discrepancies and revised PPM 1.3.35, "Fire Protection Program Controls" to include the assignment of area coordinators as specified in PPM 1.3.19, "Housekeeping." These area coordinators are tasked with patrolling their designated zone to look for housekeeping deficiencies such as combustible materials. The inspector considers that the licensee's actions were appropriate but is also aware of similar discrepancies which have been found by licensee personnel and NRC inspectors subsequent to issue of this violation. This item is closed. However, control of combustible materials will be closely monitored during future inspections.

c. (Closed) Violation 86-22-03, Control of Fire Doors

This item identified several fire doors that were propped open without an impairment permit or suitable compensatory measures. As a result of this violation, the licensee corrected the identified discrepancies and revised PPM 1.3.35, "Fire Protection Program Controls" to include the assignment of area coordinators as specified in PPM 1.3.19, "Housekeeping." These area coordinators are tasked with patrolling their designated area to look for housekeeping deficiencies such as propped open fire doors. In addition, the licensee has strengthened their fire protection training program. The inspector considers that the licensee's actions are appropriate. Therefore, this item is closed.

Within this area inspected, no additional violations were identified.

4. Reviewed Part 21 Program Implementation

The inspector reviewed the licensee's program for handling 10 CFR Part 21 reports to determine if the implementing procedures and controls are adequate to ensure the reporting of defects and noncompliances as required by Part 21. In addition, the inspector also reviewed the licensee's Operating Experience Review Program procedures that are used for the evaluation of Part 21 applicability to WNP-2.

The inspector reviewed the following procedures:

- PPM 1.10.5, "NRC Required Bulletin Board Postings"
- PPM 1.10.4, "External Operating Experience Review"
- PPM 1.10.7, "Internal Operating Experience Review"
- PPM 1.10.8, "Assessment of Internal Events"
- PPM Temporary Procedure (TP) 1.10.9, "Interim External Operational Experience Review"

- PPM 1.6.4, "Operations and Plant Files Controls"
- PPM 1.6.6, "Operations and Plant Files Management"

The results of this review indicated that the licensee has implemented and maintained a program for ensuring the reporting of defects and noncompliances. The inspector found that procedural controls had been implemented to evaluate defects and noncompliances for reportability under the requirements of Part 21. The procedures required that a director or responsible officer be notified of deviations evaluated to be a defect or of failures to comply that relate to a substantial safety hazard. In addition, the procedure specified that the responsible officer for informing the NRC of these defects is the Assistant Managing Director for Operations. The inspector found that the procedures required that each procurement document for a basic component specify the provisions of Part 21 if applicable. A sampling of these documents indicated that the Part 21 clause was included when required.

The inspector checked postings in various areas and found that the required postings were made. The inspector reviewed the NCR log for 1987 and selected several NCRs to determine if the decisions for non P-21 applicability were correct. An example of the NCRs selected is the following:

- NCR 287-048 identified that the low pressure core spray room cooler assembly motor was rewound by a contractor and issued with a certificate of conformance. Later, the contractor notified the Supply System that the wrong type of tape material was used to tie the stator windings. Licensee investigations determined that it was the glue that was used on the back of the tape that was of the wrong specification. This glue is used only to hold the windings during the varnishing process and does not perform any function during operation. Since it was evaluated that the glue will not effect the operation of the motor, the licensee determined that this was not reportable.

The inspector considered that the licensee has continued an effective program for evaluating and reporting as required by 10 CFR Part 21. However, several discrepancies were noted. The inspector found that neither PPM 1.10.4 or TP 1.10.9 on External Operational Experience Review discussed the handling of Part 21s received from an external source. However, these were the driving documents for performing such reviews. It appeared that personnel were performing such reviews in accordance with these procedures but, it was not explicitly stated that these were the controlling procedures for such reviews. The inspector discussed this item with the Nuclear Safety Assurance Group (NSAG) and found that the QA manual and PPM 1.10.4 were in the process of being revised to specify the handling of Part 21s received from an external source. The inspector also noted that NCRs that were evaluated for P-21 applicability by the licensee did not always include a statement (of non-applicability) if it was determined that the NCR was not P-21 applicable. Therefore, it was not clear to the inspector that a potential Part 21 evaluation was performed. The licensee's actions on these items will be reviewed as part of a future inspection effort and is identified as inspector followup item (87-25-01).



Within this area inspected, no violations or deviations were identified.

5. Design, Design Changes, and Modifications

The inspector reviewed the temporary modification, jumper and lifted lead program at WNP-2. This effort interfaced with, but did not overlap the inspection effort performed by the Safety System Functional Inspection which reviewed the design change program, design changes in effect, permanent modifications, and jumpers and lifted leads in use. The inspector focused on the programmatic controls and implementation of temporary modifications. In particular, the inspector:

- Reviewed the implementation of procedural controls for periodic reviews, 10 CFR 50.59 evaluations, functional testing and conformance with Technical Specification requirements
- Reviewed the requirements for independent verification and functional testing of temporary modifications
- Reviewed jumper/lifted lead log
- Reviewed several design changes to determine if the change is planned for inclusion in the 50.59 annual report

The inspector found that PPM 1.3.9, "Control of Electrical and Mechanical Jumpers and Lifted Leads" is the controlling document for temporary modifications. This approved procedure established the method of controlling electrical/mechanical jumpers and lifted leads, and provided the requirement for evaluating the safety implications of these changes. The inspector noted that this procedure did not include the control of installed bypass switches, spool pieces or blank flanges that were a design part of the system that were changed for performance of surveillances, pipe caps and blank flanges provided to stop valve leakage, or leads that were lifted in performance of an approved procedure.

The inspector found strengths and weaknesses in the controls established in PPM 1.3.9. For example, strengths identified by the inspector were the use of a jumper/lifted lead log which was under shift manager control, the implementation of a special storage area for electrical jumpers, and the use of jumper/lifted lead identifying tags so that the shift manager can track the use of these jumpers. Weaknesses were identified in the control and implementation of the program. Examples of weaknesses identified in the area of program control are the following:

- A step in the procedure specified that independent verification or functional testing shall be made for the selected location and the physical installation or removal of jumpers and lifted leads on safety-related or fire protection systems. However, the procedure did not provide any criteria for performance of functional testing. Documentation of the temporary modifications that the inspector reviewed indicated that independent verification was used almost exclusively.

- The Shift Manager controlled the jumper/lifted lead log and equipment. In addition, plant technical had a copy of the jumper/lifted lead log. The inspector found that plant technical updated their copy of the log with the latest information and status of temporary modifications. However, the Shift Manager's log was not kept up-to-date with this information.

Weaknesses identified by the inspector with regards to implementation of the program are:

- Some of the jumper/lifted lead modifications had been outstanding for quite a while. For example, Jumpers 33, 34, 41, and 42 had been in place since March 20, 1984 due to an identified design problem. A plant modification request (PMR) was issued to implement a permanent modification. However, the modification had not been implemented as of this inspection period. Another example was the use of jumpers EJ 11 and 14 which were installed on September 27, 1985 for testing of the Service Building Chilled Water system. A problem was identified at that time and the jumpers were left in place. A PMR was prepared to implement a permanent modification for this system. However, it had not been implemented as of this inspection period. The inspector considered that the use of these jumpers for such a long period of time could hardly be considered temporary.
- The inspector found a control form for a mechanical jumper that did not have a 50.59 review. In the case reviewed, a 50.59 review was not required since the component was not Quality Class 1 or safety-related equipment. However, there was nothing in the documentation to indicate that the need for a 50.59 review was even considered (most jumper control sheets specify that a 50.59 review is not required).
- Lifted Lead tag (LL) #32 was issued to provide temporary power for work being performed in the circulating water pump house. The control form in the jumper/lifted lead log specified that this lifted lead must be removed by the end of the R-2 refueling outage. It had not been removed as of this inspection period.
- The procedure called for the Technical Manager to have the jumper/lifted lead log reviewed at least quarterly and reported by memorandum to the Plant Manager. This was still pending for the second quarter of 1987 as of the end of this inspection period.

The inspector considered that additional controls with regards to responsibilities and implementation were necessary to institute an effective temporary modification program. The inspector recognized that the QA organization had identified numerous discrepancies with regards to this program and that the licensee was in the process of revising the procedure to reflect enhancements recommended by INPO good practices. The inspector will review the implementation of the revised procedure as well as the weaknesses and deficiencies identified above to determine if a more effective program is placed in effect as a result of the changes. This item is identified as inspector followup item (87-25-02).

Within this area inspected, no violations or deviations were identified.



6. Followup of Audit Effectiveness

The inspector reviewed several QA surveillances to assess the timeliness of the plant responses and to determine if corrective actions have been effectively implemented. The inspector reviewed the following surveillances and noted the following discrepancies with regards to plant responses:

- 2-86-116, Control of jumpers and lifted leads. The response date to the identified deficiencies was October 23, 1986. However, the response was not received by QA until December 12, 1986.
- 2-86-150, Compliance with the FSAR. The response date to the identified deficiencies was March 27, 1987. However, the response was not received by QA until May 7, 1987. In addition, seven of eleven action items were still open.
- 2-86-104, Deficiencies in procedure reviews. The response date to the identified deficiencies was November 13, 1986. However, the response was not received by QA until January 9, 1987. In addition, action items are still outstanding.
- 2-87-314, Jumpers and lifted leads. The response date to the identified deficiencies was August 18, 1987. However, the response still had not been received by QA.
- 2-87-04, Master Equipment List. The response date to the identified discrepancies was August 4, 1987. However, the response still had not been received by QA.

Quality Assurance/Quality Control Instruction (PQA-03), "Plant Surveillance Activities" specified that plant responses to deficiencies should be returned to QA within 10 working days. The inspector realized that most responses to deficiencies were returned to QA within the required timeframe. These were examples, although a small percentage of the total responses, for which the guideline was not met. The procedure also required that a memorandum or NCR of unacceptable corrective action be prepared by QA, signed by the QA Manager, and sent to the next higher level of management responsible for action if the response was not received within the allotted time. However, even with these controls in place, some responses were not returned to QA in a timely manner. The inspector understood that there could be extenuating circumstances for some of these which did not allow timely response or implementation of corrective action. PQA-03 details the requirements for requesting and granting extensions if dates cannot be met.

Region V considers that these examples of non-timely response to QA identified discrepancies may be indicative of a lack of sensitivity or commitment by various organizations within the Supply System to the QA effort. This concern has been discussed with the Supply System management during recent meetings with the Regional Administrator. The licensee's evaluations and/or corrective actions on this concern will be reviewed along with the technical content of response to QA surveillances as part of a future inspection effort and is identified as followup item (87-25-03).

Within this area inspected, no violations or deviations were identified.

7. Exit Meeting

On August 28, 1987, an exit meeting was held with the licensee representatives identified in paragraph 1. The inspector summarized the inspection scope and findings as described in this report.