U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-397/80-17

Docket No. 50-397/80-17 License No. CPPR-93 Safeguards Group

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: October 7-10, 1980

Inspectors: D. P. Haist, Reactor Inspector — 10/29/80 Date Signed

W. J. Wagner, Reactor Inspector — 10/29/80 Date Signed

A. J. D'Angelo, Reactor Inspector — 10/29/80 Date Signed

Approved By: R. C. Haynes, Chief, Projects Section — 10/29/80 Date Signed
Reactor Construction and Engineering Support Branch

Summary:

Inspection during the period of October 7-10, 1980 (Report No. 50-397/80-17)

Areas Inspected: Routine, unannounced inspection by regional based inspectors of construction activities including licensee action in response to 10 CFR 50.54(f) request; licensee actions on 50.55(e) reportable deficiency; investigation of allegations of concrete voids; maintenance of installed equipment; and licensee action on previous inspection findings. The inspection involved 70 inspector-hours onsite by three NRC inspectors.

Results: Of the areas inspected, no items of noncompliance or deviations were identified.

RV Form 219 (2)

DETAILS

1. Persons Contacted

a. Washington Public Power Supply System (WPPSS)

*W. C. Bibb, Project Manager
*R. G. Matlock, Managing Director's Office
*B. A. Holmberg, Change Manager
*T. A. Gross, Task Force II Coordinator
*D. C. Timmins, Contract 215, Engineering Director
*J. P. Thorpe, Quality Assurance Engineer
*A. M. Sastry, Deputy Project Manager, System Turnover
*R. M. Foley, Deputy Project Manager, Engineering
*G. I. Wells, Deputy Project Manager, Construction
*R. J. Johnson, Project Quality Assurance Manager
*P. I. Verrios, Manager, Vendor Surveillance/Audits
*M. E. Witherspoon, Division Quality Assurance Manager
*R. M. Tanner, Contract 215, Quality Control Director
C. R. Edwards, Principal Quality Assurance Engineer
E. Carlson, Equipment Maintenance Coordinator

b. Burns and Roe, Inc. (B&R)

*M. J. Parise, Special Projects Manager
*H. R. Tuthill, Assistant Quality Assurance Manager
R. D. Carmichael, Lead Surveillance Engineer
L. F. Akers, Senior Welding Engineer Supervisor
F. Weingard, Lead Nuclear/Mechanical Engineer
B. Murphy, Hanger Engineering Supervisor
J. Mahoney, Senior Supervisor - Mechanical Engineering
R. Breland, Surveillance Engineer

c. WSH/Boecon/GERI (WBG)

T. B. Page, Quality Assurance Manager
P. Webster, Quality Engineering Documentation Supervisor
J. Robanske, Maintenance Engineer

* Denotes attendance at the NRC management meeting on October 10, 1980. In addition, Mr. A. D. Toth, the NRC Senior Resident Inspector, attended the meeting.

2. Plant Tour

Upon arrival at the site, the inspectors conducted a tour to observe completed work and the general state of housekeeping and equipment maintenance. No deviations or items of noncompliance were identified.

3. Licensee Response to 10 CFR 50.54(f) Request

a. (Open) Followup Item (50-397/80-14/02) - Task I Activities - Expedite Resolution of Outstanding Concerns and Problems - Nonconformance Reports

The inspector examined Project Management Instruction PMI 4-4, Revision 4, Contractor Control of Nonconformances. The instruction was revised to establish performance standards and to require the construction quality organization to monitor work activities to ensure incorporation of dispositioned NCR's. The Construction Management Instruction CMI-4 has been revised to reflect these responsibilities. The inspector reviewed the contract 215 procedure No. QA-5 for control of nonconformances and found that the procedure references the reader back to the 215 contract specification for conditions when the engineers nonconformance report form is to be used. The licensee stated that the applicable specification section will be appended to the contractors procedure.

The licensee is presently expanding the deficiency coding assigned to nonconformance reports to make trending more meaningful. The numbers and types of deficiencies will be related to productivity to determine trends and generic problems. Trending of nonconformance reports will begin after the new deficiency codes have been assigned to open nonconformance reports. The inspector had no further questions at this time.

b. (Open) Followup Item (50-397/80-10/05) - Task II - Phase 1 Activities Leading to Restart of Safety Related Work. Task Force II Personnel Qualifications

The inspector reviewed procedure No. RCSW-08, Rev. 0, "Qualification and Certification of QA Personnel for RCSW Task Force" against the requirements of Regulatory Guide 1.58, September 1980 and ANSI N.45.2.6-1978. The procedure appears to equal or exceed the requirements of ANSI N.45.2.6-1978. The procedure is not in accordance with Regulatory Guide 1.58-September 1980, paragraphs C.5, requiring Level III personnel capability of reviewing and approving inspection, examination, and testing procedures and of evaluating the adequacy of such procedures to accomplish the inspection, examinations, and test objectives; C.6 requiring candidates for Level I, II and III to be a high school graduate or to have earned the General Education Development equivalent of a high school diploma; and C.10, requiring documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. The licensee's position with regard to compliance to Regulatory Guide 1.58, September 1980 and ANSI-N45.2.6-1978 has not yet been determined.

The inspectors examined the personnel qualification records of fifteen of the 41 task force members including all contract 215 team members. All personnel appeared to be qualified in accordance with ANSI N45.2.6-1978. Five of the fifteen persons reviewed have worked for other contractors on site or for the architect-engineer. The inspector expressed concern about the objectivity of persons who may be assigned to review the work of their former employer, or their own work. The task force coordinator stated that he has detected no loss of objectivity. It appears that with the exception of one person, team members are not being assigned to the task force team examining their former employer. The inspector also expressed concern that no effort is being made to verify the accuracy of resume statements. The task force coordinator did not consider this a problem, stating that he personally knows the task force members and their qualifications or they have been referred to him. This situation could change however, if additional task force members are hired. The subject of personnel qualifications will be examined during subsequent inspections. (50-397/80-17/01)

4. Licensee Action on 10 CFR 50.55(e) Reportable Deficiencies - Power Piping Company - Poor Weldments

The existence of poor weldments in Power Piping Company Beam Attachment HS-42 was reported by the licensee on August 20, 1980. The HS-142 sway brace brackets were supplied with undersized fillet welds with respect to the minimum requirements of ASME Section III, Division 1. In addition, examination of these weldments revealed incomplete fusion at the toe and legs of the fillet welds.

Stress analysis performed by the licensee have determined that a design deficiency exists for these brackets when loads are applied at an angle greater than 15° off the perpendicular. The calculations were made using ASME allowable stress values.

The inspector discussed the proposed corrective actions with licensee personnel. A test program has been drafted and is going through the review and approval cycle. The testing is designed to evaluate the effect of the poor weldments on the structural integrity of the sway brace brackets. That is, how the weld discontinuities affect the load requirements under worst case conditions.

The inspector expressed concern over the adequacy of the testing program to address the following areas:

(a) The effect of the undersized fillet welds and possible low heat input on the heat affected zone of the base metal. This would involve a metallographic analysis to determine the microhardness across the heat affected zone and to determine the presence of underbead cracking or martensitic structure in the heat affected zone. The information required for this analysis, which was unavailable at the site, includes the welding processes used, the type and size of electrode, bracket materials and preheat and interpass temperature controls.

(b) The extent of lack of fusion and its uniformity throughout the selected samples.

(c) The extent that this problem affects other sway strut members such as the strut barrel to socket weld, sway strut to clamp weldment, and turn buckle welds.

The licensee acknowledged these concerns. Actions taken to resolve this deficiency will be examined during a subsequent inspection.

5. Licensee Action on Previous Inspecting Findings

(Closed) Followup Item (50-397/80-14/01): Calibration of Welding Equipment for Sacrificial Shield Wall Repair.

Procedures for calibration of welding equipment is addressed in WBG Work Procedure No. 170, Rev. 1. This work procedure received licensee approval on October 10, 1980. This procedure contains provisions to assure that electrical characteristics (amps, volts), and travel speed are as specified in the weld procedure specification and procedure qualification records. The inspector had no further questions on this matter.

6. Maintenance of Installed Equipment

The inspected examined the WBG maintenance system for safety related mechanical equipment. Maintenance system consists of PMS card (issued at intervals as specified in maintenance manual for each equipment) which instructs the craft to perform required maintenance on specific equipment and a PM log which is the official record of maintenance performed on equipment.

PMS cards for RCIC pump, tag number RCIC-P-1, from 3/24/80 thru 7/28/80 were not in agreement with the maintenance manual for the pump. GE maintenance manual D50.3, Rev. 3 calls for the pump shaft to be rotated 10 times per month and oil changed each six month period. PMS card for the above dates had called for pump shaft to be rotated 1½ times per month and oil changed each month.

PM list was found to have problems with missing maintenance entry. HPCS pump, tag number HPCS-P-1, was shown on the PM list to have had no maintenance performed for the month of May, 1980. This was incorrect since a PMS card was found for the month of May, card was dated 5/21/80.

WBG did have a maintenance engineer looking into their PM log and PMS card system for these types of problems at the time this inspection was conducted.

A follow-up inspection will be done in this area after WBG has completed upgrade of their maintenance system. (50-397/80-17/02)

7. Allegations of Concrete Voids in Turbine Building Mezzanine Area

An allegation had been raised of concrete voids in the turbine building walls and floor at the mezzanine level.

Inspection was made of the turbine building south wall in the vicinity of main steam pipe whip support Nos. PWS-315-5, PWS-315-6, PWS-315-7 and PWS-315-8. No surface voids were found during the inspection. The inspector will attempt to obtain the exact location of voids in the T-G building from the alleger. Follow-up irspection will be conducted if this information is obtained.

8. Management Interview

At the conclusion of the inspection a meeting was held with licensee representatives denoted in Paragraph 1. The areas inspected and the observations and findings of the inspectors were stated.