

U.S. NUCLEAR REGULATORY COMMISSION

Report No. 50-397/82-17

Docket No. 50-397 Licensee 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: July 26-30, August 9-13, and August 30 to September 3, 1982

Inspectors: J. O. Elin 9/30/82
 J. O. Elin, Reactor Inspector Date Signed

Anthony D'Angelo 9/30/82
 A. J. D'Angelo, Reactor Inspector Date Signed

R. T. Dodds 9/30/82
 R. T. Dodds, Chief, Reactor Projects Section I Date Signed

Approved by: R. T. Dodds 9/30/82
 R. T. Dodds, Chief, Reactor Projects Section I Date Signed

Summary: Reactor Projects Branch No. 1

Inspection during the period of July, August and September, 1982 (Report No. 50-397/82-17)

Areas Inspected: Routine, unannounced inspection by regional based inspector of activities associated with electrical installation safety-related piping, NRC enforcement and follow-up items, and employee concerns. The inspection involved 152 inspector-hours onsite and 30 inspector-hours in the regional office by two NRC inspectors and one NRC section chief.

Results: The inspection of safety-related piping and the review of employee concerns did not disclose any items of noncompliance or deviations.

The results of the review of electrical installation practices will be covered in a separate inspection report (50-397/82-21).

DETAILS

1. Persons Contacted

a. Washington Public Power Supply System (WPPSS)

- + R. G. Matlock, Program Director, WNP-2
- *+ C. S. Carlisle, Deputy Program Director, WNP-2
- *+ R. T. Johnson, Manager, Quality Assurance
- **x P. L. Powell, Licensing Engineer, WNP-2
- * R. L. Knawa, Manager, Quality Verification Program
- *+ C. L. Dickenson, Construction Quality Engineer
- **x B. A. Holmberg, Project Manager, Engineering, WNP-2
- +x R. B. Glasscock, Director, Quality Assurance, WPPSS
- +x L. C. Floyd, Senior Quality Assurance Engineer
- x K. DuBois, Quality Assurance Secretary
- +x W. P. Gilles, Project Engineering
- + W. A. Crisp, Project Construction Manager
- + T. Meade, Electrical Engineer, Operations
- x B. Twitty, Project Construction Management

b. Burns and Roe, Inc. (BRI)

- * J. A. Forrest, Project Director, WNP-2
- *+ R. Schlosser, Project Engineer
- **x H. Tuthill, Site Quality Assurance Supervisor
- * R. P. Sabol, Engineering Quality Assurance
- **x A. T. Luksic, Licensing Engineer
- +x J. J. Mallanda, Assistant Chief Electrical Engineer
- +x M. L. Bursztein, Project Engineer
- x A. N. Kugler, Richland Engineering Manager
- +x G. W. Brastad, Project Engineer
- x J. Frier, Woodbury Engineering
- x J. M. Blas, Woodbury Quality Assurance
- A. Bagacious, Design and Drafting Manager
- D. McCormick, Corporate Quality Assurance
- D. Daboll, Licensing Engineer
- M. Klynn, Project Administration

c. Bechtel Power Corporation (BPC)

- * T. A. Mangelsdorf, Project Manager
- * H. Boarder, Quality Assurance Engineer
- *+ D. Cosgrove, Quality Assurance Engineer
- **x J. B. Gatewood, Project Quality Assurance Engineer
- *+ D. R. Johnson, Manager of Quality
- * D. W. Hell, Engineering Management

- + F. V. Glascock, Staff, Lead Electrical Engineer
- + S. Johnson, Engineering Management, Licensing
- x T. L. Thakur, Engineering Management
- R. Henke, Reactor Building Superintendent
- V. E. Mateson, Quality Engineer Supervisor, NDE

d. Brand Examination Services and Testing Co. (BESTCO)

- L. Morris, Site Manager
- D. Richey, Day Shift Foreman
- J. Baldwin, Swing Shift Foreman

e. Fischbach/Lord Inc. (F/L)

- T. Roserli, Quality Control Field Supervisor
- K. Pendersrass, Quality Assurance Manager
- R. Goldberg, Assistant Project Engineer
- F. Turner, Project Engineer

Personnel contacted also included various quality control and craft personnel of these organizations.

*Denotes attendance at exit meeting on July 30, 1982.

+Denotes attendance at exit meeting on August 13, 1982.

xDenotes attendance at exit meeting on September 3, 1982.

2. Safety Related Piping Welding

a. Observation of Work and Work Activities

The inspector examined two weld repairs that were in-process in ASME Class 2/3 safety-related piping systems. Attributes examined included existing weld quality, excavation being performed to remove indication, alignment, identification of field weld for radiographers, and documentation in work package issued to the welder/pipefitter. Field weld repairs were examined against the requirements of the ASME B&PV Code Section III, Subsections NC and ND. Weld repairs examined were:

<u>Drawing</u>	<u>Weld Number</u>
RCIC-660-5	FWB
RHR-867-13.15	1 (FW1R2)

No items of noncompliance or deviations were identified.

b. Review of Quality Records

The inspector examined the Quality Control Inspection Records (QCIR) against the requirements of the ASME Code Section III. Attributes examined included weld identification on quality records contained within the work package, weld filler material control records, and weld inspection records.

No items of noncompliance or deviation were identified.

3. Licensee Action on Previous Enforcement and Inspection Items

a. (Closed) Enforcement Item 50-397/82-03/01: Document Control Log Deficiencies

This enforcement item had been discussed in IE Inspection Report No. 50-397/82-06 and identified continuing backlog of drawings remaining on the Drawing Control Log (DCL) which were out of compliance with the DCL Procedure No. WNP-2-018. The problem being that the procedure requires drawings to be updated when five Project Engineering Directives (PED) are posted against one drawing or one PED posted against one drawing for more than three months.

Currently, the Specification Control Log (SCL) and the DCL are in compliance with the applicable procedures. The procedures now contain a provision to place a PED into "Hold Status" on the log. This will allow Burns and Roe (BRI) to exceed the time limit or PED limit of the procedure when additional information is needed to complete the PED, but the information is obtained from outside BRI and they have no control over the time needed to obtain the information.

BRI has also instituted a program where input made to the log is checked to insure that the log reflects the true current status of drawings and specifications. This item is considered closed.

b. (Closed) Unresolved Item 50-397/82-02/01: Isometric Drawing Control Log Deficiencies

The Senior Resident Inspector had addressed in IE Inspection Report No. 50-397/82-02 problems with the Isometric Drawing Control Log (IDCL) which are very similar in nature to problems identified in Enforcement Item No. 50-397/81-03/01, previously discussed in this report.

Drawing Interim Revisions (DIR) is the vehicle used by Burns and Roe (BRI) to affect a change to the piping fabrication isometric drawing. The DIR would then be equivalent to a Project Engineering Directive (PED) as used in the DCL for control of design drawing revisions. The deficiency identified by the inspector and also by Bechtel was that approximately 24 piping fabrication isometrics had more than three DIRs outstanding or one DIR outstanding more than three months.

In the inspector's opinion, Procedure Site Engineering Instruction (SEI) No. 3-4, "Maintenance of Piping Isometric Drawings," is weak in that it does not require a check of input made to the IDCL. The inspector had identified where approximately five of the 24 piping fabrication isometrics drawings mentioned above where DIRs were incorporated into the drawing but never removed from the IDCL. Also the procedure does not contain a "hold" provision similar to the "hold" incorporated into the DCL procedure as discussed in Enforcement Item No. 50-397/81-03/01.

The licensee had taken prompt action to update the procedure and insure the IDCL is brought into compliance with the procedure. The inspector verified the changes to Procedure No. SEI 3-4 and licensee action on updating the IDCL which was scheduled for completion by September 10, 1982.

This item is considered closed.

c. (Closed) Unresolved Item 50-397/82-02/02: Control of the Design Drawing Process

This unresolved item had been discussed in IE Inspection Report No. 50-397/82-02 where the inspector had identified differences in the pipe support location between the Burns and Roe hanger isometric drawing and the piping fabrication isometric drawing.

The difference is due to the fact that Burns and Roe is not updating the location plan shown on the hanger isometric drawing. The hanger isometric drawing is the detail drawing showing the necessary information needed for the fabrication of the hanger. The location plan is a small area, approximately 2 in. by 2 in., on the hanger isometric drawing showing the location of hanger relative to the piping which the hanger is supporting.

This location information is also shown on the piping fabrication isometric, which is the drawing Burns and Roe has elected to use. Therefore, Burns and Roe is no longer updating the location plan on the hanger isometric drawing and, in addition, Burns and Roe is placing a drawing note on the hanger isometric which indicates that the location plan is for information only. Burns and Roe

is currently in the process of reviewing all piping fabrication isometrics which show pipe support locations to insure that locations showing are correct and this effort will be complete by December 1, 1982.

The inspector considers this item to be closed.

4. Employee Concerns

The following concerns were expressed to the inspector by site personnel and are documented below along with the inspector's findings:

- a. Concern: The results of liquid penetrant (PT) and magnetic particle (MT) examinations are not being documented in accordance with procedure.

Finding: The inspector observed the performance and reviewed documentation of PT and MT examinations. The only deviation identified from the applicable procedures (PT-169A, MT-195A) related to the documentation of examination results.

When NDE is required, the requesting contractor, in this case Contractor 215, transmits a "Request for NDE" to the NDE contractor BESTCO. However, the 215-Contractor had instructed BESTCO that PT and MT examination reports, as shown in Appendix A of the applicable procedure, were not to be prepared until requested by the 215-Contractor. The results of the examination during the interim may be documented on the "Request for NDE." The interim step, however, is not documented by procedure and is what caused the employee concern. The inspector determined by personnel interview that should a BESTCO NDE examiner not document results of an NDE examination on a "Request for NDE" and not have his personal notes available to him, the examiner was allowed to reexamine the weld and then document his findings on the examination report when the examination report is requested by the 215-Contractor.

The BESTCO examination report when complete is sent to 215-Contractor and placed with the Quality Control Inspection Record (QCIR) for the weld being worked. The QCIR does require that an acceptable NDE examination report be contained within the QCIR package before the QCIR receives final sign-off by the Lead Quality Control Inspector. This final step would then insure that all welds requiring NDE would contain an acceptable NDE report.

The inspector also determined, by questioning of the 215-Contractor's NDE Supervisor, the explanation for delaying the generation of the NDE examination report. The position of 215-Contractor is that the weld is in process until the QCIR has undergone final sign-off. Therefore, when a welder completes his final pass on

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the weld, the Quality Control Inspector requests NDE, if required. If any indications which are unacceptable are found, the weld may be ground to remove the indication and the weld would still be considered in-process with no repair attempts and no documentation showing the grinding. When grinding is complete, the 215-Contractor would then request another NDE and, if the examination is acceptable, the 215-Contractor would request the examination report be prepared. Then the QCIR would contain only the final NDE examination report showing an acceptable weld. The 215-Contractor's procedures also require a check of pipe/weld minimum wall after grinding is performed.

During the NRC exit meeting on July 30, 1982, the inspector stated his findings and that the problem at hand is that the BESTCO procedures for PT and MT do not completely describe the documentation methods the 215-Contractor has imposed verbally on the NDE contractor, BESTCO.

The licensee had committed to insure that the methods of documentation used by BESTCO and the procedure would be in agreement. During a following inspection on August 9-13, 1982, the inspector reviewed the documentation of NDE reports being prepared by BESTCO and found that NDE examination reports were once again being prepared only upon request by the 215-Contractor and no change to the procedures had been made.

A records review performed by the inspector indicated that for the week of August 2-6, 1982, the BESTCO swing-shift was documenting indications on an examination report as per the procedure. However, the records in BESTCO'S file indicate that day-shift was generating inspection reports to identify unacceptable indications on August 2 and 3, 1982. Starting on August 4, the indications were being recorded on the "Request for NDE." The BESTCO site manager stated to the inspector that he was instructed by the 215-Contractor on or about August 3, 1982, to again record indications on the "Request for NDE."

The inspector brought the issue of not following procedures to the attention of licensee and 215-Contractor management and expressed a concern that the licensee had not followed through on the corrective action. The licensee, at this point, took prompt action to update the procedure to require all NDE inspections performed be documented on a report form described by procedure and secondly to stop the use of verbal instructions which violate procedures.

The inspector verified that the procedures had been changed and the BESTCO site manager directed by the licensee not to deviate from approved procedures. The inspector considered this issue to be satisfactorily resolved.

- b. Concern: Lugs on the Reactor Recirculation System (RRC) line number 566-1 were ground off five times.

Finding: The inspector examined Quality Control Inspection Record (QCIR) number RRC(4)566-1-13 that documents the welding performed on lug to pipe wall. The lugs discussed here are used as a pipe support device to restrain the pipe in the axial direction. The QCIR indicates that there were two repairs and two cut-outs of the lugs plus the original weld.

Division 17 of applicable specification Number 2808-215 for the work being performed requires the engineer's approval after two repairs. The engineer is defined as persons designated by the 215-Contractor to implement the design requirements.

The inspector determined that the above stated work was reviewed and appropriately approved by the designated engineer on a QCIR for each cutout and repair. No deviations from the specification or ASME code were identified. This item is closed.

- c. Concern: Documentation does not exist for patches made to the Lower drywell spray header.

Finding: During the installation and rework of the lower drywell spray header, some nozzles on the spray header were removed and or relocated to accommodate spray header supports. If the nozzle was removed, a rectangular plate was welded on the header to close nozzle opening. Examination of the Engineering Change Notice (ECN) describing the design change and the applicable process traveler and drawings disclosed that the changes were appropriately approved and documented.

This item is closed.

5. Licensee Action on 10 CFR 50.55(e) Reportable Deficiencies - (Open)
ECCS Pump Room Flooding due to Spent Fuel Pool Boil-off

This item was examined to determine the licensee's action on upgrading the spent fuel pool cooling system (FPC) to a nuclear safety related system and quality class I.

During a previous inspection (IE Inspection Report No. 50-397/82-01), the inspector had determined that the FPC system contains two system trains for redundancy, however, fuel pooling cooling pumps FPC-P-1A and FPC-P-1B share a common suction and discharge headers and therefore are not truly redundant trains. Last January the inspector observed that specific statements in the WNP-2 FSAR had not been amended to

reflect the existence of systems originally designed as not nuclear safety related and then upgraded to a nuclear safety related system where the system does not specifically meet all the applicable criteria of nuclear safety related.

During the current inspection, the inspector found that the FPC system contained some embedded piping within the reactor building that could not be inspected. This piping was originally purchased and installed as ANSI B31.1 piping instead of ASME Section III piping which the Engineer had specified for all other nuclear safety related fluid systems. The embedded portion of piping is unavailable in its present state for any additional inspection or examination needed to upgrade it to ASME Section III class piping.

The licensee had not planned to include a discussion of this classification deviation in the WNP-2 FSAR. However, the licensee now plans to include this in an FSAR amendment.

This item remains open pending a specific description of FPC system modifications needed for upgrade of the system to quality class I in the WNP-2 FSAR and completion of system hardware modifications.

6. Management Interview

The results of the inspections were discussed with licensee management as noted in paragraph 1, at the conclusion of the inspection on July 30, August 13 and September 3, 1982. The licensee's responses to observations are discussed in the report.