

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-508/82-13
50-509/82-06
Docket No. 50-508/50-509 License No. CPPR-154 CPPR-155 Safeguards Group _____
Licensee: Washington Public Power Supply System
P. O. Box 1223
Elma, Washington 98541

Facility Name: WNP-3, WNP-5

Inspection at: Construction Site, Satsop, Washington

Inspection conducted: June 1-30, 1982

Inspectors: *W. G. Albert* 7/22/82
W. G. Albert, Senior Resident Inspector Date Signed

Date Signed

Date Signed

Approved By: *R. T. Dodds* 7/22/82
R. T. Dodds, Chief Date Signed
Reactor Construction Projects Section 2

Summary:

Inspection during the period of June 1-30, 1982 (Report Nos. 50-508/82-13 and 50-509/82-06)

Areas Inspected: Routine unannounced inspection by resident inspector of construction activities including an examination of welding for safety related piping, electrical equipment installation, records for primary loop piping, Unit 5 equipment maintenance, and follow-up on various site problems. The inspection involved 97 inspection hours by one NRC Inspector.

Results: No items of noncompliance were identified.

DETAILS

1. Persons Contacted:

The inspector interviewed various engineering, management, inspection, and construction personnel of the organizations listed below. Key personnel, including those who attended the exit interview, are identified below:

a. Washington Public Power Supply System (Licensee or Supply System)

- R. S. Leddick, Program Director, WNP-3/5
- *D. E. Dobson, Project Manager, WNP-3/5
- T. Beers, Project Quality Engineer
- N. F. Blais, Senior Project Quality Engineer
- D. R. Coody, Project Quality Engineer
- K. W. Cook, Licensing Engineer
- R. B. Glasscock, Quality Assurance Director (Corporate)
- D. A. Kerlee, Quality Assurance Audit Supervisor
- M. L. McCormick-Barger, Nuclear Systems Engineer
- J. A. Puzauskas, Quality Assurance Engineering Supervisor
- *E. L. Stephens, Senior Project Quality Engineer
- C. H. Tewksbury, Quality Assurance Surveillance Supervisor
- *O. E. Trapp, Project Quality Assurance Manager
- J. A. Vanni, Senior Project Quality Engineer

b. Ebasco Services, Inc. (Ebasco)

- R. E. Abel, Project Quality Engineer
- L. A. Bast, Quality Assurance Engineering Supervisor
- B. H. Bray, Resident Engineer
- A. M. Cutrona, Quality Program Site Manager
- *M. R. Harris, Project Quality Engineer
- W. J. Lear, Nondestructive Examination Specialist
- R. Shetty, Lead Discipline Engineer (Civil)

c. Combustion Engineering (CE)

- W. B. Douglass, Nuclear Site Manager
- W. Pratt, Site Representative
- L. Lehman, Quality Assurance Site Representative
- M. Uffelman, Millwright Foreman

d. Fishback and Moore (FM)

- B. G. Ashby, Project Quality Control Manager
- E. G. Courtney, Quality Records Supervisor
- D. Martin, Quality Assurance Director (Corporate)

e. Morrison-Knudsen (MK)

D. Summers, Quality Assurance/Quality Control Manager

f. Morrison-Knudsen/ESI/Lord (Joint Venture)

L. Bieronski, Project Welding Engineering Manager
J. Hassett, Project Quality Control Manager
W. Holcombe, Project Quality Assurance Manager
J. Sowers, Project Quality Director
A. Walcutt, Project Quality Engineering Supervisor

*Designates those attending exit interview on July 1, 1982.

2. Independent Inspection and Tours

Daily tours of some portions of the Unit 3 construction site were normally conducted by the resident inspector during each on-site work day.

Tours of Unit 5 were limited to verification of inert atmosphere for heavy equipment in the storage area near the Unit 3 cooling tower and a two-hour tour of the Unit 5 RAB on June 25.

No items of noncompliance were identified.

3. Project Construction Status - Unit 3

At the end of the report period, project site construction had reached 56 percent completion.

The Supply System submitted their application for an operating license to USNRC-NRR (Office of Nuclear Reactor Regulation) on June 2, 1982. On June 28, 1982 the site was visited by the Licensing Project Manager from USNRC-NRR for tours of site and environs and meetings with Supply System personnel.

4. Licensee Organization Change

On June 16, 1982 the Licensee informed the NRC that the site QA organization would report to the Corporate Quality Assurance Director rather than the WNP-3/5 Program Director.

5. Licensee Action on 10 CFR 50.55(e) Construction Deficiencies

a. Radiograph Indications on Unit 3 Safety Injection Tanks

During the report period, numerous contacts were made with the Licensee, Ebasco and CE personnel on this subject. The

Licensee's final 50.55(e) report was examined and the original radiographs were read for the nozzle to safe end weld. Also, the overlays for the indicated repairs were examined. As a result of this examination, the licensee was requested (by letter from RV) to provide additional information regarding the disposition of the radiograph indications prior to closing the item. Concerns regarding information provided by the vendor were directed to the Vendor Inspection Branch of Region IV. This item will remain open for further follow-up.

b. Pipe Hanger Stiff Clamps

The resident inspector identified two items which the licensee agreed to address in addition to the thirteen questions of NRR following their review of stiff clamp design on June 18, 1982.

- (1) For clamps which were tightened prior to the identification of the original design concern reported as a 50.55(e) item, will the straps be treated as overstressed and replaced?
- (2) Is there a contact distance requirement for the fit of any yoke to the pipe? In other words, does a field inspector have a means of identifying inadequate or improper fit of the yoke to any pipe? For ease of control, these questions will be addressed separately from the 50.55(e) and the thirteen NRR questions.

This item will be identified as "Stiff Clamp Installation Concerns" (50-508/82-13-01) and considered a follow-up item.

6. Other Construction Deficiencies

The following construction deficiency was examined in detail by the resident inspector to an extent of meetings and direct field inspection of the problem. It was not addressed as a 50.55(e) item.

a. Reversal of Cold Leg Elbows in Primary Loop

The cold leg elbows of the primary loop piping at the exit from the steam generator on CE System 80 NSS systems are provided with a 3/4-inch straight section so that the ASME code provisions are applied to a straight section weld. The contractor installing the pipe was unaware of this feature of the elbows and thus the elbows assumed a random orientation since they were unmarked by the vendor. Disposition of the nonconformance was simply to insure that elbow-to-pipe weld section met the code requirements for a curved junction rather

than a straight pipe. Ultrasonic examination will be used to verify weld thickness. During meetings with the licensee and the Joint Venture, the inspector expressed two concerns: (1) that the construction planning of the Joint Venture did not include sufficient drawing review to recognize the possibility of misorientation of the elbows, and (2) that this has reportedly occurred at other plants but the vendor has not taken precautions to warn their clients or otherwise mark the elbows. No items of noncompliance were identified.

7. Action on Previously Unresolved Follow-up and Enforcement Items

(Closed) Follow-up Item (50-508/509/81-08-30) Ebasco - Procedures and Maintenance of Calibration Records

In inspection report 50-508/82-06 item of noncompliance 50-508/81-08/05 was closed. The closure of the item of noncompliance also addressed the concern expressed in this follow-up item. The matter is closed.

8. Installation of Instrumentation for Control Room

During the month observations of control room panel installation were made. The NRC inspector found that the control room environment was being degraded by a shop area and the leakage of rain water through the uncompleted south walls of the adjoining south relay room. These concerns were immediately addressed by the contractor (F & M).

The inspector also observed that fibre optics cables were not identified so that craftsmen could exercise appropriate care. Ebasco initiated appropriate corrections.

No items of noncompliance were identified.

9. Primary Loop and Other Safety Related Pipe Welding

During the month the inspector examined records for primary loop weld No. 3 FW 111. The inspector questioned the absence of Condition Evaluation Reports (CER's) in the assembly of the data packages since such reports were necessary to complete the information supplied by the Inspection Reports (IR's). The contractor will address this concern and, prior to final assembly of the data packages, will assure that pertinent CER's are included in the data packages. The records for weld rod issued for this weld were examined to specifically determine that ER 309 and ER 308 were issued in the proper sequence. Primary Loop Weld 3 FW 113 was also included in this examination.

Field observations of actual welding were continued for all primary loop welds.

Delta ferrite measurements were made on all field welds in the stainless steel piping for both core spray lines in the annulus between 400-foot level and the 374-foot level. Ferrite numbers between 5 and 12 were found for the field welds. (Ferrite numbers of shop welds were generally lower.) Although no specific requirement exists for the measurement of delta ferrite in completed welds, the data does provide an indication that delta ferrite is being adequately controlled by the Joint Venture.

No items of noncompliance were found.

10. Surveillance of Safety Related Welding by Ebasco

A sample of surveillance reports by Ebasco on this activity were examined. Report No. 224-229 was questioned since it reflected a repetition of previous concerns regarding welder qualification. The response to the Quality Finding Report did not appear to directly address one concern of this surveillance report dealing with the possible use of welders unqualified for open root welds. The possibility of ineffective corrective action was reflected in the reports and in the repetition of the surveillance engineer's concern. Further follow-up will be performed to assure resolution of this concern. Follow-up item 50-508/82-13-02, "Ebasco Surveillance of Welding".

11. Reinforced Concrete Block Walls

Rough calculations of walls 41 and 42 in the North Diesel Generator room raised questions regarding the seismic design margin. The resident inspector has referred his concern to Region V for review and the question is also being addressed by the licensee. Follow-up item number will be 50-508/82-13-03 titled "Block Wall Design Adequacy".

12. Exit Interview

On July 1, 1982, the NRC inspector met with the WNP-3/5 Project Manager and other Supply System personnel. The highlights of this report were discussed. Weekly meetings were also conducted with the Supply System QA Manager as necessary to properly apprise the licensee of NRC inspection activity.