

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-508/82-15
Docket No. 50-508 License No. CPPR-154 Safeguards Group _____

Licensee: Washington Public Power Supply System
P. O. Box 1223
Elma, Washington 98541

Facility Name: WNP-3

Inspection at: Construction Site, Satsop, Washington

Inspection conducted: July 1 - 31, 1982

Inspectors: R.P. Hunt, Jr. 8/15/82
W. G. Albert, Senior Resident Inspector Date Signed

Date Signed

Date Signed

Approved by: R. T. Dodds 8/19/82
R. T. Dodds, Chief, Reactor Projects Section No. 1 Date Signed
Reactor Projects Branch No. 1

Date Signed

Summary:
Inspection during the period of July 1 - 31, 1982 (Report No. 50-508/82-15)

Areas Inspected: Routine, unannounced inspection by the resident inspector of construction activities, including an examination of welding for safety-related piping, electrical equipment installation, records for primary loop piping, primary loop nondestructive examination, and follow-up on various site problems. The inspection involved 77 inspection-hours by one NRC inspector. Included in this time were two hours on swing shift.

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
- P. Backes, Project Mechanical Engineer
- T. Beers, Project Quality Engineer
- N. F. Blais, Senior Project Quality Engineer
- D. R. Coody, Project Quality Engineer
- N. C. Kaufman, Project Startup Manager
- D. A. Kerlee, Quality Assurance Audit Supervisor
- D. C. Koski, Project Civil Engineer
- R. P. Krolicki, Principal Project Engineer (Corporate)
- M. Monopoli, Manager, Operations Quality Assurance (Corporate)
- 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. Currona, Quality Program Site Manager
- W. K. Drinkard, Nondestructive Examination Specialist
- R. E. Graham, Lead Project Quality Assurance Engineer (2nd Shift)
- *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

d. Fishbach and Moore (FM)

- D. Dishaw, Foreman

e. Morrison-Knudsen (MK)

R. Bridgeman, Field Engineer
D. Summers, Quality Assurance/Quality Control (QA/QC) 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
J. Stone, Level III Nondestructive Examination Manager

g. State of Washington Department of Labor and Industries

R. E. Miller, State Electrical Inspector II
C. Renaud, State Electrical Inspector II

*Designates those attending exit interview on August 2 and 3, 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.

No inspection of Unit 5 was done during this report period.

On July 12, 1982, a tour of the site was made on the second (swing) shift. This tour included an examination of welding activities for the primary loop, control of weld materials and discussions with Ebasco surveillance personnel assigned to the second shift.

No items of noncompliance were identified.

3. Project Construction Status - Unit 3

At the end of the report period, project site construction had reached 58 percent completion. Welding of the primary coolant loop was 90 percent complete. Post-weld heat treatment of the primary loop welds is approximately 70 percent complete.

4. Action on Previously Unsolved, Follow-up, and Enforcement Items

a. (Open) Noncompliance (50-508/81-08/18) - Failure to Bend Reinforcing Steel as Required by Specification

The resident inspector continued his examination of the corrective action on this item by examining current practices and equipment in the field. Equipment is now well marked and mandrels all meet specifications. However, the disposition of #5 reinforcing steel previously bent to 180 degrees on a #4 mandrel remains open. The licensee has agreed to provide an engineering resolution in order to satisfactorily close the item.

5. Primary Loop Radiography - Contract 224

Final radiographs for the following primary loop welds were examined during the month:

| | |
|--------------|---------------------------------------|
| 3 FW 113 | North hot leg to reactor vessel |
| 3 FW 202 R-1 | Cold leg to SE pump volute |
| 3 FW 206 R-1 | Cold leg to SE steam generator nozzle |
| 3 FW 102 R-1 | Cold leg to NE pump volute |
| 3 FW 211 R-2 | Cold leg to SW pump volute |
| 3 FW 213 R-1 | South hot leg to reactor vessel |

The resident inspector questioned the presence of artifacts on the film in sufficient quantity that in some exposures it required both sheets of film to properly interpret the weld area of interest, i. e., neither sheet of double exposed film (single film viewing) could stand on its own. Although there was no question that the areas of interest could be properly interpreted with both films, the question of compliance to ASME Code Section V, T233.2 for the film of welds 3 FW 102 R-1 and 3 FW 211 R-2 remained to be resolved. At the end of the report period, the licensee had agreed to provide a review of the Joint Venture film by the Supply System corporate expert in radiography (ASNT Level III). This matter will remain unresolved pending completion of this review and further examination by the resident inspector. This will be identified as unresolved item No. 50-508/82-15/01, "Processing Artifacts on Reactor Coolant Pressure Boundary Radiographs."

6. Safety-Related Welding - Contract 224

Field observations and records review continued during the month. Records were examined for 3 FW 113 in the primary loop and 3 FW 2, 2A, 3 and 4 in the containment spray line CS-037. None of the records packages were complete at this time and the review addressed individual records rather than the entire package. Field observations of the same containment spray line welds showed the addition

of a field weld because the line was inadvertently cut short (weld 3FW 2A). Further follow-up revealed that the repair was covered by a project change proposal rather than a nonconformance report. As a consequence, the inspector questioned the guidelines under which the contractor was operating with regard to the use of nonconformance reports. In particular, the concern was expressed that the third party inspector could not properly perform his function when a Project Change Proposal (PCP) was used rather than a nonconformance report. Also, the use of a Project Change Proposal could bypass certain quality assurance/quality control controls. Practices related to the use of nonconformance reports will be examined further. The item is considered unresolved. Item number will be 50-508/82-15/02, "Use of Nonconformance Controls."

7. Foundations

The licensee in the PSAR committed to the construction, testing, and maintenance of a ground water drainage system (GWDS) under and alongside the foundation and walls of the reactor auxiliary building (RAB). The system is designed to maintain the ground water at an elevation that will not significantly add to forces on the sides of the reactor auxiliary building during a design basis seismic event.

During the month, the inspector examined the results of the testing and measurement of the system which have also been reported to the office of Nuclear Reactor Regulation (NRR). The inspector believed that the licensee had met his commitments to date, but questioned if current construction practices might not plug portions of the system alongside the RAB walls so that they could not be inspected in the fashion described for operation of the plant. The licensee subsequently issued instruction for control of this work. The NRC inspector will examine the effectiveness of this control during the next two months as other structures are erected alongside the RAB. Follow-up Item No. 50-508/82-15/03, "Ground Water Drainage System Protection."

No items of noncompliance were identified.

8. Electrical and Instrumentation Equipment - Contracts 224 and 225

a. Cable Trays

During the month, the resident inspector examined the question of two contractors (Joint Venture and FM) having procured cable trays from the same vendor with different results as to the qualification of the vendor. To insure adequate vendor controls, the actions of the contractor who qualified the vendor first were examined by the NRC resident inspector.

Specifications were examined and Ebasco audits of the contractor and his vendor were examined, as well as quality assurance surveillance and audits by the contractor. The inspector found that the quality of the cable trays was being and had been controlled. The problems which were evident had been addressed.

b. Cleanliness of Control Panels

During the month, control room cleanliness was monitored to insure responsiveness to previously expressed concerns. Grinding and welding in the control room has now been limited to the panels themselves and an air blower system provides localized grinding and welding control. Concrete work in the south end of the control room has been controlled by partitions to prevent excessive dust.

No items of noncompliance were identified.

9. Nonsafety-Related Work

The resident inspector was apprised of certain deficiencies which have arisen in recent months that indicate less than satisfactory control over construction activities which are not related to nuclear safety. Of particular interest was a problem relating to the power supply for the recirculating water makeup pumps. In this instance, insufficient quality controls had allowed a 13.8 kV underground line to be installed outside its protective cover and at too shallow a depth. The line was later damaged. In discussions with licensee management, the resident inspector emphasized that, while the NRC did not enforce quality requirements for such work, they expected all plant systems to meet reasonable high standards and that the meeting of such standards need verification.

The licensee stated that they fully agreed with the NRC's position and would conduct an audit of management controls by Ebasco and other contractors which insure adherence to the established standards.

This audit will be completed by August 31, 1982.

10. Unresolved Items

Unresolved items are matters about which more information is required to ascertain whether they are acceptable items, items of noncompliance or deviations. Unresolved items disclosed during the inspection are discussed in paragraphs 5, 6, and 7.

11. Exit Interview

On August 2 and 3, 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.