

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-508/82-18

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

Inspection conducted: September 1-30, 1982

Inspectors: *R. P. Herr, Jr.*
W. G. Albert, Senior Resident Inspector

10/18/82
Date Signed

Date Signed

Date Signed

Approved by: *R. T. Dodds*
R. T. Dodds, Chief
Reactor Projects Section No. 1

10/18/82
Date Signed

Date Signed

Summary:

Inspection During the Period of September 1-30, 1982
(Report No. 50-508/82-18)

Areas Inspected: Routine unannounced inspection by the resident inspector of construction activities. Principal areas inspected included: (1) primary loop installation; (2) primary loop weld repairs; (3) primary loop nondestructive examination; (4) installation of field assembled tanks; (5) structural concrete; and (6) containment building fabrication. The inspection involved 62 hours on-site by one NRC inspector. Included in this time were three hours on swing shift and seven hours on a weekend.

Results: No items of noncompliance were found in the five areas examined. One item of noncompliance was found in the area of containment building fabrication. Corrective action on this item was completed during the inspection period.

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
- L. J. Garvin, Manager, Quality Performance and Measurements (Corporate)
- R. B. Glasscock, Quality Assurance Director (Corporate)
- D. C. Koski, Project Civil Engineer
- R. D. Madden, Lead Quality Assurance Engineer
- J. A. Puzauskas, Quality Assurance Engineering Supervisor
- E. L. Stephens, Senior Project Quality Engineer
- *O. E. Trapp, Project Quality Assurance Manager
- J. A. Vanni, Project Quality Engineer

b. Ebasco Services, Inc. (Ebasco)

- L. A. Bast, Quality Assurance Engineering Supervisor
- A. M. Cutrona, Quality Program Site Manager
- M. L. Farner, Project Quality Engineer
- *M. R. Harris, Project Quality Engineer
- G. R. McKibbin, Nondestructive Examination Specialist, Level III

c. Combustion Engineering (CE)

- W. Pratt, Site Representative
- A. Tuzes, Project Manager (Corporate)
- M. Uffelman, Millwright Foreman

d. Fischbach and Moore (FM)

- D. Dishaw, Foreman

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

- R. Kelly, Test Engineer
- E. Kuhn Quality Assurance Records Supervisor

- f. Morrison-Knudsen (MK)
D. Summers, Quality Assurance Manager
- g. Chicago Bridge & Iron (CB&I)
M. Jennings, Quality Assurance Engineer
O. Wiel, Quality Assurance Welding Supervisor
- h. State of Washington Department of Labor and Industries
R. Miller, State Electrical Inspector II
- i. J. A. Jones Construction Company
G. Wickliffe, Quality Assurance Manager

*Denotes those in attendance at exit interview on September 30, 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 September 22, 1982, a tour of the site was made on the second (swing) shift. This tour included an examination of primary loop weld repairs being made on this shift and an examination of the permanent formwork for the shield building dome.

No items of noncompliance were identified.

3. Project Construction Status - Unit 3

At the end of the report period, project site construction had reached 62 percent completion. Welding of the primary coolant loop is essentially complete, including postweld heat treatment and final nondestructive examination.

During the month of September 1982, several major items were placed (not necessarily installed) in the containment building in preparation for placement of the containment dome at month's

end. This included the pressurizer, remaining safety injection tanks, core internals, reactor coolant pumps and motors, reactor vessel head, and supports for main steam lines.

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

(Closed) Unresolved Item (50-508/82-15-01): Processing Artifacts on Reactor Coolant Pressure Boundary Radiographs

In the report for July 1982, the resident inspector described a condition of artifacts on radiographs which raised the question of compliance with ASME Section V, T233.2. Followup by the Supply System Level III NDE examiner, and the efforts of the Joint Venture and others have resulted in correction of the problem. Also, no interpretations of the code appeared to support a finding of non-compliance or deviation from the code. This item is closed.

5. Primary Loop Radiography - Contract 224

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

3 FW 105 R-2	North Steam Generator to Northeast Pump
3 FW 110 R-2	North Steam Generator to Northwest Pump
3 FW 203 R-2	South Steam Generator to Southeast Pump
3 FW 204 R-1	South Steam Generator to Southeast Pump
3 FW 208	South Steam Generator to Southwest Pump
3 FW 210	South Steam Generator to Southwest Pump

The quality of the radiographs was satisfactory showing a 1 T sensitivity. Identification met code requirements and interpretations were not questioned. Questions of the inspector were satisfactorily answered.

No deviation from the ASME Code nor items of noncompliance were identified.

6. Primary Loop Welding

The inspector continued to examine welding and weld repairs for primary loop weldments. No items of noncompliance were found.

7. Containment Structural Steel

The placement of the containment dome and subsequent fitup activities were examined. This work has involved considerable attachment welding and cutting at the base materials; however, no deviations from code requirements nor items of noncompliance were identified.

8. Installation of Safety-Related Tanks

The circumstances surrounding a construction deficiency which resulted in extensive modification to the keyways for the mounting of the refueling water storage tanks were examined by field observation of repairs and review of supporting documentation. Activities met established procedures and no items of noncompliance were identified.

9. Electrical and Instrumentation

The methods for fastening control panels continued to be examined during the month by field observations of work against design requirements. No items of noncompliance were found.

10. Weld Rod Control

During the past four months, the inspector has made several observations which indicate a relaxation of the implementation of moisture control and requirements for low hydrogen weld rod. Some of these are:

- a. Loose rods left in cable trays.
- b. Continuing to weld when atmospheric conditions approach 100 percent humidity and produce visible moisture.
- c. Leaving caddies open to facilitate access to rods.
- d. Laying pouches down on wet surfaces.
- e. Retrieving stubs from stub bucket for completion of a weld.
- f. Not covering pouches when visible moisture appears.
- g. Leaving pouches unattended for over an hour.

At the exit interview, the inspector discussed these items and noted that there was a need to impress upon the individual welders their responsibility for moisture control of low hydrogen weld rod once the rod has left the controlled environment of storage ovens and caddies.

The inspector found a storage oven unlocked in direct violation of CB&I procedures on September 26, 1982. The CB&I procedure, Division 4, Construction Section 8.2.2.1, states: "The storage areas are to be unlocked only when welding material is being drawn from or returned to the storage areas or at other times determined necessary by those authorized to possess a key."

Discussion with CB&I personnel did not reveal any extenuating circumstances.

On September 27, 1982, CB&I took immediate correction action in the form of retraining for the responsible personnel and revised practices regarding individual responsibility for weld rod issue. The incident apparently happened because one responsible individual assumed that another would shortly be requiring access to the oven. The oven was located outside on the northwest 462-foot roof.

11. Steam Generators

As noted in the previous inspection report, the inspector had obtained and referred to the licensee data on System 80 steam generator deficiencies at the Palo Verde Nuclear Generating Station. These deficiencies related to manufacturing problems with the steam dryer sections. During the month, the licensee confirmed that Combustion Engineering would perform an inspection of the secondary side of these steam generators to preclude the possibility of any similar manufacturing defects having gone unnoticed.

12. Allegations

During the month two allegations of quality deficiencies were directed to the resident inspector.

a. Magnetic Particle Testing Performed at Excessively High Temperatures

The allegor contended that it was incorrect for the disposition of a noncomformance report to be "use-as-is" on weldments which were magnetic particle tested at 250 degrees to 300 degrees F. The allegation was also presented to the Supply System and Ebasco. Available experts in the Supply System Ebasco and the NRC were consulted and all agreed with the disposition. The allegor agreed that he had no technical concern.

b. Painting of Bolt Holes in Hangers for Cable Trays

An anonymous allegation was received that painting of bolt holes had been stopped, contrary to specifications for such painting. Investigation by the resident inspector did not reveal any code, procedure, or specification requirement for painting of such holes.

No items of noncompliance were found. Also, the above allegations were discussed with the NRC Office of Investigations, San Francisco Field Office. No further action was deemed necessary.

In addition to the above, the resident NRC inspector examined actions by the licensee to resolve allegations Ebasco had received concerning inspection practices of the major electrical contractor, Fischbach and Moore. Joint investigation by the licensee and Ebasco is continuing.

13. Unresolved Items

Unresolved items are matters about which more information is required to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during a previous inspection is discussed in paragraph 4(a).

14. Exit Interview

The material in this inspection report was discussed at a meeting with Supply System management on September 30, 1982.