

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 50-508/82-17, 50-509/82-07

Docket No. 50-508/509 License No. CPPR-154, 155 Safeguards Group _____

Licensee: Washington Public Power Supply System

P. O. Box 1223

Elma, Washington 98541

Facility Name: WNP-3 and WNP-5

Inspection at: Construction Site, Satsop, Washington

Inspection conducted: August 1-31, 1982

Inspectors: R T Dodds 9/22/81
W. G. Albert, Senior Resident Inspector Date Signed

Date Signed

Approved by: R T Dodds 9/22/81
R. T. Dodds, Chief Date Signed
Reactor Projects Section 1

Date Signed

Summary:

Inspection during the period of August 1-31, 1982 (Report No. 50-508/82-17 and Report No. 50-509/82-07)

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, records for other safety-related piping, records for primary loop nondestructive examination, concrete construction in containment and follow-up on various site problems. The inspection involved 98 hours by one NRC inspector. Included in this were three hours on swing shift.

Results: One item of noncompliance was identified in the area of concrete construction in the containment building.

DETAILS

1. Persons Contacted

The inspector interviewed various engineering, management, inspector, 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. W. Coleman, Manager, Safety Engineering Group
- *D. E. Dobson, Project Manager, WNP-3/5
- T. Beers, Project Quality Engineer
- N. F. Blais, Senior Project Quality Engineer
- A. G. Carlyle, Quality Assurance
- K. W. Cook, Licensing Engineer
- D. R. Coody, Project Quality Engineer
- R. B. Glasscock, Quality Assurance Director (Corporate)
- 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)
- R. D. Madden, Lead Quality Assurance Engineer
- M. L. McCormick-Barger, Nuclear Systems Engineer
- *J. A. Puzauskas, Quality Assurance Engineering Supervisor
- E. L. Stephens, Senior Project Quality Engineer
- C. H. Tewsbury, Quality Assurance Surveillance Supervisor
- *O. E. Trapp, Project Quality Assurance Manager
- J. A. Vanni, Project Quality Engineer
- J. M. Walker, Senior Quality Assurance Engineer (Corporate)

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. Cutroan, Quality Program Site Manager
- W. K. Drinkard, Nondestructive Examination Specialist
- *M. R. Harris, Project Quality Engineer

c. Combustion Engineering (CE)

- W. B. Douglass, Nuclear Site Manager
- S. Jurewicz, CE-KSB Site Representative
- L. Lehman, Quality Assurance Site Representative
- C. Nelson, CE-Avery Site Representative
- W. Pratt, Site Representative
- M. Uffelman, Millwright Foreman

*Denotes those in attendance at exit interview on August 27, 1982.

- d. Fishbach and Moore (FM)
 - D. Dishaw, Foreman
- e. Morrison-Knudsen (MK)
 - R. Bridgemon, Field Engineer
- 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
 - P. Jurbala, Quality Assurance Training Supervisor
 - R. Kelly, Test Engineer
 - E. Kuhn, Quality Assurance Records Supervisor
 - L. Murray, Welding Superintendent
 - J. Sowers, Project Quality Director
 - J. Stone, Level III Nondestructive Examination Manager
- g. State of Washington Department of Labor & Industries
 - C. Renaud, State Electrical Inspector II
- h. Peter Kiewit & Sons, Inc. (PKS)
 - S. Scott, Quality Control Manager
- i. J. A. Jones Construction Company
 - G. Wickliffe, Quality Assurance Manager
- j. Northwest Energy Services (NESCO)
 - J. A. Adams, Site Representative

2. Independent Inspection and Tours

a. Unit 3

Daily tours of some portions of the Unit 3 construction site were normally conducted by the resident inspector during each on-site work day. During the course of one of these tours a questionable practice was observed with regard to the method of fastening "Q" decking to structural steel. Follow-up examination resulted in an item of noncompliance described in paragraph 6 below.

b. Unit 5

During the month an extensive tour of the Unit 5 Reactor Auxiliary Building was conducted. The inspector noted some deterioration of structural water control measures. These were referred to the licensee for follow-up. All equipment examined was found to be adequately stored.

No items of noncompliance were identified in Unit 5.

3. Project Construction Status - Unit 3

At the end of the report period, project site construction had reached 60 percent completion. However, work was slowed during the month because of a strike by quality control inspectors of Ebasco, MK/ESI/Lord, J. A. Jones Co., and Morrison-Knudsen. The strike lasted for four working days from August 12 through August 17. Safety-related craft work by MK/ESI/Lord, J. A. Jones and Morrison-Knudsen was halted during the strike. Quality control coverage by Ebasco is largely a surveillance function (except for receiving inspection). The Ebasco quality control function was provided by supervisory and quality assurance personnel during the strike.

On the last day of the report period, the site was toured by a "Case Load Forecast" panel of the NRC as part of the NRC's assessment of site construction prior to the establishment of an operating license application review schedule.

4. Action on 10 CFR 50.55(e) Construction Deficiencies

a. Morrison-Knudsen Structural Steel Bolting Problem (Units 3 and 5)

In January 1981 the NRC was notified by the licensee of a potential 10 CFR 50.55(e) condition regarding the erection of structural steel and the associated Quality Control documentation. The licensee forwarded the first portion of his final report on November 17, 1981 for Unit 5 and the second portion of the report for Unit 3 on January 29, 1982. The resident inspector's examination of these reports is discussed in report 50-508/82-05. However, at that time the Region V office of the NRC questioned the assumptions, treatment of data, and conclusions in the statistical analysis used to support the 50.55(e) reports. Therefore, this item remained open although the resident inspector had no further questions. In this report period the licensee responded to the Region V request for additional data to support the statistical treatment. The licensee's response was in the form of revised final reports. In his cover letter forwarding the

revised reports, the licensee concluded that the additional analysis of the subject resulted in the conclusion that the matter was not actually reportable under 10 CFR 50.55(e). The resident inspector examined the revised reports and had no questions. Further review will be conducted by Region V personnel who questioned the original statistical treatment of the data.

5. Action on Previously Unresolved Items or Items of Noncompliance

a. (Open) Noncompliance (50-508/81-09/18) (50-509/81-08/18)
Failure to Bend Reinforcing Steel as Required by Specification

The one remaining open question of the NRC with regard to this item was discussed on several occasions during the month. The question involved an engineering disposition for some previously bent No. 5 rebars. The inspector had found that the same pin was to bend both #4 and #5 reinforcing steel and that 180 degree bends with this pin on #5 reinforcing steel resulted in diameters of bend which did not match the template provided. The template had been cut to provide the minimum bend diameter specified for this size of bar. At month end, the question of whether these smaller band diameters were satisfactory had not been directly addressed.

b. (Open) Follow-up Item (50-508/81-08-22)
Licensee Evaluations to Assure Procedure Comment Resolution

In the original item the NRC inspector had observed that the stud welding procedure WE-SP-107, Revision 2 of 2/27/81, had been issued for field use with unresolved comments regarding records and inspection reports. At the exit interview for this original inspection of the matter, licensee management had made a commitment to review all contractor safety Class 1 documents for similar unresolved comments.

During this inspection the resident endeavored to establish that the review discussed had been conducted. No evidence was available and the item remains open.

c. (Open) Follow-up Item (50-508/81-08-24)
Actions to Assure Proper JAJ Rebar Placement

In the original item the NRC inspector had observed and discussed an instance which appeared to demonstrate a weakness in the craft compliance with drawing and specification requirements and a lack of craft coordination with quality verification personnel when requirements could not be met.

At the exit interview for this original inspection, licensee management committed to review the circumstances leading to the missing and mis-spaced reinforcing steel and to take appropriate corrective actions.

During this inspection the resident inspector endeavored to establish that the review had been conducted and the necessary corrective actions taken. No evidence was available; the item remains open.

6. Concrete Structures

During the course of site tours one of the resident inspector's questions concerned the method that was being used by JAJ to fasten "Q" decking for concrete floors to structural steel. The method observed was to fasten the non-safety-related "Q" decking to safety-related structural steel by explosively driving a pin into the structural steel. On follow-up, it was found that this method had been authorized as a response to a Request for Information, although the contractor's original request was for a waiver to safety-related design. The response by-passed QA and design engineering controls by reclassifying the waiver request in the manner described. Therefore, the process was not authorized, qualified or backed by installation procedure or any criteria other than the manufacturer's literature.

This item appears to be a violation of 10 CFR 50, Appendix B, Criterion 9, Control of Special Processes.

At the exit interview the licensee described measures which had subsequently been taken to qualify and control the process.

7. Reactor Coolant Pressure Boundary (RCPB)

a. Nondestructive Examination

The work of the Level II INDE specialist from the Supply System corporate office was examined by review of his reports and discussions. Artifacts on radiographs are being controlled and various other processing improvements made.

The licensee is meeting his commitment for direct involvement in the assurance of quality for nondestructive examination of the RCPB.

b. Postweld Heat Treatment (PWHT)

The resident inspector examined PWHT in the field for weld 3 FW 109 cross under 5G weld to Northwest Pump Volute. During

the month the problem with sensitization of pressure taps at inlet and outlet of pump volutes was reviewed with both CE and the Joint Venture. An examination of PWHT charts for 3 FW 214, 3 FW 114 and 3 FW 110 was made for conformance to ASME code requirements.

c. Weld Repairs

The resident inspector observed field repairs and reviewed the records for 3 FW 209.

d. Pump Volute Mounting

Resolution of NCR 224-0315 was examined with regard to disposition. It was agreed that the NCR was not valid but the wording of the disposition reflected an improper approach and attitude toward the finding and reporting of problems. This was discussed with Supply System management at the exit interview.

e. Weld Pass Sequencing

Questions of the resident inspector with regard to the extent of "alignment welding" in the primary loop piping were satisfactorily resolved. Seven-sixteenths inch difference on weld 3 FW 201 was the maximum attained. The Joint Venture stated that no preferential sequencing of weld passes for alignment was made until a minimum of one inch of weld metal was deposited.

No items of noncompliance were identified.

8. Other Safety-related Piping

a. Cleanliness Controls

Procedures of the Joint Venture and PKS were examined. Discussions and questions revealed some differences in the approach of the two organizations to the final cleanliness inspection prior to fit up. No specific concerns were found. Further follow-up will be conducted as part of the normal NRC inspection program.

b. Pipe Whip Restraints

A nonconforming condition on Line FW-022-024 was examined to assure that the deficiency (mislocation) was being handled as a safety-related concern.

c. Records

The records packages for header 8-B of the containment spray system were examined. These packages consisted of 20 pipe spools and 19 field welds. A number of questions arose, but these mostly related to the fact that the records packages themselves were still incomplete. The inspector's examination led him to question the classification of a discrepancy described on a nonconformance report as "rework" rather than "repair." Since the matter had been resolved with appropriate controls and was relatively minor, no further follow-up was deemed appropriate.

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. Mechanical Equipment Installation

The following items were examined by the resident inspector by field observations, discussions or records review:

- North Diesel Generator Shaft Alignment
- Assembly of Reactor Coolant Pump Seals
- Containment Spray Hydrostatic Test
- Storage of Core Internals

No items of noncompliance were identified.

The inspector obtained 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. This material was referred to the licensee for whatever follow-up is necessary to assure that the problems are not applicable to WNP-3.

11. Exit Interview

The material in this report was discussed at a meeting with Supply System management on August 27, 1982. The inspector emphasized two trends or situations which he believed required the immediate attention of Supply System management:

- a. The need for licensee personnel to be more directly involved in the resolution of problems. The matters discussed in paragraph 5 above are examples of a situation wherein open items were presented to the inspector for closure that still required follow-up actions by the licensee.
- b. The large number of systems for handling deviations to design result in the ability of field engineering personnel to make interpretations of convenience in a somewhat arbitrary manner, often bypassing established quality controls. The item of noncompliance discussed in paragraph 6 above is an example.