U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-508/82-26

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: December 1-31, 1982

Inspectors: R. P. Zimmerman, for 1/6/83
W. G. Albert, Senior Resident Inspector Date Signed

Date Signed

Date Signed

Approved By: R T Dodds 1/7/83
R. T. Dodds, Chief, Reactor Projects Section No. 1 Date Signed

Summary: Inspection During the Period of December 1-31, 1982 (Report No. 50-508/82-26)

Areas Inspected: Routine, monthly inspection by the resident inspector of construction activities. Principal areas included: (1) Containment structural steel welding; (2) Installation of safety-related piping; (3) Foundations for safety-related structures; (4) Equipment supports; (5) Installation of core internals; (6) Follow-up items; (7) Licensee-identified problems with electrical cable; and (8) Management of nonconforming conditions. The inspection involved 73 hours onsite by one NRC inspector.

Results: No items of noncompliance were identified.

RV Form 219 (7)

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 Manager, WNP-3/5
D. E. Dobson, Project Manager, WNP-3/5
T. Beers, Project Quality Engineer
N. F. Blais, Senior Project Quality Engineer
*C. M. Butros, Project Mechanical Engineer
*D. R. Coody, Project Quality Engineer
D. S. Feldman, Operations Quality Assurance Engineer
*N. C. Kaufman, Startup Manager
D. C. Koski, Project Civil Engineer
M. L. McCormick-Barger, Nuclear Systems Engineer
G. L. Moore, Project Electrical Engineer
J. A. Puzauskas, Quality Assurance Engineering Supervisor
E. Stauffer, Startup Quality Assurance Engineer
E. L. Stephens, Senior Project Quality Engineer
C. H. Tewksbury, Quality Surveillance Supervisor
*O. E. Trapp, Project Quality Assurance Manager
J. A. Vanni, Project Quality Engineer

b. Ebasco Services, Inc. (Ebasco)

J. M. Albaugh, Supervisor Vendor Quality Assurance
*R. E. Abel, Project Quality Engineer
B. H. Bray, Resident Engineer, Electrical
T. E. Cottrell, Manager, Resident Engineering
A. M. Cutrona, Quality Program Site Manager
D. W. Cutting, Welding Engineer
J. M. Gushue, Project Quality Assurance Engineer (Corporate)
J. P. Sluka, Manager of Engineering

c. Combustion Engineering (CE)

R. Claar, Quality Assurance Representative
W. Douglass, Nuclear Site Manager
R. Hicks, Quality Assurance Engineer
L. Lehman, Quality Assurance Site Representative
C. Nelson, CE-Avery Site Representative
A. Tuzes, Project Manager (Corporate)
E. Shenk, Installation Manager

d. Fischbach/Moore (F/M)

B. Ashby, Project Quality Control Manager
D. Dishaw, Foreman

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

M. Harris, Quality Control Supervisor
W. Holcombe, Project Quality Assurance Manager
B. Jacobs, Welding Engineer

f. J. A. Jones Construction Company

G. Wickliffe, Quality Assurance Manager

g. Chicago Bridge & Iron (CB&I)

O. Wiel, Quality Assurance Welding Supervisor

h. State of Washington Department of Labor and Industries

R. Barkdoll, Deputy Boiler Inspector

*Denotes those in attendance at exit interview on December 23, 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 items of noncompliance were identified.

3. Project Construction Status - Unit 3

a. At the end of the report period, project site construction had reached about 68 percent completion.

b. During the month of December 1982, work continued on installation of core internals with this work proceeding ahead of schedule. Work resumed on the foundations for the dry cooling towers. Initial concrete placements for structures above grade were also made.

4. Unit 5

No inspection effort was directed to Unit 5 during this report period. An open item of noncompliance on Unit 5 could not be closed out because the Licensee determined that anticipated corrective actions had not been completed. In a letter dated December 10, 1982 the Licensee established March 15, 1983 as the new date for reporting on the corrective actions. At that time the Licensee will also report on the reasons why the original date of full compliance (July 30, 1982) was not met.

5. Action on Previously Unresolved, Follow-up and Enforcement Items

(Closed) Enforcement Item (50-508/82-17-01) - Failure to Control Special Process - Powder Driven Pins in Structural Steel

The disposition of this item was examined by a review of actions taken to assure that no adverse metallurgical effect resulted from the pins which had been used. A 100 percent review of similar documents by this contractor was performed and retraining of the Ebasco personnel who directed contractor actions was verified. The use of explosively driven pins in structural steel has been discontinued. The item is closed.

6. Licensee Identified Concerns with Electrical Cable

Numerous problems with the jackets from cross linked polyethylene (XLPE) are being addressed by the Licensee and Ebasco. Essentially, all cable with XLPE jackets is being reinspected prior to use in safety-related applications. A corollary problem with XLPE wire insullation (not jackets) has resulted in retesting environmental qualification of one type of cable. This testing was still under way at the end of the report period. A report under 10 CFR 21 was filed by the vendor (Rockbestos) with Region I USNRC in April 1982, with regard to the problem which required the retesting.

During December 1982, a summary intercompany report on Rockbestos cable problems was prepared by Ebasco. A copy of this report has been forwarded to the USNRC-VIB-Region IV for follow-up as necessary.

The examination of the problem by the resident inspector indicates satisfactory performance by the Licensee and Ebasco. No items of noncompliance were identified. The performance by the vendor is the subject of separate reporting by VIB-Region IV.

7. Equipment Supports

Field observations during the month included the grouting of shear keys for field-erected tanks (RWSTs) and follow-up on a daily basis of work on the main steam line restraints in the containment building. The latter have been the subject of several design change documents because the "D" rings embedded in the secondary shield wall were not adequately located.

No items of noncompliance were identified.

8. Installation of Core Internals

Work on alignment and assembly of core internal components proceeded at an accelerated pace during the report period. Field observations and record reviews addressed the fit of the core barrel and snubber keys, the matching of the core support structure to the core barrel and the flexure weld which joins these two components, the fit of the lower core support structure to the incore instrumentation tubes and the modification to the tie rods of the

8. Installation of Core Internals (continued)

upper guide structure. Work and records were examined against criteria and procedure established by CE for the work.

No items of noncompliance were identified with regard to the above-mentioned work. However, the inspector questioned whether the controls established for access and cleanliness were consistent and workable, and whether these controls were being satisfactorily implemented. C. E. Avery procedure AS-P-019 defines these controls. The matter is considered unresolved and will be further addressed in January 1983 as unresolved item (50-508/82-26-01) "Cleanliness Controls for Core Internals Work."

9. Containment Structural Steel Welding

The records for a randomly selected sample of two CB&I welders qualified locally were examined to determine that the records were being satisfactorily maintained. Radiographs and qualification files were made available and were examined for the two welders. No items of noncompliance were found.

10. Installation of Safety Related Piping and HVAC

Records for a randomly selected sample of two JV welders were examined to determine that the records were satisfactorily maintained. Qualification files, including radiographs or bend test results (sheet metal qualification), were made available and compared to the listed qualifications of the welders. No inconsistencies or items of noncompliance were found.

11. Foundations for Safety-Related Structures

Concrete placements for the Dry Cooling Tower (DCT) foundations were observed during the month.

No items of noncompliance were identified.

12. Management of Nonconforming Conditions

During the month the resident inspector performed a comparative study of nonconformance reports by principal contractors. An anomaly identified was discussed with the Licensee who directed Ebasco to verify one contractor's classification of discrepant conditions for the month selected (October 1982) for the study. In a documented review, Ebasco confirmed that the discrepant conditions reported by the contractor were properly classified.

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 the inspection is discussed in paragraph 8.

14. Exit Interview

On December 23, 1982 the items in this report were discussed with N. C. Kaufman (acting for the Program Director) and other Supply System and Ebasco staff as indicated in paragraph 1 above. Weekly meetings were also held with the QA Manager and selected members of his staff as a matter of routine.

On December 9, 1982, a meeting was held in the Region V offices in Walnut Creek, California between Supply System Management (with Ebasco) and NRC personnel to discuss initiatives to promote greater Licensee involvement in site problems and corrective actions with regard to the site design change process. This meeting was attended by the resident inspector. It is reported upon in a separate document prepared by Region V.