

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

REGION I

Report No. 50-412/79-07

Docket No. 50-412

License No. CPPR-105 Priority -- Category A

Licensee: Duquesne Light Company

435 Sixth Avenue

Pittsburgh, Pennsylvania 15219

Facility Name: Beaver Valley Power Station, Unit 2

Inspection At: Shippingport, Pennsylvania

Inspection Conducted: October 16-19, 1979

Inspectors: L. Narrow
L. Narrow, Reactor Inspector

11/5/79
date

L. Narrow / G.A.
G. A. Walton, Reactor Inspector

11/9/79
date

_____ date

Approved by: J. E. Tripp
R. W. McGaughy, Chief, Projects Section
RC&ES Branch

11/13/79
date

Inspection Summary:

Inspection on October 16-19, 1979 (Report No. 50-412/79-07)

Areas Inspected: Routine, unannounced inspection by two regional based inspectors which commenced on the 4-12 shift on October 16, 1979. The inspection covered review of the QC program and observation of work in progress on fabrication and installation of piping; review of structural steel fabrication and erection records; and review of the status of outstanding items. The inspection involved 42 inspector-hours on site by two regional based inspectors.

Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

Duquesne Light Company (DLC)

- *H. N. Crooks, Assistant Director of Quality Control
- *R. Coupland, Director of Quality Control
- *C. R. Davis, Senior QA Engineer
- *D. W. Denning, Assistant Director of Quality Control
- D. Gasper, QC Inspector
- M. Hartman, Training Administrator
- *E. F. Kurtz, Senior QA Engineer
- J. Long, Inspection Supervisor, Structural
- A. F. Mosso, QA NDE Specialist
- D. Rohm, Quality Control Engineer
- E. Staples, QC Engineer
- *R. J. Swiderski, Superintendent of Construction
- A. Tselepis, QC Inspector
- *R. Washabaugh, Manager, Quality Assurance Department
- R. L. Williamson, Quality Control Inspector

Stone and Webster (S&W)

- *C. R. Bishop, Superintendent of Construction
- P. N. Bodine, Supervisor of Document Systems
- *S. M. Dew, Head of SEO
- R. Jackson, Assistant Superintendent of Construction
- *A. C. McIntyre, Site Engineering Office

Schneider, Incorporated

J. Zielinski, Field Engineer

The inspectors also interviewed other licensee and contractor personnel during the inspection.

* denotes those present at the exit interview.

2. Plant Tour

The inspector observed work activities in progress, completed work, and construction status in several areas. Work items were examined for obvious defects and for noncompliance with regulatory requirements and licensee commitments. Specific activities observed by the inspector included soap bubble test of containment liner pad leak test channel,

fit up of containment dome liner, repairs to reactor coolant loop piping and welding activities on safety related piping.

No items of noncompliance were identified.

3. Protective Coating of Containment Liner

The inspector observed provisions for spraying a protective coating on the containment liner, discussed inspection requirements and performance with the QC inspector assigned to this work and reviewed calibration records and control of instruments used during inspections of this work. The inspector observed that the work area was protected, enclosed and heated to maintain the proper environmental control for surface preparations and application of the protective coating.

No items of noncompliance were identified.

4. Vendor Documentation - Containment Liner and Embedments

The inspector audited vendor documentation; including material test reports, certificates of compliance, vendor manufacturing and inspection records and vendor surveillance inspection reports for the following items:

- a. Containment liner plates Assembly 34 B1 and 34 C1, Group CC-1
- b. Containment embedments PC Marks 1843/1-1848/1 and 1854/1-2; Gouveneur Iron Works
- c. Structural shapes Mark No. 1038-M1 M2 and M3; PBI Industries

These documents were audited for conformance to the requirements of specifications 2 BVS-65, 2 BVS-416 and 2 BVS-412, respectively.

No items of noncompliance were identified.

5. Containment Liner and Structural Steel Erection Records

The inspector interviewed the licensee structural QC inspector and reviewed Inspection Reports S 2100 concerning erection of columns and platform steel at elevation 717'-0" and S-2083 for welding of clip angles at elevation 717'-0". These records were reviewed for conformance to the requirements of:

- a. Specification 2 BVS-412, Revision 1, "Structural Steel"
- b. Procedure IP-6.3, dated October 30, 1978, "Structural Steel Erection and Bolting"

The inspector also examined receiving reports and installation records for the first, second and third rings of the containment liner including records of MT and UT examinations and vacuum box tests. These records were examined for conformance to the requirements of Specification 2 BUS-065, Addendum No. 4, "Reactor Containment Liner and Mat Embedments".

No items of noncompliance were identified.

6. Qualifications and Training of QC Personnel

The inspector reviewed personnel records of selected QC inspectors performing surveillance inspections of installation of the containment liner by PDM and inspection of structural steel erection, welding and application of protective coating on the containment liner. The records, including education, experience, training, physical examinations and certificates of qualifications, were reviewed for conformance to the requirements of Section 17 of the PSAR.

No items of noncompliance were identified.

7. Fabricated Tanks

The inspector had previously informed the licensee that defects had been identified at another site in tanks supplied by Industrial Piping and Supply Company (IP&S) and had requested that the licensee determine whether that company had supplied any tanks for this project. Review by S&W had determined that IP&S had not supplied any tanks for this project. This information was confirmed by memo 2 BVM-1065 from S&W to DLC.

The inspector had no further questions concerning this matter.

8. Safety Related Piping-Welding Controls

The inspector audited two weld procedure technique sheets and associated procedure qualification tests for compliance with the ASME Boiler and Pressure Vessel Code Section IX, 1971 Edition, including the Winter 1972 Addenda. The procedures audited were: Schneider Welding Procedure SPBV115M, Revision 1 and associated procedure qualification tests 760820 and 759456, and 115H, Revision 1 and associated procedure qualification tests 761357. The following items were reviewed:

- a. To determine whether the weld procedures selected including all essential variables, supplementary essential variables and non-essential variables are in compliance with Section IX of the ASME B&PV Code.
- b. Determine whether each procedure has been qualified in accordance with Section IX of the ASME B&PV code.

- c. Determine whether each procedure qualification test lists the essential variables for the specific welding process and whether the values of these variables are within the limits of Section IX.
- d. Determine whether all mechanical tests required by Section IX have been performed and properly documented.
- e. To verify that the procedure qualification tests are certified by the contractor and that all mechanical test results meet the ASME B&PV code requirements.

All areas reviewed meet the applicable ASME B&PV code, Section IX.

No items of noncompliance were identified.

9. Repair of Reactor Coolant Loop Piping

The inspector audited inspection and repair activities in progress on Class 1 pipe welds to ascertain compliance with the licensee's commitments. Repair was in progress on the reactor coolant lines 2RC S-275-9-1 and 2RC S-275-6-1. The following items were reviewed:

- The welding procedure used is qualified in accordance with Section IX of the ASME code.
- The repair techniques such as grinding, inspecting and welding, including preheat and interpass controls are specified and in compliance with ASME Section III and IX.
- Welder qualification for welding procedure being used.
- Nondestructive examination of the repair is performed in accordance with the ASME Section III code.
- Records of repair are included as part of the licensee's record.

No items of noncompliance were identified.

10. Welding Material Control

The inspector audited the sub-contractor's welding controls for compliance with Chapter 17 of the FSAR and Section III and IX of the ASME Boiler and Pressure Vessel Code. The following items were reviewed:

- Determine that the welding contractor had established adequate procedures for storing, distributing and handling of welding materials.

- Determine that welding materials are identified and traceable to certified test reports.
- Reviewed certified mill test report for welding material, Heat number 74975, Lot 27681999, E 308-163/32 diameter rod to determine whether ASME code required tests are performed on each lot of material.
- Audited by direct observation of welding rod station number 3 that welding materials are stored with moisture controls, holding ovens with accurate temperature controls are used and segregation of different welding materials is effective.
- Audited by direct observation at rod station number 3 that distribution of welding materials are controlled in accordance with the applicable procedure and unused welding electrodes are returned and placed in holding ovens.
- Determined that there are effective controls for limiting electrode moisture pickup. In each case audited that the welding contractor was controlling moisture pickup by issuing 7018 covered electrodes in portable rod warmers.

All areas reviewed were in accordance with approved procedures. No items of noncompliance were identified.

11. Welder Qualification

The inspector audited the licensee's controls for qualifying welders in compliance with requirements of the ASME Section IX Code. The following items were reviewed:

- Determine whether the welding contractor has a system for maintaining a record of qualification status of all welders and whether this system is utilized.
- The inspector audited the qualifications of one welder, symbol F113, for qualification in the gas tungsten arc welding method. The welder was qualified by radiography on 3/16/79 in the 6G vertical up position. He is qualified in the thickness of .0625 inch to .436 inches. His continuing performance records were also reviewed and found acceptable.

All items reviewed met the requirements of ASME Section IX and no items of noncompliance were identified.

12. Nonconformance and Disposition Reports

The inspector audited six N&D reports to ascertain that acceptable disposition was made. The following N&D's were reviewed:

6101, 6103, 6108, 6109, 6110.

The dispositions were in compliance with licensee commitments and no items of noncompliance were identified.

13. Exit Interview

The inspector met with licensee and contractor representatives (denoted in Paragraph 1) at the conclusion of the inspection on October 19, 1979. The inspector summarized the scope and findings of the inspector as described in this report.

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