

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

Region I

Report No. 50-387/79-10
50-388/79-06

Docket No. 50-387
50-388

License No. CPPR-101 Priority --- Category A
CPPR-102

Licensee: Pennsylvania Power and Light Company

2 North Ninth Street

Allentown, Pennsylvania 18101

Facility Name: Susquehanna Steam Electric Station

Inspection at: Berwick, Pennsylvania

Inspection conducted: March 5-30, 1979

Inspectors: R. M. Gallo, Resident Reactor Inspector
for

May 5, 1979
date signed

date signed

date signed

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

May 5, 1979
date signed

Inspection Summary:
Unit 1 Inspection on March 5-30, 1979 (Report No. 50-387/79-10)
Areas Inspected: Routine inspection by the resident inspector of:
installation and welding of reactor coolant pressure boundary and other
piping; storage of reactor vessel internals; and installation of contain-
ment penetrations. The inspector also performed plant tours. The inspec-
tion involved 55 inspector-hours, including 8 hours during off shift,
by the NRC Resident Inspector.
Results: Of the four areas inspected, no items of noncompliance were
identified in three areas; one apparent item of noncompliance was identi-
fied (Infraction - Failure to follow documented procedures for the control
of nonconforming items - Paragraph 4.b) - in one area.

Unit 2 Inspection on March 5-30, 1979 (Report No. 50-388/79-06)
Areas Inspected: Routine inspection by the resident inspector of:
storage of reactor vessel and intervals; and installation of contain-
ment penetrations. The inspector also performed plant tours. The
inspection involved 8 inspector-hours by the NRC Resident Inspector.
Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

<u>Pennsylvania Power and Light Company</u>	<u>Note</u>
L. Ballard, Site QAE	1
R. Beckley, Site QAE	3
G. Burvis, Site QAE	
E. Carroll, Site QAE	
S. L. Denson, Assistant Project Construction Manager	1,2,3,4
E. Elyard, Site QAE	3
R. H. Featenby, Project Construction Manager	4
M. Gorski, Resident Engineer	3
J. Green, Resident NQA	2,3,4
T. F. Oldenhage, Resident Engineer	2,4
A. R. Sabol, Manager, Nuclear Quality Assurance	
<u>Bechtel Corporation</u>	
G. C. Bell, Bechtel QAE	
M. A. Drucker, Electrical QAE	2,3,4
G. Gallandorm, Lead Pipe/Mechanical Engineer	
G. Gelinas, QC Lead Engineer Piping/Mechanical	3
J. Khandar, Mechanical QAE	
A. Konjura, Mechanical QAE	
R. Lamb, Assistant Lead Welding QCE	4
H. Lilligh, Project QAE	1,2,4
W. Mourer, Project Superintendent	1
J. O'Sullivan, Assistant Project Field Engineer	3
B. Ott, Lead Welding QCE	3
H. Plagge, Lead Electrical Engineer	3
W. Ross, Assistant Lead Welding Engineer	
G. Schrader, Project Field QCE	
A. Spielhagen, Project Field Engineer	1,3
K. Stout, Assistant Project Field QCE	1,2,3,4
C. Turnbow, Field Construction Manager	3
L. A. Whewell, QC Assistant Lead Mechanical Engineer	
<u>General Electric Company Nuclear Energy Division (NED)</u>	
C. R. Clark, GE I&SE Project Manager	3
E. A. Gustafson, Site Manager	3
T. M. LeVasseur, QC Representative	1,3
F. W. Smith, Project Engineer	3

Peabody Testing CompanyNote

M. Whalen, NDE Supervisor

Notes

- 1 - denotes those present at exit interview, March 9, 1979
- 2 - denotes those present at exit interview, March 16, 1979
- 3 - denotes those present at exit interview, March 23, 1979
- 4 - denotes those present at exit interview, March 30, 1979

The inspector also interviewed other PP&L employees, as well as, employees of Bechtel, Peabody Testing Company, and General Electric Company.

2. Plant Tours - Units 1 and 2

The inspector observed work activities in progress, completed work and plant status in several areas of the plant during general inspection of the plant. The inspector examined work for any obvious defects or noncompliance with regulatory requirements or license conditions. Particular note was taken of presence of quality control inspectors and quality control evidence such as inspection records, material identification, nonconforming material identification, housekeeping and equipment preservation. The inspector interviewed craft personnel, supervision and quality inspection personnel as such personnel were available in the work areas.

No items of noncompliance were identified.

3. Reactor Coolant Pressure Boundary and Safety-Related Piping (Welding)

The following listed activities were examined and verified that they were being performed in accordance with the ASME Section III and IX Codes, PSAR Appendix D, the Bechtel Quality Assurance Manual Section III, Site Specifications M 204, M. 207, drawings M-198 and M-199, GE Specifications 22A4628 and Peabody Testing Procedure IPPT-300-39-03, and GE I&SE Procedures DWP-SQI-1.4, Revision 4; ISE-GWP-N-FI, Revision 2; ISE-SQI-1.1, Revision 2; and WQ-SQI-1.4.

a. Welding - Unit 1

Welding of: DCA-110-2-FW12

VRR-B31-2-FWB24

Feedwater Nozzle to Safe End N4F-330°

VRR-B31-2-FWB1-R-1

The inspector verified selected detailed drawings, welding procedures, base and filler materials as specified, welder qualification, quality control documentation, weld appearance, welding variables such as gas flow and amperage and nondestructive testing activities as appropriate.

No items of noncompliance were identified.

b. Nondestructive Testing - Unit 1

Liquid Penetrant Testing of Weld Joint Nos:

SP-DCA-134-2 FW's 1-10

SP-DCA-134-4 FW's 2-10

Radiographic Inspection Records for:

VRR-B31-2-FWB2 (including verification of inside and outside surface condition)

VRR-B31-2-FWB1-R-1

The inspector verified, as appropriate, surface preparation, qualification of examiners and testing techniques.

c. Nondestructive Testing - Information Only - Unit 1

During the review of Nondestructive Testing Records for Weld Joint No. VRR-B31-2-FWB1, the inspector noted that two "INFO ONLY" radiographs had been made and repairs accomplished. The Liquid Penetrant Inspection Reports completed by Peabody Testing for the repair areas had not yet been included in the documentation of the original weld. These Liquid Penetrant Inspection Reports (or a subsequent inspection report) were

required to document inspection of the final weld surface. The Bechtel BQAM, Section III, Appendix 3, Welding Standard, WD-1, Revision 4, "Quality Control and Documentation Procedure for Welding and Nondestructive Examination," Section 11.4.3 discusses storage of information radiographs but not the documentation of repairs required based on those radiographs.

The inspector inquired how the licensee controls the "INFO ONLY" radiography and repairs based on that radiography. The inspector stated that this matter was considered unresolved pending review by the licensee and NRC (387/79-10-01).

4. Reactor Coolant Pressure Boundary and Safety-Related Piping - Unit 1

a. Piping System Work in Progress

The inspector examined work activities for the RHR Loop "A" discharge line to the recirculation system and the RHR Loop "A" containment spray header supply line. The inspector verified that activities examined were in accordance with the ASME Code Section III, PSAR Appendix D, FSAR Section 5.4.7, the Bechtel Quality Assurance Manual Section III, Bechtel Specification M-204, and drawings M-199, M-151, DCA-110-1, GBB-107-2, NRC 3521, and Field Procedure P-5.

The inspector observed handling, installation, protection, initial alignment and identification. The inspector reviewed associated QC inspection records, verified correct materials were installed, verified that work activities were in accordance with the procedures and specifications referenced above.

Except as noted in Paragraph b below, no items of noncompliance were identified.

b. Control of Nonconforming Items

During observation of installation work in progress, on March 5, 1979, on the RHR containment spray header supply line, pipe spool GBB-107-2-6, the inspector noted a QC hold tag attached to the pipe spool.

Further review indicated that NCR 3521 had been validated on March 2, 1979, but had not been dispositioned as of March 5, 1979. The inspector noted that Field Inspection Manual Procedure G-3 requires that dispositions for nonconformances require concurrence from the Project Field Quality Control Engineer (PFQCE) prior to implementation. Procedure G-3 also requires that specific written approval must be obtained to permit installation of a nonconforming item.

To determine if this unauthorized work on a nonconforming component was an isolated case, the inspector reviewed eleven additional Nonconformance Reports (NCR's) which had not yet been dispositioned. The inspector found that installation work, including final torquing of hold down bolts, had been accomplished on core spray pump 1P-206D although NCR 3350 had not been dispositioned.

A conditional release to allow "lifting and inspection" had been approved for NCR 3350 but no engineering disposition had been submitted to PFQCE for concurrence prior to the other rework being accomplished.

The failure to follow documented procedures for the control of nonconforming items is contrary to the requirements of 10 CFR 50, Appendix B, Criterion V (387/79-10-02).

c. Valve Installation

During observation of the installation of gate valve 24-DCA-GT-ZS-5160B-P-Z in the RHR system discharge line DCA-110-1, the inspector noted two excavated areas on the inside surface of the valve body. The inspector inquired if the excavated areas met minimum wall thickness requirements for this system.

This matter is considered unresolved pending investigation by the licensee and review by the NRC (387/79-10-03).

d. Piping System Installation Verification

The inspector examined one partially completed piping run and verified that it was installed in accordance with approved drawings and specifications. The piping run examined was the High Pressure Coolant Injection Steam Line from Main Steam Line "B" to Penetration X-11. The inspector verified conformance to FSAR Section 6.3.2.2.1 and drawings DBA-102-1, M-26-3, M-26-4, M-155, and M-141.

No items of noncompliance were identified.

5. Reactor Vessel Installation - Unit 2

The inspector examined protection of the installed reactor vessel and stored closure head for compliance with site procedures and PSAR Appendix D commitments. The inspector reviewed the procedural requirements for vessel protection and verified that required inspections and preventive maintenance were being completed.

Documentation reviewed by the inspector included:

- Field Inspection Procedure G-5, Revision 0
- Project Special Provisions Notice SF/PSP G-5.1, Revision 3
- Equipment Maintenance Requirement and Record Form for the Unit 2 Reactor Vessel and for Reactor Vessel Closure Head

No items of noncompliance were identified.

6. Reactor Vessel Internals - Units 1 and 2

The inspector examined protection of the stored reactor vessel internals for compliance with site procedures and PSAR Appendix D commitments. The inspector reviewed the procedural requirements for internals protection and verified that required inspections were being completed. The inspector observed in-plant storage of the steam dryer and the shroud head and separator for Units 1 and 2 and the Unit 2 shroud.

Documentation reviewed by the inspector included:

- Field Inspection Procedure G-5, Revision 0
- Project Special Provisions Notice SF/PSP G-5.1, Revision 3
- Equipment Maintenance Requirements and Record (EMRR) Form for Unit 1 and 2 steam dryer and the shroud head and separator and the Unit 2 shroud.



The inspector noted that Nonconformance Report (NCR) 3381 regarding the storage of the Unit 1 shroud head and steam separator and the steam dryer was validated on January 29, 1979, and sent to General Electric Company for disposition on February 9, 1979. The GE reply to this NCR was issued on March 15, 1979. As of March 30, 1979 all actions required by the GE reply had not been implemented. The inspector stated that the timeliness of the response to the NCR and the timeliness of implementation of required actions may not satisfy the requirements of 10 CFR 50, Appendix B, Criterion XIII regarding preservation of equipment. The licensee's representative stated that a review would be conducted of the Project Special Provisions Notice SF/PSP G-3.2, Revision 2, regarding GE equipment to determine if adequate measures have been established to control the preservation of GE equipment.

This matter is considered unresolved pending review by the licensee (387/79-10-04 and 388/79-06-01).

7. Containment Penetrations - Units 1 and 2

- a. The inspector reviewed the method of installation of the seismic support brace for electrical penetration 2W105D. The inspector found that the expansion anchor installation was in accordance with Bechtel drawing E-26-3, Detail 2, and Specification C-72.

The inspector reviewed three documents being used for penetration installation and related work. The inspector reviewed these documents for technical adequacy, appropriate approvals and conformance to Quality Assurance commitments found in the PSAR, Appendix D. Documents reviewed included: Bechtel Specification E-135, Revision 6; Bechtel Specification SK-E-116, Revision 3; and Westinghouse Specification PEN-TR-76-17 (Bechtel No. E-135-46-1-1).

No items of noncompliance were identified.

- b. The inspector reviewed PP&L letter PLB-9574 regarding repairs made to electrical penetration potting compound. Nonconformance Reports 3104 and 3237 identified the cracking of the potting compound. The disposition for these NCR's indicated that the potting compound is applied to improve the appearance of the surface. PBL-9574, however, requests additional information. Resolution of this matter will be reviewed by an NRC inspector during a subsequent inspection.

No items of noncompliance were identified.

8. Fire Prevention/Protection

The inspector examined fire prevention and protection activities including the review of site procedures and the observation of field activities in the area of fire prevention and protection. The inspector observed the following in work areas:

- Protective coverings are nonflammable
- Flammable materials such as gas cylinders stored in designated areas
- Combustible scrap materials and trash removed
- Metal nonflammable scaffolding inside the reactor vessel and other critical locations
- Cutting and welding processes in accordance with site requirements
- Temporary heating processes such as weld preheating in accordance with site requirements
- No smoking area restrictions observed
- Fire protection/prevention equipment provided and controlled

The inspector examined the following documents relative to the above:

- Project Fire Control and Emergency Plan - August 13, 1976
- Bechtel Safe Practices Manual - July 17, 1974
- Bechtel Safety Manual - Section 5 - Undated
- Bechtel Fire Protection and Prevention Manual - Undated

No items of noncompliance were identified.

9. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items or items of noncompliance. Unresolved items identified during the inspection are discussed in Paragraphs 3.c, 4.c, and 6.

10. Exit Interview

At periodic intervals during the course of the inspection, meetings were held with facility management (dates and attendees are denoted in Detail 1) to discuss inspection scope and findings.



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