

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

Region I

Report No. 50-387/79-36
50-388/79-19
Docket No. 50-387
50-388

License No. CPPR-101/CPPR-102 Priority -- Category B

Licensee: Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Facility Name: Susquehanna Steam Electric Station, Units 1 & 2

Inspection at: Berwick, Pennsylvania

Inspection conducted: October 29 - November 2, 1979

Inspectors: *R. J. Paulino*
R. J. Paulino, Reactor Inspector

Jan. 11, 1980
date signed

date signed

date signed

Approved by: *S. D. Ebner*
S. D. Ebner, Chief, Engineering Support
Section 2, Reactor Construction and Engineering
Support Branch

1-11-80
date signed

Inspection Summary:

Combined Inspection of Units 1 and 2 on October 29 thru November 2,
(Report No. 50-387/79-36, 50-388/79-19)

Areas Inspected: Routine, unannounced facility inspection by a regional based inspector of the licensee's work activities and documentation pertaining, to the installation of safety related instrument components/systems. The inspection included a plant tour and discussions with crafts personnel. The inspection involved 33 inspector hours on site by one regional based inspector.

Results: Of the two areas inspected, two apparent items of noncompliance were identified in the area of documentation (infraction - failure to provide adequate design review resulting in nonconforming installation and failure to follow procedure for tagging nonconforming items. One apparent item of noncompliance pertaining to work activity - (infraction - failure to maintain separation requirements for redundant systems.)

DETAILS

1. Persons Contacted

Pennsylvania Power and Light Company

*Mr. J. Bradford, Quality Supervisor.
Mr. P. Capotosto, Site QAE
*Mr. S. Denson, Assistant Project Construction Manager
*Mr. J. Everett, ISG Quality Engineer
*Mr. Featenby, Project Construction Manager
*Mr. J. Graham, Assistant Plant Superintendent
*Mr. J. Green, Resident NQAE
*Mr. L. O'Neil, Technical Supervisor
Mr. R. Prego, Site QAE
*Mr. R. Webster, ISG Supervisor

Bechtel Power Corporation

*Mr. G. Cranston, Resident Project Engineer
*Mr. P. Drucker, Lead QA Engineer
*Mr. G. Gelinas, Lead Pipe/Mechanical QC Engineer
Mr. N. Griffin, Assistant Project Engineer
Mr. J. Hydrick, QC Engineer
Mr. K. Hudelson, QC Inspector
Mr. J. Kato, Field Engineer
Mr. J. Koti, Assistant Field Engineer
*Mr. H. Lilligh, Project QA Engineer
*Mr. J. Minor, Project Field Engineer
Mr. W. Montero, Resident Electrical Engineer
Mr. S. Murray, Lead Instrument Engineer
*Mr. J. O'Sullivan, Assistant Project Field Engineer
Mr. N. Shad, Civil Supervisor
*Mr. C. Turnbow, Field Construction Manager

U.S. Nuclear Regulatory Commission

*Mr. H. Nicholas, IE: Region I (startup)
*Mr. G. Rhoades, Resident Inspector

*Denotes personnel present at the exit interview.

2. Plant Tour

The inspector observed work activities in progress, completed work and plant status in several areas of the plant during a general inspection of Units 1 and 2.

The inspector examined work items for obvious defects or noncompliance with regulatory requirements or licensee commitments. Particular note was taken regarding the presence of quality control inspectors and indications of quality control activity through visual evidence such as inspection records, material identification, noncompliance and QC acceptance tags.

In addition, the inspector interviewed craft and supervisory personnel encountered in the work areas.

During the inspection of the Unit 1 and 2 facility the inspector made the following observations:

- a. Seismic supports for class 1E raceways/conduits have been installed in concrete block walls of battery rooms numbered 607 and 608 of Unit 1 and 609, 610 and 615 of Unit 2 utilizing the threaded, through bolt to anchor the seismic support bracket per detail 15 and 16 of drawing C-805 sheet 2, and criteria of drawing C-807 as required by specification E-53. The above referenced details were inadequate in that the drawing did not specify required bolt spacing and minimum required distance from threaded, through bolts to edge of concrete block wall. In addition, DCN no. 1 to drawing C-805 sheet 2, revision 10, issued on October 9, 1979 to provide installation criteria for threaded, through bolts in block walls does not address the number of seismic supports which were installed prior to the issuance of the DCN No. 1 and are now nonconforming in that the minimum spacing requirements of specification C-72 cannot be met. Section 4.1.5 of specification C-72 states, in part, "For concrete block walls, the edge distance shall be 6 inches minimum...3 inch if load is less than 50%..." The edge distance to the threaded, through bolts utilized in anchoring the seismic supports adjacent to the doorway leading to the battery rooms noted above measured 1-2 inches. The licensee was informed that this item is an item of noncompliance and an infraction of 10 CFR 50, Appendix B, Criterion III which states, in part: "Measures shall include provisions to assure that appropriate quality standards are specified and included in design documents..." (50-387/79-36-01, 50-388/79-19-01).

- b. Separation Criteria for redundant flow transmitter nos. FT-08612A and FT-08623B located at elevation 787' - 0, area 21 does not meet separation requirements of specification number G-21, revision 1. Section 5.1.3 of specification G-21, revision 1, states in part: "instrument lines...shall have at least 3 ft. horizontal or vertical separation or, if this separation is not possible, a physical barrier equivalent to 12 gauge sheet steel shall at least continue one ft. above and below the plane between the two lines." The inspector observed that instrument lines from flow transmitters FT-08612A and FT-8623B intersect at a point where the spacing between the instrument lines is less than 2 ft. and no barrier has been provided. This installation was inspected and accepted by QC as noted on QCIR JD-21-10-2-4 and QCIR JD-21-10-4-9.

The licensee has been informed that this item is an item of noncompliance and an infraction of 10 CFR 50, Appendix B, Criterion V which states, in part, "Activities affecting quality shall be prescribed by documented instructions, procedures...and shall be accomplished in accordance with these instructions, procedures..." (50-387/79-36-02; 50-388/79-19-02)

- c. The inspector observed a number of pipe/conduit mounting base plates that utilize P1950/PS3143 flat gussett fittings installed throughout both facilities. The licensee informed the inspector that the quality of this type support had been identified in nonconformance report number 4474, dated August 31, 1979 as indeterminate and subject to review by engineering on a case by case basis. The inspector noted that nonconformance tags were not placed on the nonconforming item but a tag was issued for each building containing the flat gussett type base plate.

Paragraph 4.4.3 of the Bechtel Field Instruction Manual G-3, dated June 4, 1974 states, in part, "...when more than 1 item is involved, each item...shall be tagged. The number of tags applied and their location shall be noted..." The licensee was informed that this item was an item of noncompliance and an infraction of 10 CFR 50, Appendix B, Criterion V which states, in part, "Activities affecting quality shall be accomplished in accordance with written instructions, procedures..." 50-387/79-36-03; 50-388/79-19-03)

3. Instrumentation Components/Systems - Observation of Work Activities

The inspector reviewed work performance, partially completed work and completed work pertaining to the Core Spray Pump Room Instrumentation Panel 1C019. The inspector verified that the requirements of applicable specification, work procedures and inspection procedures have been met in the areas relating to location, installation mounts, tube routing, tube bend radius, minimum slope requirement and tube restraints.

Documents and Components examined for this determination include:

- Tubing support layout drawing nos. JD-25-1-2 revision 6, JD-25-1-2A revision 7, JD-25-1-2B revision 6, JD-25-1-2C revision 6 and JD-25-1-2D revision 7
- Instrument Nos. PT-E21-N001B, PS-E21-N008B, PI-E21-1R001B, PI-E21-1R001D and PS-E21-N009B.
- Specification Nos. FP-J-2, J-G-16, E-53, ZE-53, ZJ-G16, FIM-G-21 and C-72 revision 1.
- QCI number J-1.10 revision 5, entitled "Installation of Instruments".

No items of noncompliance were identified.

4. Instrumentation Components/Systems - Quality Records

The inspector reviewed licensee project field audit number 20-1-3, dated April 3, 1979 and 20-34 dated September 25, 1979 pertaining to instrument process control and audits dated April 26 and May 28, 1979 on installation of instruments to determine whether the records reflect current status, are legible, complete and reviewed by QC personnel.

No items of noncompliance were identified.

5. Exit Interview

The inspector met with licensee and construction representatives (denoted in Details, paragraph 1) at the conclusion of the inspection on November 2, 1979. The inspector summarized the purpose and scope of the inspection. The licensee concurs with the inspection findings.