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

Region I

Report No. 50-352/79-07
50-353/79-07

Docket No. 50-352
50-353

License No. CPPR-106
CPPR-107 Priority -- Category A

Licensee: Philadelphia Electric Company

2301 Market Street

Philadelphia, Pennsylvania 19101

Facility Name: Limerick Gneration Station, Units 1 and 2

Inspection at: Limerick, Pennsylvania

Inspection conducted: July 5, 6, and 9, 1979

Inspectors: J. Mattia — 9/18/79
J. Mattia, Reactor Inspector — date signed

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_____ — date signed

Approved by: R. W. McGaughy — 9/20/79
R. McGaughy, Chief, Projects Section, RC&ES Branch — date signed

Inspection Summary:

Unit 1 Inspection on July 5, 6, and 9, 1979 (Report No. 50-352/79-07)
Areas Inspected: Routine, unannounced inspection by regional based inspector of work activities and records associated with safety related piping. The inspector also performed a plant tour inspection. The Unit 1 inspection involved 23 inspector-hours on site by one regional based inspector.
Results: Of the two areas inspected, no items of noncompliance were identified in one area, two apparent items of noncompliance were identified in one area (Infractions - (1) Failure to follow design requirement for welding of safety related pipe restraint, Paragraph 4; (2) Failure to follow design specifications requirement for the welding of temporary attachments to containment liner Paragraph 4).
Unit 2 Inspection on July 5, 6, and 9, 1979 (Report No. 50-353/79-07)
Areas Inspected: Routine, unannounced inspection by regional based inspector. The inspector performed a plant tour inspection. The Unit 2 inspection involved 2 inspector-hours on site by one regional based inspector.
Results: No items of noncompliance were identified.

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Region I Form 12
(Rev. April 77)

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DETAILS

1. Persons Contacted

Philadelphia Electric Company

*D. Clohecy, QA Engineer
*J. Corcoran, Field QA Branch Head
D. DiPaolo, QA Engineer
J. Evans, QA Engineer
*J. Fedick, Construction Engineer
*S. Genca, Assistant QA Engineer
*D. Marascio, QA Engineer

Bechtel Power Corporation

*T. Altum, Lead Field Welding Engineer
*B. Dragon, QA Engineer
*T. Fallon, Assistant Project Field QC Engineer
*H. Foster, Assistant Project Field QC Engineer
*R. French, Field Contracts Administrator
*G. Harper, Subcontracts Field Engineer
*M. Jan, Area Engineer
*G. Kelly, QA Engineer
*E. Klossin, Project QA Engineer
*R. Leingang, Assistant Project Field Engineer
M. Norman, Assistant Lead QC Weld Engineer
*L. Pons, Resident Engineer
*J. Reiney, Project Construction Manager
*R. Sevo, Lead QA Engineer
L. Vernon, QC Weld Engineer
T. Waters, Lead QC Weld Engineer
*R. Zittel, Area #1 Superintendent

* Denotes those in attendance at the Exit Interview

2. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (352/79-02-05): Failure to properly store safety related stainless steel pipe spools in laydown area. The inspector reviewed four licensee audit reports, Nos. P-121, P-122, P-123, and P-127, which reported the results of the audits the licensee conducted on pipe storage in the laydown area and also in the plant buildings. The audit results were properly documented and timely corrective action had been taken. The inspector inspected the laydown area for storage of safety related stainless steel pipe spools. The inspector noted that nine stainless steel spools were not stored in accordance with the requirements of the storage procedure.

The licensee identified these spools (DCA-201-1-1 thru DCA-201-1-6 and DCA-101-1-2, -3, and -4), as the surplus spools mentioned in their audit report P-127. The inspector verified that these spools were surplused; however, the Bechtel memo which was dated June 12, 1979, stated that the above spools can be used in whole or canibalized for use in rework of other systems if the material is compatible with that system. The inspector informed the licensee that since these pipe spools may be used in a safety related system, they have to be stored in accordance with the requirements of the Bechtel Storage Procedure. Corrective action was taken and the nine pipe spools were stored in accordance with the Bechtel Job Rule G-8 Requirement.

No items of noncompliance were identified.

3. Plant Tour (Units 1 and 2)

The inspector toured the Units 1 and 2 containment and reactor buildings observing work in-progress, inplace storage practices, area cleanliness, and completed work. The inspector examined work items for any obvious defects or noncompliance with Regulatory Requirements. The following item was identified during this plant tour inspection:

a. The inspector noted a partial weld buildup on a safety related pipe located in Area 15 at elevation 181', which was adjacent to Hanger HBB-117-H18. The licensee stated that a nonconformance report, No. 3615, was issued for this weld. It appears that this weld repair was made without Bechtel Quality Control being notified. The surface condition prior to the repair and the depth of the repair are unknown. The licensee has issued a Quality Action Request (QAR #F-128) to Bechtel stating that this is a recurrence of unauthorized welding and that if corrective action is not effective, a Bechtel Management Corrective Action may be warranted. The inspector informed the licensee that this item is considered unresolved pending review of Bechtel's corrective action regarding this matter (352/79-07-01).

4. Reactor Coolant Pressure Boundary - Observation of Work (Unit 1)

The following listed activities were observed to determine that the requirements of selected portions of the ASME III and IX Codes, the Bechtel QA Manual (ASME Section III) and the Bechtel Specifications P-319 (Revision 7), P-301 (Revision 6), and P-322 (Revision 1) had been adhered to:

a. Primary Steam and Feedwater Piping Restraints

The inspector inspected pipe restraint weld joints in various stages of completion. The restraints inspected were identified as PR-9, PR-42, PR-47, PR-12, PR-43, PR-11, and PR-44. The following items were found during this inspection:

(1) A backing bar is used when welding the two circumferential pieces of a restraint together. The inspector notes that the backing bar is attached to the restraint by various amounts of weld, since there are no requirements for the amount of weld to be used. There are instances where the backing bar is either tack welded on both edges, or one edge is welded to the restraint. The inspector also could not find in various documents any acceptance criteria for what is the allowable gap between the backing bar and restraint. The inspector questioned the QC engineer what he used for an acceptance criteria. He stated that his criteria was "tight against the restraint." The inspector informed the licensee this is considered unresolved pending review of their evaluation of this situation (352/79-07-02).

(2) The inspector also noted during his inspection of the pipe restraints that the restraints supplied by Chicago Bridge and Iron had a cope or access hole where the horizontal and vertical weld joints coincide. This was apparently done to assure that a full penetration weld is obtained. The Mississippi Valley Company supplied restraints do not have an access hole at the weld joint junction, therefore, it is questionable that the required full penetration weld can be obtained. The licensee stated that this item will be evaluated. The inspector informed the licensee this item is considered unresolved pending review of their evaluation (352/79-07-03).

(3) During the inspection of completed restraint, identified as PR-9, the inspector noted that the backing bar was welded on one edge only and was warped. The completed weld joint (horizontal) was approximately 1/4 of an inch misaligned. The weld joint was accepted by QC engineer on April 9, 1979. A review of Drawing C-292, Revision 8, indicated that a Field Change Request No. C-5542F was issued on April 9, 1979 to provide for fitup tolerances for restraints. This request was approved as Field Design Change No. 5 and it requires that when there is a misalignment (1/2" maximum) the backing bar is to be removed after one side of weld joint has been welded and a six to one taper shall be provided at the weld joint where the backing bar was. This was not done. This is contrary to the Limerick Procedure PSP-G-6.1, Revision 2,

which requires a new inspection for additional work to be accomplished to completed work due to an engineering change. The licensee was informed that this was an item of noncompliance (352/79-07-04).

(4) During the above inspection of restraints, the inspector also noted that temporary brackets (used for construction aids) were welded to the containment to temporarily support or align piping. The inspector asked to see documentation for these temporary welds to determine if they were being controlled. The inspector found that these welds were treated as nonsafety related, therefore, Quality Control was not involved and weld history information was not documented. Several of the welds were made on liner penetrations (penetrations X9A and X9B), which were 1-1/2 inches thick, therefore, requiring a minimum preheat of 200°F. The licensee was informed that this was contrary to the requirements of Bechtel Specification C-2, which require that welding of temporary attachments be controlled (use of qualified welders and procedures, preheat, and nondestructive examination of liner after removal of temporary attachment.), and that this is an item of noncompliance (352/79-07-05).

5. Reactor Coolant Pressure Boundary - Review of Records (Unit 1)

A review of two pipe spool Quality Assurance Document packages was performed to verify compliance with Specification P-312, the ASME III Code, and Regulatory Requirements. The following pipe spool document packages were reviewed:

Pipe Spool	Size	Nuclear Class	Material
DCA-105-1-3	20"	1	304 Stainless Steel
DCA-105-1-4	20"	1	304 Stainless Steel

The documents reviewed consisted of the material test reports, shop fabrication and inspection records.

No items of noncompliance were identified.

6. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Three unresolved items disclosed during this inspection are discussed in Paragraphs 3 and 4.

7. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on July 9, 1979. The inspector summarized the purpose and scope of the inspection and the findings.