U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket/Report: 50-352/82-15

License: CPPR-106

Licensee: Philadelphia Electric Company

Facility: Limerick Generating Station, Unit No. 1
Limerick, Pennsylvania

Dates: November 15 - December 29, 1982

Inspectors: S K Chaudhary — 12/29/82
Suresh K. Chaudhary, Senior Resident Inspector — Date Signed

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Approved: E C McCabe — 12/30/82
E. C. McCabe, Acting Chief, Reactor Projects Section 2 C — Date Signed

Summary: Inspection on November 15 - December 29, 1982 (Report 50-352/82-15)
Routine resident inspection (65 hours) of: (1) control of design and installation of supports and snubbers on main steam and recirculation piping systems; and (2) surveillance of welding and NDE activities. No violations were identified.

DETAILS

1. Persons Contacted

PECO

J. M. Corcoran, Field QA Branch Head
F. J. Coyle, QA Engineer
L. C. Dyer, QA Engineer
M. J. McGill, QA Engineer
W. E. Shuff, Construction Engineer

BECHTEL POWER CORPORATION

R. J. Bulchis, Resident Project Engineer
M. E. Greenidge, Field Contracts Administrator
E. R. Klossin, Project QA Engineer
E. D. Patel, Deputy PFE
M. Schlager, Field Engineer
K. J. Stoudt, Project Field QC Engineer

In addition to the above, other managers, supervisors, engineers, technicians, and craftsmen were contacted and interviewed throughout this inspection period as the inspector interfaced with their work.

2. Plant Tour and Walk-Through Inspections

Periodically during the inspection, the inspector made plant tours of Unit No. 1 and the common facilities of this unit with Unit No. 2 and examined completed work, work in-progress, quality control activities, and equipment storage, handling, and maintenance. He discussed the technical aspects of the work with craftsmen, supervisors, and engineers to assure that work was being performed in accordance with project requirements. Specific activities observed during these inspections include cable pulling, pipe handling, pump and equipment installations for HVAC, and welding activities. The examination of these activities covered the entire plant site, however, the inspector placed special emphasis on the work in the primary containment, reactor building, reactor control structure, and the ultimate heat-sink cooling pond.

No violations were identified.

3. Pipe Supports and Restraints in Primary Containment

The inspector reviewed documentation and held discussions with cognizant licensee personnel to determine the adequacy of control on design and erection of shock suppressors (snubbers) on main steam and recirculation system piping. The inspector also visually examined the erected supports on these systems. Following documents were reviewed:

- PE letter to GE, PLG-1039, dated 6/19/80
- Bechtel letter to GE, BLG-4430, dated 8/20/80
- Bechtel letter to GE, BLG-4441, dated 9/1/80
- GE letter to Bechtel, GLB-3009, dated 10/31/80
- Bechtel letter to PE, BLP-22316, dated 9/16/80
- PE letter to Bechtel, PLB-11550, dated 10/31/80
- Bechtel letter to PE, BLP-23056, dated 1/23/81
- Bechtel Material Requisition -"Nuclear Service Clamps for Snubber Attachment" Rev. 3, dated 7/23/82
- Bechtel Specification, P-130
- Bechtel Specification, P-143, Rev. 3
- Bechtel clamp data sheets, A5-1 through A5-16, attached to Requisition No. P-143
- Bechtel letters to GE: BLG-4648, dated 10/9/81
  BLG-4673, dated 11/23/81
  BLG-4714, dated 1/15/82
  BLG-4757, dated 3/25/82
  BLG-4790, dated 4/22/82
- Bechtel EMF-7966, "As-Built drawing Submittal Schedule", approved 10/20/82

Based on the review of the above documents, the inspector determined the following:

a. Design and procurement of snubbers were originally GE's responsibility.

b. In June, 1980, PE withdrew the above work from GE's scope of work and instructed Bechtel to design, procure, and install the snubbers on main steam and recirculation systems. (PLG-1039; BLG-4441)

c. Bechtel developed snubber clamp design and specification per GE requirements and submitted to GE for review and approval. (BLG-4441)

d. GE reviewed and commented on the design specification, and stated that GE would review all clamp drawings. (GLB-3009)

e. Bechtel design specification P-143, paragraph 4.5 explicitly specified the required spring constants for the clamps.

f. PE was informed of GE's advice to Bechtel regarding the unsuitability of Bergen Paterson's standard strap-type clamp, and to approve two additional suppliers (E-Systems and Western Piping) to the bidder's list. (BLP-22316)

g. PE added E-Systems and Western Piping to the approved bidder's list.

h. The contract for supplying the snubber clamps was awarded to E-Systems.

Furthermore, Bechtel has periodically been submitting snubber drawings for these systems to GE for review and comment to assure that the supports meet GE's requirements. (BLG's 4648, 4673, 4714, 4757, 4790)

The inspector determined that adequate control was exercised over the design and procurement of snubbers and clamps such as to assure the integrity of design was not compromised and/or overlooked in the transfer of responsibility for design and procurement; adequate interface was maintained between the A/E and NSSS vendor to satisfactorily resolve any comments by GE on Bechtel design and procurement actions.

No violations were identified.

4. Surveillance of Welding and NDE

The inspector witnessed a non-destructive examination of a weld in downcommer DC45 at azimuth 270°, elev. 203. The procedure covering the MT examination MT-P-1, 2, Rev. 1 was also reviewed. The inspector determined that the examination was being conducted per the applicable procedure, there was adequate technical and QC coverage available, and the NDE technician was knowledgeable.

The inspector also witnessed a preparation for welding shims to liner for pipe support GBC-116-H 902/1, and reviewed the applicable drawing. The inspector determined that the preparation was adequate, the welder had drawn correct filler metal rod for use, and was cognizant of all essential variables and other requirements of WP-P1-A-Lh/3.

No violations were identified.

5. Exit Interview

An exit interview was held on December 28, 1982 with members of the licensee staff listed in paragraph 1. The inspector discussed the scope and findings of this inspection.