

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-352/83-01

Docket No. 50-352

License No. CPPR-106 Priority -- Category A

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Facility Name: Limerick Generating Station Unit 1

Inspection At: Limerick, Pennsylvania

Inspection Conducted: January 4-7, 1983

Inspector: L. Varela
A. A. Varela, Lead Reactor Engineer

1/25/83
date

Approved by: L. Durr
J. P. Durr, Chief, Materials and
Processes Section

1/25/83
date

Inspection Summary:

Inspection on January 4-7, 1983 (Report No. 50-352/83-01)

Areas Inspected: Routine, unannounced inspection by a regional based inspector to observe work and review documentation for safety related mechanical components' receipt inspection, storage, handling, observation of in-process activities during their installation and, review of monitoring and surveillance reports of these activities. The inspection involved 32 inspector-hours on site.

Results: No violations were identified.

DETAILS1. Persons ContactedPhiladelphia Electric Company

- *J. M. Corcoran, Field QA Branch Head
- *E. C. Gibson, Quality Assurance Engineer

Bechtel Power Corporation

- R. Arditi, Quality Control Engineer
- *B. A. Dragon, Quality Assurance Engineer
- H. Gilbert, Lead Mechanical QC Engineer
- *E. R. Klossin, Project QA Engineer
- B. Madeja, Quality control Engineer
- *E. Patel, Deputy Field Engineer
- *K. L. Quinter, Assistant Project Field QC Engineer
- *K. G. Stout, Assistant Project Field QC Engineer
- *D. C. Thompson, Assistant Project Field QC Engineer
- E. Turkowski, Quality Control Engineer

USNRC

- *S. K. Chaudhary, Senior Resident Inspector

*Attendees at Exit Meeting

2. Plant Inspection - Tour

The inspector observed work activities in progress, completed work and status of safety related component installation within the containment building. The inspector examined work for any obvious defects or non-compliance with regulatory requirements on license conditions. Inspection personnel were observed performing required inspections and those interviewed were knowledgeable in their work activities. These specific items were included in the inspection tour: reactor recirculation pumps, motors and valves; residual heat removal pumps and motors; high pressure coolant injection pumps; RHR heat exchanges.

No violations were identified.

3. Safety Related Components - Observation of Work and Record Review

The reactor recirculation pumps were selected for review of installation, storage and maintenance practices. This is a sample of a representative safety related component within the reactor coolant pressure boundary (RCPB). The residual heat removal (RHR) heat exchangers were selected as representative of safety related components, outside the RCPB. The status of installation of these units are estimated by BC to be 90 percent. QC

records for these components therefore were maintained as in-process records. Documentary evidence of conformance to procedures, established by General Electric, NSSS suppliers and Bechtel (BC) of these components were reviewed on receipt, storage and maintenance prior to installation. The latter was observed accomplished in accordance with SAR commitments and NRC requirements.

Installation records (in-process) were reviewed and coordinated with observation of completed work. The inspectors record review and observations were augmented by interviews and discussions with responsible QC engineers. He verified rework notices for incomplete work, status of NCRs and acceptability of QC sign-off on completed work during these interviews. Observation of the work was performed together with the licensee's QA mechanical engineer and a BC QC mechanical engineer. QC in-process mechanical records were noted for coordination of interrelated craft work such as installation of integral and connecting process piping, pipe hangers and electrical. Additionally, equipment installation instructions by NSSS suppliers and witnessing/acceptance by vendors' technical representative were noted as additional requirements to the BC QC inspection reports for each safety related component. The following specific Bechtel QC records were reviewed and evaluated against their respective criteria:

- Reactor recirculation pump and motors; Tag Items #1A and 1B-201 (Byron Jackson vendor) item B32-C001-K7.1 and (GE vendor) item B32-C001-K6.1); Reference criteria: Specification P-303 and Job Rules G-7, G-10, M-3 and M-9
- RHR heat exchangers, Tag Items #1A and 1B-E205 (Delta Southern vendor) item E11-B001; Reference criteria: Specification P-303 and Job Rules G-7, M-3 and M-7

Licensee QA surveillance and Bechtel QA surveillance and monitoring audits relating to safety related equipment receipt and installation of the reactor recirculation pumps, motors and RHR heat exchangers were reviewed and discussed with cognizant personnel. The Licensee performed 40 audits starting in October 1975 through, November, 1982, covering NSSS equipment and component receiving inspection and their storage, handling, installation and maintenance. Selected Licensee and Bechtel audits starting July 1979 through May, 1982 relating to installation of NSSS equipment/components for conformance to Bechtel QC Instructions, Job Rules and, vendor instructions were reviewed. The NRC inspector evaluated these surveillance and monitoring audits for the following: conformance to licensee and BC QA manual, prescribed check lists, follow-up of deficiencies, prosecution of nonconformance reports and identification/segregation of affected equipment and/or, effectiveness of corrective action in QC procedures to preclude repetition.

Based on the above observations, record reviews and interviews with cognizant personnel, the installed safety related components and their quality documentation reflect work accomplishment consistent with NRC requirements and SAR commitments.

No violations were identified.

4. Exit Meeting

The inspector met with licensee and A-E representatives (denoted in Paragraph 1) at the conclusion of the inspection on January 7, 1983 at the construction site. The licensee acknowledged the inspector's comments.