U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket/Report: 50-352/ 83-03

License: CPPR-106

Licensee: Philadelphia Electric Company

Facility: Limerick Generating Station, Unit Nos. 1 & 2
Limerick, Pennsylvania

Dates: January 1, 1983 - February 14, 1983

Inspectors: S. Chaudhary — 2/25/83
Suresh K. Chaudhary, Senior Resident Inspector — Date Signed

Lewis Narrow /for — 3/2/83
E. H. Gray, Reactor Inspector — Date Signed

Approved: R. Keimig — 3-3-83
R. R. Keimig, Acting Chief, Reactor Projects Section 2C — Date Signed

Summary: Inspection on January 1, 1983 - February 14, 1983 (Report 50-352/83-03)
Routine resident inspection (69 hours)and an inspection by region-based inspector (8 hours) of: design of snubber clamps; HVAC subcontractor audit by the licensee; follow-up of a 10 CFR 21 report by GE; and document review and observation of work of reactor vessel and internals installation. No violations were identified.

DETAILS

1. Persons Contacted

Philadelphia Electric Company

D. J. Clohecy, QA Engineer
*J. M. Corcoran, Field QA Branch Head
F. J. Coyle, QA Engineer
E. C. Gibson, QA Engineer
G. Lauderbach, QA Engineer
J. M. McGill, QA Engineer
R. E. Simpson, Construction Engineer

Bechtel Power Corporation

T. Altum, Assistant Project Field Engineer
R. J. Bulchis, Resident Project Engineer
S. Desai, Assistant Field Project Engineer
*M. E. Greenidge, Project Superintendent, Subcontracts
*G. C. Kelly, Lead QA Engineer
E. R. Klossin, Project QA Engineer
E. D. Patel, Deputy Project Field Engineer
*K. L. Quinter, Assistant Project Field QC Engineer
K. G. Stout, Project Field QC Engineer

General Electric

D. DiFillippo, QC Supervisor

In addition to the above, other managers, supervisors, engineers, technicians, and craftsmen were contacted and interviewed throughout the 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, and reactor control structure.

No violations were identified.

3. Snubbers and Restraints on NSSS Piping

The inspector reviewed documentation, and held discussions with cognizant licensee and A-E engineers regarding the suitability of snubber clamps on NSSS piping. The inspector had a concern regarding carbon steel clamps on stainless steel pipes because of a higher coefficient of thermal expansion in stainless steel. The inspector determined that the carbon steel clamps installed on main steam lines were not a problem because of carbon steel piping in the system. In the stainless steel piping of the recirculation system, the E-Systems clamp installed use a stainless steel U-bolt type clamp, hence the thermal expansion of piping and clamps are compatible.

No violations were identified.

4. Philadelphia Electric QA Audits of HVAC Work

The inspector reviewed the reports of audits and surveillances performed by the licensee's QA organization of the work of HVAC subcontractor for the project. The subcontractor's QA program and work practices had been found deficient in past inspections. The licensee had initiated a corrective action program to assess the impact of such practices, and upgrade the subcontractor's QA program to an acceptable level. The audits reflected that the subcontractor's QA program had significantly improved, and the surveillances disclosed that the work output had also been generally acceptable. The following audit and surveillance reports were reviewed:

PE Audit Report No. 238, dated 5-11-81
PE Audit Report No. 258, dated 6-30-82
PE Audit Report No. M-333, dated 4-7-81
PE Audit Report No. M-377, dated 10-22-81
PE Surveillance Check Report Nos. M-354, M-356 through M-400

No violations were identified.

5. GE 10 CFR 21 Report on Instrument Panel Piping

General Electric Company's Nuclear Power Systems Division had filed a defect report with NRC in November, 1982. The defect pertained to instrument panel piping. Per the GE Report, the defect was an error on four local instrument piping diagrams resulting in a potential incorrect interface with the reactor pressure vessel instrument piping.

The inspector followed up the report with licensee engineers to determine the status of this deficiency. The licensee has evaluated the report and has filed a significant Construction Deficiency Report (CDR) under 10 CFR 50.55(e) on February 14, 1983.

No violations were identified.

6. Installation of Reactor Vessel and Internals - Review of Procedures

The inspector reviewed documents and held discussions with the licensee and NSSS vendor personnel to determine if the applicable requirements of ASME Code, Section III for the reactor vessel internals and instrumentation were being met. The following documents were reviewed:

GE I & SE Project Manual, PIA-AE-11
GE Specification, 8031-M-108, Instrumentation of Reactor Pressure Vessel
GE Instruction, 22A4111, Rev. 1, General Instructions for Reactor Vessel Installation
CRD Housing Installation Traveler, FTS-41-25-1

The inspector determined that the above procedures and instructions were adequate for the work and that the code requirements were followed.

No violations were identified.

7. Reactor Vessel Internals - Observation of Work

The inspector observed work in progress on reactor vessel internals including welding and dimensional inspection of control rod drive housings. The inspector examined completed welds of the core spray sparger, weld pads to the vessel clad and control rod drive housings to the stub tubes. The weld procedures in use, the welding materials, weld records and general conditions of the internal and external reactor vessel work areas were examined. Installation records were reviewed. Observations, reviews and examinations were made to the relevant criteria of manuals/procedures reviewed above.

No violations were identified.

8. Exit Interview

At the conclusion of this inspection period, an exit interview was held with the members of the licensee staff (denoted * in paragraph 1). The inspector discussed the scope and findings of this inspection.