U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket/Report: 50-352/82-07 and 50-353/82-05

License: CPPR-106, CPPR-107

Licensee: Philadelphia Electric Company

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

Dates: April 12 - 26, 1982

Inspectors: J. P. Durr, Senior Resident Inspector — Date Signed: 4/26/82

Approved: E. C. McCabe, Chief, Reactor Projects Section 2B — Date Signed: 4/26/82

Summary: Inspection 50-352/82-07, 50-353/82-05; April 12 - 26, 1982. Routine on-site resident inspection (24.0 hours Unit 1; 6.5 hours Unit 2) of electrical cable pulling and terminations, spray pond construction, pipe welding, and instrumentation. One violation was identified: failure to perform periodic inspections of installed safety related instruments (Detail 3).

DETAILS

1. Plant Tours (Unit Nos. 1 and 2)

Periodically during the inspection, tours were made of the Unit Nos. 1 and 2 primary reactor containments, the reactor buildings, the control structure, and surrounding yards and shops. The inspector 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 work was being performed in accordance with requirements.

The in-place storage requirements for the containment electrical penetrations were reviewed. During a plant tour, it was noted that the nitrogen purge gas pressure on three penetrations was at 0 psi. Prior to installation, the penetrations had been stored with pressure maintained at 18 psi. It was confirmed by the inspector through document review and telephone conversations with the vendor that the gas purge pressure was not required for protection.

The inspector observed the cable pulling activities for cable 1AA11506A. The cable connects the safeguard bus D115 to core spray pump 1A. The inspection verified cable pulling tensions, bend radii, handling, protection, and quality control activities.

A surveillance inspection was made of the spray pond construction. The inspector observed rock bolt grouting, concrete form removal, reinforcing bar placement, soil screening, and bentonite storage.

Electrical cable terminations were observed for the Unit Cooler, Safety System Annunciator Auxiliary Relay Circuits, cable 1CB22326A. The inspector verified selected cable termination card data, appearance of the termination, and crimping tool calibration date.

No violations were identified.

2. Instrumentation Components and Systems

The inspector reviewed the applicable Job Rules, specifications, regulatory requirements, and FSAR commitments for safety related instrumentation systems. He verified that, for selected components, installation was in accordance with approved drawings FJ-90-20, FJ-11-19, and FJ-11-20.

The review of the in-plant storage inspection program disclosed that once instruments are issued from the warehouse, they are deleted from the inspection program. For NSSS instruments, the General Electric Specification 22A2724 is the governing document for storage control and inspection. Paragraph 4.0 of the specification requires that the storage control and

inspection program be applied throughout storage and installation. Table I, Reference 5 further requires selected equipment be protected from mechanical damage, dust and dirt. Pressure transmitters PT-01-1N052A, B, C and D were issued from the warehouse and partially installed on or about April 24, 1981. These transmitters are part of the reactor protection system and provide scram function bypass signals. A visual inspection of the transmitter showed that the protective dust covers were not tightly sealed and that electrical openings were not plugged. The instruments were deleted from the periodic inspection program on the installation date. The foregoing is contrary to 10CFR50, Appendix B Criterion V and a violation. (352/82-07-01, 353/82-05-01)

Further investigation revealed that the FSAR, paragraphs 7.1.2.5.1 and 8.1.6.1 subscribe to the requirements of IEEE-336 (ANSI 45.2.4). The IEEE-336, paragraph 5.1 requires "housekeeping" inspections for installed instrumentation to verify the adequacy of barriers and protective covers.

3. Independent Measurements

The NRC Nondestructive Examination Van was on-site during the period March 29 through April 14, 1982 (Reference: Inspection Report 50-352/82-06). The inspection consisted of independent evaluation of selected safety system pipe welds. The Senior Resident Inspector devoted 58.5 hours of direct inspection and support effort to this activity.

4. Welding Activities

The safety related, ASME Class II, pipe weld DBB-104-1-FW2 was selected for observation of welding. The inspection verified the welder's qualification, proper welding procedures were employed, the required nondestructive examinations were specified, and welding practices conformed to ASME Code requirements.

No violations were identified.

5. Exit Interviews

Exit interviews were held with members of the licensee's staff, listed below, on April 14, 1982. The scope and findings of the inspection were discussed.

Persons Contacted

Philadelphia Electric Company

D. T. Clohecy, QAE
F. J. Coyle, QAE
E. C. Gibson, QAE
M. J. McGill, QAE
P. K. Pavlides, QA Manager
R. Scott, Lead Construction Engineer
R. H. Zong, Sr. Metallurgist, Level III

Bechtel Power Corporation

T. Altum, Assistant Project Field Engineer
M. J. Baron, Lead Field Welding Engineer
R. J. Bulchis, Resident Engineer
T. M. Gwin, Project Construction Manager
K. Handy, Resident Engineer
F. Higgins, Inst. Engineer
J. Honer, Senior Lead S/C Engineer
D. Hunt, S/C Engineer
M. Jan, APFE
R. Lamley, LTM Engineer
G. Lauderback, QAE
J. L. Martin, QAE
K. L. Quinter, APFQCE
D. C. Thompson, APFQCE
A. G. Weedman, PFE

Other craftsmen, engineers, quality control technicians, and supervisors were contacted and interviewed as the inspection interfaced with their work.