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

REGION III

Reports No. 50-373/80-42; 50-374/80-27

Docket Nos. 50-373; 50-374 Licenses No. CPPR-99; CPPR-100

Licensee: Commonwealth Edison Company
P. O. Box 767
Chicago, IL 60690

Facility Name: La Salle County Station, Units 1 and 2

Inspection At: La Salle Site, Marseilles, IL

Inspection Conducted: September 23-24, 1980

Inspectors: J. H. Neisler J H Neisler 10-8-80
F. C. Hawkins 10/8/80

Approved By: C. C. Williams, Chief 10-8-80
Projects Section 2

Inspection Summary
Inspection on September 23-24, 1980 (Reports No. 50-373/80-42; 50-374/80-27)
Areas Inspected: Post tensioning activities; suppression pool modifications; followup of licensee's response to IE Bulletins; fire stop installation in electrical cable and tray penetrations, safety related piping activities, Unit 2. The inspection involved a total of 26 inspector-hours onsite by two NRC inspectors
Results: No items of noncompliance or deviations were identified during this inspection.

DETAILS

Persons Contacted

Principal Licensee Employees

*L. J. Burke, Site Project Superintendent
*T. E. Quaka, Site QA Supervisor
D. Schacht, Station Construction
D. Arnold, Station Construction
*D. Spencer, QA Engineer
L. J. Tapella, QA Engineer
W. Reidy, QA Engineer
*R. T. Rose, Lead Structural Engineer
*G. E. Groth, Station Construction
J. Gieseker, Station Construction
R. Matthews, OAD Supervisor

Contractor and Other Personnel

M. Wherry, QC Manager, Morrison Construction Company
K. Krantz, Welding Supervisor, Morrison Construction Company
*M. R. Dougherty, QA Manager, Walsh Construction Company

*Denotes those personnel attending the exit interview.

SECTION I

Prepared by J. H. Neisler

Reviewed by C. C. Williams

1. Inspection and Enforcement Bulletins

Licensee response to IEB 80-20, "Failures of Westinghouse Type W-2 Spring Return to Neutral Control Switches", states that no Westinghouse Type W-2 control switches are used in safety related systems at La Salle County Units 1 and 2. Visual inspection of control room and system local control panels indicate that the licensee's response is correct in that no Westinghouse Type W-2 switches were identified in safety related systems during the inspection. This Bulletin is considered closed.

2. Unit 2 Suppression Pool Modification

The inspector was informed that nine of the embed anchor bolts on the reactor vessel pedestal had failed the tension tests. The affected bolts were plate 114 bolt E, plate 116 bolt E, plate 118 bolt C, plate 119 bolts C, E, and G, plate 120 bolts E and G, and plate 121 bolt E. Pull outs for the nine bolts ranged from 1-3/4" to 9-9/16". Licensee is conducting an investigation into the reasons for the test failure. This item is unresolved pending a determination of the cause of test failure and the inspector's review of the corrective action (50-374/80-27-01).

3. Electrical Penetration Fire Seals

a. The inspector observed completed work, reviewed data reports and fire test reports pertaining to electrical penetration fire seals. Material being used at La Salle for fire stops in electrical wall and floor penetrations is U.S. Gypsum's Firecode CT Gypsum and Thermofiber CT in bulk fiber and felt with the Carborandum Company's Fiberfrax Ceramic Fiber Durablanket and board as damming materials.

b. Documentation is on site indicating that the fire stops have been tested in accordance with ASTM E-119. Test reports shown to the inspector were:

(1) Concrete Floor Fire Stop Test of Nonqualified IEEE 383 Cable Penetrations Protected with Firecode CT Gypsum and Thermafiber Felt, dated March 14, 1980.

(2) Concrete Floor Fire Stop Test of IEEE Qualified Cable Penetrations, dated August 13, 1979.

(3) Fire Stop Systems Without Cable in a Three Hour Fire Rated Wall, dated September 6, 1979.

(4) Fire Stop Systems for Electric Cable Penetration Thru Three Hour Fire Rated Wall, dated March 20, 1979.

(5) Poke-Thru Wall Fire Test, dated May 21, 1979.

(6) Firecode CT Gypsum Thermafiber Access Firestopping for Walls, dated July 24, 1978.

(7) Thermafiber Access Firestopping for Floors dated June 19, 1978.

c. Documentation is on site that the above tests were reviewed by the licensee's engineering organization for suitability for use at La Salle. The inspector questioned whether the review included a determination that the gypsum material would not produce an undesirable chemical reaction with cable jackets or trays. This item is unresolved (50-373/80-42-01).

d. The inspector noted that several of the fire test reports indicated the formation of cracks in the fire seals during the test and the observation of steam or smoke escaping through the cracks. The inspector questioned whether this cracking of fire seals had been considered in evaluating the adequacy of this material for use in control room seals. The licensee stated in the exit interview that an evaluation would be made to determine if this material would be suitable to maintain control room integrity in case of fire or a release of chlorine or other gas in the plant. This item is unresolved (50-373/80-42-02).

4. Safety Related Piping, Unit 2

a. The inspector visually examined completed field welds in the high pressure core spray system, low pressure core spray system, feedwater, standby liquid control system and reactor core isolation cooling system. Items observed were weld finish and appearance, reinforcement, and absence of surface defects.

Review of post weld heat treatment charts indicates heat treatment was performed and temperature maintained in accordance with the Morrison heat treatment procedure.

The inspector reviewed weld data records for completed welds in the feedwater, high pressure core spray, low pressure core spray, standby liquid control, and reactor core isolation cooling systems.

No items of noncompliance or deviations were identified in this area.

SECTION II

Prepared by F. C. Hawkins

Reviewed by D. W. Hayes, Chief
Engineering Support Section 1

1. Review of Containment Post-Tensioning Implementing Procedures (Units 1 and 2)

The RIII inspector reviewed the Walsh Construction Company Field Installation and Quality Control Manual and S&L Specification J-2533, as they pertain to post-tensioning activities. It was confirmed that both contained appropriate quality control requirements, and that adequate measures had been established for the following post-tensioning activities:

a. Material receipt and storage
b. Bearing plate and sheathing installation
c. Tendon installation
d. Button heading
e. Stressing
f. Greasing
g. Quality Control (i.e., nonconformance reporting, personnel training and testing, tool and gauge control, audits, and inspections).

2. Review of Containment Post-Tensioning Quality Records (Unit 2)

a. The La Salle FSAR, Section 3.8.1.3.3 and S&L Specification J-2533, Section 13-211.4 require that measured tendon elongations which exceed ± 10% of the calculated values be identified and evaluated by the consulting engineers. The inspector identified one instance in which this tolerance was exceeded for the Unit 2 vertical tendons. Walsh NCR 204 properly identified a variation of 10.4 % for tendon No. V258C. This NCR will assure proper disposition of the occurrence by the consulting engineer.

b. The La Salle FSAR, Section 3.8.1.1.3.3 and S&L Specification J-2533, Section 13-208.4 specify the proper tendon stressing sequence to minimize unbalanced loads and differential stresses to the structure. The sequence requires the longer vertical tendons to be stressed first, followed by the shorter verticals, then the horizontal tendons. The proper stressing sequence for the Unit 2 verticals was verified through review of the Walsh/Inryco Daily Inspection Checklist.

c. The Walsh/Inryco procedure, Tendon Surveillance Test, Revision 5, was reviewed by the inspector. This is the implementing procedure dealing with inservice inspection of ungrouted tendons as required

in Regulatory Guide 1.35, Revision 2. Revision 5 of the Walsh/Inryco procedure specifies two methods to verify lift-off pressure during inservice inspection. Walsh Field Installation and Quality Control Manual, Revision 8, also allows the use of two methods to determine lock-off pressure during initial tendon stressing operations.

The first method involves re-stressing the tendons to the point where the shims become loose. This point is determined by lightly tapping the shims as the pressure increases. The second method involves the insertion of feeler gauge stock into the shim stock. In this method, lift-off is the pressure gauge reading when sufficient force has been exerted to loosen the shim stack and allow removal of the guauge stock.

Both methods were used to determine lock-off pressure during the stressing of the Unit 2 vertical tendons. The lockoff results for selected vertical tendons, determined by both methods, were reviewed by the RIII inspector with the following results:

(1) Using the tapping method, the lock-off pressure was within the range specified on the stressing card for all thirty-four tendons reviewed.

(2) In thirty of thirty-four instances, the feeler gauge stock method yielded higher lock-off pressures than the tapping method.

(3) Twenty-three of the thirty-four stressing cards reviewed indicated that the lock-off pressure, determined using the feeler gauge stock method, exceeded the maximum allowable pressure specified.

The licensee was unable at the time of this inspection to establish which of the two methods constituted the formal record. The results of the two methods, as noted above, are dissimilar. This item is considered open and will be reviewed further during a subsequent inspection (373/80-42-03; 374/80-27-02).

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. Four unresolved items disclosed during this inspection are discussed in Section 1, paragraphs 2, 3c, 3d and Section 2, paragraph 2c.

Exit Interview

The inspectors met with licensee representatives (denoted under Persons Contacted) at the conclusion of the inspection on September 24, 1980. The inspectors summarized the scope and findings of the inspection . The licensee acknowledged the findings as reported.