U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-373/87010(DRS); 50-374/87010(DRS)

Docket Nos. 50-373; 50-374 Licenses No. NPF-11; NPF-18

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: LaSalle County Station, Units 1 and 2

Inspection At: LaSalle Site, Marseilles, Illinois

Inspection Conducted: March 11-12, 1987

Z. Falevits

Inspector: Z. Falevits 3/20/87
Date

R. N. Gardner

Approved By: R. N. Gardner, Chief 3/20/87
Plant Systems Section Date

Inspection Summary

Inspection on March 11-12, 1987 (Reports No. 50-373/87010(DRS); 50-374/87010(DRS))
Areas Inspected: Routine, announced safety inspection of licensee action on previous inspection findings; followup on licensee identified anomaly with Standby Liquid Control System cable jacket; drywell temperature program. (92701, 92702, 62705, 42700)
Results: Of the three areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

*R. Bishop, Station Services Superintendent
*K. L. Graesser, Division Vice President, NSD
*R. W. Stobert, Station QA Superintendent
K. C. Wittenburg, Technical Staff Engineer
D. Smythe, Electrical Engineer, EM

The inspector also contacted and interviewed other licensee personnel during this inspection.

*Denotes those personnel attending the March 12, 1987, exit interview.

2. Licensee Action on Previous Inspection Findings

a. (Closed) Violation (373/85026-04(DRS); 374/85027-04(DRS)): This violation concerned the licensee's failure to initiate prompt corrective action to review and evaluate recalculated containment monitoring temperature setpoints for alarm points recorded on recorders 1TR-CM037, 1TR-CM038, 2TR-CM037, and 2TR-CM038.

During and subsequent to this inspection, additional temperature readings were taken in the Units 1 and 2 drywells. Based on these readings, S&L recommended that the Units 1 and 2 CM recorder setpoints remain at 140°F. This recommendation was addressed in S&L's October 11, 1985, letter to SNED. In a letter from SNED to LaSalle Station, dated November 6, 1985, SNED also recommended that the setpoints remain at 140°F. Additionally, SNED requested that AIR's and modifications on this topic be closed. The inspector determined that the Units 1 and 2 modifications had been cancelled on November 11, 1985, and AIR's for both units had been cancelled on December 5, 1985.

b. (Closed) Deviation (373/85026-05(DRS)): Deviations were identified from commitments made by the licensee regarding temperature monitoring activities associated with safety-related equipment located in the containment drywell.

During this inspection, the inspector determined that corrective action taken by the licensee included issuance and implementation of drywell temperature monitoring Procedure LTP-300-17. This procedure is used to monitor and record temperature data from all permanent and temporary sensors on a weekly basis. In addition, multipoint recorders had been installed in Units 1 and 2 Reactor Buildings to allow for continuous monitoring of all drywell temporary temperature sensors.

c. (Closed) Violation (374/85027-02(DRS)): On August 12 and 28, 1985, operator yellow caution tags, attached in September 1984, to control room containment monitoring Recorders 2TR-CM037 and 2TR-CM038, indicated that the recorder alarms were set at 150°F. The inspector, accompanied by a CECo I&C supervisor, conducted a visual inspection of the recorders setpoints. During the visual inspection, the CECo supervisor stated that the setpoints were set at 140°F and 141°F.

During this inspection, the inspector determined that the licensee had conducted a thorough review of calibration records pertaining to the above recorders. The licensee's review indicated that the initial calibrations of the high temperature alarms were completed on January 31, 1982, with the recorder alarm points set at 140°F and 141°F. In September 1984, the alarm setpoints were raised to 150°F, in accordance with onsite Review 84-22, under Nuclear Work Requests L35938 and L35939. This was done in order to allow the alarm to annunciate only when temperatures higher than normal were encountered in the vicinity of the sensors. The licensee stated that the CECo I&C supervisor assisting the inspector in the verification of the recorders setpoints was apparently in error when he stated, in 1985, that the then current setpoints were 140°F and 141°F.

d. (Closed) Violation (373/85034-02(DRS)): This violation concerned licensee failure to identify the Safety Relief Valve (SRV) adjacent to SRV 1B21-F013J and to provide permanent stamping or identification tags on the remaining Unit 1 SRV's.

Subsequently, the inspector was informed by the licensee that each SRV had a manufacturer's serial number and that a record of the serial number and setpoint of each SRV was kept by location. This violation was retracted by Region III.

e. (Closed) Open Item (373/85034-04(DRS)): During a previous inspection in the Unit 1 drywell, the inspector noted that Safety-Related Cables 1NB081 and 1NB082 were tightly pulled inside Junction Box 1JB455C; this configuration appeared to violate cable bend radius requirements.

Subsequently, the licensee inspected the above cables and determined that the bend radiuses had been violated; that a crimp existed on both outer jackets at Cable Pan Node 1572B; and that cable repairs were necessary.

Work Request L57145 dated April 11, 1986, was issued to replace both cables between Junction Box 1JB139J and Penetration E-7 (173' long); this relieved the tightness in 1JB455C and increased the bend radius. The new section of the cables was spliced to the existing cables in Junction Box 1JB139C using appropriate Raychem heat shrink splices. QC hold and witness points were noted in the traveler for the splice process. At the completion of the cable repair activities, the licensee conducted a main steam safety relief valve manual cycling test under Procedure LOS-MS-R2 to assure that circuits affected by the repaired cables functioned as designed. No anomalies were noted. The cable deficiencies appeared to represent an isolated occurence.

f. (Closed) Violation (373/85034-05(DRS); 374/85035-04(DRS)): As a result of the drywell inspection conducted in Units 1 and 2, the inspectors identified conditions adverse to quality such as damaged conduits, damaged and loose mirror insulation panels (a condition that could cause localized hot spots), missing covers on pull boxes, opening in SRV cable zipper tubing, metallic grinding products on limitorque valve stem screw, etc.

Subsequently, the licensee initiated extensive correction actions to correct the identified deficiencies. Junction box covers were reinstalled, broken flexible conduits were repaired and the insulation panels were inspected by the licensee and repaired. All the limitorque valves were inspected as part of another inspection effort. All valves were cleaned and covers reinstalled. The licensee indicated that in addition to reviewing Work Request Procedure LAP-1300-1 to determine if post-completion drywell inspection guidance was adequate, training would be provided to ensure that the general area in which work was performed would be included in the inspections. Finally, all station personnel would be reminded that any abnormal condition found in the plant for any reason requires that a Work Request be initiated.

g. (Closed) Violation (373/85034-06(DRS); 374/85035-04(DRS)): Commonwealth Edison Standard C-2325, Note 12 stated that not more than two wires shall be connected to any one stud. The inspector noted that limitorque operators on various valves contained three conductors connected to one stud.

The licensee responded that the basis of this requirement was the physical limitations on electrical terminal blocks and that due to the limited space available on the electrical terminal blocks, the stacking of more than two lugs on one screw could result in insufficient electrical connection. The licensee further stated that this situation did not apply to limitorque valve operators since the connection in the limitorque operators allows for adequate contact of all three conductors and the barrel lugs were not stacked in such a way as to prohibit proper electrical connection.

h. (Closed) Unresolved Item (373/85034-07(DRS); 374/85035-06(DRS)): During a previous inspection, the inspectors identified MOV Limitorque limit switches which were set at higher than the vendor nameplate recommended maximum and higher than specified on the plant "Motor Operated Data" (MOD) list. The inspectors determined that there was inconsistency among licensee personnel as to where and how the switches were set and the relationship between the vendors nameplate recommendation and the MOD.

Subsequently, the licensee completely revised Procedure LEP-GM-102, titled "Limitorque Valve Post Maintenance Verification." The inspector reviewed Revision 9 of Procedure LEP-GM-102, dated December 10, 1986. The procedure appeared to be adequate; it contained detailed specific actions to be taken when checking

or setting MOV switches. In addition, the licensee conducted a limitorque MOV inspection which included verification of torque switch settings; Work Requests L52947 and L52489 were used to conduct the limitorque inspections and to reset the switches found to be out of specified limits.

i. (Closed) Open Item (374/85035-01(DRS)): This item concerned the environmental qualification and the physical condition of conductors within cables routed from the Unit 2 Safety Relief Valves to Drywell Junction Box 1JB115C.

During this inspection, the inspector determined that the licensee had written Work Request L59697 to conduct a visual inspection of these conductors and to make necessary repairs.

Although no degraded conductors were noted during the licensee's visual inspection, all 108 safety-related terminations from the SRV's to the LVDT's had been reterminated with Raychem splices (WRL60230 through WRL60235). These reterminations were necessary due to the lack of EQ test data establishing the adequacy of the Okonite tape with the Kapton wire insulation on the SRV and LVDT conductors.

j. (Closed) Unresolved Item (373/85039-03(DRS); 374/85040-03(DRS)): During a review of WRL52489, the inspector noted that several inspection checklists had been backdated to reflect licensee corrective action taken to disposition discrepancies identified on previous inspections. These corrections had been signed by the maintenance foreman.

During this inspection, the inspector determined that the licensee concluded that the dates initiated on the WR were, unintentionally, in error; that all information contained therein, however, was true and accurate. Licensee management discussed this incident with the Electrical Maintenance Staff to preclude its recurrence. Discrepancy Report (DR) 01-85-448, dated December 12, 1985, was written to resolve all documentation wiring and operability discrepancies.

k. (Open) Unresolved Item (373/85039-04(DRS); 374/85040-04(DRS)): During a previous inspection, the inspector selected two valves that had been previously inspected by the licensee. RHR Containment Spray Outboard Valve 2E12-F016B was inspected and observed to contain a nicked and unidentifiable conductor between limit switch Points 4 and 8. At the inspectors request, the valve was manually opened and closed. The inspectors noted that limit switch Rotors 2 and 4 changed position ten hand wheel turns from valve fully closed position, Rotor No. 1 changed position eight hand wheel turns from the valve fully open position, and Rotor No. 3 changed position 12 turns from the fully open position. Under normal operation Rotors 1 and 3 change positions at the same time due to the rotor contacts which are interlocks in other circuits. Section F6 of LaSalle "Limitorque Valve Post Maintenance

Verification" Procedure LEP-GM-102, dated October 7, 1985, required that for Size "0" valves and larger, the rotor be set at 20 valve hand wheel turns. The licensee could not explain why the rotors changed positions at different intervals.

Subsequently, the licensee determined that plant personnel made an error when they originally set the switches. The switches were subsequently reset to the correct values resolving the problem identified with valve 2E12-F016B; however, the licensee could not assure the inspector that all other safety-related valves in the plant were set correctly. Pending further review of this issue by the licensee, this item remains open.

1. (Closed) Unresolved Item (373/85040-06(DRS); 374/85041-06(DRS)): This item concerned motor meggering tests performed by the licensee using an unapproved Operational Analysis Department (OAD) Station Procedure No. ECTP 1.

   During this inspection, the inspector determined that on February 16, 1986, the ECTP 1 procedure was reviewed and approved "as is" by onsite review personnel using approved review Procedure LAP-820-9, Revision 0, and QAS 1-86-05.

3. Followup on Licensee Identified Anomaly With Standby Liquid Control Cable Jacket

During maintenance activities conducted on Standby Liquid Control Squib valve 2C41-F0004B, the licensee had identified that the cable (No. 2SC023) feeding the Squib valve contained blisters on the outside surface of the cable jacket. The blisters appeared every 1"-2" throughout the length of the cable which is routed from the valve to the Cable Spreading Room (approximately 450' long). The cable is a Rockbestos, two pair, No. 16, 600 volt cable, Type B8085, ID No. 02166. Review of Material and Equipment Receiving and Inspection Report, MRR No. 6790, dated July 20, 1979, indicated that 4426' of this type of cable was purchased for the LaSalle project.

The inspector reviewed the Cable Reel Record for Reel No. 4266-02166-65 which indicated that the following cables had been used: 2HP225, 2FW266, 267, 268, 271, and 272, 2SC023, 2NB327, 2RH585, and 569. The inspector visually inspected a section of installed Cable 2RH585 located in the Reactor Building; no blisters were noted. In addition, field inspection of cabling associated with Squib valve 2C41-F004A and the Unit 1 Squib valves did not reveal the same anomaly. The licensee informed the inspector that a section of Cable 2SC023 was sent to the laboratory for analysis. Based on the results of the analysis, the licensee will determine the appropriate corrective actions to be taken. Pending licensee corrective action and NRC review, this item is considered open (374/87010-01(DRS).

4. Drywell Temperature Program Data Review

The inspector interviewed the licensee's engineers assigned to monitor and implement the drywell temperature program to assure that the

remaining qualified life of the safety-related equipment located inside the drywell was not exceeded. The inspector examined drywell temperature data collected by the engineers on March 7, 1987, using checklist Attachment A of Procedure LTP-300-17, Revision 2. The data is collected daily and sent to SNED for review and evaluation to determine the effect of a high temperature detected by Sensor 1TE-UP211 located at MSIV D. The licensee determined the cause of the high temperature at MSIV D to be due to a valve packing leak. In a letter to CECo dated January 8, 1987, Sargent & Lundy evaluated the daily temperatures collected by LaSalle Station for the 1TE-VP211 sensor. This data was collected during the period of September 15, 1986, to December 31, 1986. The data indicated that the subject sensor had reached 226.6°F (for four hours). This temperature exceeded the specified EQ Trigger setpoint (150°F), and the Alert setpoint (180°F). S&L calculations for the qualified life and remaining life demonstrated that the remaining life, as of January 1, 1987, for the MSIV D NAMCO limit switch, at the present operating temperature of 176°F, is 1.02 years. Additional calculations of remaining life were given for the valve seal assembly and for solenoid parts. The licensee indicated that these parts will be replaced as safety components reach the end of their qualified life.

The NRC will continue to followup on the licensee's drywell temperature monitoring program during future inspections.

5. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during this inspection are discussed in Paragraph 3.

6. Exit Interview

The Region III inspector met with licensee representatives (denoted under Paragraph 1) at the conclusion of the inspection on March 12, 1987. The inspector summarized the purpose and findings of the inspection. The licensee acknowledged this information. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents/processes as proprietary.