U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-374/85020(DRS)

Docket No. 50-374 License No. NPF-18

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

Facility Name: LaSalle County Station, Unit 2

Inspection At: LaSalle Site, Marseilles, IL, and Sargent and Lundy Offices, Chicago, IL

Inspection Conducted: June 24-28 and July 1-2, 1985

Inspectors: S. G. DuPont — July 22, 1985 (Date)

H. A. Walker — July 22, 1985 (Date)

Approved By: M. A. Ring, Chief
Test Programs Section — 7/23/85 (Date)

Inspection Summary

Inspection on June 24-28 and July 1-2, 1985 (Report No. 50-374/85020(DRS))
Areas Inspected: Special, announced inspection of licensee's actions required by Confirmatory Action Letter CAL-RIII-85-07, Items 1-5. The inspection involved a total of 71 inspector-hours onsite and seven inspector-hours offsite at the Sargent and Lundy corporate offices by two NRC inspectors.
Results: No violations or deviations were identified; however, three unresolved items require further evaluation.

8507260608 850723
PDR ADOCK 05000374
Q PDR

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

*D. S. Berkman, Assistant Superintendent Technical Services
+R. D. Bishop, Administrative Assistant Superintendent
P. M. Clark, Quality Control Supervisor
C. Maney, Unit 2 Shift Foreman
+*P. F. Manning, Technical Staff Supervisor
*C. E. Sargent, Production Superintendent
T. Shaffer, Unit 2 Shift Engineer
D. A. Spencer, Electrical Engineering Group Supervisor
+B. S. Westphal, Assistant Technical Staff Supervisor
+W. P. Worden, Operations Manager - BWR
+W. R. Huntington, Assistant Superintendent - Operating

Sargent and Lundy Engineers

J. F. Clancy, Quality Assurance Auditor
D. M. Leahy, Nuclear Quality Assurance Lead Auditor
D. C. Mann, LaSalle Project Manager
Andrew Morcos, Assistant Division Head - QA Division

USNRC

+M. J. Jordan, Senior Resident Inspector
*J. C. Bjorgen, Resident Inspector

*Denotes those attending the exit meeting held on June 28, 1985.

+Denotes those attending the exit meeting held on July 2, 1985.

Other personnel were contacted as a matter of routine during the inspection.

2. Confirmatory Action Letter (CAL-RIII-85-07) Followup

This Confirmatory Action Letter (CAL) was issued on June 17, 1985, to document required actions to be taken as the result of the discovery of improperly installed instrumentation and the resultant loss of automatic actuation capability of Emergency Core Cooling Systems from June 5 through June 10, 1985, while the unit was in cold shutdown. Actions reviewed during this inspection were as follows:

a. (Closed) Item 1 (CAL-RIII-85-07-01): The CAL required a review of all safety related modification packages for modifications made or planned during this outage to ensure that modifications properly implement the design concept and that drawings to be used by operational personnel accurately reflect the modifications. This

review of modification packages was performed by Sargent and Lundy (S&L) for CECo. At the beginning of this portion of the inspection, the inspector reviewed a draft report summarizing the findings of the review. Action taken or to be taken as a result of the findings was discussed with both S&L and CECo. A check was made to verify that all 27 of the modifications completed or partially completed during this outage were covered. Five modifications were selected for NRC review. Checklists and documentation of the review were examined to ensure that a complete and adequate review was performed. No problems were noted in the inspector's review and action on this item is considered to be acceptable.

b. (Closed) Item 2 (CAL-RIII-85-07-02): The CAL required a physical walkdown of all accessible safety-related systems modified during the outage to verify that the actual installation matches the planned modification. The inspector selected four modification packages from the 27 modifications completed or partially completed during the outage. The walkdown checklists were reviewed against the modification packages to verify that all items were walked down to verify proper installation and connection. The following observations were made:

(1) Modification M01-2-84-117 required the replacement of 109 instruments. Seventy of these instruments were replaced during this outage.

In reviewing the walkdown checklists for this package the inspector noted that four instruments (B21-N015A, B, C and D) were indicated on the checklist as not installed during the outage and not requiring walkdown. Other documentation in the package indicated these instruments were installed. The inspector discussed the matter with the individual who had performed the walkdown and was informed that the walkdown of these items was performed and the walkdown checklist was in error. A re-walkdown was performed by CECo on these items immediately following this discussion.

The installation for seven other instruments was indicated on the walkdown checklists, for this modification package, as acceptable. There were no notes except the sign-off and date indicating the walkdown was satisfactory. These seven instruments (51-N006, 51-N009A, 51-N009B, 51-N012A, 51-N012B, 51-N012C and 51-N012D) had not been replaced. The individual who performed the walkdown was contacted and he stated that he had noted the replacement instruments were not installed but did not feel that it was necessary to note it on the walkdown checklists. These instruments were not scheduled to be replaced during this outage and the records were subsequently corrected.

(2) Modification M01-2-84-136 required the replacement of 55 instruments and the modification of 12 electrical supports and more than 100 small bore pipe supports.

In reviewing the walkdown checklists the inspector noted that four electrical supports (WS-87, WS-88, WS-89 and WS-90) were omitted. The inspector was informed that these four supports were walked down but they had not been documented. A re-walkdown was immediately performed on the four supports.

CECo conducted a review of all modification packages and the respective walkdown checklists to verify that all accessible areas modified during this outage have been walked down and were acceptable. This was completed during the inspection and the inspector has no further concerns in this area.

c. (Closed) Item 3 (CAL-RIII-85-07-03): The CAL required a review of post-maintenance and post-modification tests performed on all safety-related systems during the outage to assure that testing adequately demonstrated operability of the system in light of the work actually performed. Additionally, CECo was to perform any additional tests as determined by the review.

CECo conducted the reviews of approximately 350 tests including 27 post-modification tests. The inspector verified that the licensee's review was adequate and thorough by documentation review of all 27 modification testing and 150 maintenance testing reviews. In addition, the licensee determined that approximately 10 percent of the maintenance testing and 20 percent of the modification testing required additional testing to demonstrate system operability in light of the work actually performed.

The licensee issued a memorandum on June 28, 1985, titled "Work Requests Retest Adequacy" to clarify required post maintenance and modification testing. The memorandum contained guidance on verifying adequate testing based on some of the lessons learned by this review. Some of the lessons learned included thorough testing data for motors, such as vibration, starting and running currents, winding temperatures and direction of rotation. The inspector determined that this is an improvement in the licensee's program.

d. (Closed) Item 4 (CAL-RIII-85-07-04): The CAL required an operability test of all level switches modified during the outage by: (1) varying actual reactor pressure vessel level and verifying proper response of the level switch to level change and (2) physically performing a walkdown of the level switches to verify proper alignment for operation.

CECo performed operability test LST 85-82 by varying actual Reactor Vessel water level in the range of 20 to 80 inches. The switches' response to level change was verified by connecting a test pressure gauge to the instrument block and opening only one instrument root valve while varying the water level. This process was repeated for each individual instrument root valve. This test, coupled with the physical walkdown, adequately demonstrated operability of all level switches.

e. (Closed) Item 5 (CAL-RIII-85-07-05): The CAL required a review of all safety-related mechanical and electrical operational checklists to verify proper alignment of plant systems. CECo had committed to re-performing operational checklists completed prior to June 1, 1985. Thirty-eight operational checklists were required to be re-done prior to startup of Unit 2. On June 26, 1985, the inspector reviewed records of the 24 which had been completed at that time. These checklists were acceptable and no problems were noted. Based on the checklists reviewed, this action is considered to be acceptable.

No violations or deviations were identified. Items 1-5 of the CAL were met; therefore, these items are closed.

3. Program Weaknesses

In the review of action taken to comply with the CAL a number of weaknesses were noted as described below:

a. During the review of modification MO1-2-84-146 concerning the upgrading of radiation detectors 2D18-NO09 and 2D18-NC15 to meet environmental qualifications, the inspector noted that the scope of the modification was changed at the site after engineering had approved the modification. A portion of the work was deleted from the modification and the work request for this work was cancelled. Another work request was subsequently issued for the removed portion of the original work and that removed portion was completed under this new work request. This is an unresolved item pending further review by the licensee and Region III of site personnel changing the scope of engineering-approved modifications without the concurrence of engineering personnel (374/85020-01(DRS)).

b. During the review of modification packages the inspector noted the following items:

(1) Some modification packages were very large in scope and therefore difficult to control. Packages could be broken down into more practical scopes by grouping modifications by division or system, or by unit for each outage and by unit.

(2) Since modifications are not signed off until all work is completed, the practice of including work for Units 1 and 2 in the same modification could result in a unit starting up and operating without the modification package being reviewed and approved until work on the other unit is completed.

This is an unresolved item pending further review by the licensee and Region III of licensee controls for the scopes of modification packages and the practice of combining Unit 1 and 2 work in the same modification packages (374/85020-02(DRS)).

c. During the review of Item 3 of CAL-RIII-85-07, the inspector noted that the post maintenance testing for work request L46699 required performance of calibration procedure LES-GM-119, "Calibration of 4KV

Emergency Bus Loss of Voltage Relays by O.A.D." The inspector's review of LES-GM-119 revealed that Operating Analysis Department (OAD) Procedure 3.2, "Periodic Relay Testing of Voltage Relays," is required to calibrate Technical Specification undervoltage relays. Procedure 3.2 did not require detailed steps or specify acceptance criteria. For example, Step 3 of the procedure states "Check the operating function of the relay (trip, permissive, interlock, etc.) observe the operation indicator." This step is vague in providing instructions and acceptance criteria for determining proper operating function.

In addition, the "as left" data recorded in the attachments to LES-GM-119 are vague in determining acceptance to Technical Specification requirements. This is demonstrated by the trip setpoint requirement of 2870 volts for relay 2427-AP041A which was compared to the "as left" value which was recorded as 82 volts. This value (82 volts) is acceptable because the Technical Specification value (2870 volts) is divided by 35 due to the tap setting from which the relay drop voltage was recorded. However, this mathematical manipulation is not described in either procedure.

This is an unresolved item pending further review by the licensee and Region III of the level of detail provided in procedures used to verify Technical Specification requirements (374/85020-03(DRS)).

This program area requires further review and evaluation and is considered to be an unresolved item as stated above.

4. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations, or deviations. Unresolved items disclosed during the inspection are discussed in Paragraphs 3.a, 3.b, and 3.c.

5. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on June 28 and July 2, 1985, to discuss the scope and findings of the inspection. The inspectors also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee acknowledged the statements made by the inspectors with respect to items discussed in the report and did not identify any documents or processes as proprietary.