

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-374/84-21(DRS)

Docket No. 50-374

License No. NPF-18

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

Facility Name: LaSalle County Station, Unit 2

Inspection At: LaSalle Site, Marseilles, IL

Inspection Conducted: June 19 through 29, 1984

Inspectors: *Roger D. Walker for*
K. D. Lanksbury

7-11-84

Peggy R. Rescheske
P. R. Rescheske

7-11-84

Approved By: *Roger D. Walker for*
L. A. Reyes, Chief
Test Programs Section

7-11-84

Inspection Summary

Inspection on June 19 through 29, 1984 (Report No. 50-374/84-21(DRS))

Areas Inspected: Routine, unannounced inspection of startup test results review and followup of previously opened items. The inspection involved a total of 79 inspector-hours onsite by two inspectors and including 11 inspector-hours during off-shifts.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

- *G. J. Diederich, LaSalle Station Superintendent
- *R. D. Bishop, Administrative and Support Services Assistant
Superintendent
- *R. D. Kyrouac, QA Supervisor
- *J. C. Renwick, Unit 2 Startup Manager
- *W. R. Huntington, Technical Staff Supervisor
- *L. Wilson, Startup Test Engineer

The inspectors also interviewed other licensee employees including members of quality assurance, technical and operating staff.

*Denotes persons attending the exit meeting of June 29, 1984.

2. Licensee Actions on Previous Inspection Findings

(Closed) Unresolved Item (374/83-29-01(DE)): Verify licensee obtains a change to Final Safety Analysis Report (FSAR) Table 14.2-40 to modify the requirement for testing instrument line excess flow check valves. The inspector verified that Amendment 64 to the FSAR included the above change. The inspector has no further concerns in this area.

No items of noncompliance or deviations were identified.

3. Review of Unit 2 Startup Test Results

The inspectors reviewed the results of the following tests, performed at the indicated test conditions, and determined that all test changes were processed in accordance with the Technical Specifications and the Startup Manual; test deficiencies were processed and corrected as required; data sheets were complete and deficiencies noted; results were evaluated and met the acceptance criteria; and the results were reviewed and approved by station and corporate management as required, unless otherwise noted:

- a. STP 4-2, Full Core Shutdown Margin (test condition open vessel)
- b. STP 14-2, Reactor Core Isolation Cooling (RCIC) (test conditions heatup and 1)

During RCIC testing to verify that the pump could develop a flow of 600 gpm through the full flow test line with a reactor pressure of 150 ± 15 psig the system was only able to develop a maximum flow of 535 gpm (reactor pressure was approximately 151 psig) during the hot quick starts and 530 gpm (reactor pressure was approximately 160 psig) during the cold manual starts. A similar problem occurred on Unit 1 where the RCIC system was only able to generate 590 gpm through the full flow test line. Evaluation by the licensee indicates that actual test line pressure losses are greater than originally estimated. Actual tests on both Unit

1 and 2 have shown that the RCIC system can inject 600 gpm to the reactor vessel at 150± 15 psig reactor pressure. In order to meet the Technical Specification surveillance requirements (4.7.3.C.2.) the licensee requested and received a Technical Specification change on Unit 1 such that they are not required to have the pump develop 600 gpm with the reactor at 150± 15 psig but rather verify that the pump is capable of delivering this flow to the reactor vessel. This change was also incorporated into the Unit 2 Technical Specifications. Since it is known that the pump will perform as required at this time, pump performance during subsequent testing will be monitored to look for signs of degradation from the base-line data obtained during the startup phase testing.

The inspector noted during the review of STP 14-2 and LST 84-86 (used to determine RCIC full flow test line pressure drop and projected pump performance) and their respective evaluations that several errors had been made in transferring data from the data sheets to the acceptance criteria evaluation sheets and to the evaluation itself. Though none of the errors were substantive in nature they should have been found during the review process and corrected. The errors noted by the inspector in LST-84-86, Data Sheet 1, were of the greatest concern. This data sheet recorded various RCIC system parameters for different pump discharge pressures. The pump suction pressures ranged from 16 to 22 psig and the pump discharge pressure ranged from 384 to 1050 psig. The data sheet also notes that the pump suction pressures were taken with a 0-200 psi gauge and the pump discharge pressures were taken with a 0-1000 psi gauge. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Article IWP-4000, states that the full scale range of each instrument shall be three times the normally expected value. The normally expected RCIC pump suction pressures are nominally 20 psig and therefore the proper gauge to use for this measurement is a 0-60 psi gauge - not a 0-200 psi gauge. As can also be seen by the above pump discharge data and the gauge used, the data point recorded at the upper range (1050 psig) is off the scale of the gauge. These are examples of poor testing methodology but are also examples of a poor review since the evaluation does not identify these discrepancies and the test, along with the evaluation, were reviewed and accepted by the onsite review committee. The inspector discussed the above concerns with the licensee. They acknowledged the concerns and stated that they would attempt to improve their review process to ensure that future tests and evaluations do not contain similar deficiencies.

c. STP 19-2, Core Performance

No items of noncompliance or deviations were identified.

4. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on June 29, 1984. The inspectors summarized the scope and findings of the inspection. The licensee acknowledged the statements by the inspectors with respect to the noted concerns.