

U. S. NUCLEAR REGULATORY COMMISSION

Region III

Report No. 50-373/83-11(DE); 50-374/83-06(DE)

Docket No. 50-373; 50-374

License No. NPF-11; CPPR-100

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, IL

Inspection Conducted: March 7 through April 8, 1983

Inspectors: *Hand for*
R. D. Lanksbury 4/28/83

Hand for
S. G. DuPont 4/28/83

Approved By: *Hand for*
L. A. Reyes, Chief 4/28/83
Test Program Section

Inspection Summary:

Inspection on March 7 through April 8, 1983 (Report No. 50-373/83-11(DE); 50-374/83-06(DE))

Areas Inspected: Routine, unannounced inspection to review preoperational test procedures, witness preoperational testing and review previous open items. The inspection involved 23 inspector-hours onsite by two NRC inspectors including 27 inspector-hours during off-shifts.

Results: Of the three areas inspected, no items of noncompliance were identified in two areas. Within the remaining area, one apparent item of noncompliance was identified (failure to have an adequate preoperational test procedure - Paragraph 3.d.).

DETAILS

1. Persons Contacted

- *G. J. Diederich, Superintendent
- *R. D. Bishop, Administrative and Support Services Assistant Superintendent
- *W. R. Huntington, Assistant Technical Staff Supervisor
- *H. L. Massin, Project Engineering Division
- *R. D. Kyrouac, Quality Assurance Supervisor

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

*Denotes persons attending the exit meeting of April 8, 1983.

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (373/82-32-01(DE)): Diesel Generator 2A margin load test and independence functional test will be performed as part of Preoperational Test PT-DG-201B. The inspector reviewed PT-DG-201B and confirmed that it included provisions for performing the above noted tests.

3. Preoperational Test Procedure Review

The inspectors reviewed the following test procedures against the FSAR, the SER, Regulatory Guide 1.68, the QA Manual, and the Startup Manual and found them satisfactory unless otherwise noted.

- PT-MS-201A, MSIV-LCS
- PT-MS-201B, MSIV-Main Steam Instrumentation
- PT-MS-201C, Main Steam Reliefs and ADS
- PT-RP-201, Reactor Protection System

During the review of this procedure, the inspector developed a number of concerns regarding the methodology employed by the licensee in measuring response times. As a result of these concerns, a special safety inspection was performed for Unit 1 to determine the impact on Unit 1. The results of this inspection are contained in Inspection Report 50-373/83-14. The remainder of this section deals with the issues developed during the review of PT-RP-201 and during the special safety inspection as they pertain to PT-RP-201.

Section 10.6.A of PT-RP-201 requires that various surveillance procedures be performed to measure the response times to the different system scram signals and end of cycle-recirculation pump trip (EOC-RPT) signal input. The response time data is then required to be recorded on Data Sheet 12.12 where an appropriate acceptance criterion is listed. The procedure listed for measuring the response time for the EOC-RPT from a turbine control valve (TCV) fast closure is LIS-RP-05. During the special safety inspection, this procedure was reviewed and found to adequately measure

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Inspection Summary:

Inspection on March 7 through April 8, 1983 (Report No. 50-373/83-11(DE); 50-374/83-06(DE))

Areas Inspected: Routine, unannounced inspection to review preoperational test procedures, witness preoperational testing and review previous open items. The inspection involved 234 inspector-hours onsite by two NRC inspectors including 27 inspector-hours during off-shifts.

Results: Of the three areas inspected, no items of noncompliance were identified in two areas. Within the remaining area, one apparent item of noncompliance was identified (failure to have an adequate preoperational test procedure - Paragraph 3.d.).

DETAILS

1. Persons Contacted

- *G. J. Diederich, Superintendent
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The inspectors also interviewed other licensee employees including members of the quality assurance, technical and operating staff.

*Denotes persons attending the exit meeting of April 8, 1983.

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (373/82-32-01(DE)): Diesel Generator 2A margin load test and independence functional test will be performed as part of Preoperational Test PT-DG-201B. The inspector reviewed PT-DG-201B and confirmed that it included provisions for performing the above noted tests.

3. Preoperational Test Procedure Review

The inspectors reviewed the following test procedures against the FSAR, the SER, Regulatory Guide 1.68, the QA Manual, and the Startup Manual and found them satisfactory unless otherwise noted.

- PT-MS-201A, MSIV-LCS
- PT-MS-201B, MSIV-Main Steam Instrumentation
- PT-MS-201C, Main Steam Reliefs and ADS
- PT-RP-201, Reactor Protection System

During the review of this procedure, the inspector developed a number of concerns regarding the methodology employed by the licensee in measuring response times. As a result of these concerns, a special safety inspection was performed for Unit 1 to determine the impact on Unit 1. The results of this inspection are contained in Inspection Report 50-373/83-14. The remainder of this section deals with the issues developed during the review of PT-RP-201 and during the special safety inspection as they pertain to PT-RP-201.

Section 10.6.A of PT-RP-201 requires that various surveillance procedures be performed to measure the response times to the different system scram signals and end of cycle-recirculation pump trip (EOC-RPT) signal input. The response time data is then required to be recorded on Data Sheet 12.12 where an appropriate acceptance criterion is listed. The procedure listed for measuring the response time for the EOC-RPT from a turbine control valve (TCV) fast closure is LIS-RP-05. During the special safety inspection, this procedure was reviewed and found to adequately measure

the TCV fast closure, trip oil pressure low, scram response time, which is consistent with its title and objective. The licensee was requested to provide the procedure utilized to perform the EOC-RPT system response time test for TCV fast closure. They provided the inspectors with a copy of a Special Test Procedure, LST 82-37. LST 82-37 added the results of two surveillance procedures (LIS-RP-05 and LIS-RR-03) together to produce a total response time. This testing methodology was reviewed and found to produce a conservative measurement that included all of the required circuitry plus some additional components and circuitry. In the case of PT-RP-201, however, the procedure failed to note that for the EOC-RPT system response time for TCV fast closure that LIS-RP-05 by itself does not provide sufficient data. As noted in LST-82-37, the results from LIS-RR-03 must be factored in and the total recorded on the data sheet and compared to the acceptance criteria. This is considered to be an example of an item of noncompliance (374/83-06-01A(DE)) in that PT-RP-201 did not provide adequate instructions to determine the EOC-RPT system response time for the TCVs.

Section 10.6.B.1 of PT-RP-201 requires that station surveillance Procedure LES-EH-001 be performed. The purpose of performing this procedure, in part, is to verify the setpoints of the turbine stop valve (TSV) limit switches that generate the valve fast closure scram signal and EOC-RPT signal. During a review of this procedure, the inspector noted that it required that the limit switches be verified to trip at less than or equal to 95% of the valve full open position. The FSAR, Section 7.2.2.2.3, states that the limit setpoint is set at 10% or less valve motion away from the full open position. The Unit 1 and the draft Unit 2 Technical Specifications, Table 2.2.1-1 (Reactor Protection System Instrumentation Setpoints), require that these limit switches be set to trip at less than or equal to 5% valve motion away from the full open position. Converting this value to a percentage of the full open position, this is equivalent to greater than or equal to 95% of the valve full open position. Therefore, the licensee's procedure is incorrect and nonconservative with respect to the FSAR and Technical Specification requirements. In the case of Unit 1, a check by the licensee of actual limit switch setpoints revealed that five of the eight limit switches were set incorrectly and nonconservatively with respect to the Technical Specification prescribed setpoint. One of these five switches was found to be set nonconservatively with respect to the maximum allowable value in the Technical Specifications. The above issue is presented in special safety Inspection Report 50-373/83-14 but is repeated here because the additional review that LES-EH-001 is required to have, since it is being utilized as part of a preoperational test, failed to recognize the above problem. This is considered to be an example of an item of noncompliance (374/83-06-01B(DE)).

During the review of PT-RP-201, the inspector noted that Underfrequency Relay Device 81 for both of the RPS MG sets was not being tested to ensure that it would cause an alarm in the event that the MG sets frequency dropped below a preset limit. The inspector noted that this portion of the RPS is not safety-related and that the system is protected by redundant electrical protection assemblies located downstream of the

MG sets and having more conservative setpoints than the MG sets own electrical protection devices. However, the licensee has agreed to change their procedure to test the underfrequency relay devices to verify they will alarm. This will be tracked as an open item (374/83-06-02(DE)).

The inspector also noted that PT-RP-201 did not verify that the MG set, upon loss of power, could maintain output voltage and frequency within 5% of rated for greater than or equal to one second as specified in FSAR Section 7.2.1.1.1. The inspector did note that this is not a safety-related function since the RPS is designed to trip on loss of power. However, the licensee has agreed to change the procedure to make this verification. This will be tracked as an open item (374/83-06-03(DE)).

No other items of noncompliance or deviations were identified.

4. Preoperational Test Witnessing

The following preoperational tests were witnessed during this inspection period:

a. PT-AP-202, DC Distribution System

The inspector witnessed the 24VDC Battery Charger operation portion of DC Distribution System Preoperational Test to ascertain through observation, records review, and independent calculations that testing was conducted in accordance with approved procedures. Additionally, the performance of licensee personnel was evaluated during the test.

The major objective of the test was to verify operability of the 24VDC battery chargers and associated protective devices. The inspector verified that the testing requirements of the FSAR and Technical Specifications were satisfied in all cases.

b. PT-RD-202, Control Rod Drive Hydraulics

The inspector witnessed the Scram Valve Sequence testing portion of the Control Rod Drive Hydraulics Preoperational Test to ascertain through observation, records review, and independent calculations that testing was conducted in accordance with approved procedures. Additionally, the performance of licensee personnel was evaluated during the test.

The major objective of the test was to verify correct sequencing of the exhaust and supply scram valves for each hydraulic control unit (HCU). Sequencing logic requires that the exhaust scram valve begin to open prior to the supply scram valve to prevent damage to the drive mechanism graphite seals.

The sequencing verification is accomplished by the test engineer comparing the chart recorder traces of the exhaust and supply scram valves for each HCU and then signing off in the preoperational test

procedure. However, the chart traces were determined by the licensee to not constitute raw data and subsequently were disposed of four HCUs. The inspector expressed his concern to the licensee that the chart traces constitute raw data and that the raw data should become part of the permanent records to be retained for the life of the plant. The licensee has agreed to retain the chart traces as part of the permanent data. Subsequently, the raw data that was not initially retained for the four HCUs was retrieved. Additionally, the inspector expressed concerns that data used during preoperational testing should be given close consideration by the licensee to determine if that data is to become part of the permanent records.

No items of noncompliance or deviations were identified.

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 the inspection are discussed in Paragraph 3.

6. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) on April 8, 1983. The inspector summarized the scope and findings of the inspection.

The licensee acknowledged the statements by the inspectors with respect to the item of noncompliance (Paragraph 3).