

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-295/81-27; 50-304/81-25

Docket No. 50-295; 50-304

License No. DPR-39; DPR-48

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

Facility Name: Zion Nuclear Power Station, Units 1 & 2

Inspection At: Zion, IL

Inspection Conducted: November 19-25, 1981

Inspector: *M. L. Gildner*
M. L. Gildner

12/9/81

Approved By: *K. R. Baker*
K. R. Baker, Chief
Management Programs Section

12/9/81

Inspection Summary

Inspection on November 19-25, 1981 (Report No. 50-295/81-27; 50-304/81-25)

Areas Inspected: Routine unannounced inspection of the licensee's program for periodic calibration of safety related instrumentation and controls. The inspection involved a total of 31 inspector-hours on site by one (1) NRC inspector.

Results: In the areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

- *K. L. Graesser, Station Superintendent
- *K. L. Kofron, Assistant Superintendent-Maintenance
- W. R. Kurth, Master Instrument Mechanic
- *R. A. Smejkal, I. M. Training Foreman
- *D. J. McMnamin, Quality Assurance

The inspector also contacted other licensee technical and administrative staff personnel during the course of the inspection.

*Denotes those persons attending the exit interview.

2. Special Test Equipment

The inspector selected the below listed test equipment used in the calibration of safety-related equipment and determined that: the accuracy of those instruments were traceable to the National Bureau of Standards or other independent testing agencies; the instruments were being controlled in a program of periodic calibration; the instruments were being stored properly; and calibration documentation and usage records were available if required.

a. Test Equipment Reviewed

- CE021 - Heise Test Gauge 0-600#
- CE068 - Leeds & Northrup 4287 Kelvin Bridge
- CE088 - General Radio 1531 Strobotac
- CE113 - Mansfield Green PK-30 Pneumatic Pressure Tester
- CE416 - Ashcroft Test Gauge 0-160#
- CE451 - Hewlet Packard 5315A Universal Counter

b. Findings

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

3. Calibration of Safety Related Components or Equipment

The inspector reviewed the plant calibration procedures listed below. This review was performed to determine if the calibration is covered by properly approved procedures; the procedures contain pre-requisites and preparations for the test; the procedures include acceptance criteria; the procedures include operational checks prior to returning equipment to service; the technical content of the procedures will result in satisfactory testing; and the test instrumentation is recorded for traceability.

a. Procedures Reviewed

CC 04.1, Revision 4 - Pressurizer Pressure (1P-455)
CC 05.1, Revision 4A - Pressurizer Level (1L-459)
CC 06.1, Revision 4 - RCP # 1A Flow (1F-414)
CC 09.1, Revision 1B - Turbine First Stage Pressure (1P-505)
CC 14.6, Revision OD - Steam Generator 1C Level (1L-529)
CC 15.2, Revision 5 - ΔT and T avg (1T-421)
CC 25.13, Revision 2A - Steam Generator 2A Steam Flow (2F-513)
CC 28.2, Revision 1 - Containment Pressure (2P-020)

b. Findings

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

c. Discussion

The inspector noted an almost total lack of acceptance criteria on the calibration data sheets. The listing of instrument accuracies is maintained separate from the calibration procedure. The technicians are trained in the required accuracies for each type of instrument and maintain a copy of the listing for their ready reference. The inspector suggested that the accuracy listing be included in the standard test procedure list of references. The standard test procedure is utilized for each calibration and will provide necessary acceptance criteria for the calibration. A procedure change to include the accuracy listing into the standard test procedure was initiated during the course of the inspection.

4. Calibration of Safety Related Components Required by Technical Specifications

The inspector reviewed the plant calibration records for the below listed calibration activities. This review was performed to determine that the frequency of calibration was met; the service status of the system was in conformance with the applicable limiting conditions of operation; the procedures used to calibrate the components were reviewed and approved as required by the Technical Specifications; the procedures used contained acceptable trip settings using applicable technical specification requirements; the procedures used contained detailed stepwise instructions; the technical content of the procedures would result in satisfactory calibration; the trip points conformed to applicable Technical Specifications; the qualifications of two individuals in the I&C Group having responsibilities for performing calibrations were adequate.

a. Records Reviewed

1P - 405 dated 2/9/81 - Reactor Coolant High Pressure
1D - 412 dated 3/20/81 - Rod Insertion Limits

1L - 460 dated 2/21/81 - Pressurizer Level
1P - 526 dated 2/7/81 - Steam Generator Pressure
1F - 542 dated 2/10/81 - Steam Generator Steam Flow

2N - 042 dated 7/1/81 - Power Range Nuclear Instrumentation
2F - 424 dated 5/7/80 - Reactor Coolant Loop Flow
2P - 456 dated 10/7/81 - Pressurizer Pressure
2F - 510 dated 10/10/81 - Steam Generator Feedwater Flow
2L - 518 dated 9/23/81 - Steam Generator Level

b. Findings

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

5. Calibration of Safety Related Components Not Specified by Technical Specifications

The inspector reviewed plant calibration records for the below listed components. This review was performed to determine if specific calibration requirements have been established; the operating range/accuracy of components were consistent with applicable Technical Specifications/SAR; the procedures used to calibrate the components were reviewed and approved as required by Technical Specifications; the procedures used contained acceptance criteria consistent with Technical Specifications/SAR criteria; the procedures used contained detailed instructions commensurate with the complexity of the calibration; the technical content of the procedures would result in satisfactory calibration.

a. Records Reviewed

1F-FW-0004 dated 12/30/76 - Auxiliary Feedwater Flow
1L-DG-0008 dated 12/ 5/80 - DG Day Tank Level Alarm
1P-DG-0012 dated 11/20/80 - DG Lube Oil Low Pressure Shutdown
1L-SI-0951 dated 2/ 4/81 - Accumulator Tank Level
1P-SI-0960 dated 1/23/81 - Accumulator Tank Pressure

2F-CS-0001 dated 5/ 6/80 - Containment Spray Flow
2P-MS-0003 dated 4/ 2/79 - Auxiliary Feedpump Steam Pressure
2L-CS-0047 dated 6/11/81 - Containment Level
2P-FW-0114 dated 10/ 1/81 - Auxiliary Feedpump Pressure
2T-RC-0463 dated 4/22/80 - Pressurizer Relief Valve Discharge Temperature

b. Findings

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

6. Exit Interview

The inspectors met with licensee representatives denoted in Paragraph 1 at the conclusion of the inspection on November 25, 1981.

The inspectors summarized the purpose and the scope of the inspection and the findings.