

NOTICE OF VIOLATION

Commonwealth Edison Company
Zion Nuclear Generating Station

Docket Nos. 50-295; 50-304
License Nos. DPR-39; DPR-48

During an NRC inspection conducted on August 24 through October 11, 1996, six violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

1. 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings.

Zion Administrative Procedure (ZAP) 1200-08, "Risk Significant On-line Maintenance," Revision 4, requires:

- In Section F.1.d, that the Risk Management Team identify compensatory measures and actions required to remove, test, or restore the system to service for each voluntary entry into a Limiting Conditions for Operation (LCO) or risk significant combination.
- In Section F.3.a, that the Work Control Center pre-plan and coordinate work activities by all involved work departments in order to minimize the downtime of out-of-service systems and the risk of losing redundant equipment.
- In Section F.5, that the Work Control Center be responsible for initiating Attachment A, "Voluntary LCO Entry Outage Approval Form."

Procedure PT-11-DG1A, "1A Diesel Generator Loading Test," Revision 6, and Procedure PT-11-DG0, "0 Diesel Generator Loading Test," Revision 7, require the operator to reduce power from four megawatts (MWs) to one MW and hold the generator power at one MW for fifteen minutes.

Out-of-service (OOS) Nos. 960006991 and 960009514 directed isolation of the main air supply to residual heat removal (RHR) system valves 2HCV-RH606 and 2HCV-RH618.

Maintenance Procedure P/M016-2N, "Limitorque Motor Operated Valve (MOV) Actuator SMB-00," Revision 2, Step 8.4.3.A, requires installation of the locating pin and hypoid gear on the drive sleeve.

Technical Staff General Procedure (TSGP) 97, "Test of the Autostart Inhibit Circuitry for Bus 47 Pumps," requires the energization of undervoltage relay 427TD1 before de-energizing relay SDR/27-2.

Contrary to the above, activities affecting quality were not accomplished in accordance with applicable procedures or instructions in the following instances:

- a. On September 15, 1996, during 2B safety injection pump component cooling water flow transmitter work activities, which necessitated voluntary entry into an LCO, licensee personnel failed to perform the following actions required by ZAP 1200-08:
 - Compensatory measures and actions required to remove, test, or restore systems to service for a voluntary entry into an LCO were not identified.
 - Work activities associated with the maintenance activities were not preplanned or coordinated with all work departments to minimize the risk of losing redundant equipment.
 - The Work Control Center did not initiate Attachment A, "Voluntary LCO Entry Outage Approval Form."
- b. On October 6, 1996, during performance of PT-11-DG1A, and again on September 9, 1996, during performance of PT-11-DG0, a licensed operator failed to correctly unload the applicable emergency diesel generator (EDG) during shutdown. The fifteen minute hold at one MW was not performed in the case of the "1A" EDG, and the hold was for only seven minutes for the "0" EDG.
- c. On October 7, 1996, during performance of OOS Nos. 960006991 and 960009514, equipment attendants isolated the backup air supply to RHR valves 2HCV-RH606 and 2HCV-RH618 instead of the main air supply.
- d. During the 1995 Unit 1 refueling outage, maintenance personnel performing P/M016-2N failed to install the hypoid gear locating key for two power operated relief valve, block valve drive sleeves.
- e. On September 23, 1996, the system engineer signed off the step in TSGP 97 without performing the associated action that ensured energization of undervoltage relay 427TD1 before de-energizing relay SDR/27-2.

This is a Severity Level IV Violation (Supplement I)
(50-295/96014-01; 50-304/96014-01).

2. Technical Specification 6.2.1.a requires that written procedures be prepared, implemented, and maintained for procedures recommended in Appendix A, of Regulatory Guide 1.33, Revision 2, February 1978. Appendix A, of Regulatory Guide 1.33, Revision 2, February 1978, specifies nuclear startup as an example of a general plant operating procedure.

General Operating Procedure GOP-2, "Plant Startup," Revision 9, Step 4.0.15, requires, in part, that if any control rods are misaligned, the operator refer to Abnormal Operating Procedure AOP-2.1, "Rod Control System Malfunction," and contact the Qualified Nuclear Engineer for further guidance.

Contrary to the above, on September 16, 1996, on several occasions during the withdrawal of the shutdown banks for Unit 1 reactor startup, control board rod position indication and rod demand deviated by greater than 12 steps and the operators failed to stop withdrawing control rods and enter Abnormal Operating Procedure AOP-2.1, "Rod Control System Malfunction."

This is a Severity Level IV Violation (Supplement I)
(50-295/96014-02).

3. Technical Specification 3.15.2.C, requires, in part, that with one diesel generator inoperable, the availability of two sources of off-site power be demonstrated at least once every eight hours.

Contrary to the above, on six occasions during the 2B EDG outages of August 12-13 and September 9-11, 1996, and the 2A EDG outage of September 15-17, 1996, operators failed to demonstrate the availability of two sources of off-site power at least once every eight hours.

This is a Severity Level IV Violation (Supplement I)
(50-304/96014-03).

4. 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings.

Contrary to the above, procedures were not appropriate to the circumstances in the following instances:

- a. On September 18, 1996, Procedure PT-27G-ST, "Steam Generator Power Operated Relief Valve Stroke Time Testing," Revision 1, did not require immediate assessment of the operability threshold following valve stroke time testing failures. During performance of PT-27G-ST, the 2A atmospheric relief valve, 2MOV-MS-0017, had a stroke time of 63.2 seconds which was greater than the action limit of 54.2 seconds. The valve was not declared inoperable and the LCO for TS 3.9.3, "Containment Isolation Valves," was not entered until approximately two hours later.
- b. On October 5, 1996, Technical Staff Surveillance (TSS) 15.6.123, "Leak Test of Penetration Pressurization (PP) Check Valves," Revision 8, directed lifting of the Unit 2 PP header low pressure signal lead on the "0" PP air compressor, but did not consider existence of an automatic start lead on the same terminal point. The "0" PP air compressor was momentarily rendered inoperable causing inadvertent entry into the LCO for TS 3.9.2.B.a, "Penetration Pressurization Systems," when a technician lifted both leads and re-landed the lead for compressor automatic start.
- c. On September 25, 1996, Maintenance Procedure M015-1, "Valve Block Fabrication, Installation, and Removal," Revision 2, did not provide appropriate guidance to mechanics to control the configuration of plant systems during the installation of a hand loader. While connecting a hand loader to maintain the position of instrument air, containment isolation valves 2FCV-IA01A and B during valve block installation, mechanics isolated air to a valve actuator. The valve shut, inadvertently isolating instrument air to the Unit 2 containment.
- d. On September 26, 1996, TSS 15.6.10B, "Special Type B and C Leak Rate Test," Revision 3, did not require verification of initial valve positions prior to valve repositioning. The No. 2 reactor water storage tank to refueling water purification pump valve, 2SF8758, was not identified as open. An unexpected transfer of 500 gallons of water from the RWST to the refueling cavity resulted when other valves were opened during the test.

This is a Severity Level IV Violation (Supplement I)
(50-295/96014-04; 304/96014-04).

5. 10 CFR Part 50, Appendix B, Criteria X, "Inspection," requires, in part, that a program for inspection of activities affecting quality be established and executed by or for the organization performing the activity to verify conformance with documented instructions, procedures, and drawings for accomplishing the activity and that such inspection be performed by individuals other than those who performed the activity being inspected.

Zion Administrative Procedure 520-08, "Station QC [quality control] Inspection Program for Maintenance Work," Revision 3 (G), requires, in part, that independent inspection/quality verification be performed by qualified individuals other than the group performing the maintenance task.

Contrary to the above, on September 10, 1996, the QC inspection for the torquing of the 2B emergency diesel generator jacket water cooler end cover was not independent since the QC inspector set the torque wrench for each torque increment.

This is a Severity Level IV Violation (Supplement I)
(50-304/96014-06).

6. 10 CFR Part 50, Appendix B, Criteria III, "Design Control," requires, in part, that design changes, including field changes, be subject to design control measures commensurate with those applied to the original design.

Zion Administrative Procedure (ZAP) 510-05, "Temporary Alteration Program," Revision 4, describes the design control measures applicable to temporary alterations and defines a temporary alteration as an alteration made to the plant configuration, including equipment and facilities, intended to be temporary, that does not conform to approved drawings or other plant documents.

Contrary to the above, on October 4, 1996, the inspectors observed a portable fan taped to the Unit 2 manipulator crane, an alteration to the plant configuration that did not conform to approved drawings or other plant documents. Design control measures prescribed in ZAP 510.05 were not applied to this alteration.

This is a Severity Level IV Violation (Supplement I)
(50-304/96014-09).

Pursuant to the provisions of 10 CFR 2.201, Commonwealth Edison Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region III, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation," and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in the Notice, an order or a Demand for Information may be issued as to why the license should not be modified.

suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated at Lisle, Illinois
this 28th day of January 1997