

Commonwealth Edison Company
Zion Generating Station
101 Shiloh Boulevard
Zion, IL 60099-2797
Tel 847-746-2084

ComEd

February 18, 1997

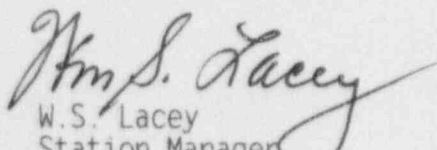
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

The enclosed Licensee Event Report number 97-003-00, Docket No. 50-295,304/DPR-39,48 from Zion Generating Station is being transmitted to you pursuant to 10 CFR 50.73(a)(2)(i)(B), which requires a thirty-day written report when any event or condition occurs that is prohibited by the plant's Technical Specifications.

Commitments made in this report are:

1. The 2A EDG will be tested in accordance with Technical Specification 4.15.1.B.3.f prior to declaring the EDG operable, and
2. Zion Station will modify the Technical Specification Amendment implementation process to include required independent verification.

Very truly yours,


W.S. Lacey
Station Manager
Zion Generating Station

SL/jz

Enclosure: Licensee Event Report

cc: NRC Region III Administrator
NRC Resident Inspector
IDNS Resident Inspector
INPO Record Center
Illinois Department of Nuclear Safety

IR22 1/1

9702270298 970218
PDR ADOCK 05000295
S PDR

LICENSEE EVENT REPORT (LER)

FACILITY NAME ZION NUCLEAR POWER STATION UNIT 1	DOCKET NUMBER 0 5 0 0 0 2 9 5	PAGE 1 OF 5
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TITLE NON-COMPLIANCE WITH EMERGENCY DIESEL GENERATOR TECHNICAL SPECIFICATIONS DUE TO PROGRAMMATIC DEFICIENCIES.
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EVENT DATE			LER NUMBER			REPORT DATE			OTHER FACILITIES INVOLVED											
MONTH	DAY	YEAR	YEAR	SEQ	REV	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)										
0	1	1	7	9	7	-	0	0	3	-	0	0	0	2	1	8	9	7	ZION UNIT 2	0 5 0 0 0 3 0 4

OPERATING MODE 1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (CHECK ONE OR MORE OF THE FOLLOWING)							
		20.402(b)	20.405(e)	50.73(a)(2)(iv)	73.71(b)				
POWER LEVEL 1 0 0		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)				
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)				
		20.405(a)(1)(iii)	x 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)					
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)					
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER	
NAME Neil Brennan, Ext. 2380	TELEPHONE NUMBER 8 4 7 7 4 6 - 2 0 8 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED				EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
<input type="checkbox"/> YES. (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO							

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines).

On 17-JAN-97, while reviewing a report of operating experience from another facility, Zion personnel determined that Emergency Diesel Generator (EDG) tests completed in the previous refueling outages on both units did not meet the Technical Specification Surveillance Requirement 4.15.1.B.3.f. The performed tests incorrectly specified that the EDGs would be loaded to at least 4,000 Kilowatts (kW), and the EDGs were run at loads up to 4,180 kW. The Technical Specification requirement specified a range of EDG loads as follows: "...greater than or equal to 3,600 kW and less than or equal to 4,000 KW." The event did not adversely impact safety at the facility nor of the public. The event was caused by insufficient barriers in the Technical Specification implementation process to prevent a single error from causing the process to fail. Zion Station has corrected the deficient procedures and completed testing on the operating unit. In addition, Zion Station will examine the Technical Specification Amendment implementation process, with particular emphasis on document review and preparation practices, and the Station will implement appropriate corrective actions. (NUREG 1022 CAUSE: E)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		0	0	3	-	0
		0	0	0	0	2
		0	2	OF	0	5

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

A. PLANT CONDITIONS PRIOR TO EVENT

Unit 1 MODE 1 - Operating Rx Power 100% RCS [AB]Temperature/Pressure 560°F/2235psig
 Unit 2 MODE 5 - Cold Shutdown Rx Power 0% RCS [AB]Temperature/Pressure 185°F/383psig

B. DESCRIPTION OF EVENT

On 12-JUN-95, during a review of proposed License Amendments, personnel determined that as a result of a previous procedure change, a test required by the Technical Specifications had not been correctly performed. This event occurred because the Station implemented revised Emergency Diesel Generator [EK] (EDG) testing requirements developed from portions of Regulatory Guide 1.9 "Selection, Design, Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Plants (Rev. 3, 7-93)", which were not in accordance with Technical Specifications. This event was reported by the Zion Station Licensee Event Report (LER) 95-007. On 13-JUN-95, the Nuclear Regulatory Commission (NRC) issued a Notice of Enforcement Discretion, as requested, and on 14-JUN-95, an Exigent License Amendment Request was submitted to change the Technical Specification requirement to permit exceptions to portions of Regulatory Guide 1.108 "Periodic Testing of Diesel Generator Units Used As Onsite Electric Power Systems At Nuclear Power Plants". (Rev. 1, 8-22). The NRC issued the Exigent License Amendment, as requested on 18-JULY-95.

On 23-JUN-95, the Station completed Onsite Review (OSR) of the subject License Amendment Request (LAR). Action items from this review specified that new test procedures for Operations would be developed to implement the revised requirements. On 30-JUN-95, the Station submitted the subject License Amendment Request (LAR) to the NRC.

On 30-AUG-95, Unit 1 EDG Operations test procedures were drafted. These procedures did not include a limitation on EDG load that would be required by the Technical Specifications reflected in the recently submitted LAR. The LAR requested a new Technical Specification Surveillance Requirement (TSSR) 4.15.1.B.3.f. This requirement implemented a hot re-start EDG test and specified that EDGs were to be run in a range of EDG loads as follows: "...greater than or equal to 3,600 KW and less than or equal to 4,000 KW." The new procedures incorrectly specified that the EDGs would be loaded to at least 4,000 KW. The Unit 1 procedures were reviewed by OSR and approved for use on 13-OCT-95.

On 16-OCT-95, the NRC made effective Technical Specification Amendments 170/157 as requested in the 30-JUN-95 LAR.

On 2-NOV-95 the Station began testing the Unit 1 EDGs following the flawed procedures that were developed to implement amendments 170/157. On 2-NOV-95 the 1B EDG was tested, on 6-NOV-95 the 1A EDG was tested and on 11-NOV-95, the 0 (common) EDG test was completed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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B. DESCRIPTION OF EVENT (Continued)

On 29-NOV-95, the Station began an OSR of the Technical Specification Amendments 170/157. The OSR concluded that 1) The Station had fully implemented the amended technical Specifications, and 2) The EDG tests that were completed in NOV-95 met the amended requirements and 3) Unit 2 testing would be performed in the next refueling outage (Z2R14). The OSR was approved on 11-DEC-95.

On 17-JAN-97, while reviewing a report of operating experience from another facility, Zion personnel determined that EDG tests completed in the previous refueling outages on both units (Z1R14 for Unit 1 and Z2R13 for Unit 2) did not meet an element of the Technical Specification Surveillance Requirement 4.15.1.B.3.f., i.e., the tests incorrectly specified that the EDGs would be loaded to at least 4,000 Kilowatts (KW), and the EDGs were run at loads up to 4,180 KW rather than controlling EDG loads in the correct 3,600 KW to 4,000 KW range.

C. CAUSE OF EVENT

The Station's Technical Specification Amendment process did not require independent verification of the adequacy of License Amendment implementation plans. The process allowed participating reviewers to rely exclusively upon the input provided by the Station EDG expert. As result, a single erroneous conclusion (that the requirements of the subject Technical Specification were fully implemented) caused the implementation process to fail to generate adequate implementation procedures.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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D. SAFETY ANALYSIS

The subject Emergency Diesel Generator (EDG) testing is performed with the EDGs electrically in parallel with the Commonwealth Edison distribution system (grid) [EL]. The EDGs output breaker is closed and the EDG is synchronized to a Safety Related 4,160 Volt Bus [EB] that is also connected to the grid. In this configuration, any power supplied by the EDG in excess of load on the Bus (nominally 2,000 KW for EDG 0, 2,500 KW for 1B&2B EDGs and 3,000 KW for 1A&2A EDGs) flows to the grid. Therefore, having run the EDG at loads greater than 4,000 KW did not adversely impact Safety Related equipment connected to the Bus.

The Station tested the EDGs 1A, 1B, 0, 2A and 2B in accordance with procedures (PT-11 series) containing a requirement to load the EDGs to at least 4,000 KW. EDG load data taken from operator logs and computer records verifies that during the subject test, Zion Operators typically controlled load to be greater than 4,000 KW and less than 4,200 KW. Although the actual load on the EDGs exceeded the amended TSSR, at no time did the procedures require EDG load to exceed the load rating. The following were also verified: 1) The EDGs were not operated above 4,400 KW, and 2) The EDGs were not operated for more that 2 hours above 4,000 KW. Each diesel generator is rated 5000 kVA, 0.8 power factor at 4160 V, 3-phase, and 600 rpm. Each EDG has a continuous rating of 4,000 KW and a 2-hour (short time) rating of 4,400 KW. EDG loads during the subject tests did not exceed any of these load ratings.

This event had no adverse impact on safety related equipment, and the actual EDG load can be considered conservative in that it was greater than the range specified by Technical Specifications and below machine limits. Therefore, this event had no adverse impact on the health and safety of plant personnel or the public.

E. CORRECTIVE ACTIONS

1. The Station has revised the subject procedures to implement accurately the Technical Specification Surveillance Requirement of 4.15.1.B.3.f.
2. The tests were successfully completed on EDGs 2B, 1A, 1B and 0 (the common EDG).
3. The test will be completed on the 2A EDG prior to declaring the EDG operable during the current 2A EDG maintenance outage. (29518097030301)
4. Zion Station will modify the Technical Specification Amendment implementation process to include required independent verification. (29518097030302)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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YEAR	SEQ.	REV.							
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F. PREVIOUS EVENTS SEARCH AND ANALYSIS

In addition to this Licensee Event Report (LER), the Station has experienced non-compliance with Technical Specifications because of poorly implemented Technical Specifications on six previous occasions. Zion Station Unit 1 LERs 95-002, 95-003, 95-005, 95-007, Unit 2 96-011, and Unit 1 97-002 have causes involving weaknesses in document review and document preparation practices. The corrective action to modify the Technical Specification Amendment implementation process to require independent verification where appropriate to prevent process failure is designed to address the common cause of these events.

G. COMPONENT FAILURE DATA

There were no component failures associated with this event.