

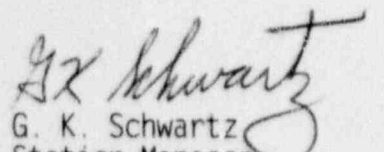
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Zion Generating Station
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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

The enclosed Licensee Event Report number 96-010-00, Docket No. 50-304/DPR-48 from Zion Generating Station is being transmitted to you pursuant to the 10CFR50.73(a)(2)(iv), which requires a thirty day written report when any event or condition resulted in a manual or automatic actuation of any engineered safety feature.

Very truly yours,


G. K. Schwartz
Station Manager
Zion Generating Station

GKS/jyz

Enclosure: Licensee Event Report

cc: NRC Region III Administrator
NRC Resident Inspector
IDNS Resident Inspector
INPO Record Center
Illinois Department of Nuclear Safety
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IE2211

9612270049 961220
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S PDR

LICENSEE EVENT REPORT (LER)

FACILITY NAME ZION NUCLEAR POWER STATION UNIT 2												DOCKET NUMBER 0 5 0 0 0 3 0 4				PAGE 1 OF 0 3	
TITLE System Engineer Inadvertently Shorted Test Leads Resulting in Engineered Safety Features Functions Actuation with no Adverse Effect on Plant																	
EVENT DATE			LER NUMBER				REPORT DATE			OTHER FACILITIES INVOLVED							
MONTH	DAY	YEAR	YEAR	SEQ.	REVISIO	MONTH	DAY	YEAR	FACILITY NAMES ZION UNIT 1				DOCKET NUMBER(S) 0 5 0 0 0 2 9 5				
1	1	2 0 9 6	9 6	- 0 1 0	- 0 0	1	2	2 0 9 6									
OPERATING MODE		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (CHECK ONE OR MORE OF THE FOLLOWING)															
6		20.402(b)				20.405(e)				x 50.73(a)(2)(iv)				73.71(b)			
POWER LEVEL		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)			
0 0 0		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				x OTHER (Specify in			
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)				Abstract below and in Text, NRC Form 366A)			
		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)(x)							
LICENSEE CONTACT FOR THIS LER																	
NAME N. M. Brennan, Regulatory Assurance, EXT. 2380												TELEPHONE NUMBER 8 4 7 7 4 6 - 1 2 0 8 4					
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT																	
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs								
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):

In Mode 6 (Refueling Outage), while conducting a special response time test of the Train "A" Reactor Protection System and Engineered Safety Features (ESF), a System Engineer inadvertently shorted a contact which resulted in the actuation of several isolation valves. The following valves closed: 2AOV-DT1003 - Reactor Coolant Drain Tank Isolation Valve, 2FCV-PR24A - Containment Radiation Monitor Isolation Valve, and five valves associated with the Isolation Valve Seal Water System opened. The result of the event was that the Train A equipment performed as designed. Immediately following the event, the test was aborted and the system was returned to normal. There were no adverse consequences to equipment or safety, and all isolations were reset. NRC notification was made within four hours as required by 10 CFR 50.72(b)(2)(ii), because this invalid ESF actuation involved the Containment Isolation System. The root cause was human error; an engineer conducting the test took a shortcut. Upon realizing he needed a longer set of test leads, he opted to use a long set he already had connected. He disconnected them from the deenergized test terminal box first rather than from the energized relay panel. The leads were inadvertently shorted and resulted in the isolation event. Corrective actions include: a) A stand down meeting of the Systems Engineering Electrical Personnel was held to discuss the event to prevent its recurrence. b) The engineer was counselled. c) The engineers conducting tests will have qualified Maintenance, Construction, or Operations personnel perform the test lead hook-ups and removal.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME	DOCKET NUMBER	LER NUMBER			PAGE		
ZION NUCLEAR POWER STATION UNIT 2		YEAR	SEQ.	REVISE			
	0 5 0 0 0 3 0 4	9 6 -	0 1 0 -	0 0	0 2	OF	0 3

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

A. PLANT CONDITIONS PRIOR TO EVENT

Unit 1 MODE 1 - Power Ops Rx Power 100% RCS [AB] Temperature/Pressure 559°F/2235 PSIG
 Unit 2 MODE 6 - Cold Shutdown Rx Power 0% RCS [AB] Temperature/Pressure 70°F/0 PSIG

B. DESCRIPTION OF EVENT

In Mode 6 (Refueling Outage) the System Engineer was in the process of performing the Response Time Test of Reactor Protection System and Engineered Safety Features (ESF) Logic Train "A" for Unit 2 (TSSP-079-96).

As had been the site practice prior to this event, the system engineer had been making test connections for the test for several hours the previous day and had started work at 0800 hours 11/20/96 making the test connections in the Auxiliary (Aux.) Electric Equipment room without incident.

At approximately 1020 hours the engineer was at a step which required connecting test leads from a cabinet to a test terminal box thirty feet away. The test leads were too short, so the engineer decided to use a longer set of leads which he had previously connected.

Though aware of the proper sequence for disconnecting the test leads, the engineer took a shortcut and disconnected the test leads, first from the test terminal box rather than at the relay cabinet. He did not recognize that if the lead shorted he would actuate a relay.

After disconnecting the leads, the leads touched (shorted), simulated a contact closure, and caused an unplanned ESF actuation to the Phase "A" Containment Ventilation Isolation relays which energized and latched. As a result, two Containment Isolation valves repositioned closed (2AOV-DT1003 and 2FCV-PR24A) and five valves associated with the Isolation Valve Seal Water System opened (2FCV-IW09, 2FCV-IW11, 2FCV-IW13, 2FCV-IW15, and 2FCV-IW17) as designed.

The Unit 2 Supervisor advised the engineer of the event at which time the test procedure was aborted. Testing was stopped and the system was returned to normal. NRC notification was made within four hours as required by 10 CFR 50.72(b)(2)(ii).

There were no adverse consequences as a result of the valves stroking as plant conditions were set to stroke these valves later in the procedure.

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ZION NUCLEAR POWER STATION		YEAR	SEQ	REVISE																	
		0	5	0	0	0	3	0	4	9	6	-	0	1	0	-	0	0	0	3	OF

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

C. CAUSE OF EVENT

Human Error: The engineer conducting the test took a shortcut by disconnecting the leads at the intermediate terminal box before first disconnecting at the energized relay cabinet.

D. SAFETY ANALYSIS

This event is reportable pursuant to 10 CFR 50.73(a)(2)(iv) which requires a thirty day written report when any event or condition resulted in a manual or automatic actuation of any engineered safety feature.

There was no safety significance as the inadvertent actuation of the two containment isolation valves and the five isolation valve seal water valves performed as designed. Unit 2 equipment was already aligned to accommodate actuation of these valves. The test for which the connections were being made would have intentionally actuated Phase "A" Containment Ventilation Isolation.

During the event, Unit 2 was in Mode 6 where Safeguards Logic Circuitry is normally deenergized and is not required to be operable. There is no accident during Mode 6 that relies on actuation of Phase "A" Containment Ventilation Isolation. Therefore, the inadvertent actuation of the isolation valves did not affect the plants ability to respond to any Mode 6 accident.

E. CORRECTIVE ACTIONS

1. A stand down meeting of the Systems Engineering Electrical Personnel was held to discuss the event to prevent its recurrence.
2. The System Engineer was counselled.
3. Station policy was changed: Engineers conducting tests will now have qualified Maintenance, Construction, or Operations personnel perform the test lead hook-ups and removal.

F. PREVIOUS EVENTS SEARCH AND ANALYSIS

None

G. COMPONENT FAILURE DATA

N/A