Commonwealth Edison
LaSalle County Nuclear Station
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Marseilles, Illinois 61341
Telephone 815/357-6761

June 16, 1994

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Licensee Event Report #94-007-00, Docket #050-373, is being submitted to your office in accordance with 10CFR50.73(a)(2)(iv).

D. J. Ray
Station Manager
LaSalle County Station

DJR/RAA/lja

Enclosure

cc: NRC Region III Administrator
NRC Senior Resident Inspector
INPO - Records Center
IDNS Resident Inspector
Nuclear Licensing Administrator

IE22
1/1

LICENSEE EVENT REPORT (LER) — Form Rev 3.0

Facility Name (1)	Docket Number (2)	
LaSalle County Station Unit 1	0 5 0 0 0 3 7 3	1 of 0 3

Title (4)

Residual Heat Removal System Shutdown Cooling Isolation Due to Procedural Inadequacy

Event Date (5)			LER Number (6)			Report Date (7)				Other Facilities Involved (8)	
Month	Day	Year	Year	///	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)
0 5	1 7	9 4	9 4	---	0 0 7	--- 0 0	0 6	1 6	9 4		

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)			
		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	5	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)	Other (Specify in Abstract below and in Text)
		20.405(a)(1)(iii)	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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
	AREA CODE
Robert Ayer, System Engineer, extension 2786	8 1 5 3 5 7 - 6 7 6 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	///	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	///
D	I J			N	///						///
					///						///

SUPPLEMENTAL REPORT EXPECTED (14)		Expected Submission Date (15)	Month	Day	Year
	X NO				
YES (If yes, complete EXPECTED SUBMISSION DATE)					

ABSTRACT (Limit to 1400 spaces, i.e, approximately fifteen single-space typewritten lines) (16)

On May 17, 1994, at 0155 hours, an isolation signal to the Residual Heat Removal (RHR)[BO] Shutdown Cooling Inboard Isolation Valve, 1E12-F009, was received, causing it to close. At the time of this event, Unit 1 was in Operating Condition 5 (Refuel).

The event occurred during the performance of LTS-800-105, "Diesel Generator 1A Twenty-Four Hour Run Surveillance". During this test, a loss of off-site power is simulated, causing the Diesel Generator to auto-start and reenergize its associated Bus 142Y. At the point when the Diesel Generator reenergized Bus 142Y, restoring power to shutdown cooling inboard isolation valve, the valve closed, isolating shutdown cooling. Subsequent investigation determined the isolation signal was generated when power was restored to the Leak Detection System, also powered from Bus 142Y. The closure of this valve caused the 1A RHR Pump to trip resulting in a loss of Shutdown Cooling flow to the reactor.

The cause of the event was inadequate procedural guidance for establishing initial conditions for the deenergization of the bus. Specifically, steps should have been included in the procedure to preclude shutdown cooling isolation during this test. Procedures are being revised accordingly.

This event is being reported to the Nuclear Regulatory Commission as a Licensee Event Report in accordance with 10CFR50.73(a)(2)(iv) due to an actuation of an Engineered Safety Feature (ESF) System.

A. CONDITION PRIOR TO EVENT

Unit(s): 1 Event Date: 5/17/94 Event Time: 0155

Reactor Mode(s): 5 Mode(s) Name: Refuel Power Level(s): 0%

B. DESCRIPTION OF EVENT

On May 16 and 17, 1994, LTS-800-105, "Diesel Generator 1A Twenty-Four Hour Run Surveillance", was performed. For the portion of the test which deenergizes Bus 142Y, the lineups and the evaluations for the consequences of load shedding were performed, including a discussion of what would occur when power was lost to the Shutdown Cooling Suction Inboard Isolation Valve, 1E12-F009. On May 17, 1994, at 0155 hours, the undervoltage relay for Bus 142Y was tripped per procedure, to simulate a loss of offsite power. When Bus 142Y was deenergized, one of the loads lost was power for Division 2 Leak Detection Logic, which when deenergized satisfies one of the requirements for automatic closure of the 1E12-F009 valve. The 1A Diesel Generator started and loaded properly and restored power to Bus 142Y. When this occurred, power was restored to the 1E12-F009 valve and it began to close as a result of the Leak Detection isolation signal. The closure of the 1E12-F009 valve caused an automatic trip of the 1A RHR Pump, resulting in a loss of Shutdown Cooling.

During the time that Shutdown Cooling was secured, temperatures were monitored and the Fuel Pool Cooling (FC) [DA] System was verified to be operating properly. The RHR System was verified to be filled and vented, the 1E12-F009 valve was reopened, and Shutdown Cooling flow was restored May 17, 1994, at 0217 hours. For the remainder of the surveillance, the RHR Leak Detection test switch was placed in the TEST position and the 1E12-F009 breaker was deenergized to prevent the valve from inadvertently closing.

C. APPARENT CAUSE OF EVENT

The cause of this event is attributed to procedural deficiencies. LTS-800-105, "Diesel Generator 1A Twenty-Four Hour Run Surveillance", did not verify that the Leak Detection Test Switches were in the TEST position prior to deenergizing power to Bus 142Y. This procedure does not provide specific guidance for all items to be considered when deenergizing a bus.

D. SAFETY ANALYSIS OF EVENT

The isolation of the 1E12-F009 valve and subsequent loss of Shutdown Cooling had limited safety consequences under the conditions which it occurred (i.e. Refuel) with the Reactor Cavity flooded. Reactor moderator temperatures were monitored during the time Shutdown Cooling was secured and minimal increase was noted. In addition, an alternate means of decay heat removal was available in the form of the Fuel Pool Cooling System. Shutdown Cooling flow was reestablished in 22 minutes.

E. CORRECTIVE ACTIONS

The following LaSalle Technical Surveillance procedures will be revised to verify that the RHR Leak Detection Test Switches are in the TEST position prior to deenergizing the respective diesel busses, if Shutdown Cooling is in operation.

1) LTS-800-104, "Unit 1 0 Diesel Generator, 0DG01K, 24 Hour Run Surveillance"
2) LTS-800-105, "Diesel Generator 1A Twenty-Four Hour Run Surveillance"
3) LTS-800-204, "Unit 2 0 Diesel Generator, 0DG01K, 24 Hour Run Surveillance"
4) LTS-800-205, "2A Diesel Generator Twenty-Four Run Surveillance"

F. PREVIOUS EVENTS

None.

G. COMPONENT FAILURE DATA

None.

PIF 373-180-94-01270PIF LER# 373/94-007

SHEET 1

EVENT SUMMARY AND CAUSE CODES

DVR Number --_-_--_---

- ☐ Lost generation
- ☐ Cost > $25,000
- ☐ Hazard or Spill
- ☐ Personnel injury
- ☐ Reactor trip
- ☐ ESF actuation
- ☐ NRC reportable
- ☐ LER
- ☐ PSE
- ☐ NRC violation, level__
- ☐ GSEP event, class____
- ☐ Tech Spec LCO
- ☐ Potential or future lo
- ☐ SALP functional area_

A: Component type | Failure mode | Department

X
X
X

A: Licensed? L or blank | Level | Department | Type | Detail code

A
A
A

B: Type | Detail Code | Department

B
B
B

C: Type | Detail code

C

D: Type of deficiency | Detail code | Procedure type

D I 1 L E 5
D 1 1 L 1 5
D

E: Type | Detail code | Department

E
E
E