

May 20, 2003

10 CFR 50.73

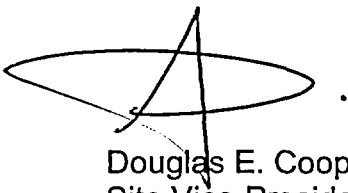
U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

PALISADES NUCLEAR PLANT  
DOCKET 50-255  
LICENSE NO. DPR-20  
LICENSEE EVENT REPORT 03-003, LOSS OF SHUTDOWN COOLING AND  
EMERGENCY DIESEL GENERATOR START

Licensee Event Report (LER) 03-003 is attached. The LER describes the loss of shutdown cooling and starting of emergency diesel generators that resulted from a loss of offsite power. This occurrence is reportable in accordance with 10 CFR 50.73(a)(2)(v)(B) as an event that prevented the fulfillment of the safety function of a system needed to remove residual heat, and in accordance with 10 CFR 50.73(a)(2)(iv)(A), as an event that resulted in automatic actuation of the emergency ac electrical power system.

SUMMARY OF COMMITMENTS

This letter contains no new commitments and no revisions to existing commitments.



Douglas E. Cooper  
Site Vice-President, Palisades

CC           Regional Administrator, USNRC, Region III  
              Project Manager, USNRC, NRR  
              NRC Resident Inspector – Palisades

Attachment

**LICENSEE EVENT REPORT (LER)**

(See reverse for required number of digits/characters for each block)

<b>1. FACILITY NAME</b> PALISADES NUCLEAR PLANT	<b>2. DOCKET NUMBER</b> 05000255	<b>3. PAGE</b> 1 OF 3
--	-------------------------------------	--------------------------

**4. TITLE**  
LOSS OF SHUTDOWN COOLING AND EMERGENCY DIESEL GENERATOR START

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	25	2003	2003	003	00	05	20	2003	FACILITY NAME	DOCKET NUMBER

<b>9. OPERATING MODE</b> 6	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR :</b> (Check all that apply)									
<b>10. POWER LEVEL</b> 0	20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)						
	20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)						
	20.2203(a)(1)	50.36(c)(1)(i)(A)	X 50.73(a)(2)(iv)(A)	73.71(a)(4)						
	20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)						
	20.2203(a)(2)(ii)	50.36(c)(2)	X 50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A						
	20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)							
	20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)							
	20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)							
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)								
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)								

**12. LICENSEE CONTACT FOR THIS LER**

<b>NAME</b> Barb Dotson, Regulatory Analyst	<b>TELEPHONE NUMBER (Include Area Code)</b> (269) 764-2265
--	---

**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

<b>14. SUPPLEMENTAL REPORT EXPECTED</b>				<b>15. EXPECTED SUBMISSION DATE</b>		
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO		MONTH	DAY	YEAR

**16. ABSTRACT** (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On March 25, 2003, at 1116 hours, with the plant in Mode 6, a loss of offsite power occurred while installing a signpost. The signpost penetrated a buried conduit, damaging a control power cable associated with both offsite power feeds. As a result, the safety-related and non-safety related buses de-energized, which caused a loss of shutdown cooling flow. The emergency diesel generators started and loaded safety-related buses, as expected. An Alert was declared at 1126 hours. Shutdown cooling flow through the core was restored in approximately 20 minutes. The Alert was downgraded to an Unusual Event at 1231 hours. The Unusual Event was exited on March 27, 2003, at 1737 hours, when offsite power was fully restored.

This occurrence is reportable in accordance with 10 CFR 50.73(a)(2)(v)(B) as an event that prevented the fulfillment of the safety function of a system needed to remove residual heat, and in accordance with 10 CFR 50.73(a)(2)(iv)(A), as an event that resulted in automatic actuation of the emergency AC electrical power system.

**LICENSEE EVENT REPORT (LER)**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
PALISADES NUCLEAR PLANT	05000255	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2003	003	00	

17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

**EVENT DESCRIPTION**

On March 25, 2003, at 1116 hours, with the plant in Mode 6, a loss of offsite power occurred while installing a signpost. The signpost penetrated a buried conduit, damaging a control power cable associated with both offsite power feeds. As a result, the safety-related and non-safety related buses de-energized, which caused a loss of shutdown cooling [BP] flow. The emergency diesel generators [DG;EK] started and loaded safety-related buses, as expected. An Alert was declared at 1126 hours. Shutdown cooling flow through the core was restored in approximately 20 minutes. The Alert was downgraded to an Unusual Event at 1231 hours. The Unusual Event was exited on March 27, 2003, at 1737 hours, when offsite power was fully restored.

This occurrence is reportable in accordance with 10 CFR 50.73(a)(2)(v)(B) as an event that prevented the fulfillment of the safety function of a system needed to remove residual heat, and in accordance with 10 CFR 50.73(a)(2)(iv)(A), as an event that resulted in automatic actuation of the emergency AC electrical power system.

**ANALYSIS**

Two offsite power feeds from the switchyard [FK] to the plant were being maintained operable. Some of the control circuits involving both of these offsite power feeds were routed in the same cable.

While installing a signpost in the main parking lot, a conduit was penetrated, damaging the cable containing the control circuits for both offsite power feeds. This caused a spurious actuation of several relays. Actuation of these relays resulted in the opening of breakers, interrupting power from the switchyard to the plant.

The de-energized safety-related buses resulted in loss of power to the operating low pressure safety injection (LPSI) pump [P;BP] that was providing shutdown cooling flow. The emergency diesel generators started and loaded as designed. The LPSI pumps are not automatically re-energized from the emergency diesel generator under these circumstances. Shutdown cooling flow was restored in approximately 20 minutes, when operators manually started a LPSI pump, with an emergency diesel generator supplying power to the pump's bus.

**LICENSEE EVENT REPORT (LER)**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
PALISADES NUCLEAR PLANT	05000255	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		2003	003	00	

17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A)

**CAUSE OF THE EVENT**

There was no written process for controlling excavating/trenching/piercing the ground. Additionally, NMC missed an opportunity in May 2002 to identify the lack of procedural controls when an inadequate evaluation was performed for a previous event.

**CORRECTIVE ACTIONS**

A plant policy was issued prohibiting all digging and landscaping activities without appropriate approval and oversight.

The damaged cable was repaired, and the control circuits for one of the two offsite power feeds were relocated to a separate cable.

A procedure is being written to control excavating/trenching/piercing activities.

**SAFETY SIGNIFICANCE**

All safety systems functioned as designed. Primary coolant system temperature increased from approximately 92°F to 104°F. The average hourly heat-up rate limit specified in Technical Specification 3.4.3 was not exceeded. Fuel integrity was not challenged.

**PREVIOUS SIMILAR EVENTS**

Palisades has had several instances where equipment or cabling was damaged as a result of excavation/digging/trenching activities; however, none have caused a loss of offsite power.