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Palisades Nuclear Plant: 27780 Blue Star Memorial Highway, Covert, MI 49043

G B Slade
General Manager

March 22, 1991

Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
LICENSEE EVENT REPORT 91-006 - FAILURE TO COMPENSATE FOR OPEN FIRE BARRIER
SEAL

Licensee Event Report (LER) 91-006 (Failure to Compensate for Open Fire
Barrier Seal) is attached. This event is reportable to the NRC per
10CFR50.73(a)(2)(i)(B).

Gerald B Slade
General Manager

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades

Attachment

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A CMS ENERGY COMPANY

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Palisades Plant	DOCKET NUMBER (2) 0 5 0 0 0 2 5 5 1	PAGE (3) OF 0 3
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TITLE (4)
FAILURE TO COMPENSATE FOR OPEN FIRE BARRIER PENETRATION SEAL

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		
									N/A		
0	2	0	9	1	0	0	3	2	N/A		
									DOCKET NUMBER(S)		
									0 5 0 0 0		

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.408(c)	<input type="checkbox"/> 60.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.408(a)(1)(i)	<input type="checkbox"/> 60.38(e)(1)	<input type="checkbox"/> 60.73(a)(2)(v)	<input type="checkbox"/> 73.71(e)						
	<input type="checkbox"/> 20.408(a)(1)(ii)	<input type="checkbox"/> 60.38(e)(2)	<input type="checkbox"/> 60.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.408(a)(1)(iii)	<input checked="" type="checkbox"/> 60.73(a)(2)(i)	<input type="checkbox"/> 60.73(a)(2)(vii)(A)							
	<input type="checkbox"/> 20.408(a)(1)(iv)	<input type="checkbox"/> 60.73(a)(2)(ii)	<input type="checkbox"/> 60.73(a)(2)(vii)(B)							
	<input type="checkbox"/> 20.408(a)(1)(v)	<input type="checkbox"/> 60.73(a)(2)(iii)	<input type="checkbox"/> 60.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)

NAME R W Smedley, Staff Licensing Engineer	TELEPHONE NUMBER AREA CODE 6 1 6 7 6 4 - 8 9 1 3
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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

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)
		MONTH DAY YEAR

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

ABSTRACT

On February 20, 1991, at approximately 1600 hours, a passive fire barrier penetration seal between the turbine building corridor and the IC switchgear room was opened to permit the passage of temporary cables used for the performance of the refueling frequency surveillance procedure RT-8C. At the time, the plant was in cold shutdown. Contrary to plant Fire Protection Implementing Procedure FPIP-4, no work order was issued to open the penetration and no compensatory action in the form of an hourly fire tour was initiated. This situation resulted from inadequate communication between the responsible engineer and the shift supervisor, incomplete guidance in Administrative Procedure 4.02, "Control of Equipment Status," which does not address fire barrier penetrations, and the lack of adequate interface information between Administrative Procedure 4.02 and the Fire Protection Implementing Procedure FPIP-4. Revisions will be made to the Plant Administrative Procedure 4.02, Fire Implementing Procedure FPIP-4 and surveillance procedure RT-8C to clarify whether a work order is required and to improve the interface between Administrative Procedure 4.02 and Fire Protection Implementing Procedure FPIP-4. Additionally, this event will be reviewed with electrical system engineers.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 1	— 0 0 6	— 0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Description of the Event

On February 20, 1991, with the plant in the refueling mode, passive fire barrier FZ-140 was opened to allow performance of surveillance procedure RT-8C. Test equipment utilized for performance of RT-8C required a cable run from the cable spreading room (CSR) to the switchgear room 1C (SWGR 1C). The cables were needed to trigger a multi-channel recorder for analyzing the electric diesel generator 1-1 [EK] voltage regulator. The cable was run from the CSR to the corridor in the turbine building and through a four inch conduit penetration (FZ-140) into the SWGR 1C. SWGR 1C is a 3 hour rated Appendix R fire area.

Equipment set up for the performance of RT-8C began on February 20, 1991. At approximately 0800 hours, the Shift Supervisor was notified by the responsible engineer that the cable run from the CSR to Bus 1C would occur sometime that day and that Security needed to be notified to perform hourly fire tours.

Apparently, the Shift Supervisor thought the responsible engineer was going to contact Security or would again contact him when the fire tour was needed. The responsible engineer thought his beginning of the shift contact with the shift supervisor would cause compensatory measures to be established.

At approximately 1600 hours, fire penetration seal FZ-140 was opened to facilitate RT-8C testing. This penetration is a 4 inch steel pipe with caps on each end which runs through the 8 inch concrete wall of SWGR 1C. Both caps were removed to pass 2-1/4 inch co-axial cables through the penetration.

At 2200 hours, a security officer on patrol observed the penetration was open and notified the Shift Supervisor. Hourly fire tours were promptly initiated. Compensatory action in the form of hourly fire tours, under the conditions then existing at penetration FZ-140, is in accordance with the Palisades Technical Specifications.

Analysis of the Event

Since the plant was in cold shutdown when this event occurred, the safety consequences caused by a fire passing through the open fire barrier would have been minimal. The plant could have been maintained in cold shutdown even if the fire areas on both sides of the open barrier were involved in a worst case fire. The fire would have effected only one of the two safety grade electrical channels. The other channel could have been used to maintain cold shutdown. This event is reportable, however, under 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications.

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Cause of the Event

This event was caused by personnel deviating from the requirements of Fire Protection Implementing procedure FPIP-4 which requires a separate work order when a passive fire barrier is opened or degraded and also requires the Shift Supervisor to establish the required fire watch or fire patrol. The deviation in this case is the result of inadequate communication between the responsible engineer and the shift supervisor and a weak interface between FPIP-4 and Administrative Procedure 4.02, "Control of Equipment Status," which directs the user to FPIP-4 in the case of inoperable fire doors, but does not mention fire barriers.

Corrective Actions

To minimize the probability of this event re-occurring, the following will be completed before December 31, 1991:

- a. Administrative Procedure 4.02 will be revised to align with FPIP-4;
- b. FPIP-4 will be revised to clarify the intent of the requirement that fire barrier openings have separate work orders. Additionally, information will be added stating that, in lieu of a separate work order, the opening of fire barriers can be controlled by procedures;
- c. Surveillance procedures RT-8C and D will be revised to control the activity of opening fire barrier FZ-140.

In addition, before July 1, 1991 this event will be reviewed with plant electrical system engineers.