



**Consumers
Power
Company**

REGULATORY DOCKET FILE COPY

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October 18, 1977

Mr James G Keppler
Office of Inspection and Enforcement
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137



DOCKET 50-255 - LICENSE DPR-20 -
PALISADES PLANT - ER-77-047 -
LOSS OF OFF-SITE POWER

Attached is a 14-day reportable occurrence relating to the loss of off-site power at the Palisades Plant on September 24, 1977. The report due date was extended one week as previously discussed with Mr R Warnick.

An attachment to the LER is provided for additional details.

David P. Hoffman

David P Hoffman
Assistant Nuclear Licensing Administrator

CC: ASchwencer, USNRC

OCT 20 1977

ATTACHMENT TO LER 77-047

The cause of the 'R' Bus loss is not known. Loss of off-site power causes a loss of main condenser cooling water. Thus, the main turbine tripped on high back pressure and tripping of the main generator and reactor occurred. Both emergency diesel generators started immediately, loaded properly and performed satisfactorily throughout the incident. The secondary system was isolated, primary system stabilized and the plant functioned as designed during the incident. Atmospheric dumps were operated as necessary to maintain PCS temperature. During the incident, power was lost to the Security System and extra Security personnel were called into the plant. Technical Specifications 3.1.1 and 3.7.1 were violated.

- 3.1.1 At least one primary coolant pump or shutdown cooling pump shall be in operation whenever a change is being made in the boron concentration of the primary coolant.

It is conservative and prudent to borate the plant to shutdown condition after a reactor trip. Boron samples during the incident and after restoring primary coolant flow were as anticipated and verified that no stratification occurred.

- 3.7.1 The primary coolant system shall not be heated above 325°F or maintained above 325°F if the following electrical systems are not operable.

- a. Station power transformer 1-2.
- b. Start-up transformer 1-2.
- 1. 2400 'V' Bus 1-E.

Throughout the incident the plant was maintained in hot shutdown. Power was restored after 4 hours and 45 minutes. It was prudent to maintain the PCS hot rather than add to the Operators workload as power was restored shortly, and plant conditions were stabilized. This is permitted by C.E. Standard Technical Specifications. Changes to 3.1.1 and 3.7.1 will be submitted for approval.

The plant operated as analyzed and no failures of safety-related systems occurred as a result of this incident.

LICENSEE EVENT REPORT

Palisades

CONTROL BLOCK:

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1 6

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE NAME					LICENSE NUMBER								LICENSE TYPE					EVENT TYPE						
01	M	I	P	A	L	1	0	0	-	0	0	0	0	0	-	0	0	4	1	1	1	1	0	1
7	8	9				14	15									25	26					30	31	32

REPORT TYPE		REPORT SOURCE		DOCKET NUMBER						EVENT DATE					REPORT DATE											
01	CONT	*	*	T	L	0	5	0	-	0	2	5	5	0	9	2	4	7	7	1	0	1	8	7	7	
7	8	57	58	59	60	61							68	69						74	75					80

EVENT DESCRIPTION

02	During an electrical storm, the 'R' Bus was de-energized causing a complete loss	80
03	of off-site power, resulting in a loss of main condenser cooling water and ultimately	80
04	a plant trip. Primary plant was stabilized in the hot condition and was borated.	80
05	Event nonrepetitive. Tech Specs 3.1.1 and 3.7.1 were violated. Electrical power	80
06	was restored after 4.75 hours and the plant returned to Tech Spec limits. (ER-77-47)	80

SYSTEM CODE		CAUSE CODE	COMPONENT CODE					COMPONENT SUPPLIER	COMPONENT MANUFACTURER			VIOLATION			
0	7	E A	C	Z	Z	Z	Z	Z	Z	Z	9	9	9	Y	
7	8	9	10	11	12				17	43	44			47	48

CAUSE DESCRIPTION

08	Exact cause of loss of electrical power is not known. A change to the Tech Specs	80
7 8 9		
08	will be made to make this type of event a nonviolation.	80
7 8 9		
08		80
7 8 9		
08		80
7 8 9		

[illegible]

PERSONNEL EXPOSURES

NUMBER				TYPE	DESCRIPTION
1	3	0	0	0	Z N/A

PERSONNEL INJURIES

NUMBER			DESCRIPTION
1	4	0 0 0	N/A

PROBABLE CONSEQUENCES

15	N/A	80
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LOSS OR DAMAGE TO FACILITY

TYPE			DESCRIPTION
16	Z		N/A

PUBLICITY

17	N/A
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ADDITIONAL FACTORS

[illegible]

19 _____ 80