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NRC Form 366A		U.S. NUCLEAR REGULATORY COMM
9-833	LICENSEE EVENT REPORT (LER) TEXT CONTINUATION	APPROVED ONB NO 3150-010

FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER IS	PAGE (3)		
JAMES A. FITZPATRICK		YEAR	SEQUENTIAL REVISION NUMBER NUMBER			
NUCLEAR POWER PLANT	0 5 0 0 0 3 3	8 8 8	-01013-010	0 2 OF 0 14		

Description of Event

On April 18, 1988 at 0500 hours during normal full power (100% rated) operation, Reactor Protection System (RPS) Motor Generator (MG) A [EF] tripped.

The trip of RPS MG A de-energized one-half of the RPS [JC] logic and one-half of the Primary Containment Isolation System (PCIS) [JM] logic. De-energizing half of the logic causes isolation of the reactor water cleanup [CE], primary containment [NH] drain, reactor water sample, and reactor building [NG] ventilation [VA] systems. Isolation of the reactor building ventilation system causes an automatic starting of the standby gas treatment (SGT) system [BH].

De-energizing one-half of the RPS logic does not cause a reactor scram or main steam [SB] isolation because the design of the logic requires that both halves of the logic must be de-energized to cause a scram or main steam isolation.

Annunciators [IB] provided operating personnel with the necessary information to quickly diagnose the trip of the RPS MG and to restore power to the de-energized circuits from an alternate source within one minute.

The tripped logic circuits were reset, the isolated systems discussed above were restored to normal, and standby gas treatment was restored to standby within 20 minutes.

Following repair of the RPS MG by replacing a failed relay, loads were transferred from the alternate power source to the MG at 1704 hours on April 18, 1988, approximately 12 hours after failure of the relay.

Cause of Event

RPS MG A tripped when the MG drive motor protective relay for motor over current or high temperature de-energized due to an open circuit in the relay coil. The MG drive motor did not actually experience an abnormally high current or temperature condition.

The relay coil failure is considered to be a random or age-related failure. The relay coil is normally energized and had been in service for approximately 13 years. A computer search of the Nuclear Plant Reliability Data (NPRD) system did not indicate frequent or unusual problems associated with relays of the same manufacture and type as the failed relay.

NRC Form 366A 19-831 LICENSE	TINUATION	U.S. NUCLEAR REGULATORY COMMISSION APPROVED ONB NO 3150-0104 EXPIRES 8/31/35					
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMB	ER (6)	PAGE (3)			
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Analysis of Event

TEXT (If more space is required, use additional NRC Form 3864's) (17)

NUCLEAR POWER PLANT

The components and logic circuits powered by the RPS MG [EF] functioned as designed. RPS [JC] logic and main steam [SB] isolation valve logic did not actuate to cause a reactor scram or isolation of the main steam lines because the logic circuits are designed and arranged in such a manner as to be tolerant of faults such as RPS MG trip.

Isolation of reactor water cleanup [CE], primary containment [NH] drains, reactor water sample, reactor building [NG] ventilation [VA] systems, and initiation of standby gas treatment [BH] do not have any immediate effect on plant operation.

The RPS MG is non-safety-related. The safety-related components and logic circuits powered from the non-safety-related source are protected from over-voltage, under-voltage, and under-frequency by safety-related electrical protection assemblies between the power source and loads. The use of the alternate power supply, which is considered in the design of the plant, does not effect the operation of the Reactor Protection System [JC] or any of the other components that would normally be supplied power from RPS MG A because the alternate source of power is also provided with electrical protective devices that are identical to those in the MG power output circuit.

Corrective Action

Short-Term:

- Transferred power from the tripped RPS MG to the alternate power source.
- Reset tripped logic circuits.
- Restored isolated systems and standby gas treatment to normal.
- Replaced the failed relay and restored loads to the RPS MG.

Long-Term:

- No long-term corrective action is considered necessary.

NRC Form 366A (9-83)	LICENSEE EVEN	LICENSEE EVENT REPORT (LER) TEXT CONTINUATION					0 31	11 COMMISSION				
FACILITY NAME (1)		DOCKET NUMBER (2)		LE	ER NUMBER (6)			PAGE (3)				
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Additional Information

Failed identification:

Relay Manufacturer: General Electric
Relay Model Number: CR120AU1102AC
Manufacturer NPRD Code: G080

Previous similar events: No similar events have been caused by relay failures.

James A. FitzPatrick Nuclear Power Plant P.O. Box 41 Lycoming, New York 13093 315 342 3840

New York Power Authority

May 10, 1988 JAFP-88-0442

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United States Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

REFERENCE: DOCKET NO. 50-333 LICENSEE EVENT REPORT: 88-003-00

Dear Sir:

Enclosed please find referenced Licensee Event Report in accordance with 10 CFR 50.73.

If there are any questions concerning this report, please contact Mr. W. Verne Childs at (315) 349-6305.

Very truly yours,

RADFORD J. CONVERSE

RJC:WVC:lar

cc: USNRC, Region I (1) INPO Records Center, Atlanta, GA (1) American Nuclear Insurers (1) Internal Power Authority Distribution NRC Resident Inspector Document Control Center LER/OR File Radford J. Converse Resident Manager