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WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

May 12, 1981

TELEPHONE: AREA 704
373-4083

Mr. J. P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: McGuire Nuclear Station Unit 1
Docket No. 50-369



Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-51. This report concerns Train A of the Solid State Protection System being taken out of service. This incident was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

[Handwritten signature]
William O. Parker, Jr.

RWO/djs
Attachment

cc: Director
Office of Management and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Bill Lavalee
Nuclear Safety Analysis Center
Post Office Box 10412
Palo Alto, California 94303

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McGUIRE NUCLEAR STATION

INCIDENT REPORT

REPORT NUMBER: 81-51

REPORT DATE: April 29, 1981

OCCURRENCE DATE: April 12, 1981

FACILITY: McGuire Unit 1, Cornelius, N.C.

IDENTIFICATION OF OCCURRENCE: Solid State Protection System (SSPS) train 1A was taken out of service for maintenance. This is reportable pursuant to Technical Specification 3.3.2.

CONDITIONS PRIOR TO OCCURRENCE: Mode 3, Hot Standby

DESCRIPTION OF OCCURRENCE: SSPS train 1A was declared inoperable several times on April 12, 1981 and April 13, 1981 for troubleshooting. Erroneous permissive block indications appeared on the status panel in the Control Room. Train A was declared inoperable at 1723 hours on April 12, 1981; operable at 1904 hours on April 12, 1981; inoperable at 1945 hours on April 12, 1981; and operable at 1520 hours on April 13, 1981.

APPARENT CAUSE: Circuit board A506 had a temperature related defect. Circuit board 505 may also have been defective.

ANALYSIS OF OCCURRENCE: A defective circuit board in the logic (number 505) was discovered in the SSPS cabinet. The circuit board was replaced and the system was put back into service and checked for proper operation. Train A performed correctly and the erroneous indications did not reappear on the control board. The system was declared operable. As soon as the circuit boards in the cabinet reached normal operating temperature, the problem reappeared and the system was again declared inoperable (1945 hours, April 12, 1981). In the morning (April 13, 1981) further testing identified another circuit board defective (Isolator Card A506). The defect was temperature related. The circuit board was replaced and the train put back into service. After the system had operated satisfactorily for several hours, it was declared operable.

SAFETY ANALYSIS: Train B of SSPS remained operable throughout the period of maintenance on train A. If an accident had occurred, train B would have initiated the appropriate action. Since train B is totally redundant, the safe operation of the station and the health and safety of the public were not affected.

CORRECTIVE ACTION: The defective circuit boards were replaced and the system returned to service.