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USNRC REGION II
ATLANTA, GEORGIA

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82 SEP 17 P 1: 53

September 8, 1982

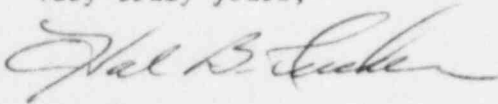
Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

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

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/82-65. This report concerns T.S.3.4.1.1, "All reactor coolant loops shall be in operation". This incident was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,



Hal B. Tucker

PBN/jfw
Attachment

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

Records Center
Institute of Nuclear Power Operations
1820 Water Place
Atlanta, Georgia 30339

Mr. P. R. Bemis
Senior Resident Inspector-NRC
McGuire Nuclear Station

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DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
REPORTABLE OCCURRENCE REPORT NO. 82-65

REPORT DATE: September 8, 1982

FACILITY: McGuire Unit 1, Cornelius, NC

IDENTIFICATION: Reactor Trip as a Result of Inadvertently Deenergizing
a Reactor Coolant Pump

DESCRIPTION: On August 9, 1982, while operating at 50% reactor power, Unit One was tripped by the Reactor Protection System on a sensed loss of flow in reactor coolant loop A.

An intermittent ground on a 125 VDC Auxiliary Control Power battery had occurred and technicians were attempting to isolate the ground by sequentially removing and reenergizing loads. In the course of the search, control power was removed from the 6900 Volt Normal Auxiliary Power System (EPB) breaker which feeds the Reactor Coolant Pump Switchgear (safety breaker) for reactor coolant pump A. By circuit design, the loss of control power to the 6900 V EPB breaker caused the safety breaker to open, deenergizing the pump motor.

No unusual events were experienced during the transient accompanying the trip (at 0129) and a trip recovery was commenced at 0258.

The incident was a result of Design Error, but Personnel Error also contributed because operators failed to recognize the consequence of the loss of control power prior to directing the progression of the ground isolation procedure.

EVALUATION: The reactor coolant pump safety breakers were designed to trip open when their associated 6900 Volt EPB feeder breakers are opened. A contact in the safety breaker trip coil circuit was provided to accomplish this function. The contact is closed by deenergizing its control relay in the EPB feeder breaker control circuit. The relay in turn is energized when feeder breaker auxiliary contact is closed. Consequently, the safety breaker will open when the feeder breaker opens or when the feeder breaker control power is deenergized. In this instance control power was removed from all 1TA Switchgear by opening the control power distribution panel, DCA, breaker 2B.

It should be noted that during investigation of this event several hours were spent determining the mechanism for the breaker trip through study of the associated schematic drawings. Therefore the function could have been easily overlooked by operators despite a thorough review of the circuitry.

SAFETY ANALYSIS: The automatic reactor protection loss of flow trip function was exercised and operated correctly in this incident. The health and safety of the public were not affected.

The modification to the reactor coolant pump switchgear control circuitry will provide adequate breaker protection consistent with the original design intent.

CORRECTIVE ACTION: A modification is being initiated to eliminate the function to trip reactor coolant pump safety breakers on loss of control power to the associated 6900V switchgear feeder breakers. The safety function to trip the safety breakers upon trip of the feeder breaker will be retained.

Upon implementation of the modification the 125 VDC Auxiliary Control Power System (EPK) distribution boards will be compatible to the ground isolation methodology that was in progress when the incident occurred. Appropriate warnings have been posted on the eight EPK breakers (Units 1 and 2) which are susceptible to this occurrence. These will remain in place until the modifications are accomplished.

The personnel error involving inadequate research prior to conducting ground isolation procedures will be addressed in crew training sessions through the review of this report.