

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

TELEPHONE: AREA 704  
373-4083

September 1, 1981

Mr. James 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-369/81-129. This report concerns T.S. 3.4.1.4, "Two residual heat removal (RHR) loops shall be operable and at least one RHR loop 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,

A handwritten signature in dark ink, appearing to read 'William O. Parker, Jr.'.

William O. Parker, Jr.

PBN/php  
Attachment

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

Mr. Bill Lavallee  
Nuclear Safety Analysis Center  
P. O. Box 10412  
Palo Alto, California 94303

Ms. M. J. Graham  
Resident Inspector-NRC  
McGuire Nuclear Station

IE22  
S.11

McGUIRE NUCLEAR STATION  
REPORTABLE OCCURRENCE

REPORT NUMBER: 81-129

REPORT DATE: September 1, 1981

OCCURRENCE DATE: August 4, 1981

FACILITY: McGuire Unit 1, Cornelius, NC

IDENTIFICATION OF OCCURRENCE: Both trains of the Residual Heat Removal (ND) System were declared inoperable when an inlet isolation valve was inadvertently closed at 1215.

CONDITION PRIOR TO OCCURRENCE: Mode 5, Cold Shutdown, prior to initial criticality.

DESCRIPTION OF OCCURRENCE: When the circuit breaker for the motor operated inlet isolation valve was closed the valve immediately shut. System low flow alarms occurred in the Control Room and an operator was dispatched to open the valve by hand. Flow was subsequently restored and the system was declared operable at 1230.

APPARENT CAUSE OF OCCURRENCE: A "shut" control signal was being transmitted to the valve operator controller as a result of Channel B wide range pressure instrumentation maintenance action. When motive power was provided to the motor by closing its power supply breaker it functioned to shut the valve.

ANALYSIS OF OCCURRENCE: Redundant trains of the ND System are supplied through a common inlet line from NC loop 3. The inlet line contains two essential motor-operated isolation valves in series. Shutting either valve renders the ND trains inoperable, which is prohibited during Mode 5 operation by Technical Specification 3.4.1.4.

If reactor coolant system pressure is less than  $\approx 400$  pounds, the wide range pressure process control instrumentation channels send signals to the two inlet isolation valves to keep them open. In order to perform maintenance on Channel B, the power supply breaker was also opened to ensure that the valve would stay open. However, maintenance on Channel B required it be placed in "Test," which deenergized the "Open" signal. Thus, when the circuit breaker was closed, the lack of an "Open" signal from the pressure instrumentation caused the motor operator of the valve to be energized. Consequently, the valve was shut and ND was inoperable.

SAFETY ANALYSIS: The loss of ND in this incident was momentary and had no effect on the health and safety of the public. Analysis indicates that even after the reactor is critical, the Residual Heat Removal System may be inoperable up to 8 hours before core coolant boiling would occur.

CORRECTIVE ACTION: The Wide Range Pressure Calibration Procedure is being modified to include appropriate prerequisites (e.g., tag-out of specific breakers) to ensure that required maintenance will have no adverse effects on plant operation. Additionally, a general review of process control instrumentation procedures which are susceptible to this type of deficiency is being initiated.