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DUKE POWER COMPANY

POWER BUILDING

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

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

May 26, 1981

TELEPHONE: AREA 704  
373-4083

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

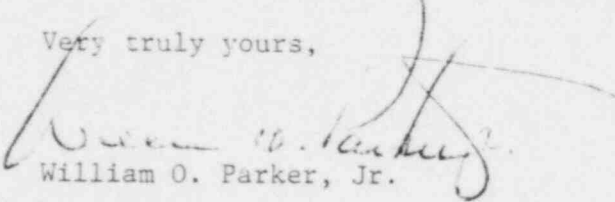
Re: McGuire Nuclear Station Unit 1  
Docket No. 50-369



Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-71. This report concerns less than two boration flow paths existing with RCS temperature above 300°F. This incident was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

  
William O. Parker, Jr.

RWO:pw  
Attachment

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

Mr. Bill Lavalley  
Nuclear Safety Analysis Center  
Post Office Box 10412  
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McGUIRE NUCLEAR STATION  
INCIDENT REPORT

Report Number: 81-71

Report Date: May 26, 1981

Occurrence Date: April 26, 1981

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

Identification of Occurrence: Less than two boration flow paths existed with the Reactor Coolant System temperature above 300°F.

Condition Prior to Occurrence: Mode 4, Reactor Coolant System temperature about 330°F.

Description of Occurrence: It was discovered that no operable flow path existed from the Unit 1 Boric Acid Tank (BAT) to the Reactor Coolant System. Centrifugal Charging Pump (NV) 1A was tagged out to comply with Technical Specification 3.1.2.4. The only boration flow path was from the Refueling Water Storage Tank (RWST) to the Reactor Coolant System via NV Pump 1B. Operators found that the boron concentration was decreasing in the Reactor Coolant System using the BAT and blender for makeup. After some investigative manipulations it was found that no boric acid was getting to the blender from the BAT. The system was then declared inoperable (1730 hours, April 26, 1981). Valve 1NV-392 (Boric Acid TK #1 Recirc. Orifice By-Pass) was fully open which reduced the Boric Acid Transfer Pump discharge pressure. The resulting pressure was insufficient to deliver boric acid to the blender. 1NV-392 (Boric Acid TK #1 Recirc. Orifice By-Pass) was closed and the flow path from the BAT to the Reactor Coolant System was declared operable. (1800 Hours, April 26, 1981)

Apparent Cause: Valve 1NV-392 (Boric Acid TK #1 Recirc. Orifice By-Pass) was positioned incorrectly when the BAT was aligned for recirculation.

Analysis of Occurrence: The operating procedure requires that 1NV-392 be throttled to maintain a Boric Acid Transfer Pump discharge pressure of 115 psig during recirculation. This would provide sufficient head to deliver 30 GPM to the blender if needed. It appeared that 1NV-392 was placed in the fully open rather than throttled position when the BAT was placed in the recirculation mode earlier in the day. This occurred shortly after a new batch of acid was added to the tank about 1200 hours. Once 1NV-392 was closed, the minimum 30 GPM flow was verified to the blender.

Safety Analysis: At least one boration flow path existed throughout the incident (RWST-NV Pump 1B-Reactor Coolant System). Another flow path was available until 1650 hours on April 26, 1981 (RWST-NV Pump 1A-Reactor Coolant System). Since at least one boration flow path was available and no reactivity changes occurred which required additional boration, the health and safety of the public were not affected by this incident. If NC temperature had been above 350°F, both NV pumps would have remained operable along with their respective boration flow-paths from the RWST.

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Corrective Action: Valve INV-392 was repositioned which made the required boration flowpath operable again. The operation procedure was changed to lock closed valve INV-392 to prevent a recurrence of this incident.