

DUKE POWER COMPANY

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NRC REGION II
ATLANTA, GEORGIA

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

March 22, 1983

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Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369, 50-370

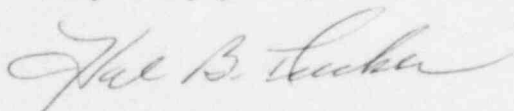
Dear Mr. O'Reilly:

Attached is Duke Power Company's response to IE Bulletin 83-04 concerning reactor trip breakers. As noted in the response, breaker failures have not occurred during operation but rather occurred during testing. An investigation into the cause of the failures is being conducted by Duke and Westinghouse engineers.

Duke Power Company will not restart Unit 1 or start Unit 2 until the problem with the breakers has been satisfactorily resolved. Additional information regarding the McGuire breakers will be provided to the NRC Staff in a timely manner as it becomes available.

I declare under penalty of perjury that the statements set forth herein are true and correct to the best of my knowledge.

Very truly yours,



Hal B. Tucker

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Attachment

cc: Mr. W. T. Orders
NRC Senior Resident Inspector
McGuire Nuclear Station

Mr. R. C. DeYoung, Director
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U. S. Nuclear Regulatory Commission
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McGuire Nuclear Station
Response to Bulletin 83-04

- 4a. As a result of IEB 8304, testing of Unit 1 and Unit 2 breakers was completed on March 16, 1983 and March 17, 1983, respectively, per Item 1 of the bulletin. This testing resulted in no failures; however, subsequent testing resulted in several failures which are discussed in Item 4d. Unit 1 was in a maintenance outage with the core unloaded and Unit 2 was in Mode 6 following completion of initial core loading when these tests were performed.
- 4b. The preventative maintenance program for these breakers is detailed in Maintenance Procedure MP/O/A/2001/04, "Air Circuit Breaker Inspection and Maintenance". This procedure references the Westinghouse manufacturer's manual, "Instructions for Low-Voltage Power Circuit Breakers Type DS-206, DS-416, and DS-532". Previous maintenance has been performed in accordance with these instructions. This preventative maintenance is scheduled to be performed on breakers for both units prior to startup. Previous maintenance activity had identified no problems with breakers.
- 4c. Provisions have been made to notify licensed operators of the failure of RPS breakers at Salem and San Onofre and to review the failure-to-trip emergency procedure upon their arrival on-shift.
- 4d. On Unit 2, during the preoperational testing of the Reactor Protective System, and Rod Control System in early 1983, failure of one RPS breaker to trip on UV was identified. This failure to trip on an UV signal was identified on five occasions during this testing. As a result of these failures, work orders were initiated to check the breaker. This work was completed on February 18, 1983, with no apparent problems being discovered. However, as a result of the continuing investigations into this problem further testing was initiated on March 18, 1983, with three failures out of 125 cycles being observed on the same breaker, which had previously experienced the failures on Unit 2. These failures were reported to the NRC via the emergency notification system on March 18, 1983.

Subsequent to these failures in Unit 2, a failure to trip on UV occurred on one Unit 1 RPS breaker on March 19, 1983, during routine response time testing of the reactor protective system. This failure was reported to the NRC on March 19, 1983.

Investigations to date, by Westinghouse and Duke Design and Operations personnel, have indicated a potential mechanical problem in the UV trip coil mechanism. Further investigation into the UV coil mechanism failure is continuing by Westinghouse and Duke personnel.

It should be noted that in all cases where breakers failed to trip on UV the shunt trip mechanism was used to demonstrate the breaker would trip. Therefore, if a breaker failure had occurred during operation, the manual trip (which actuates the UV and shunt trip mechanism) could have been used to trip the breaker. In no case has the shunt mechanism failed to trip the breakers.

Further information regarding the results of investigations into the UV coil mechanism failure and plans for further testing and corrective action will be forwarded as soon as available.

- 4c. The RPS breakers are identified as safety-related in the McGuire "Safety-Related Structures Systems and Components" Manual. Procurement, testing and maintenance activities on these breakers has been in accordance with the QA Program for safety-related components.