

DUKE POWER COMPANY

POWER BUILDING

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

MAY 27 80:21

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

May 21, 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 4  
Docket No. 50-369

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-62. This report concerns Channel 4 of the S/G 1D Narrow Range Level Instrumentation being declared inoperable. 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.*  
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 Lavallee  
Nuclear Safety Analysis Center  
Post Office Box 10412  
Palo Alto, California 94303

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



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McGUIRE NUCLEAR STATION  
INCIDENT REPORT

Report Number: 81-62

Report Date: May 12, 1981

Occurrence Date: April 21, 1981

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

Identification of Occurrence: Channel 4 of Steam Generator (S/G) 1D Narrow Range Level Instrumentation was declared inoperable.

Condition Prior to Occurrence: Mode 3, Hot Standby

Description of Occurrence: On April 21, 1981 at 0800 hours, Channel 4 S/G 1D Narrow Range Level Indicator failed high. The appropriate annunciator alarm and status light indications were also actuated. The Shift Supervisor declared that channel inoperable and was therefore reportable pursuant to Technical Specification 3.3.2.

Apparent Cause of Occurrence: The Channel 4 Narrow Range Level Instrumentation for S/G 1D became inoperable because the appropriate level transmitter developed a leak. The plug on one of the bellows' housing was loose which caused the liquid on its reference leg (impulse line) to drain out.

Analysis of Occurrence: On the morning of April 21, 1981, the S/G 1D Narrow Range Level indicators in the Control Room were reading about 25% when an annunciator alarm, "S/G D LEVEL DEVIATION" was actuated. The Control Room operators found that the Channel 4 indicator had failed high. A work request was immediately initiated to troubleshoot and provide any necessary repair on the failed instrument. The affected channel was also placed in the TRIP position. It was found that the plug on one of the bellows' housing was loose and the liquid (condensed steam) on its impulse line had drained. The transmitter was valved out and the loose plug was tightened. Since this channel had just been recently calibrated under the Preventive Maintenance Program, the transmitter was valved back in and the condensing pot (which condenses steam) filled the drained impulse line. After it was checked that there were no more leaks, the affected channel was removed from the TRIP position, the annunciator alarm had cleared and its receiver gauge was indicating properly. This channel was declared operable on April 21, 1981 at 1630 hours.

Safety Analysis: When Channel 4 of S/G 1D Narrow Range Level Instrumentation failed, the other two separate and independent channels were operable; hence, the S/G 1D level was being continuously monitored. The transmitter's permissive interlock signal was simulated by placing the channel in the TRIP position. Therefore, its control logic to trip the turbine and isolate feedwater was still functioning. If the unit had been at normal power, operation would have continued until the next required functional testing of Channel 4 provided this channel is placed in the tripped position within one hour. The plant's safe operation and the health and safety of the public were not affected by this incident.

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Corrective Action: Channel 4 of S/G 1D Narrow Range Level Instrumentation was immediately placed in the TRIP condition when it failed. A work request was initiated to provide corrective maintenance. The loose plug which had caused the instrument failure was tightened. The affected channel was checked out for proper operation and declared operable on April 21, 1981 at 1630 hours.