

DUKE POWER COMPANY

POWER BUILDING

4211 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

October 8, 1981

TELEPHONE: AREA 704
373-4083

Mr. J. 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-369/81-154. This report concerns T.S.3.3.3.9, "The Radioactive Gaseous Effluent Monitoring Instrumentation Channels Shown in Table 3.3-13 Shall Be Operable . . .". 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 cursive script that reads "William O. Parker, Jr.".

William O. Parker, Jr.

PBN/smh

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

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

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McGUIRE NUCLEAR STATION

REPORTABLE OCCURRENCE

REPORT NUMBER: 81-154

REPORT DATE: October 8, 1981

OCCURRENCE DATE: September 8, 1981

FACILITY: McGuire Unit 1; Cornelius, N.C.

IDENTIFICATION OF OCCURRENCE: The inside containment isolation valves for EMF's 38, 39, 40 were failed closed because their AC power breaker was tagged out to allow work on another valve.

CONDITIONS PRIOR TO OCCURRENCE: Mode 3, Hot Standby.

DESCRIPTION OF OCCURRENCE: On September 7, 1981 a 120 VAC instrumentation and control breaker was tagged out to allow replacement of the gag actuator on a UHI hydraulic block valve. This breaker also supplies power to two inside containment isolation valves for containment EMF's 38, 39, and 40. These valves failed closed, but because of the urgency to repair the gag on the UHI block valve, the position of the valves was not detected until the next morning. On September 8, the periodic test "Semi-Daily Surveillance Items" was performed to verify the status of various plant parameters. EMF's 38, 39, and 40 were checked as being operable since all parameters checked (paper drive, "Loss of Sample Flow" alarm not energized, "EMF 38, 39, 40 Hi Rad" alarm not energized, Green 'operate' light energized) were indicating that the EMF's were operating normally. However, the status of the EMF's isolation valves was not checked because of the above parameters and the valves status lights are located approximately twelve feet away on another panel. Four hours later a control room operator noticed that the two inside containment isolation valves' RED open lights were deenergized and declared the three EMF's inoperable. This is reportable pursuant to Technical Specification 3.3.3.9.

APPARENT CAUSE OF OCCURRENCE: A vacuum relief valve located on the particulate housing for EMF 38 apparently opened before the "Loss of Sample Flow" alarm setpoint was reached. A vacuum switch that triggers the "Loss of Sample Flow" alarm could also have drifted from its setpoint and contributed to the alarm not being received.

ANALYSIS OF OCCURRENCE: EMF's 38, 39, and 40 monitor particulate, gas, and iodine respectively, inside containment. The EMF's are physically located in the auxiliary building and are equipped with four isolation valves. The normal flowrate through the EMF's is 6 cfm at 4-5" Hg vacuum. A vacuum relief valve (GAST #AA840A) is located on the particulate housing for EMF 38 and is set to operate at 8" Hg vacuum to prevent damaging the EMF's. A dual point vacuum switch (Delaval Barksdale #02T-H18SS) is located on the vacuum pump suction and is set to give a "Loss of Sample Flow" alarm and trip the pump if a suction valve closes and will give the alarm if the pump is tripped manually.

When the power breaker was deenergized and the two valves failed closed, no "Loss of Sample Flow" alarm was received in the control room and there was no indication on the EMF panels that EMF's 38, 39, and 40 were inoperable. A Low Voltage Breaker Device List is located in the control room which identifies the loads which are powered

from that breaker. Operations personnel did not refer to this list because of the urgency in repairing the gag actuator so that low power testing could continue.

After the three EMF's were declared inoperable, sampling of the containment atmosphere was begun. The "Loss of Sample Flow" alarm was checked by manually shutting off the vacuum pump locally; the alarm was then received in the control room. After the gag actuator was replaced, the power breaker was energized and EMF's 38, 39, and 40 were declared operable on September 9.

SAFETY ANALYSIS: Even though EMF's 38, 39, and 40 were inoperable, there was no activity above background inside containment. Health Physics personnel took the necessary precautions to verify the safety of personnel entering the containment. The VQ (Containment Air Release and Addition) releases during this time were monitored by EMF's 35, 36, and 37 on the unit vent and the releases could have been stopped if excessive radiation was detected. Thus, safe plant operation and the health and safety of the public were not affected.

CORRECTIVE ACTION: Health Physics was notified and sampling of the containment atmosphere was performed. Operations personnel were cautioned to refer to the Low Voltage Breaker Device List when tagging out breakers. A change will be incorporated into the periodic test, "Semi-Daily Surveillance Items", to verify that the four isolation valves are checked as being open when the operability of EMF's 38, 39, and 40 is verified. Duke Power Company will continue to troubleshoot EMF's 38, 39, and 40 to ensure reliable operation of their vacuum switches and relief valve.