

DUKE POWER COMPANY

POWER BUILDING

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

OFFICIAL COPY

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

July 16, 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-369/81-100. This report concerns Technical Specification 3.3.3.4; "the meteorological monitoring instrumentation channels shown in Table 3.3-8 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,

  
William O. Parker, Jr.

PBN: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  
Palo Alto, CA 94303

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

IEH  
5/11

McGUIRE NUCLEAR STATION  
REPORTABLE OCCURRENCE

Report Number: 81-100

Report Date: July 16, 1981

Occurrence Date: June 16, 1981

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

Identification of Occurrence: Meteorological Instrumentation for wind direction was declared inoperable.

Condition Prior to Occurrence: Mode 5, Cold Shutdown

Description of Occurrence: On June 16, 1981 at 1110 hours, the lower wind direction monitoring instrument was found to be working improperly. The data taken from the Esterline-Angus (E.A.) Strip Chart Recorder showed abrupt wind direction changes instead of the expected gradual changes. Control Room personnel declared this meteorological monitoring instrument inoperable and this incident was therefore reportable pursuant to Technical Specification 3.3.3.4.

Apparent Cause of Occurrence: The wind direction sensor (Model 1022, Meteorological Research Inc.) is provided with a shaft which has a vane mounted on one end and a ganged two-section potentiometer (20K ohm per section) on the other. The shaft's bearing, which allows the vane and the potentiometers to rotate freely in any direction, failed. This caused the shaft to drag; hence the measured potentiometer resistances were not representative of the true wind direction.

Analysis of Occurrence: On June 16, 1981 at 0930 hours, the strip chart on the E.A. Recorder for the lower wind direction monitoring instrument was changed. It was noticed that the curve had an unrealistic shape based on previous experience. This was reported and a work request initiated to troubleshoot the instrument. It was found that the vane on the lower wind direction sensor would not rotate freely due to a bad bearing. This was reported in the Control Room and the instrument was declared inoperable (1110 hours) per Technical Specification 3.3.3.4. The sensor was replaced with a new one and it was checked for proper operation per procedure, "MRI Wind Direction Loop Check Semi-Annual Calibration Procedure". The lower wind direction monitoring instrument was declared operable at 1406 hours that same day.

Safety Analysis: The Station Meteorological Monitoring System provides suitable on-site capability to estimate potential radiation doses as a result of routine or accidental releases of radioactive materials to the atmosphere. This is accomplished by measuring and reporting meteorological parameters such as wind speed, wind direction,  $\Delta T$ , ambient temperature and dew point. At the time the lower wind direction monitoring instrument was inoperable, there were no radioactive gaseous waste releases made and the upper wind direction monitoring instrument (elevation 886 ft.) was operable. Therefore, the health and safety of the public and the safe operation of the plant were not affected by this incident.

Report Number 81-100

Page 2

Corrective Action: A work request was initiated to troubleshoot the failed equipment. The old sensor (S/N 575) was taken out of service and replaced with a new one (S/N 771). The equipment was tested (loop checked) for proper operation and was declared operable on June 16, 1981 at 1406 hours.