

DUKE POWER COMPANY

POWER BUILDING

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

USNRC REGION II  
ATLANTA, GEORGIA

31 MAY 11 AM '81

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

May 6, 1981

TELEPHONE: AREA 704  
373-4083

81-049-034

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-369/81-42. This report concerns the operability of the Seismic Monitoring Instrument Starter Unit. 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  
P. O. Box 10412  
Palo Alto, CA 94303

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# McGUIRE NUCLEAR STATION

## INCIDENT REPORT

Report Number: 81-42

Report Date: April 24, 1981

Occurrence Date: April 6, 1981

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

Identification of Occurrence: The Seismic Monitoring Instrument, Strong Motion Time-History Accelerograph (SMA-3) Starter Unit (TS-3A) declared inoperable.

Conditions Prior to Occurrence: Mode 5, Cold Shutdown

Description of Occurrence: On April 6, 1981 at 1100 hours, personnel found that the SMA-3 Seismic Monitoring Instrument Starter Unit was not operating properly. This was discovered while they were performing the monthly preventive maintenance checkout on the instrument. They immediately reported it to the Shift Supervisor who in turn declared the instrument inoperable. This was a reportable incident pursuant to Technical Specification 3.3.3.3.

Apparent Cause of Occurrence: The Remote Starter Unit of the SMA-3 System had a broken wire on its transverse axis and the sensitivity potentiometer on its vertical axis was out of calibration.

Analysis of Occurrence: The SMA-3 Seismic Monitoring Instrument is designed to monitor, record and actuate an event alarm in the Operator Aid Computer for any seismic events at the station site. This system is composed of a central control, recording and playback units, two triaxial remote accelerometer units and a triaxial starter unit. The triaxial starter unit which is located on the containment base slab, sends in signals to the control unit to activate the system at the instant that an acceleration of .01 g or greater is received. This unit, however, was not actuating the control unit and the event alarm when signals were simulated in the transverse and vertical axes during the maintenance checkout (April 6, 1981). Personnel found out that this was due to a broken wire on the transverse axis and the sensitivity potentiometer being out of calibration on the vertical axis.

Safety Analysis: No seismic event had occurred while the SMA-3 monitoring instrument was inoperable. Had there been an event during that time, earthquake data would have been gathered and analyzed by several independent seismic monitoring instruments provided in the plant. These instruments are the Triaxial Peak Accelerographs, Triaxial Seismic Switches and the Triaxial Response-Spectrum Recorders. Hence, the safe operation of the plant and the health and safety of the public were not affected. In the event of an earthquake during normal operation, the unit is shut down if the recorded seismic data exceeds the Operating Basis Earthquake. The plant's structures, systems, and equipment are then thoroughly investigated.

Corrective Action: The broken wire on the transverse axis of the SMA-3 Starter Unit was repaired. The sensitivity potentiometer on the vertical axis was adjusted at the proper setpoint and calibrated. The Starter Unit was installed and all three channels (axes) were checked for proper operation. The instrument was declared operable on April 9, 1981 at 1550 hours.