

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

OFFICIAL COPY

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

July 21, 1981

TELEPHONE AREA 704
373-4083

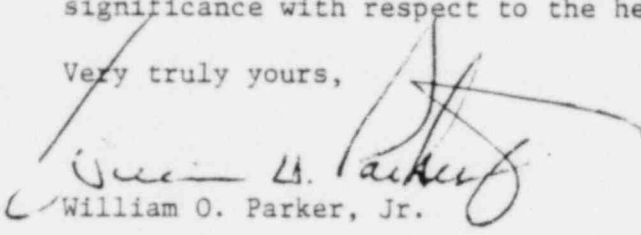
Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: McGuire Nuclear Station Unit 1
Docket No. 50-369

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-102. This report concerns Technical Specification 3.3.3.3; "The seismic monitoring instrumentation shown in Table 3.3-7 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 and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Bill Lavallo
Nuclear Safety Analysis Center
Post Office Box 10412
Palo Alto, CA 94303

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



IE22
5.11

McGUIRE NUCLEAR STATION
REPORTABLE OCCURRENCE

Report Number: 81-102

Report Date: July 21, 1981

Occurrence Date: June 21, 1981

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

Identification of Occurrence: The Triaxial Response-Spectrum Recorder for the containment base slab was declared inoperable.

Condition Prior to Occurrence: Mode 5, Cold Shutdown

Description of Occurrence: On June 21, 1981 at 0450 hours, the Shift Supervisor noticed that the Peak Shock Annunciator in the Control Room was actuated. The "20.2 Hz" red light for the horizontal shock in the East-West direction was ON. Control Room personnel tried to reset the equipment but it would not reset and it was, therefore, declared inoperable. This was a reportable incident pursuant to Technical Specification 3.3.3.3.

Apparent Cause of Occurrence: The "20.2 Hz" red light of the Peak Shock Annunciator was actuated because a wire from its contact switch in the Triaxial Response-Spectrum Recorder was shorted to ground.

Analysis of Occurrence: The Peak Shock Annunciator (Model PSA-1575, Engdahl Enterprises) in the Control Room provides instantaneous visual indication when predetermined acceleration limits (2-25 Hz shock spectrum) have been exceeded. This equipment receives its input signal from one of the Triaxial Response-Spectrum Recorders provided in the plant for seismic monitoring. The Peak Shock Recorder (Model PSR 1200-H/VO12A, Engdahl Enterprises) is located on the Containment Base Slab. Each recorder (triaxial) is provided with 12 reeds of different lengths and weights (one for each frequency), 11 of which have dual switch contacts. A switch closes whenever its reed travels a predetermined distance. This causes its respective amber light on the Peak Shock Annunciator to come ON when the design limit (normally 70%) is approached. The red light also comes ON when the design limit is exceeded.

On June 21, 1981 at 0450 hours, the Shift Supervisor noticed that the Peak Shock Annunciator's horizontal (East-West) "20.2 Hz" red light was ON. This equipment was declared inoperable because it would not reset. A work request was initiated to troubleshoot the failed instrument. The Peak Shock Recorder was found to be sending a false signal because the wire that connects the contact switch to a printed circuit board inside the recorder was shorted to ground. It was pinched between the contact block (where the contacts are mounted) and the metal frame where the contact block is mounted. The pinched wire may have occurred during the last calibration checkout, June 8, 1981, since it required removing, and then replacing, all the recorder's reeds. The block was lifted and the pinched wire cleared. The Peak Shock Annunciator was reset and the "20.2 Hz" red light went OFF. The equipment was checked for proper operation and it was declared operable on June 22, 1981 at 1300 hours.

Safety Analysis: No seismic event occurred while the recorder and its Peak Shock Annunciator were inoperable. Had there been an event during that time, this Triaxial Response-Spectrum Recorder would have still recorded the static accelerations, including the "20.2 Hz" shock spectrum, on their appropriate reeds. Earthquake data would have also been gathered and analyzed by several independent seismic monitoring instruments provided in the plant. Hence, the safe operation of the plant and the health and safety of the public were not affected by this incident.

Corrective Action: A work request was initiated to troubleshoot the failed instrument. The pinched wire was cleared which corrected the wire to ground short. The Peak Shock Annunciator was reset and the equipment was checked and declared operational.