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Duke Power Company

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June 25, 1981

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

RECEIVED
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U.S. NUCLEAR REGULATORY COMMISSION

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

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-91. This report concerns TS 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/php
Attachment

cc: Director
Office of Management and Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Bill Lavalee
Nuclear Safety Analysis Center
P. O. Box 10412
Palo Alto, California 94303

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

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S1/1

McGUIRE NUCLEAR STATION

INCIDENT REPORT

LER/RO REPORT NUMBER: 81-091/03L-0

REPORT DATE; June 25, 1981

OCCURRENCE DATE: May 30, 1981

LICENSEE: Duke Power Company

FACILITY: McGuire Unit 1, Cornelius, NC

DOCKET NO.: 05000369

IDENTIFICATION OF OCCURRENCE: A Triaxial Response-Spectrum Recorder was declared inoperable.

CONDITION OF OCCURRENCE: Mode 4, Hot Shutdown

DESCRIPTION OF OCCURRENCE: The "16 Hz" amber light on the Peak Shock Annunciator in the Control Room had been ON since May 24, 1981. A work request was initiated to troubleshoot the failed equipment. Since Control Room personnel were not sure where the signal was coming from, the equipment was not declared inoperable until May 30, 1981. This was a reportable incident pursuant to Technical Specification 3.3.3.3.

APPARENT CAUSE OF OCCURRENCE: The "16 Hz" amber light of the Peak Shock Annunciator was actuated because its reed switch from the Triaxial Response-Spectrum Recorder made contact.

ANALYSIS OF OCCURRENCE: The Peak Shock Annunciator (Model PSA-1575, Engdahl Enterprises) in the Control Room provides instantaneous visual indications when predetermined acceleration limits (2-25 Hz shock spectrum) have been exceeded. This equipment receives its input signal from one of the three Triaxial Response-Spectrum Recorders provided in the plant for seismic monitoring. The appropriate Peak Shock Recorder (Model PSR 1200-H/V012A, 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 is closed whenever its reed travels a predetermined distance. This in turn 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 May 24, 1981, the horizontal (North-South) "16 Hz" amber light came ON but it was not declared inoperable until May 30, 1981 because Control Room personnel did not know that the equipment was part of the Triaxial Response-Spectrum Recorder. A work request was initiated to troubleshoot the equipment and personnel found that the associated switch of the no.10 reed in the recorder was making contact. The switch was readjusted to open and the instrument was tested for proper operation per instrument procedure, "Peak Shock Recorder and Annunciator Calibration." The instrument was calibrated and declared operable on June 3, 1981 at 1027 hours.

SAFETY ANALYSIS: Although the failed equipment was not declared inoperable until after 7 days, the Action Statement in the Technical Specification 3.3.3.3 was not violated because the equipment was restored to operable status within the 30 day period. 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 "16 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. In the event of an earthquake during normal operation, the plant is shut down if the recorded seismic data exceeds the Operating Basic Earthquake. The plant's structures, systems, and equipment are then thoroughly investigated.

CORRECTIVE ACTION: A work request was initiated to troubleshoot the failed instrument. The setting of the no.10 reed switch contact was adjusted and tested for proper operation. The Peak Shock Annunciator was declared operable on June 3, 1981 at 1027 hours.

Control Room personnel will be instructed to improve their knowledge on this instrument as well as the other seismic monitoring equipment. This will enable them to respond more appropriately to this type of incident in the future.