DUKE POWER COMPANY

POWER BUILDING

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81-016-03L

WILLIAM O. PARKER, JR.

VICE PRESIDENT

STEAM PRODUCTION

DUKE POWER COMPANY

POWER BUILDING

WARD 11, 1981

March 11, 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-369/81-13. This report concerns the operability of certain radiation detectors. 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.

RWO:scs

Attachment

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

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

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### MCGUIRE NUCLEAR STATION INCIDENT REPORT

Report Number: RO-50-369/81-13

Report Date: February 24, 1981

Occurrence Date: February 12, 1981

Facility: McGuire Unit 1, Cornelius, North Carolina

### Identification of Occurrence:

Radiation Detectors EMF 33 (Condenser Steam Air Ejector), EMF's 35, 36, 37 (Unit Vent Particulate/Gas/Iodine) and EMF's 38, 39, 40 (Containment Particulate/Gas/Iodine) were declared inoperable due to loss of sample flows.

Condition Prior to Occurrence: Mode 6, Initial Fuel Loading

## Description of Occurrence:

The monitoring function of EMF's 33 and 39 was, by design backed up by EMF 36; however, the simultaneous inoperability of EMF 39 and EMF 36 resulted in less than the minimum number of channels necessary for operation. EMF 33 is required to be operable at all times. These events constituted a degraded mode of operation as stipulated in Technical Specifications 3.3.3.9 and required going to the appropriate action statement as shown in Table 3.3-13.

# Apparent Cause of Occurrence:

The cause of the occurrence was actually multifaceted due to the individual, non-related failures of each of the EMF's. The incident was made significant due to the concurrent failures of interdependent monitors, i.e., EMF's 36 and 39.

The individual failures of the monitors were as follows:

- EMF-33 incorrect vacuum setting; water in vacuum switch and associated tubing.
- 2. EMF 35, 36, and 37 clogged filter; incorrect vacuum adjustment.
- 3. EMF 38, 39, and 40 vacuum pump motor burned up.

## Analysis of Occurrence:

On February 8, 1981, EMF's 38, 39 and 40 were declared inoperable. Containment purge samples were taken every eight (8) hours as stipulated in Action Statement No. 37 of Technical Specifications Table 3.3-13. These samples were obtained in the upper containment rather than at the EMF's in order to prevent any further false reactor building evacuation alarms. This, in itself, was not a reportable incident.

On February 11, 1981 at 2350 hours, Operations notified Health Physics of a loss of flow alarm on EMF's 35, 36, and 37; two Health Physics technicians were dispatched to change the filters. This failed to alleviate the problem. At 0300 on February 12, 1981, EMF's 35, 36, and 37 were declared inoperable. At 0200, EMF's 38, 39, and 40 were declared operable; at 0600 hours, EMF's 38, 39, and 40 again alarmed due to loss of flow. The charcoal and particulate filters were changed; there was still no improvement. Monitors EMF 38, 39, and 40 were declared inoperable at 0630. Moreover, EMF-33 was declared inoperable at 1030 hours that same day.

Health Physics was instructed to obtain and analyze appropriate grab samples as per Table 3.3-13. The results of these analyses demonstrated that no radio-activity above natural background was present. These results confirmed that the safety and health of the public were not affected.

#### Corrective Action:

Work requests were initiated to investigate and repair the EMF; s.

- 1. 101731 OPS EAF's 38, 39, and 40
- 2. 101734 OPS FMF's 35, 36, and 37
- 3. 101741 OPS EMF 33

Unit vent grab samples were taken every eight (8) hours until the EMF's were declared operable.

Instrument and Electrical technicians performed the necessary repairs and the EMF's were declared operable on February 12, 1981.