

DUKE POWER COMPANY

POWER BUILDING

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

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

August 3, 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

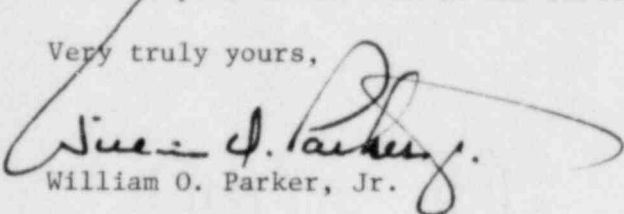
Re: McGuire Nuclear Station Unit 1
Docket No. 50-369



Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/81-108. This report concerns Technical Specification 3.3.3.9, "The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 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:krh
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
Post Office Box 10412
Palo Alto, California 94303

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

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McGUIRE NUCLEAR STATION
REPORTABLE OCCURRENCE

REPORT NUMBER: 81-108

REPORT DATE: August 3, 1981

OCCURRENCE DATE: July 5, 1981

FACILITY: McGuire Unit 1 Cornelius, NC

IDENTIFICATION OF OCCURRENCE: The Condenser Steam Air Ejector radiation monitor, EMF-33, was declared inoperable.

CONDITIONS PRIOR TO OCCURRENCE: Mode 4, Hot Shutdown; prior to initial criticality.

DESCRIPTION OF OCCURRENCE: On July 5, 1981, Control Room personnel received a loss of flow alarm on EMF-33. Examination of the monitor determined that the vacuum pump had apparently seized. The Shift Supervisor subsequently declared the monitor inoperable and instructed that the component be repaired. This was reportable pursuant to Technical Specification 3.3.3.9, and necessitated institution of a routine sampling program as stipulated by Action Statement No. 37 of Table 3.3-13. No new work request was written because an outstanding work request already existed, and work was currently being performed on that system as the result of a modification.

On July 8, the vacuum pump was removed from the monitor and disassembled. Evidence of moisture was found inside, and the carbon vanes were badly damaged and had seized to the inside surface of the pump. The pump was cleaned, and its vanes and bearings replaced. The monitor was returned to service on July 9. Design changes are still being performed on this equipment, however, in an attempt to prevent future problems of a similar nature.

APPARENT CAUSE: The failure of this equipment was the direct result of a condensation being aspirated into the vacuum pump due to improper drainage.

ANALYSIS OF OCCURRENCE: The failure of EMF-33 as a result of excessive amounts of moisture in the system has been a recurrent problem and has been reported to the NRC six times in the past five months (See R. O. reports 369/81-13, 81-18, 81-21, 81-31, 81-35, and 81-79).

Duke Power Company has been working for several months in an attempt to resolve the problems associated with excessive amounts of condensation in this system. To date, our attempts have had only a marginal success in gravity draining the condensation from the monitor (elevation 767') to the Waste Evaporator Feed Tank (elevation 716'). Work is currently in progress to make additional modifications to the drain line which is hoped will eliminate the problems.

CORRECTIVE ACTION: Following the identification and notification of the problem, periodic sampling and analysis was begun as required by the appropriate Action Statement in the Technical Specifications Manual. This sampling was continued as long as the instrument was out of service.

The damaged pump was repaired by cleaning it and replacing the pump vanes and bearings. The existing $\frac{1}{2}$ " I.D. drain line is currently in the process of being replaced with a 1" I.D. drain line. In the performance of this task, all unnecessary bends and angles are being reduced or eliminated in an attempt to further aid flow. Additionally, the current filter/moisture trap is being replaced with a larger one.

SAFETY ANALYSIS: Sample analysis of the Reactor Coolant and the Condenser Steam Air Ejector Systems confirmed that no radiation levels above background were present. Thus, the safe operation of the plant and the health and safety of the public were not affected by this incident.