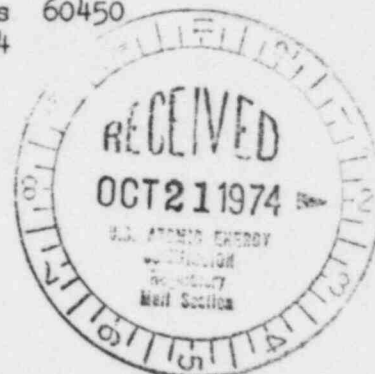




Commonwealth Edison
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Address Only to: Post Office Box 767
Chicago, Illinois 60690

BBS Ltr.#751-74

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
October 15, 1974



Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operations-Region III
U. S. Atomic Energy Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.A OF THE TECHNICAL SPECIFICATIONS.
LOW SAMPLE FLOW ON D2/3 CHIMNEY MONITOR.

References: 1) Regulatory Guide 1.16 Rev.1 Appendix A

- 2) Notification of Region III of AEC Regulatory Operations
Telephone: Mr. F. Maura, 1700 hours on October 8, 1974
Telegram: Mr. J. Keppler, 0830 hours on October 9, 1974

Report Number: 50-237/1974-51

Report Date: October 15, 1974

Occurrence Date: October 6, 1974

Facility: Dresden Nuclear Power Station, Morris, Illinois

IDENTIFICATION OF OCCURRENCE

A zero flow was indicated on the Unit 2/3 chimney monitoring system. At the time of the incident, this was thought to be contrary to Section 3.8.A.1 of the Dresden Unit 2 and 3 Technical Specifications which requires that at least one chimney monitor be in service at all times. Further investigation indicated that no Technical Specification violation had occurred since the chimney monitoring systems were in operation during this period.

CONDITIONS PRIOR TO OCCURRENCE

At the time of the occurrence, Unit 2 was in the shutdown mode and Unit 3 was in the run mode at 530 MWe and increasing power at 50 MWe/hr.

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DESCRIPTION OF OCCURRENCE

At approximately 1400 hours on October 6, 1974, a radiation protectionman, during his routine filter change at the Unit 2/3 chimney monitoring system, noted a zero flow indication on the system flow meter. He also noted that "A" sample pump was operating, the pump vacuum was normal (11 in.) and the correct valves were open. After changing the filters, a zero flow was still indicated on the flow meter.

Operations was notified of the above condition at approximately 1410 hours. At this time, the power level increase on Unit 3 and the startup of Unit 2 were delayed until the chimney monitoring system could be repaired. A shift foreman, investigating the occurrence, secured the "A" sample pump and started "B" sample pump. When "B" sample pump would not operate properly, he started "A" sample pump and fully opened the "A" pump flow control valve. The sample flow then increased to 1.0 cfm.

Maintenance was notified at approximately 1450 hours and while "A" sample pump remained operating, maintenance replaced "B" sample pump. The system was switched to the new "B" sample pump and the flow meter then indicated a normal system flow of 2.5 cfm. These repairs were completed on October 6 at 1900 hours. "A" sample pump was replaced on October 8.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE (Component Failure)

Subsequent investigation indicated that the gasket for the glass jar muffler on the discharge side of "A" pump had failed due to deterioration. The pump was pulling a normal sample through the iodine and particulate filters and through the chimney monitors. However, due to the deteriorated gasket, the sample flow was leaking from the muffler into the chimney monitor building (and eventually to the chimney through the max-recycle building ventilation) and was not passing through the flow meter on the discharge side of the pump.

Follow-up investigation to determine the cause of the "B" sample pump failure showed that the pump failed due to worn pump bearings.

ANALYSIS OF OCCURRENCE

At no time during this event was the function of the chimney monitoring system impaired. This statement is substantiated by the following:

1. The vacuum gauge on the pump suction indicated normal operating vacuum levels.
2. The chimney monitor readings did not decrease. Normally, upon loss of sample flow, the monitor will indicate a definite decrease due to the loss of noble gas flow and the decay of noble gas daughter products. There was no such indication during the period of this incident.

October 15, 1974

3. Analysis of iodine and particulate filters from the period in question indicated that the total amount of activity collected was normal for the existing operating conditions.

Since the chimney discharge was monitored continuously, and the leaking gases exhausted back to the chimney, there was no violation of the Technical Specifications, nor any safety implications.

CORRECTIVE ACTION

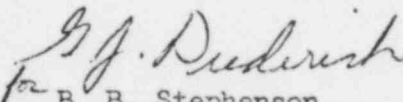
The corrective action at the time of the event was to replace the "B" sample pump in order to obtain the necessary sample flow. Further action involved replacing the "A" sample pump. During this action the muffler jar gasket problem was discovered and the gasket was replaced.

Further action is not deemed necessary due to the fact that the sample flow-rate is monitored on a daily basis which in light of this event will allow for rapid detection of this problem should it recur.

FAILURE DATA

Although there have been sample pump failures in past history, the problem with a deteriorated gasket is a unique event with no precedent. All previous history in this area involves bearing failure or pump impeller failure.

Sincerely,


B. B. Stephenson
Superintendent

EBS:DAA:do