January 13, 1983
4410-83-L-0014

Office of Inspection and Enforcement
Attn: Mr. Ronald C. Haynes, Director
Region I
US Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 82-040/03L-0

Attached please find Licensee Event Report 82-040/03L-0 concerning the low Auxiliary Building Ventilation System Exhaust Flowrate on December 14, 1982.

This event concerns Section 3.9.12 and is considered reportable under Section 6.9.1.9(b) of the Interim Recovery Technical Specifications.

Sincerely,

R. K. Kanga
Director, TMI-2

BKK/SDC/jep

Attachments

CC: Mr. L. H. Barrett, Deputy Program Director - TMI Program Office
Dr. B. J. Snyder, Program Director - TMI Program Office
Mr. V. Stello, Deputy Executive Director
At 2012 hours on December 14, 1982, the drive belts on Auxiliary Building ventilation system fan AH-E-8A failed. As a result, the exhaust and supply fans tripped. The ventilation system was returned to service at 2024 hours on December 15, 1982. This event is considered reportable pursuant to Section 6.9.1.9(b) due to entry into and compliance with the requirements of action statement 3.9.1.2(b) of the TMI-2 Recovery Tech Specs. This event had no effect on the health and safety of the public.
I. EXPLANATION OF OCCURRENCE

At approximately 1800 hours on December 14, 1982, the Control Room personnel observed that the Auxiliary Building Exhaust Flowrate was gradually decreasing. This decrease placed the Auxiliary Building Exhaust Flowrate close to the minimum allowable exhaust flowrate. At 1900 hours, the Auxiliary Building exhaust fans AH-E-8A/B were shut-down to permit a fan inspection. At 1910 hours, following the inspection, the Auxiliary Building exhaust fans AH-E-8A/B were restarted and flow was returned to normal. At 2012 hours on the same date, the fan drive belts on Auxiliary Building exhaust fan AH-E-8A broke, causing the exhaust fans (AH-E-8A/B) and supply fans (AH-E-7A/B) to trip and subsequently causing the Auxiliary Building exhaust flowrate to fall below the minimum allowable Recovery Operations Plan exhaust flowrate of 54,000 cfm. This condition placed the unit in the action statement of 3.9.12.2(b) of Technical Specifications. The Auxiliary Building exhaust flowrate was returned to normal (greater than 54,000 cfm) at 2024 hours on December 15, 1982. This event is considered reportable pursuant to Technical Specification 6.9.1.9(b).

II. CAUSE OF THE OCCURRENCE

The cause of the event has been attributed to degraded fan drive belts on exhaust fan AH-E-8A.

III. CIRCUMSTANCES SURROUNDING THE OCCURRENCE

At the time of the occurrence, the Unit 2 facility was in a long-term cold shutdown state. The reactor decay heat was being removed via loss to ambient. Throughout the event there was no effect on the Reactor Coolant System or the core.

IV. CORRECTIVE ACTIONS TAKEN OR TO BE TAKEN

Upon shutting down the Auxiliary Building exhaust fans AH-E-8A/B at 1900 hours on December 14, 1982, it was observed that the fan drive belt on AH-E-8A was rapidly deteriorating and the sheave (pulley) was extremely hot. The Auxiliary Building ventilation system could not be switched over to the alternate (AH-E-8C/D) set of exhaust fans because AH-E-8D was out of service pending repair. (It was assigned a level 2 priority, i.e. repair within 7 days.) Based on this fact, and on the advise of the Maintenance Foreman, the exhaust fans AH-E-8A/B were restarted with the expectation that the belts would last until fan AH-E-8D was repaired and operable. That would avoid unnecessary down time of the ventilation system. After the December 14, 1982, 2012 hour event,
the fan belts on AH-E-8A and D were replaced. During the times that
the Auxiliary Building exhaust flowrate was below the allowable limit,
all radiological gas and liquid movements and Reactor Building Purge
were secured as required by the Technical Specifications.

V. COMPONENT FAILURE DATA

Fan drive belts manufactured by Goodyear and distributed locally
by Bearings, Inc., Harrisburg, PA.