Fuel Handling and Auxiliary Building Ventilation Systems inoperable

NRC FORM 366 (7-77)

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U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

Attachment 1
4410-83-L-0161 SEP 08 1983

CONTROL BLOCK: 1 8 5 0 8 9 (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

B&W

0 1	LICENSEE CODE: P A T M I 2 (2)	LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3)	LICENSE TYPE: 4 1 1 1 1 (4)	CAT: (5)

CON'T 0 1	REPORT SOURCE: L (6)	DOCKET NUMBER: 0 5 0 0 0 3 2 0 (7)	EVENT DATE: 0 6 2 8 8 3 (8)	REPORT DATE: 0 7 2 8 8 3 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 At 0220 hours on June 28, 1983, the Auxiliary Building (A.B.) Ventilation System was
0 3 declared inoperable due to low exhaust flowrate. At 0257 hours on June 28, 1983, the
0 4 Fuel Handling Building (FHB) Ventilation System was declared inoperable due to low ex-
0 5 haust flowrate. The FHB Ventilation System was returned to operable status at 0527
0 6 hours, and the A.B. Ventilation System was returned to operable status at 1648 hours
0 7 on June 28, 1983. This event is considered reportable pursuant to Tech Spec 6.9.1.9(b)
0 8 due to entry into and compliance with the action statements of T.S. 3.9.12.1 & 3.9.12.2.

0 9	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
	A A (11)	E (12)	A (13)	X X X X X X (14)	Z (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 3	—	0 3 0	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
A (18)	X (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	Z (25)	G 0 8 0 (26)

Pat 10-21-83

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The A.B. low exhaust flowrate occurred when FHB supply fan AH-E-9A tripped due to a
1 1 blown fuse, at the same time AH-E-9B was out of service for corrective maintenance.
1 2 The cause of the FHB low exhaust flowrate was due to the intentional securing of the
1 3 FHB exhaust fan; when the fan was restarted the FHB exhaust flowrate returned to
1 4 normal. The fuse for AH-E-9A was replaced and the fan restarted.

1 5	FACILITY STATUS: Z (28)	% POWER: 0 0 0 (29)	OTHER STATUS (30): Recovery Mode	METHOD OF DISCOVERY: A (31)	DISCOVERY DESCRIPTION (32): Operator Observation

1 6	ACTIVITY RELEASED: Z (33)	CONTENT OF RELEASE: Z (34)	AMOUNT OF ACTIVITY (35): N/A	LOCATION OF RELEASE (36): N/A

PERSONNEL EXPOSURES

1 7	NUMBER: 0 0 0 (37)	TYPE: Z (38)	DESCRIPTION (39): N/A

PERSONNEL INJURIES

1 8	NUMBER: 0 0 0 (40)	DESCRIPTION (41): N/A

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	TYPE: Z (42)	DESCRIPTION: N/A

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PDR ADOCK 05000320
S PDR

PUBLICITY

2 0	ISSUED: N (44)	DESCRIPTION (45):	NRC USE ONLY

NAME OF PREPARER Russ Wells PHONE: (717) (948-8461)

GPO 917-926

Attachment 2
4410-83-L-0161

LICENSEE EVENT REPORT
NARRATIVE REPORT
TMI-II
LER 83-030/03L-0
EVENT DATE - June 28, 1983

I. EXPLANATION OF OCCURRENCE

At 0220 hours on June 28, 1983, the Auxiliary Building Ventilation System was declared inoperable due to low exhaust flowrate. This was due to the tripping of the Fuel Handling Building (FHB) supply fan AH-E-9A. At the time, FHB supply fan AH-E-9B was out of service for corrective maintenance. With the Auxiliary Building (A.B.) exhaust flowrate below the minimum required Tech. Spec. limit of 54,000 cfm, the unit was placed into the action statement of Tech. Spec. 3.9.12.2.

In an attempt to provide the Technical Specification required ventilation flowrates, FHB exhaust fan AH-E-10B was secured at 0257 hours. This action restored the A.B. exhaust flowrate to Tech. Spec. limits and placed the unit out of the action statement of Tech. Spec. 3.9.12.2. However, this action resulted in decreasing the FHB exhaust flowrate below the limit of 36,000 cfm as specified in Recovery Operations Plan Section 4.9.12.1, thus placing the unit into the action statement of Tech. Spec. 3.9.12.1.

At 0527 hours, following initial troubleshooting, an unsuccessful attempt was made to restart fans AH-E-9A/9B by restarting fan AH-E-10B. Because of the design of the FHB Ventilation System, the exhaust fans must be started prior to starting the supply fans in order to maintain a negative pressure inside the building. By restarting exhaust fan AH-E-10B, the FHB exhaust flowrate was restored to Tech. Spec. limits and the Auxiliary Building Exhaust flowrate decreased below the minimum Tech. Spec. limit. This again placed the unit into the action statement of Tech. Spec. 3.9.12.2.

Troubleshooting continued into the cause of the fan failure and the Auxiliary Building Exhaust flowrate remained below the minimum limit of Recovery Operations Plan Section 4.9.12.2 until 1648 hours on June 28, 1983. After replacement of the blown fuse, FHB supply fan AH-E-9A was successfully restarted. This action resulted in the A.B. exhaust flowrate returning to Tech. Spec. limits and restored the A.B. Ventilation System to operable status.

This event is considered reportable pursuant to Tech. Spec. 6.9.1.9(b) due to entry into and compliance with the action statements of Tech. Specs. 3.9.12.1 and 3.9.12.2. This event had no effect on the health and safety of the public.

This event is similar in nature to LER 82-07.

II. CAUSE OF THE OCCURRENCE

This event occurred when FHB supply fan AH-E-9A tripped due to a blown fuse. The fan trip resulted in lowering the pressure in the Unit 2 Fuel Handling Building and Auxiliary Building. Operating as designed, the Unit 2 Auxiliary Building vortex dampers closed partially to maintain the proper ΔP between the building and atmospheric pressure. The partial closing of the vortex dampers caused the Auxiliary Building exhaust flowrate to drop below the minimum allowed value for operability.

The specific reason as to the cause for the blown fuse was not determined. However, the fuse was replaced, the circuit was verified to be operating properly, and fan AH-E-9A was restarted at 1648 hours on June 28, 1983.

As previously mentioned, at the time of the event, FHB exhaust fan AH-E-9B was out of service due to corrective maintenance. Troubleshooting revealed that the internal winding terminals for the fan motor were burnt.

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

IMMEDIATE

1. The blown fuse for FHB supply fan AH-E-9A was replaced, the circuit was verified to be operating properly, and fan AH-E-9A was restarted at 1648 hours on June 28, 1983. This action restored the A.B. exhaust flowrate to Tech. Spec. limits.

2. The fan motor for AH-E-9B was replaced and the fan was restarted at 2202 hours on June 30, 1983.

LONG TERM

N/A

V. COMPONENT FAILURE DATA

Fuse for AH-E-9A - General Electric
Fan Motor for AH-E-9B - Westinghouse

SEP 08 1983

GPU Nuclear

GPU Nuclear Corporation
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Route 441 South
Middletown, Pennsylvania 17057
717 944-7621
TELEX 84-2386
Writer's Direct Dial Number:

July 28, 1983
4410-83-L-0161

Office of Inspection and Enforcement
Attn: Mr. Thomas E. Murley
Regional Administrator
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 83-030/03L-0

Attached please find Licensee Event Report 83-030/03L-0 concerning the Auxiliary Building Ventilation System and Fuel Handling Building Ventilation System low flow conditions on June 28, 1983.

This event concerns Sections 3.9.12.1 and 3.9.12.2 and is considered reportable under Section 6.9.1.9(b) of the Interim Recovery Technical Specifications.

Sincerely,

B. K. Kanga

B. K. Kanga
Director, TMI-2

BKK/RDW/grs

Attachments

CC: Mr. L. H. Barrett, Deputy Program Director - TMI Program Office
Dr. B. J. Snyder, Program Director - TMI Program Office