NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	LICENSEE CODE: P A T M I 1 (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 2 8 9 (7)	EVENT DATE: 0 2 2 5 8 2 (8)	REPORT DATE: 0 3 1 7 8 2 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During ordered shutdown and while evaluating control room habitability review per

0 3 NUREG 0737 Item III D.3.4 an item reportable per T.S. 6.9.2.A(9) was identified.

0 4 Computer room air conditioning unit duct work penetrates the wall to the fuel handling

0 5 building. There is no radiation signal interlock to shutdown the unit. There appears

0 6 to be a potential for this to allow contaminated air to enter area served by the

0 7 control building ventilation system.

0 8

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

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 2	—	0 0 1	/	0 1	T	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
F (18)	F (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	Z (25)	Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Since standard review plans were not part of original design criteria for the computer

1 1 room ventilation system, this installation does not meet item III D.3.4 and is

1 2 therefore reportable. Blind flange is installed on make-up duct to minimize the effect

1 3 of an airborne contamination problem in the fuel handling or auxiliary buildings. Long

1 4 term corrective action will be provided by June 30, 1982.

1 5	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
	X (28)	0 0 0 (29)	NRC Order	C (31)	Design Review

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

PERSONNEL EXPOSURES

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

PERSONNEL INJURIES

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

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	TYPE	DESCRIPTION
	Z (42)	N/A

PUBLICITY ISSUED DESCRIPTION

2 0 N/A NRC USE ONLY

8204010327 820317
PDR ADOCK 05000289
S PDR

NAME OF PREPARER Carl J. Stephenson PHONE: (717) 948-8552

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ATTACHMENT I

LICENSEE EVENT REPORT
NARRATIVE REPORT

TMI-1
LER 82-001

I. CURRENT ACTIVITIES AT THE TIME OF THE OCCURRENCE

TMI Unit 1 was in a long term cold shutdown. Engineering was performing a design review on the Control Building Ventilation System.

II. LEADING CIRCUMSTANCES

A preliminary safety concern which dealt with the potential of breaching an environmental barrier at the time of installation of an air conditioning unit to service the Control Building computer room has been evaluated. The concern identified the possibility of introducing make-up air from the Auxiliary and Fuel Handling buildings, a potentially contaminated area (post accident), into the Control Building Ventilation System which serves the Control Room. The concern further identified the installation as having been made with no provision for automatic isolation on high airborne radioactivity to exclude the potential contaminants from the Control Building Ventilation System.

III. DESCRIPTION

In November 1975, criteria was developed for the installation of a "closed-loop" air conditioning unit to support the Modular Computer System in the Control Building. In early 1976, the installation was completed. During the 1979 Refueling Outage the ductwork for this air conditioning system was modified with the installation of seismically qualified UL listed 3-hour rated fire dampers (FD-48 and FD-49) to isolate the Control Building side (computer room) from the Fuel Handling side where the air conditioner (AH-E-108) is mounted. The fire dampers trip closed and the air conditioner shuts down when a fire detection system actuated and not on high airborne radioactivity in the area. The fire detection system was installed in conjunction with a Halon 1301 fire suppression system for the computer room sub-floor area.

Although the fire dampers and control building wall penetrations are seismically designed, the adjacent suction and discharge duct work are not. The concern is that if a seismic event were to sufficiently damage this ductwork, in conjunction with a high airborne radioactivity condition in the fuel and auxiliary building ventilation system; the control room ventilation system could potentially become contaminated. Also, should the air conditioning system make-up line let contaminated air into the mod comp room, it could potentially contaminate the control building ventilation system.

IV. RESULTANT EVENTS

None

V. PREVIOUS EVENTS OF A SIMILAR NATURE

None

VI. ROOT CAUSE

Recent design reviews have determined that the "closed-loop" air conditioning system was not built or designed in accordance with the standard review plan (SRP) and, therefore, the system does not meet the requirements of NUREG 0737 Section III.D.3.4. The application of the criteria contained in the SRP has resulted in a "new look" at the purpose of the control room ventilation envelope and has resulted in a reconsideration of this air conditioning system.

VII. IMMEDIATE CORRECTIVE ACTION

The installation of a block off plate on the make-up air duct work has minimized the possibility of the introduction of contaminated make-up air into the Control Building Envelope in the event of a radiation accident.

VIII. LONG TERM CORRECTIVE ACTION

Long term corrective actions which are being studies include:

1) Removing the air conditioning system.
2) Procedures to shut off air conditioning unit when control building ventilation system is put on recirculation.
3) System to initiate fire damper isolation on high radiation signal

None of the above options have as yet been decided upon and a subsequent update of this report will provide additional information by June 30, 1982.

IX. COMPONENT FAILURE DATA

Since no components failed, no data is included.