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 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvania 05000387
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 BYRAM, R.G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-004-01: on 880203, reactor bldg ventilation boundary door blocked open.

W/8 ltr.

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Susquehanna Steam Electric Station - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7	PAGE (3) 1 OF 0 4
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TITLE (4)
Reactor Building Ventilation Boundary Door Blocked Open

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
0 2	0 3	8 8	8 8	0 0 4	0 1 1 2	8 8			SSES - Unit 2		0 5 0 0 0 3 8 8
											0 5 0 0 0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																				
POWER LEVEL (10) 1 0 1 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 20.408(c)	<input type="checkbox"/> 60.36(c)(1)	<input type="checkbox"/> 60.36(c)(2)	<input checked="" type="checkbox"/> 60.73(a)(2)(i)	<input checked="" type="checkbox"/> 60.73(a)(2)(ii)	<input type="checkbox"/> 60.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)	<input type="checkbox"/> 50.73(a)(2)(ix)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME Richard R. Wehry - Power Production Engineer		AREA CODE 7 1 7	5 4 2 - 3 6 6 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)														
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO					

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On February 3, 1988 with both Unit 1 and Unit 2 operating at 100% power, it was discovered that utility work group personnel had propped open a door approximately 3 inches to allow for the passage of a temporary power cable on 2/2/88 and 2/3/88. This door is a boundary between Reactor Building ventilation Zone I and a no Zone (essentially outside atmosphere), when the Railroad Access Bay is aligned to Zone I. Propping this door open results in an alignment that is prohibited by the Technical Specification and Secondary Containment leakage rates could have exceeded the authorized limits in the event of a Zone I and III or a Zone I, II and III isolation, with a single component (damper) failure. The Secondary Containment atmosphere pressure requirement was maintained at 0.25 inches of vacuum water gauge during this event. A radiological evaluation determined that no offsite doses in excess of 10CFR100 limits or control room operator doses in excess of 10CFR50 General Design Criterion 19 limits would have occurred in the event of a LOCA during the system mis-alignment. This incident was caused by personnel error. The work group personnel failed to observe a Caution tag on the door which stated that the door could be opened for personnel access only. Training was provided for the applicable work group. Additionally, the subject work group issued specific work instructions to ensure that boundary doors will not be blocked open during work involving equipment transfers between Unit 1 and Unit 2.

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		YEAR 8 8	SEQUENTIAL NUMBER - 0 0 4	REVISION NUMBER - 0 1	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

DESCRIPTION OF EVENT

On February 3, 1988 with both Unit 1 and Unit 2 operating at 100% power, during a work evolution involving the transfer of Control Rod Drive (EIIS:AA) assemblies from Unit 1 to Unit 2, it was discovered that utility work group personnel had propped open a door approximately three (3) inches to allow for passage of a temporary power cable, used to power a winch. This door (Door #721) constitutes a boundary between the Railroad Access Bay, which was aligned as part of the Reactor Building Heating, Ventilating and Air Conditioning (HVAC) system (EIIS Code:VA) Zone I, and the Reactor Building HVAC Equipment Room, which is designated as an HVAC "no zone". The door was propped open for a period of approximately one (1) hour eight separate times, three times on 2/2/88 and five times on 2/3/88/ This alignment is prohibited by the plant's Technical Specifications.

CAUSE OF EVENT

This incident was caused by personnel error. The door had been properly posted with a yellow Caution tag, in accordance with the operating procedure, on January 31, 1988. The tag stated that the door could be opened for personnel access only. The work group personnel failed to observe the Caution tag. Subsequent discussions with the work group personnel determined that their failure to observe the Caution tag was potentially influenced by the fact that the door's color is also yellow.

REPORTABILITY/ANALYSIS

This event was determined to be reportable per 10CFR50.73 (a) (2) (i) (B) and 10CFR50.73(a) (2) (ii) in that a plant system was aligned in a manner prohibited by the plant's Technical Specifications and Secondary Containment Leakage rates could have exceeded the authorized limits in the event of a Zone I and III or a Zone I, II and III isolation, with a single component (damper) failure. Namely, per Technical Specification 3.6.5.1, Secondary Containment Integrity (railroad bay door closed) shall be demonstrated in Operational Condition 1 by verifying that:

1. All Zone I and III hatches, removable walls, dampers and doors connected to the railroad access bay are closed or
2. Only Zone I removable walls and/or doors are open to the railroad access shaft, or
3. Only Zone III hatches and/or dampers are open to the railroad access shaft.

Contrary to the above, on February 2, 1988 and February 3, 1988, door #721 between the Railroad Access Bay and the HVAC Equipment Room was propped about three (3) inches open for an approximate one (1) hour period eight separate times. Since the Railroad access Bay had been aligned to the Reactor Building HVAC Zone I via the removal of the 719' elevation removable walls, the propping

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open of this door tied HVAC Zone I to a no Zone. This alignment is prohibited by the Technical Specifications. During the times that this boundary door was propped open, there were no events resulting in any Reactor Building HVAC zones being isolated and drawn down by the Standby Gas Treatment System (SGTS). If there would have been a Zone I and III or a Zone I, II and III isolation/drawdown, Secondary Containment leakage rates could have been exceeded in the case of a single component (damper) failure and it is postulated that the SGTS drawdown times required by the Technical Specifications may have been exceeded, based on the increased volume and inleakage as a result of the door being partially open. Based on these same calculated volume and inleakage rates, however, it is also postulated that the SGTS fan would have drawn down the affected zones to the 0.25 inches of vacuum water gauge at some finite amount of time in excess of Technical Specification requirements. A radiological evaluation, utilizing the USNRC compartment-dose code TACT III, determined that no offsite doses in excess of 10CFR100 limits or control room operator doses in excess of 10CFR50 General Design Criterion 19 limits would have occurred in the event of a LOCA during the system mis-alignment.

CORRECTIVE ACTIONS

Upon discovery of the propped open door, the cable was immediately removed and the door was closed. Training was provided for the applicable work group concerning the factors that led to this occurrence and restrictions on the use of HVAC boundary doors. The subject work group issued specific work instructions to include a caution in Control Rod Drive Unit to Unit Transfer work instructions to ensure that HVAC boundary doors will not be blocked open.

The General Employee Training unit of instruction was reviewed and found to contain specific instructions not to block open doors and the importance of maintaining boundary and fire doors closed. The February 2 and 3, 1988 occurrence is being discussed during on-going General Employee Training sessions, however, to reemphasize the importance of maintaining doors closed.

The Operations Section evaluated a proposal to lock the subject boundary doors to all traffic, except when the Railroad Access Bay is aligned as a "no zone". It was determined that the locking of these doors would not be implemented due to personnel safety implications.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

ADDITIONAL INFORMATION

Previous LER's submitted to the Commission involving Secondary Containment being aligned in a manner prohibited by the Technical Specifications are:

- LER 84-195
- LER 86-010-00
- LER 87-025-00
- LER 87-026-00

This is the first occurrence, however, of a boundary door being blocked open for a work evolution.



Pennsylvania Power & Light Company

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December 14, 1988

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 88-004-01
FILE R41-2
PLAS- 346

Docket No. 50-387
License No. NPF-14

Attached is a Licensee Event Report 88-004-01. This event was determined reportable per 10CFR50.73(a) (2) (i) (B) and 10CFR50.73(a) (2) (ii) in that the Reactor Building Heating, Ventilating and Air Conditioning (HVAC) System was aligned in a manner prohibited by the plant's Technical Specifications when a door between Reactor Building HVAC Zone I and a non-designated HVAC Zone was propped partially open. Secondary Containment leakage rates would have potentially exceeded the authorized limits in the event of a Zone I and III or a Zone I, II and III isolation, with a single component (damper) failure. A radiological evaluation determined, however, that no offsite doses in excess of 10CFR100 limits or control room operator doses in excess of 10CFR50 General Design Criterion 19 limits would have occurred in the event of a LOCA during the system mis-alignment.


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RRW/mjm

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