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RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-012-00:on 900505,Tech Specs not met when high radiation door unlocked & unattended.

W/9 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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June 1, 1990

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 90-012-00
FILE R41-2
PLAS - 426

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

Attached is Licensee Event Report 90-012-00. This report is being made pursuant to 10CFR50.73(a)(2)(i)(B), in that Susquehanna Unit 1 was operated in a condition prohibited by the Technical Specifications due to a high radiation door being unlocked when unattended for approximately one week.

H.G. Stanley
Superintendent of Plant - Susquehanna

TSR/mjm

cc: Mr. T. T. Martin
Regional Administrator, Region I
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IE22
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NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Susquehanna Steam Electric Station - Unit 1	0 5 0 0 0 3 8 7	1 OF 0 3

TITLE (4)

Technical Specifications Not Met When High Radiation Door Was Unlocked and Unattended

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 5 0 0 0
0 5	0 5	9 0	9 0	- 0 1 2	- 0 0	0 6	0 1	9 0		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 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER AREA CODE
T.S. Ryder - Power Production Engineer	7 1 7 5 4 2 - 3 2 3 5

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On May 5, 1990 with Unit 1 operating at 100% power in Condition 1, a Health Physics technician found high radiation door #227 closed but unlocked. The door had been verified locked closed on April 27, 1990. Door #227 allows access to radiation areas within the Turbine Building that have dose rates greater than 1000 mrem/hour during power operation. Therefore, Door #227 is required to be locked when unattended in accordance with Technical Specification 6.12.2. The most likely factors contributing to the occurrence of this event, are believed to be in the areas of design and training. The event has been determined to be reportable per 10CFR50.73(a)(2)(i)(B), in that the requirements of Technical Specification 6.12.2 were not met between April 27 - May 5, 1990 because Door #227 was unlocked when unattended. There was no risk to the health and safety of the general public or plant personnel from this event. Door #227 will be replaced with a new door containing a lockset of the standard design used elsewhere in the plant. Training will be conducted on door locking requirements and specific methodology for verifying Door #227 is locked will be incorporated as part of an HP technical procedure.

DESCRIPTION OF EVENT

On May 5, 1990 with Unit 1 operating at 100% power in Condition 1, a Health Physics (HP) technician (utility, non-licensed) who was performing a weekly high radiation area locking verification, found Door #227 closed but unlocked. Door #227 is a high radiation door located on the east side of the Unit 1 Turbine Building on the 699 foot elevation which allows access to the condenser mezzanine area. The door was properly posted signifying the high radiation area and requiring HP support prior to entry.

The door had been verified locked closed on April 27, 1990 during the previous weekly high radiation area locking verification. Door #227 allows access to radiation areas within the Turbine Building that can have dose rates greater than 1000 mrem/hour during power operation. Therefore, Door #227 is required to be locked when unattended in accordance with Technical Specification 6.12.2.

CAUSE OF EVENT

An event review team was established to thoroughly investigate all aspects of this event. HP logs, radiation work permits, and operator logs were reviewed but this was unsuccessful in determining who opened Door #227 during the time period between April 27 - May 5, 1990, why the door was opened, and exactly when the door was opened. Since the responsible person(s) could not be identified for interview, it is not possible to positively determine root cause. The event review team used barrier analysis investigation techniques and concluded, however, that the most likely factors contributing to the occurrence of this event were in the areas of design and training.

The design of the door deviated from the normal design common to other radiation doors in the plant. This door design made verification that the door was locked more difficult than the standard design. A new door was installed in June of 1989 as a plant modification. The original Door #227 had to be enlarged to allow for the access of some large circulating water replacement components into the Turbine Building condenser area. The new door contains a deadbolt lock that requires the key to be turned a full 360 degrees to lock the door. All other radiation doors in the plant are locked by turning the key 120 degrees, returning the key to the original position and removing the key. Secondly, the door has mechanical latches which are provided to seal the door in the case of a steam line rupture in the room. The latches can be operated from either inside or outside the door. Thirdly, the door handle turns even if the door is locked. This design requires that the door be unlatched to verify that the door is locked. Otherwise it cannot be positively demonstrated that the lock instead of the latches are keeping the door closed.

Training on Door #227 is believed to be a second causal factor in this event. The training audience was limited to HP foremen. HP technicians also have a need for this training, notably when they perform the weekly high radiation area locking verifications. The content of the training did not address all the unique design aspects of door #227.

Other areas that were considered as part of the event investigation included key control, procedural compliance issues, and work practices. Steps are being pursued as appropriate to enhance these areas.

REPORTABILITY/ANALYSIS

The event has been determined to be reportable per 10CFR50.73(a)(2)(i)(B), in that the locking requirements of Technical Specification 6.12.2 were not met between April 27 - May 5, 1990. On May 5, 1990, Door #227 which allows access to a high radiation area in which dose rates of in excess of 1000 mrem per hour existed was discovered to be unlocked and unattended. The purpose of the requirement is to prevent unauthorized personnel from entering the high radiation area.

There was no risk to the health and safety of the general public or plant personnel from this event. Our investigation did not reveal any unauthorized entries into this area during the period in question. Door #227 was properly posted alerting personnel to the high radiation area requiring HP support prior to entry. Since there were no scheduled work activities in the condenser mezzanine area between April 27 - May 5, 1990, it is assumed that if there were any entries they would have been of short duration.

CORRECTIVE ACTIONS

Door #227 will be replaced with a new door containing a lockset of the standard design used elsewhere in the plant at the next Unit 1 outage of sufficient duration to accomplish the changeout. Training will be conducted on door locking requirements and additionally, specific methodology for verifying Door #227 is locked will be incorporated as part of an HP technical procedure.

ADDITIONAL INFORMATION

Failed Component Identification: Not applicable.

Previous Similar Events: None.