

# CATEGORY 1

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9607190097 DOC.DATE: 96/07/12 NOTARIZED: NO DOCKET #  
 FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387  
 AUTH.NAME AUTHOR AFFILIATION  
 CODDINGTON,C.T. Pennsylvania Power & Light Co.  
 KUCZYNSKI,G.J. Pennsylvania Power & Light Co.  
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 96-003-00:on 960612,isolation of both containmnet radiation monitors from drywell.Caused by TS 3.4.3.1 not addressing isolation of both loops on actuation of RPS.Mod process revised.W/960712 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5  
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

05000387

	RECIPIENT		COPIES		RECIPIENT		COPIES	
	ID CODE/NAME		LTR	ENCL	ID CODE/NAME		LTR	ENCL
	PD1-2 PD		1	1	POSBUSNY,C		1	1
INTERNAL:	ACRS		1	1	AEOD/SPD/RAB		2	2
	AEOD/SPD/RRAB		1	1	<u>FILE CENTER</u>		1	1
	NRR/DE/ECGB		1	1	NRR/DE/EELB		1	1
	NRR/DE/EMEB		1	1	NRR/DRCH/HHFB		1	1
	NRR/DRCH/HICB		1	1	NRR/DRCH/HOLB		1	1
	NRR/DRCH/HQMB		1	1	NRR/DRPM/PECB		1	1
	NRR/DSSA/SPLB		1	1	NRR/DSSA/SRXB		1	1
	RES/DSIR/EIB		1	1	RGN1 FILE 01		1	1
EXTERNAL:	L ST LOBBY WARD		1	1	LITCO BRYCE,J H		2	2
	NOAC MURPHY,G.A		1	1	NOAC POORE,W.		1	1
	NRC PDR		1	1	NUDOCS FULL TXT		1	1
NOTES:			1	1				

NOTE TO ALL "RIDS" RECIPIENTS:  
 PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
 ROOM OWFN 5D-5(EXT. 415-2083) TO ELIMINATE YOUR NAME FROM  
 DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED  
 TOTAL NUMBER OF COPIES REQUIRED: LTR 27 ENCL 27

C  
A  
T  
E  
G  
O  
R  
Y  
1  
D  
O  
C  
U  
M  
E  
N  
T



**Pennsylvania Power & Light Company**

Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

July 12, 1996

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-137  
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 50-387/96-003-00  
PLAS - 670 FILE R41-2

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

Attached is Licensee Event Report 50-387/96-003-00. This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B) in that both loops of the containment radiation monitors were isolated from the drywell at the same time during maintenance on the Reactor Protection System. This is a condition prohibited by the Technical Specifications.

G. J. Ruczynski  
Plant Manager - Susquehanna SES

Attachment

cc: Mr. T. T. Martin  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Ms. Maitri Banerjee  
Sr. Resident Inspector  
U. S. Nuclear Regulatory Commission  
P. O. Box 35  
Berwick, PA 18603-0035

9607190097 960712  
PDR ADOCK 05000387  
S PDR

IE22  
||

LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1) <b>Susquehanna Steam Electric Station - Unit 1</b>	DOCKET NUMBER(2) <b>0 5 0 0 0 3 8 7 1</b>	PAGE (3) <b>OF 0 4</b>
---	--	---------------------------

TITLE (4)  
**Isolation of Both Loops of Containment Radiation Monitors**

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	6	1 2 9 6	9	6	0 0 3	0	0	0 7 1 2 9 6			0 5 0 0 0

OPERATING MODE (9) <b>1</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 1: (Check one or more of the following) (11)									
POWER LEVEL (10) <b>1 0 0</b>	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(e)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input checked="" type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vi)(A)							
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(1)(2)(vi)(B)							
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(v)								

(LICENSEE CONTACT FOR THIS LER (12))

NAME <b>Cornelius T. Coddington - Sr. Project Engineer, Licensing</b>	TELEPHONE NUMBER
	AREA CODE: <b>7 1 7</b> NUMBER: <b>5 4 2 - 3 2 8 9</b>

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)

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

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

At 2105 hours on June 12, 1996, with Unit 1 in Condition 1 (Power Operation) at 100% power, Technical Specification 3.0.3 was entered since both Containment Radiation Monitors (CRM) were isolated from the drywell at the same time during preventive maintenance activities on the Reactor Protection System (RPS). This event is reportable per 10CFR50.73(a)(2)(i)(B) in that Susquehanna SES Unit 1 was in a condition prohibited by the Technical Specifications. Technical Specification 3.4.3.1 does not address the isolation of both loops of CRMs at the same time; therefore, Technical Specification 3.0.3 had to be entered. The design of the isolation feature of the CRMs is that for an actuation of either RPS division, both loops of CRMs isolate. The CRMs are used for detection of leakage into the primary containment during normal operation and are not used post-accident. There was no safety consequence or compromise to the public health and safety as a result of both loops of the CRMs being isolated from the drywell at the same time. When the both loops of the CRMs had been isolated at the same time during previous preventive maintenance activities on RPS, entry into Technical Specification 3.0.3 was not made based upon an interpretation that the evolution of isolation/restoration of the CRMs was a planned activity of short duration and the CRMs were operable. Technical Specification 3.4.3.1 will be revised to address the isolation of both loops of CRMs in order to eliminate the entry into Technical Specification 3.0.3. The appropriate operating procedures will be revised to incorporate a directive to enter Technical Specification 3.0.3 when both loops of CRMs are isolated at the same time until Technical Specification 3.4.3.1 is revised.

NRC FORM 366a (6-89)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED OMB NO. 3159-0104 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.
<b>LICENSEE EVENT REPORT (LER) TEXT CONTINUATION</b>		

<b>FACILITY NAME (1)</b>  Unit 1  Susquehanna Steam Electric Station	<b>DOCKET NUMBER (2)</b>  0 5 0 0 0 3 8 7	<b>LER NUMBER (6)</b>	<b>PAGE (3)</b>									
		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:10%;">YEAR</th> <th style="width:10%;">SEQUENTIAL NUMBER</th> <th style="width:10%;">REVISION NUMBER</th> </tr> <tr> <td style="text-align: center;">9 6</td> <td style="text-align: center;">— 0 0 3</td> <td style="text-align: center;">— 0 0</td> </tr> </table>	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	9 6	— 0 0 3	— 0 0	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%; text-align: center;">2</td> <td style="width:33%; text-align: center;">OF</td> <td style="width:33%; text-align: center;">4</td> </tr> </table>	2	OF	4
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER										
9 6	— 0 0 3	— 0 0										
2	OF	4										

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

**EVENT DESCRIPTION**

At 2105 hours on June 12, 1996, with Unit 1 in Condition 1 (Power Operation) at 100% power, Technical Specification 3.0.3 was entered when both Containment Radiation Monitors (CRM; EIS Code IL) were isolated from the drywell at the same time during preventive maintenance activities on the Reactor Protection System (RPS; EIS Code: JC). This isolation occurred when the power supply for the A RPS bus was transferred from the Alternate supply to the Normal supply. The design of the RPS is such that when transferring power supplies, the affected RPS bus is momentarily de-energized during the transfer. This de-energization of the RPS bus causes the system to actuate. The design of the isolation feature for the CRMs is that for an actuation of either division of RPS, both loops of the CRMs will isolate. This design feature of isolating both loops on the actuation of either RPS division meets the applicable regulatory requirements and was installed in both units in 1995. Prior to the installation of the CRM modification in 1995, only the transfer of power supplies on the B RPS bus would cause the isolation of both loops of CRMs. The CRMs are used for detection of leakage into the primary containment during normal operation and are not used post-accident. This event is reportable per 10CFR50.73(a)(2)(i)(B) in that Susquehanna SES Unit 1 was in a condition prohibited by the Technical Specifications. Technical Specification 3.4.3.1 does not address the isolation of both loops of CRMs at the same time; therefore, Technical Specification 3.0.3 had to be entered. There was no safety consequence or compromise to the public health and safety as a result of both loops of the CRMs being isolated from the drywell at the same time.

The entry into Technical Specification 3.0.3 at 2105 hours on June 12, 1996, was a result of an interpretation provided to the Operating staff. The staff questioned the need to enter Technical Specification 3.0.3 when the power supply for the A RPS bus was transferred from the Normal supply to the Alternate supply at 0144 hours on June 12, 1996. During the recovery from this transfer, the shift noted that both loops of the CRMs had isolated and the new isolation valves were not listed in the operating procedures, nor had any cautions been provided in the operating procedures that entry into Technical Specification 3.0.3 was required when both loops of CRMs were isolated at the same time. The shift questioned the need to enter Technical Specification 3.0.3 since both loops of CRMs had been isolated during the RPS bus power supply transfer. At the time of the RPS power supply transfer, the accepted interpretation was that the evolution to remove/restore the CRMs was a planned activity and entry into Technical Specification 3.0.3 was warranted only if both loops of CRMs could not be returned to service following the completion of the RPS bus power supply transfer. Also, during past RPS bus power supply transfers, Technical Specification 3.0.3 was not entered based on this accepted interpretation. The shift requested a re-interpretation of Technical Specification 3.4.3.1. It was determined that Technical Specification 3.0.3 should be entered when either RPS division is actuated since Technical Specification 3.4.3.1 does not address the isolation of both loops of CRMs at the same time.

Notification to all shifts to enter Technical Specification 3.0.3 for the isolation of both CRM loops was made.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)		
Unit 1		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	REVISION NUMBER	REVISION NUMBER	REVISION NUMBER	REVISION NUMBER	REVISION NUMBER	REVISION NUMBER
Susquehanna Steam Electric Station	0   5   0   0   0   3   8   7	9   6	—	0   0   3	—	0   0	3	OF	4	

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

**CAUSE OF EVENT**

It was determined that Technical Specification 3.4.3.1 does not adequately address the isolation of both loops of CRMs on the actuation of RPS. The previous interpretation of Technical Specification 3.4.3.1 was that entry into Technical Specification 3.0.3 was not warranted since the evolution to remove/restore the CRMs was a planned activity and the CRMs were not inoperable. Entry into Technical Specification 3.0.3 would only be necessary if both loops of CRMs could not be returned to service following the completion of the RPS bus power supply transfer.

The design of RPS contributes in that during a power supply transfer on an RPS bus the RPS division actuates and causes the isolation of both loops of CRMs.

In addition during the design of the 1995 modification of the CRMs, the process did not address the effect of isolating both CRM loops during RPS bus power supply transfers with respect to the Technical Specifications.

**REPORTABILITY/ANALYSIS**

This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B), in that Susquehanna SES Unit 1 was in a condition prohibited by the Technical Specifications when both loops of the Containment Radiation Monitors were isolated from the drywell at the same time. Technical Specification 3.4.3.1 requires that one loop of CRMs (one gaseous channel and one particulate channel) be operable and aligned to the drywell during Operating Conditions 1, 2 and 3.

The isolation of both loops of CRMs did not affect the ability of the plant to shutdown safely, nor was the health and safety of the public challenged. Other leak detection systems were operable when both CRM loops were isolated; therefore, a leak into the drywell would have been detected. The plant response to a postulated transient was not changed as a result of this event.

In accordance with the guidelines provided in NUREG-1022, Supplement 1, Item 14.1, the required submission date for this report was determined to be July 12, 1996.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)						PAGE (3)					
		YEAR		SEQUENTIAL NUMBER		REVISION NUMBER							
Unit 1		9	6	—	0	0	3	—	0	0	4	OF	4
Susquehanna Steam Electric Station	0   5   0   0   0   3   8   7												

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

**CORRECTIVE ACTIONS**

The following corrective actions were identified and completed:

- Revisions to the modification process have been made to ensure that surveillances and Technical Specifications are appropriately addressed. These revisions were a result of other issues and were completed subsequent to the CRM modification.
- The operating procedures were revised to incorporate the new drywell CRM isolation valves.
- Notification to all shifts was made to enter Technical Specification 3.0.3 when both loops of CRMs are isolated from the drywell at the same time.

The following additional corrective actions have been identified:

- Revise Technical Specification 3.4.3.1 to address the isolation of both loops of CRMs.
- Revise the appropriate operating procedures to incorporate the directive to enter Technical Specification 3.0.3 when both loops of CRMs are isolated until the revision to Technical Specification 3.4.3.1 is approved.
- Review the Technical Specifications for those system affected by the RPS bus power supply transfer to ensure that the appropriate actions are being entered.

**ADDITIONAL INFORMATION**

**Past Similar Events:**

Docket No. 50-387 LER 95-010-00  
LER 95-012-00

Failed Component: None



1