

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9609170300. DOC.DATE: 96/09/12 NOTARIZED: NO DOCKET #
 FACIL:50-327 Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387
 AUTH.NAME AUTHOR AFFILIATION
 WEHRY,R.R. Pennsylvania Power & Light Co.
 KUCZYNSKI,G.J. Pennsylvania Power & Light Co.
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 96-009-00:on 960730,condition prohibited by plant TS
 was noted during containment isolation valve work evolution.
 Caused by personnel error.Formal interpretation was
 processed through TS interpretation program.W/960912 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	POSLUSNY,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

September 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 50-387/96-009-00
PLAS - 679 FILE R41-2

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

Attached is Licensee Event Report 50-387 / 96-009-00. This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B) in that a primary containment isolation valve was left open and inoperable for a time period in excess of the Technical Specification Limiting Condition for Operation (LCO) ACTION time during a work evolution on the valve, and the subject valve comprised the only isolation valve in a one isolation valve penetration. This was a condition prohibited by the plant's Technical Specifications. A similar work evolution had been performed three times previously, once on Unit 1 and twice on Unit 2.


G. J. Kuczyrski
Plant Manager - Susquehanna SES

Attachment

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

Mr. Kenneth M. Jenison
Sr. Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 35
Berwick, PA 18603-0035

9609170300 960912
PDR ADOCK 05000387
S PDR

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) Susquehanna Steam Electric Station - Unit 1	DOCKET NUMBER(2) 0 5 0 0 0 3 8 7 1	PAGE (3) OF 0 4
---	--	---------------------------

TITLE (4)
Condition Prohibited By Plant's Technical Specifications During Containment Isolation Valve Work Evolution

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		
									SSSES - Unit 2		
0	7	3	0	9	6	0	9	1	DOCKET NUMBER(S) 0 5 0 0 0 3 8 8		

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 1: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 9 9	<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"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.405(a)(1)(j)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v4)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.405(a)(1)(k)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(v4)(A)							
	<input type="checkbox"/> 20.405(a)(1)(l)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(1)(2)(v4)(B)							
<input type="checkbox"/> 20.405(a)(1)(m)	<input type="checkbox"/> 50.73(a)(2)(k)	<input type="checkbox"/> 50.73(a)(2)(i)								

(LICENSEE CONTACT FOR THIS LER (12))

NAME Richard R. Wehry - Nuclear Licensing Engineer	TELEPHONE NUMBER
	AREA CODE: 7 1 7 NUMBER: 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 NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS		

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 August 13, 1996, an evaluation concluded that a condition prohibited by the plant's Technical Specifications had occurred during a work evolution on a primary containment isolation valve, completed on July 30, 1996. Namely, the replacement of valve packing on the Unit 1 Core Spray loop 'B' full flow test valve was performed with the valve in the open position and back seated. Unit 1 was operating in Condition 1 (Power Operation) at 99% power during the time of the work evolution. A similar work evolution had been performed three times previously, once on Unit 1 and twice on Unit 2. The Core Spray full flow test valve comprises the primary containment isolation valve in a single isolation valve penetration design. The valve remained in the open configuration for a time period in excess of the Technical Specification LCO ACTION time. The root causes of this event were determined to be personnel errors in that an incorrect interpretation of Technical Specification 3.6.3 was made as it pertains to a primary containment penetration having only a single isolation valve (the redundant isolation boundary is provided by a closed system); failing to process the interpretation through the formal Technical Specification Interpretation (TSI) program, which resulted in removing at least two additional review barriers that may have identified the initial error; and relying upon informal documentation and failing to recognize that the work, as planned, constituted a condition prohibited by Technical Specification LCO 3.6.3. Corrective actions include issuing a formal interpretation through the TSI program to ensure compliance with the Technical Specification requirements; counseling involved personnel; clearly defining and documenting the "closed systems" used as the second containment barrier for single isolation valve penetrations, the testing requirements for the "closed systems" and acceptable methods for altering the boundary of any "closed system"; reviewing the containment systems section of Susquehanna's Improved Technical Specifications submittal to ensure consistency; ensuring that adequate controls and review requirements are in place for the use of engineering directions in operation of the station; and performing a review to ensure that no generic issue exists with the use of informal interpretations in lieu of the formal TSI program.

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

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

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

DESCRIPTION OF EVENT

On August 13, 1996, an evaluation concluded that a condition prohibited by the plant's Technical Specifications had occurred during a work evolution on a primary containment isolation valve, completed on July 30, 1996. Namely, the replacement of valve packing on the Unit 1 Core Spray (EIS Code: BM) loop 'B' full flow test valve was performed with the valve in the open position and back seated. Unit 1 was operating in Condition 1 (Power Operation) at 99% power during the time of the work evolution. The Core Spray full flow test valve comprises the primary containment isolation valve in a single isolation valve penetration design. The valve remained in the open configuration for a time period in excess of Technical Specification Limiting Condition for Operation (LCO) 3.6.3 ACTION time. A similar work evolution had been performed three times previously, once on Unit 1 and twice on Unit 2.

CAUSE OF EVENT

A root cause analysis of the event was performed. The root causes of this event were determined to be:

- Personnel error by the engineer and supervisor (both utility; non-licensed) who prepared and approved an incorrect interpretation of Technical Specification LCO 3.6.3 as it pertains to a primary containment penetration having only a single isolation valve (the redundant isolation boundary is provided by a "closed system"). A contributing causal factor for this error is the wording of Technical Specification LCO 3.6.3 ACTION a., which appears to be written for a containment penetration that contains two containment isolation valves. As a result, it can be confusing when being applied to a containment penetration with only one containment isolation valve. Their interpretation incorrectly took credit for the closed system as accomplishing compliance with Technical Specification LCO 3.6.3 ACTION a. (i.e., penetration was considered to be isolated by the closed system).
- Personnel error by the same engineer and supervisor in failing to process the interpretation through the formal Technical Specification Interpretation (TSI) program, which resulted in removing at least two additional review barriers (Manager - Nuclear Operations and the Plant Operations Review Committee) that may have identified the initial error.
- Personnel error by operations personnel (utility; licensed) in relying upon information contained in informal documentation and failing to recognize that the work evolution, as planned, constituted a condition prohibited by Technical Specification LCO 3.6.3.

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

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

REPORTABILITY / ANALYSIS

This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B) in that a primary containment isolation valve was left open and inoperable for a time period in excess of Technical Specification LCO 3.6.3 ACTION a. allowable time during a work evolution on the valve. This event had minimal safety significance. The Core Spray full flow test valve is a single primary containment isolation valve associated with piping that penetrates the primary containment, but which is not directly connected to the primary containment atmosphere or the reactor coolant pressure boundary. The redundant isolation boundary for this primary containment penetration is the closed system associated with the penetration. Since this piping line penetrates the primary containment below the normal water level of the suppression pool, it remains water sealed post accident and, therefore, does not constitute a primary containment leakage path. As long as the water seal is maintained, the primary containment function can be maintained regardless of the position of the subject primary containment isolation valve. Maintenance of the water seal was assured during the time the valve was inoperable through control of the closed system. This was achieved by maintaining appropriate administrative control over boundary valves associated with the closed system. In addition, the Emergency Operating Procedures require action to be taken if suppression pool water level is less than 22 feet. The capability exists to make up water to the suppression pool from the condensate storage tank or the spray pond. The condition did not constitute a functional failure of the primary containment system since its function would have been maintained regardless of the position of the subject valve. As such, there were no consequences or compromises to public health and safety as a result of this event or the previous three similar events.

In accordance with the guidelines provided in NUREG-1022, Supplement 1, Items 14.1 and 14.5, the required submission date for this report was determined to be September 12, 1996.

CORRECTIVE ACTIONS

A formal interpretation was processed through the Technical Specification Interpretation program to ensure compliance with the requirements of Technical Specification LCO 3.6.3 ACTION a. The personnel involved with the incorrect interpretation, failure to process the interpretation through the TSI program, reliance upon informal documentation and failing to recognize the non-compliance with Technical Specification LCO 3.6.3, were appropriately counseled on the significance of the event.

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

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

Actions to prevent recurrence include:

- Defining and documenting the "closed systems" used as second primary containment isolation penetration boundaries for containment penetrations with only one containment isolation valve at Susquehanna;
- Defining and documenting the testing requirements for any "closed system";
- Defining and documenting acceptable methods of altering the boundary of a "closed system" ;
- Reviewing the containment systems section of Susquehanna's Improved Technical Specifications submittal to ensure consistency;
- Performing a review to ensure that adequate controls and review requirements are in place for the use of engineering directions via memos, letters and other methods of information exchange in operation of the station; and
- Performing a review to ensure that no generic issue exists in using informal interpretations of Technical Specifications in lieu of the formal TSI program.

ADDITIONAL INFORMATION

Failed Component Identification: None

Past Similar Events: None identified.