

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9008090421 DOC. DATE: 90/08/06 NOTARIZED: NO DOCKET #
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387
 AUTH. NAME AUTHOR AFFILIATION
 DAVIS, S.E. Pennsylvania Power & Light Co.
 STANLEY, H.G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-023-01: on 881108, openings found through fire rated barriers.

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.

NOTES: LPDR 1 cy Transcripts. 05000387

	RECIPIENT ID CODE/NAME	COPIES	L	T	R	ENCL	RECIPIENT ID CODE/NAME	COPIES	L	T	R	ENCL
	PD1-2 LA	1		1			PD1-2 PD	1		1		
	THADANI, M	1		1								
INTERNAL:	ACNW	2		2			ACRS	2		2		
	AEOD/DOA	1		1			AEOD/DSP/TPAB	1		1		
	AEOD/ROAB/DSP	2		2			NRR/DET/ECMB 9H	1		1		
	NRR/DET/EMEB9H3	1		1			NRR/DLPQ/LHFB11	1		1		
	NRR/DLPQ/LPEB10	1		1			NRR/DOEA/OEAB11	1		1		
	NRR/DREP/PRPB11	2		2			NRR/DST/SELB 8D	1		1		
	NRR/DST/SICB 7E	1		1			NRR/DST/SPLB8D1	1		1		
	NRR/DST/SRXB 8E	1		1			REG-FILE 02	1		1		
	RES/DSIR/EIB	1		1			RGN1 FILE 01	1		1		
EXTERNAL:	EG&G BRYCE, J.H	3		3			L ST LOBBY WARD	1		1		
	LPDR	1		1			NRC PDR	1		1		
	NSIC MAYS, G	1		1			NSIC MURPHY, G.A	1		1		
	NUDOCS FULL TXT	1		1								
NOTES:		2		2								

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION
 LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTR 36 ENCL 36

A10-4

R
I
D
S
/
A
D
S
/
A
D
S
/
A
D
S



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

August 6, 1990

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 88-023-01
FILE R41-2
PLAS - 436

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

Attached is Licensee Event Report 88-023-01. This is an update to LER 88-023-00 which was reported per 10CFR50.73(a)(2)(i)(B), in that openings were discovered through fire rated barriers with no compensatory measures in place per Technical Specification 3.7.7.

H.G. Stanley
Superintendent of Plant - Susquehanna

SED/cmm

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

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



9008090421 900806
PDR ADOCK 05000387
S PDC

IE22

111



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	PAGE (3) 1 OF 0 3
---	---	-----------------------------

TITLE (4)
Openings found through fire rated barriers

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)										
1	1	08	8	8	0	2	3	0	1	0	8	0	6	9	0	0	0	0	3	8	8
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																					

OPERATING MODE (9) 1	POWER LEVEL (10) 1.010	<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"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(i)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(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)(vii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 50.73(a)(2)(ix)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A)
--------------------------------	----------------------------------	------------------------------------	--	---	--	---	--	------------------------------------	---	---	---	--	---	---	---	---	--	-----------------------------------	-----------------------------------	---

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME S. E. Davis - Site Fire Protection Engineer	AREA CODE 7 1 7 5	NUMBER 4 2 1	EXTENSION 3 9 1 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
<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 November 8, 1988, with Unit 1 at 100% power and Unit 2 at 100% power, it was discovered during scaffold erection that openings exist through the three-hour fire rated barriers between Diesel Generator Bays A and C, C and B, and B and D. A nonconformance report (NCR) was generated. The openings exist where "she-bolts" and their tie rods have been removed from the walls. She-bolts and tie rods were used during construction as form ties on the form work for the concrete walls and were normally left embedded in the walls. Upon notification of the openings in the walls, the required compensatory actions were implemented per Technical Specification 3.7.7. As the exact date when these openings came to exist cannot be determined, it was assumed that this condition had existed since construction and this occurrence was reported per 10CFR50.73(a)(2)(i)(B) on December 19, 1988. The openings were sealed to provide a three hour fire rated barrier in accordance with the disposition of the non-conformance report.

During performance of SM-013-013, 18 Month Inspection of the Common Building Fire Barriers, on 7-9-90, one (1) one inch "she-bolt" hole was found through the wall between the "A" and "C" Diesel Generator bays. This hole appears to have been missed during the corrective actions repairs made under the NCR and was sealed on 07-26-90.

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		
		8 8	- 0 2 3	- 0 1	0 2	OF 0 3

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

DESCRIPTION OF EVENT

On November 8, 1988 with Unit 1 at 100% power and Unit 2 at 100% power it was discovered during scaffold erection that openings exist through the three hour fire rated barriers between Diesel Generator Bays A and C, C and B, and B and D. The openings exist where "she-bolts" and their tie rods have been removed from the walls. She-bolts and tie rods were used during construction as form ties on the form work for the concrete walls and were normally left embedded in the walls. Walkdowns were performed, corrective action taken, and the NCR was closed.

During performance of SM-013-013, 18 Month Inspection of the Common Building Fire Barriers, on July 9, 1990, one (1) one inch "she-bolt" hole was found unsealed in the wall between the A and C Diesel Generator Bays.

CAUSE OF THE EVENT

The cause of the event could not be directly determined, however, it is apparent that construction personnel error was involved in that the holes were not filled during construction and that this deficiency was not identified during the performance of SM-113-010, "18 Month Inspection of Fire Barriers and Penetration Seals". It appears that sometime since construction of the walls some of the she-bolts and tie bars have been removed. Discussions with construction personnel have indicated that standard practice during construction of this building was to repair only holes in high traffic areas and areas which were to receive epoxy coatings. The specific areas identified did not meet that criteria therefore, the subject holes were not repaired during construction. This personnel error was not a cognitive error and was contrary to an approved Engineering Specification and an approved surveillance procedure.

The additional hole discovered on July 9, 1990 was apparently overlooked during the previous repairs. This particular hole was shielded by a Motor Control Center (MCC) on one side of the wall and was open on the other side. With the MCC providing a solid stop on one side of the hole and the absence of light passing through the hole, previous inspectors may have believed the hole did not pass all the way through the wall.

REPORTABILITY/ANALYSIS

On November 16, 1988 this event was determined to be reportable per 10CFR50.73(a)(2)(i)(B) in that these holes passed through fire rated barriers (which are required to satisfy Technical Specification 3.7.7) with no compensatory measures in place. The original event caused no safety consequences or compromise to public health or safety. Had a fire occurred on either side of the fire barrier, the possibility of smoke and hot gases



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			
		8 8	0 2 3	0 1	0 3	OF	0 3

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

spreading to the adjoining fire area existed. The probability of the fire spreading to the adjoining fire area, however, is minimal due to the small size of the holes (1½" to ¾") through the 24 inch thick reinforced concrete wall.

The one additional hole which was overlooked was also determined reportable per the same paragraph in that from 05-31-90 closure of the NCR until 07-02-90, no compensatory measures (i.e. firewatches) were in place.

CORRECTIVE ACTIONS

Upon discovery of the holes, an NCR was initiated to document the discrepancy and the required compensatory actions per Technical Specification 3.7.7 were implemented (hourly firewatch patrol with operable detection in the area). The openings were sealed to provide a three hour fire rating for the fire barrier in accordance with the disposition of the NCR and the NCR was closed on 05-31-90.

The additional hole found unsealed during surveillance SM-013-013 was sealed on 07-26-90. The scope of this surveillance included a complete inspection of the exposed surfaces of each structural fire barrier between each of the Diesel Generator bays, as well as other common plant buildings covered under Technical Specification 3.7.7. No other openings were identified during this surveillance.

ADDITIONAL INFORMATION

Failed Component: None

Previous Similar Events: The below listed LERs identify conditions where unsealed openings were found through fire rated barriers.

- 1-84-046-00
- 1-87-009-00
- 1-87-011-00
- 2-84-026-00

