

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8908300292      DOC. DATE: 89/08/25      NOTARIZED: NO      DOCKET #  
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvania      05000387  
 AUTH. NAME      AUTHOR AFFILIATION  
 MCGANN, D.F.      Pennsylvania Power & Light Co.  
 BYRAM, R.G.      Pennsylvania Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 89-021-00: on 890726, mis-labeled damper position resulted in alignment prohibited by Tech Specs.

W/8      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: LPDR 1 cy Transcripts.

05000387 /

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	
	PD1-2 LA	1 1	PD1-2 PD	1 1	
	THADANI, M	1 1			
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2	
	ACRS WYLIE	1 1	AEOD/DOA	1 1	
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2	
	DEDRO	1 1	IRM/DCTS/DAB	1 1	
	NRR/DEST/CEB 8H	1 1	NRR/DEST/ESB 8D	1 1	
	NRR/DEST/ICSB 7	1 1	NRR/DEST/MEB 9H	1 1	
	NRR/DEST/MTB 9H	1 1	NRR/DEST/PSB 8D	1 1	
	NRR/DEST/RSB 8E	1 1	NRR/DEST/SGB 8D	1 1	
	NRR/DLPQ/HFB 10	1 1	NRR/DLPQ/PEB 10	1 1	
	NRR/DOEA/EAB 11	1 1	<del>NRR/DREP/RPB 10</del>	2 2	
	NUDOCS-ABSTRACT	1 1	<del>REG-ELLE 02</del>	1 1	
	RES/DSIR/EIB	1 1	RGN1 FILE 01	1 1	
EXTERNAL:	EG&G WILLIAMS, S	4 4	FORD BLDG HOY, A	1 1	
	L ST LOBBY WARD	1 1	LPDR	1 1	
	NRC PDR	1 1	NSIC MAYS, G	1 1	
	NSIC MURPHY, G. A	1 1			

NOTES:      2      2

FULL TEXT CONVERSION REQUIRED  
 TOTAL NUMBER OF COPIES REQUIRED: LTTR      42      ENCL      42

A1041



Pennsylvania Power & Light Company

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

August 25, 1989

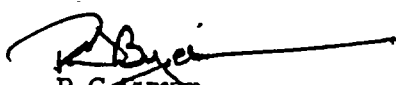
U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 89-021-00  
FILE R41-2  
PLAS -378

---

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

Attached is Licensee Event Report 89-021-00. This event was determined reportable per 10CFR50.73(a)(2)(i)(B) in that a mis-labeled manual isolation damper (OPEN and CLOSED positions) resulted in a system alignment prohibited by the Technical Specifications. The mis-labeling was discovered on July 26, 1989.

  
R.G. Byran  
Superintendent of Plant - Susquehanna

DFM/mjm

cc: Mr. W.T. Russell  
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

8908300292 890825  
PDR ADUCK 05000387  
S FDC

JE22  
11

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
--	--	----------------------------

TITLE (4)  
Mis-Labelled Damper Position Resulted in Alignment Prohibited by Tech Specs

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   7	2   6	8   9	8   9	0   2   1	0   0	0   8	2   5	8   9	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   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 365A)						
	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 Daniel F. McGann, Compliance Engineer	TELEPHONE NUMBER 7   1   7   5   4   2   -   3   2   4   1
---	---

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)

On July 26, 1989, with both Unit 1 and Unit 2 in Condition 1 at 100% power, plant personnel, consisting of a System Engineer and contract technicians, were in process of reconfirming the Reactor Building Heating, Ventilating and Air Conditioning (HVAC) system air flow balance. During this evolution, they discovered that a manual isolation damper, XD-17513, had OPEN and CLOSED position labeling reversed from actual damper position. This damper is required to be closed to maintain isolation of the Rx Bldg Zone III (common refueling floor) HVAC system from outside atmosphere, and from Zone 1 (Unit 1 Rx Bldg) during several plant evolutions, including fuel and material receipt. During its installation in January 1984, the damper OPEN and CLOSED positions were not adequately labeled. Temporary labeling affixed, as well as permanent labeling applied in September 1987, was opposite to actual damper position. Following discovery, actual damper position was verified by opening the duct and visually inspecting the damper blades. The position labels were then corrected. Nuclear Plant Engineering has evaluated the potential effects of having XD-17513 in the incorrect position, on both Main Control Room and offsite dose rates calculated during postulated accident scenarios. This evaluation shows that dose rates would remain less than the conservative limits defined in 10CFR100 and 10CFR50 Appendix A.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

DESCRIPTION OF EVENT

On July 26, 1989, with both Unit 1 and Unit 2 operating in Operational Condition 1 at 100% power, plant personnel were performing a re-confirmation of the Reactor Building Heating, Ventilating, and Air Conditioning (HVAC; EIIS Code: VA) Zone III system air flow balance. Zone III HVAC encompasses the common refueling floor for Units 1 and 2. During normal operating situations, this area includes the Railroad Access Bay and is separated from Unit I Rx Bldg (Zone I) HVAC areas by removable walls.

Whenever station activities, such as fuel receipt or material/equipment movements, require opening of the Railroad Access Bay Door to outside atmosphere, or removal of the walls separating Zone III from Zone I, manual isolation dampers XD-17513 and XD-17514 must be closed. With these dampers closed, the Railroad Access Bay is no longer part of Zone III ventilation, and Technical Specifications 3.6.5.1 allow opening of the Railroad Access Bay Door or wall removal.

The air flow balancing was being re-confirmed in response to apparently higher than normal differential air pressures in the Reactor Building as reported by station personnel on routine tours. Contract technicians were performing the balancing measurements under the direction of the System Engineer (utility; non-licensed). While measuring pressures in the duct at XD-17513, the technicians observed anomalous readings for the status of the damper (indicating open).

The System Engineer was contacted and joined the technicians to investigate. These personnel were also joined by a Nuclear Plant Operator (utility; non-licensed) who had been dispatched to the area to close XD-17513 to support fuel receipt, which was to occur the following day.

By manipulating the damper and measuring pressures, it was determined that XD-17513 was in fact labelled incorrectly and OPEN and CLOSED positions of the damper were reversed.

CAUSE OF EVENT

Manual isolation damper XD-17513 was installed as part of a plant modification on January 29, 1984. During installation, the damper OPEN and CLOSED positions were inadvertently not labeled. A statement added to the installation document after the physical work was completed provided instruction that the damper is closed when the handle is down. This statement was consistent with actual damper position, but was not translated into correct labelling. At some point in time (undetermined) after 1-29-84, the damper positions were temporarily labeled opposite to that stated in the installation work document. The mislabeling was apparently influenced by scribe marks on a collar around the

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Unit 1 Susquehanna Steam Electric Station	DOCKET NUMBER (2)  0   5   0   0   0   3   8   7   8   9	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		19	021	06	03	OF 04

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

damper shaft which were 90 degrees offset, with respect to the damper blades. The dampers blade are located inside ductwork and are not visible from outside of the duct by anyone operating the damper.

In September of 1987, the damper positions were permanently labeled. However, the permanent labels were apparently applied based on the same scribe mark indication used for the temporary labels. As such, the permanent labels were also offset from actual damper position.

It must be noted that, due to the relatively small design flow for this duct, the mislabeled damper did not perturb normal system operation to any noticeable degree and could therefore go undetected.

REPORTABILITY/ANALYSIS

This event was determined reportable per 10CFR50.73(a)(2)(i)(B) in that a mis-labeled manual isolation damper (OPEN and CLOSED position indications) could result in a Reactor Building HVAC system alignment which is not allowed by Technical Specifications to exist for more than four hours. (Reference Technical Specification 3/4.6.5.1). With the mislabeled condition described above, XD-17513 was actually open during times it was believed to be closed. As such, it is assumed that this condition has existed at times in the past for periods of greater than four hours. This would be an operation prohibited by Tech Specs.

The safety consequences of this condition were minimal. This was confirmed by analysis performed by Nuclear Plant Engineering. The analysis concluded that no 10CFR100 offsite dose limits or control room dose limits of 10CFR50 Appendix A, General Design Criterion 19, would have been exceeded in the event of a DBA with XD-17513 in the open position with the Railroad Access Bay Door open to outside atmosphere.

CORRECTIVE ACTIONS

Following discovery, the actual damper positions of XD-17513 were verified by entering the duct and visually examining the damper blades. The damper position labels were corrected. Labeling of XD-17514 was verified to be correct.

Although the safety consequences of this occurrence were minimal, Susquehanna is implementing comprehensive actions to assure no other instances of this type could impact plant operations. The Plant Engineering Group is performing a complete system review (walkdown as necessary) of Susquehanna HVAC dampers, damper position indication and position labeling. Any discrepancies will be identified and corrective action plans developed for each case. The Reactor

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

TEXT (If more space is required, use additional NRC Form 305A's) (17)

Building HVAC system review has been completed with no discrepancies identified.

Plant labeling methodologies, including how Plant Labeling Program labeling request form information and actual position/status of plant components is verified during label application, as well as labeling performed during modifications, are being evaluated.

ADDITIONAL INFORMATION

Failed Component Identification: Not applicable.

Previous Similar Events: None identified.