

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8706230504 DOC. DATE: 87/06/17 NOTARIZED: NO DOCKET #
 FACIL: 50-387, Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387
 AUTH. NAME AUTHOR AFFILIATION
 WALLEN, C. L. Pennsylvania Power & Light Co.
 BYRAM, R. G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-017-00: on 870519, unplanned ESF actuations occurred during standby gas treatment banana jack replacement. Caused by personnel error. Personnel instructed in understanding of total sys logic. W/S ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE 3
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 1cy NMSS/FCAF/PM. LPDR 2cys 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
	AEOD/DOA	1 1	AEOD/DSP/ROAB	2 2
	AEOD/DSP/TPAB	1 1	DEDRO	1 1
	NRR/DEST/ADE	1 0	NRR/DEST/ADS	1 0
	NRR/DEST/CEB	1 1	NRR/DEST/ELB	1 1
	NRR/DEST/ICSB	1 1	NRR/DEST/MEB	1 1
	NRR/DEST/MTB	1 1	NRR/DEST/PSB	1 1
	NRR/DEST/RSB	1 1	NRR/DEST/SGB	1 1
	NRR/DLPQ/HFB	1 1	NRR/DLPQ/GAB	1 1
	NRR/DOEA/EAB	1 1	NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	1 1
	NRR/PMAS/PTSB	1 1	REG FILE 02	1 1
	RES DEPY GI	1 1	RGNI FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	2 2	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1
NOTES:		3 3		

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 2
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TITLE (4)
Standby Gas Treatment Banana Jack Replacement Unplanned ESF Actuation

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	1987	87	017	00	06	17	87	SSES Unit II		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)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	73.71(b)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	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)				
	20.405(a)(1)(iii)	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)(ix)				

LICENSEE CONTACT FOR THIS LER (12)

NAME Craig L. Wallen - Compliance Evaluator	TELEPHONE NUMBER
	AREA CODE: 7 1 7 5 4 2 - 3 2 4 2

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)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

ABSTRACT

On May 19, 1987 with Units 1 and 2 operating at 100% power, station personnel, while replacing non-rated Banana Jacks with E1175 Adapters by Pomona Electronics in a heating and ventilation control panel, caused unplanned Engineered Safety Feature (ESF) Actuations when Zone III Heating Ventilating and Air Conditioning (HVAC) dampers isolated, Recirculation Fan "A" and Control Room Emergency Outside Air Supply System (CREOASS) Fan A started. Standby Gas Treatment (SBGT) Train A was in manual operation for post maintenance testing and therefore did not auto start.

The cause of this event was personnel error in not recognizing the necessary blocking required to prevent unexpected ESF Actuations. The work plan correctly recognized that the Banana Jack Replacement would cause the XY07553A relay to de-energize. It was erroneously thought, however that the impact of placing the XY07553A relay in the de-energized state would be to cause a SBGT Auto Initiation only and with SBGT already running an ESF Actuation would not occur.

All work was immediately stopped, the systems returned to normal and appropriate personnel instructed in the understanding of total system logic.

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PDR ADUCK 05000387
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

DESCRIPTION OF EVENT

On May 19, 1987 with Units 1 and 2 operating at 100% power, unplanned Engineered Safety Feature (ESF) actuations occurred; Zone III Heating, Ventilating and Air Conditioning (HVAC) dampers isolated, Recirculation Fan "A" (both EIIS Code:VA) and Control Room Emergency Outside Air Supply System (CREOASS) Fan A (EIIS Code: BH) initiated when plant personnel were replacing a non-rated Banana Jack with an E1175 Adapter by Pomona Electronics in heating and ventilation control panel 0C681. Standby Gas Treatment (SBGT) Train "A" was in manual operation for post maintenance testing and therefore did not auto start. The work plan stated SBGT Train "A" was required to be operating to have the XY07553A (Zone III Isolation Signal Lockout Relay) tripped.

CAUSE OF EVENT

The cause of this event was personnel error in not recognizing the necessary blocking required to prevent unexpected ESF Actuations. The work plan correctly recognized that the Banana Jack Replacement would cause the XY07553A relay to de-energize. It was erroneously thought, however that the impact of placing the XY07553A relay in the de-energized state would be to cause a SBGT Auto initiation only and with SBGT already running an ESF Actuation would not occur. In actuality, deenergization of the XY07553A not only causes an automatic SBGT initiation, but also causes Zone III HVAC damper isolation and initiation signals for the CREOASS and Recirc fans. When the non-rated Banana Jack was removed for replacement and the normally energized circuit was interrupted XY-07553A tripped, Recirc Fan "A" started, Zone III HVAC Div 1 isol dampers isolated (EIIS Code:VA) and "A" CREOASS fan initiated (EIIS Code:BH). "A" SBGT was already running and therefore did not auto start.

REPORTABILITY/ANALYSIS

This event was determined reportable per 10 CFR 50.73(a) (2) (iv) in that unplanned ESF actuations occurred. There were no safety consequences resulting from this event. This assessment is based on the fact that the recirc, HVAC isolation and CREOASS systems performed their intended function.

CORRECTIVE ACTION

All work was immediately stopped and the systems returned to normal. To confirm proper system operation, a manual isolation via XY07553A relay was performed by operations personnel to verify proper Zone III HVAC Div 1 isolation and was confirmed satisfactory. Actions to prevent recurrence included the training of all associated personnel to insure that proper understanding of total system logic is emphasized. The LER will be forwarded to Operations for inclusion in their O.J.T. discussions.

ADDITIONAL INFORMATION

There have been previous ESF Actuations involving relay XY07553A however, this is an isolated case as the Banana Jack Replacement is considered a one time changeout.



Pennsylvania Power & Light Company

P.O. Box 451 • Berwick, PA 18603-0451 • 717/542-2151

June 17, 1987

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 87-017-00
FILE R41-2
PLAS - 260

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

Attached is Licensee Event Report 87-017-00. This event was determined reportable per 10CFR50.73(a)(2)(iv) in that unplanned Engineered Safety Feature (ESF) Actuations occurred during maintenance on electrical systems associated with Standby Gas Treatment.

R. G. Byram for R6B

R. G. Byram
Superintendent of Plant - Susquehanna

CLW/cmw

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