

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8804270140 DOC. DATE: 88/04/21 NOTARIZED: NO DOCKET #
 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388
 AUTH. NAME AUTHOR AFFILIATION
 SHERANKO, R. Pennsylvania Power & Light Co.
 BYRAM, R.G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-007-00: on 880322, unplanned reactor protection sys
actuation caused by removal of incorrect fuse.

W/8 ltr.

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

NOTES: LPDR 2 cys Transcripts.

05000388

	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			A
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2	D
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1	D
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1	S
	ARM/DCTS/DAB	1 1	DEDRO	1 1	
	NRR/DEST/ADS 7E	1 0	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/QAB 10	1 1	NRR/DOEA/EAB 11	1 1	
	NRR/DREP/RAB 10	1 1	NRR/DREP/RPB 10	2 2	
	NRR/DRIS/SIB 9A	1 1	NRR/PMAS/ILRB12	1 1	
	<u>REG FILE</u> 02	1 1	RES TELFORD, J	1 1	
	RES/DE/EIB	1 1	RES/DRPS DIR	1 1	
	RGN1 FILE 01	1 1			
EXTERNAL:	EG&G GROH, M	4 4	FORD BLDG HOY, A	1 1	R
	H ST LOBBY WARD	1 1	LPDR	2 2	I
	NRC PDR	1 1	NSIC HARRIS, J	1 1	D
	NSIC MAYS, G	1 1			S
NOTES:		2 2			/

TOTAL NUMBER OF COPIES REQUIRED: LTTR 48 ENCL 47

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Susquehanna Steam Electric Station - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 1 8 8	PAGE (3) 1 OF 0 1 3
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TITLE (4)
Unplanned RPS Actuation Caused By Removal of Incorrect Fuse

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 3	2 2	8 8	8 8	0 0 7	0 0 0	4 2	1 8	8 8		0 5 0 0 0

OPERATING MODE (9) 5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)										
POWER LEVEL (10) 0 0 1 0	20.402(b)			20.405(c)			<input checked="" type="checkbox"/> 50.73(a)(2)(iv)			73.71(b)	
	20.405(a)(1)(i)			50.38(c)(1)			50.73(a)(2)(v)			73.71(c)	
	20.405(a)(1)(ii)			50.38(c)(2)			50.73(a)(2)(vii)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
	20.405(a)(1)(iii)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(A)				
	20.405(a)(1)(iv)			50.73(a)(2)(iii)			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 Robert Sheranko, Senior Results Engineer - Compliance							TELEPHONE NUMBER		
							AREA CODE 7 1 7		
							5 4 2 - 3 8 5 6		

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)

At 1950 on March 22, 1988, with the unit in Refueling with all fuel removed from the reactor vessel, the unit experienced a Reactor Protection System (RPS) actuation when an incorrect fuse was removed from service. The fuse was being removed as part of a personnel safety permit blocking and was done in accordance with applicable administrative procedures. Removal of the fuse resulted in an RPS Division I trip. Division II of RPS had already been tripped due to planned 24 VDC battery testing; thus, a full RPS actuation occurred. The fuse was reinstalled and the scram was reset.

Cause of the event was cognitive personnel errors. The person requesting the safety permit, the person completing the safety permit form and the person applying the blocking utilized an abbreviated fuse identification. None of these people realized the existence of more than one fuse in the panel with the same abbreviated fuse identification.

Applicable administrative procedures and instructions have been revised to require the specification of additional information on safety permit blocking requests which will uniquely identify the desired fuse.

Handwritten signature/initials

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

DESCRIPTION OF EVENT

At 1950 on March 22, 1988, the unit experienced a Reactor Protection System (RPS) (EIIIS: JC) actuation when an incorrect fuse was removed from service. At the time of the RPS actuation, the unit was in Refueling with all fuel removed from the reactor vessel. The fuse was being removed as part of a personnel safety permit blocking and was done in accordance with applicable administrative procedures. Removal of the fuse caused a low reactor water level signal and resulted in an RPS Division I trip. Division II of RPS had already been tripped due to planned 24 VDC battery testing; thus, a full RPS actuation occurred.

CAUSE OF EVENT

Cause of the event was cognitive personnel errors. Fuses on General Electric panels are identified by a system designator (Master Part List number) and fuse number. In this case, the desired fuse should have been identified as Fuse B21-F6A. The panel in which the fuse was located contained fuses for two systems. The Equipment Release Form (ERF) requesting the blocking provided insufficient information in that only an abbreviated fuse identification (F6A) was specified - the system designator was not specified. This ERF should not have been submitted to Operations personnel as written. The licensed utility operator transferring the blocking request from the ERF onto the safety permit failed to realize that the blocking being requested was located in a GE panel so only the abbreviated identification F6A was entered onto the permit. Note that this identification would probably have been sufficient for specifying a fuse in a non-GE panel. The non-licensed utility operator applying the blocking utilized the abbreviated fuse identification in locating the fuse. Neither he nor the other personnel involved in the incident recognized the existence of more than one fuse in the panel with the same abbreviated identification of F6A. The operator arbitrarily removed the wrong fuse.

ANALYSIS OF EVENT

This event was determined reportable per 10CFR50.73 (a) (2) (iv), in that an unplanned Engineered Safety Feature (ESF) actuation resulted when a full RPS actuation occurred. No control rod movements occurred, and none were required, since the reactor was defueled with all rods already fully inserted into the core.

There were no safety implications to the public during the occurrence nor would there have been if the occurrence took place during any other plant condition since the RPS actuated per design and operated properly. Removal of an incorrect fuse from a system other than RPS could result in the loss of the system's safety function or a part thereof or an unanticipated Engineered Safety Feature actuation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

TEXT (If more space is required, use additional NRC Form 368A's) (17)

CORRECTIVE ACTIONS

Following the full RPS actuation, the fuse was reinstalled and the scram was reset by Operations personnel. Applicable administrative procedures and instructions have been revised to require the specification of system designator (for fuses in General Electric panels) and fuse number, location and position on all requests for safety tagging. Additionally, management appointed a Task Team to review methodologies on preventing ESF actuations during plant outages. This Task Team review determined that the release of work items having the potential for causing ESF actuations will, whenever practicable, be released on only one division at a time. The insertion of a manual scram and/or isolations, whenever possible, is also being looked into.

ADDITIONAL INFORMATION

Failed component: None

Similar events: There have been similar events in which the incorrect fuse has been removed; however, none of these prior occurrences resulted in a reportable event or condition.

A full RPS actuation attributed to personnel error occurred on August 5, 1985. This incident was reported to the Commission in LER 85-023-00. The root cause of the August 5, 1985 incident was an inadvertent action by an I&C Technician during the performance of a surveillance test on the Feedwater Level Control System (EIIIS: JB).

LER 88-004-00 describes another RPS actuation attributed to personnel error which occurred on the same day (March 22, 1988) as the event described in this LER.



Pennsylvania Power & Light Company

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

April 21, 1988

Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 88-007-00
FILE R41-2
PLAS- 315

Docket No. 50-388
License No. NPF-22

Attached is a Licensee Event Report 88-007-00. This event was determined reportable per 10CFR50.73(a)(2)(iv), in that the Reactor Protection System actuated due to the removal of an incorrect fuse.

R.G. Byram
Superintendent of Plant Susquehanna

RGS/mjm

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

Mr. Frank Young
Sr. Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 52
Shickshinny, PA 18655

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