

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707070009 DOC. DATE: 87/06/30 NOTARIZED: NO DOCKET #
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvla 05000387
 AUTH. NAME AUTHOR AFFILIATION
 RYDER, T. S. Pennsylvania Power & Light Co.
 BYRAM, R. G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-020-00: on 870531, startup transformer T-10
 de-energized & various radiation monitors, chillers & other
 equipment tripped or isolated. Caused by lightning strike.
 Unit stabilized & affected sys restored. W/870630 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/DQA	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/QAB	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	RES TELFORD, J	1 1
	RES/DE/EIB	1 1	RGN1 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**

TITLE (4)
Loss of Startup Transformer T-10 due to Lightning Strike

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)	
05	31	87	87	020	00	06	30	87	SSES - Unit 2	0 5 0 0 0 3 8 8	
05	31	87	87	020	00	06	30	87		0 5 0 0 0	

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

OPERATING MODE (9)	1	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	60.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)	100	20.405(a)(1)(i)	60.38(c)(1)	<input type="checkbox"/>	60.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	60.38(c)(2)	<input type="checkbox"/>	60.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	60.73(a)(2)(i)	<input type="checkbox"/>	60.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	60.73(a)(2)(ii)	<input type="checkbox"/>	60.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	60.73(a)(2)(iii)	<input type="checkbox"/>	60.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
T. S. Ryder - Power Production Engineer	AREA CODE 7 1 7 5 4 2 - 3 2 3 5

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)

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)

On May 31, 1987 at 1905 hours, a lightning strike on the 230 KV offsite transmission system caused the Startup Transformer T-10 to de-energize. Bus 10 loads transferred to Bus 20 as designed. The momentary power loss to the Unit 1 and Unit 2 "A" and "C" Emergency Safeguards System buses caused a division I isolation of the Zone III Heating, Ventilation, and Air Conditioning System, Reactor Water Cleanup System isolations, loss of the "A" channels of the Reactor Protection System and an automatic start of the Standby Gas Treatment System. The power loss also caused a simultaneous scoop tube lockup for the "A" Reactor Recirculation Pump on each unit; Reactor Recirc Pump speed decreased slightly before locking up. Various radiation monitors, chillers, and other plant equipment also tripped or isolated due to the power interruption. The units were stabilized and the affected systems were restored as applicable.

8707070009 870630
PDR ADOCK 05000387
S PDR

IE22
11

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 8 7	SEQUENTIAL NUMBER 0 2 0	REVISION NUMBER 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 31, 1987 at 1905 hours, a lightning strike on the 230 KV offsite transmission system caused the Startup Transformer T-10 to de-energize. Bus 10 loads transferred to Bus 20 as designed. The momentary power loss to the Unit 1 and Unit 2 "A" and "C" Emergency Safeguards System buses caused a division I isolation of the Zone III Heating, Ventilation, and Air Conditioning System (EIIS Code: VA), Reactor Water Cleanup (RWCU, EIIS Code: CE) System isolation, loss of the "A" channels of Reactor Protection Systems (RPS, EIIS Code: JC), and an automatic start of the Standby Gas Treatment System (EIIS Code: BH) and Control Room Emergency Room Outside Air Supply Systems (EIIS Code: BH). The power loss also caused a simultaneous scoop tube lockup for the "A" Reactor Recirc Pump on each unit. Recirc Pump speed decreased slightly before locking up. Various radiation monitors, chillers, and other plant equipment also tripped or isolated due to the power interruption.

CAUSE OF EVENT

A lightning strike on the 230 KV offsite transmission system caused the Startup Transformer T-10 to de-energize. Bus 10 loads then transferred to Bus 20 as designed. The momentary power loss resulted in the various perturbations described above.

REPORTABILITY/ANALYSIS

This event was determined reportable per 10CFR50.73 (a) (2) (iv) in that unplanned Engineered Safety Feature (ESF) actuations occurred when Zone III HVAC and RWCU isolated and SGTS and CREOASS started. The ESF systems performed their intended functions and no safety consequences or compromise to public health or safety occurred.

CORRECTIVE ACTION

The Units were stabilized and the affected systems were restored as applicable.

ADDITIONAL INFORMATION

A review of past Licensee Event Reports (LER's) identified six previous occasions in which T-10 was lost resulting in ESF actuations. These events are documented in LER's 83-092, 84-028, 84-029, 85-035 and 86-028 (LER 86-028 covers two events in the one report).



Pennsylvania Power & Light Company

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

June 30, 1987

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

SUSQUEHANNA STEAM ELECTRIC STATION
~~LICENSEE EVENT REPORT 87-020-00~~
FILE R41-2
PLAS - 264

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

Attached is Licensee Event Report 87-020-00. This event was determined reportable per 10CFR50.73 (a) (2) (iv), in that multiple unplanned Engineered Safety Feature (ESF) actuations occurred when power was lost to Startup Transformer T-10.

A. J. Palmer for R.G.B.

R. G. Byram
Superintendent of Plant - Susquehanna

TSR/cmw

cc: Mr. William T. Russell
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Mr. Loren Plisco
Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 52
Shickshinny, PA 18655

IE22
11