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FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
AUTH.NAME AUTHOR AFFILIATION
RYDER,T.S. Pennsylvania Power & Light Co.
STANLEY,H.G. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-027-00:on 901120,discovered that deficiency found on 890126 is reportable re FSAR & TS 4-h load profiles for 250-volt dc battery sys.Caused by failure to incorporate guidance.Procedures revised.W/901219 ltr.

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TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:LPDR 1 cy Transcripts. 05000387

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	NRR/DST/SRXB 8E	1	1	RGN 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
	NRC PDR	1	1	NSIC MAYS,G	1	1
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NOTES:		2	2			

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December 19, 1990

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 90-027-00
FILE R41-2
PLAS - 463

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

Attached is Licensee Event Report 90-027-00. This report is being made pursuant to 10CFR50.73(a)(2)(v) in that a condition affecting the Unit 1 250 VDC battery system could have prevented the fulfillment of its safety function.

H.G. Stanley
Superintendent of Plant - Susquehanna

TSR/mjm

cc: Mr. T.T. Martin
Regional Administrator, Region I
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IE2

NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH 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.

LICENSEE EVENT REPORT (LER)

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

TITLE (4)

Incorrect Assumption Made for 250 VDC Battery Load Profiles

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 0 0 0
1 1	2 0	9 0	9 0	0 2 7	0 0	1 2	1 9	9 0		0 5 0 0 0

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1	0 3 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	X 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 366A)
		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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
T. S. Ryder - Power Production Engineer	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	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On January 26, 1989 a deficiency document was issued to report that the FSAR and Technical Specification four hour load profiles for the Unit 1 250 VDC battery system assumed that certain loads were removed from the battery at certain intervals prior to the four hours elapsed time. Review of plant systems revealed that these loads had no automatic trip features to remove them at the appropriate times. Additionally, no procedural controls existed to secure them manually. The cause of this event was due to failure to incorporate appropriate guidance to remove non-safety related loads from the Unit 1 250 VDC safety related batteries following a station blackout event subsequent to a loss of offsite power. This subject was reviewed at the time of discovery and it was determined not reportable as it did not constitute a significant condition outside the design basis. During a current review of deficiency documents, however, it was concluded that the condition, although corrected by procedural controls in place since February 9, 1989, constituted a reportable condition per 10CFR50.73(a)(2)(v). The procedural controls which were put in place ensured that the appropriate loads would be manually terminated at the required time during the period immediately following a station blackout event subsequent to a loss of offsite power.

DESCRIPTION OF EVENT

On January 26, 1989 a Significant Operating Occurrence Report (SOOR) was issued to report a discovered condition affecting the Unit 1 250 VDC battery system. The condition was discovered during the preparation of the design standard for Station Blackout Rule Compliance. Specifically, the FSAR and Technical Specification four hour load profiles assumed that certain non-safety related loads were removed from the battery at certain intervals. These loads are the Reactor Feed Pump Turbine (RFPT) Emergency Lube Oil Pumps 1P125A,B,C (EIIS Code: SL); Reactor Recirculation Motor Generator (MG) Set Emergency Lube Oil Pumps 1P155A,B (EIIS Code: AD); Main Turbine Generator Emergency Seal Oil Pump 1P110 and Emergency Bearing Oil Pump 1P112 (EIIS Code: TI and TD); and the Process Computer Power Supply. Review of plant systems revealed that the above loads had no automatic trip features to remove them at the appropriate times. Additionally, no procedural controls existed to secure them manually.

CAUSE OF EVENT

The cause of this event was due to failure to incorporate appropriate guidance to remove non-safety related loads from the Unit 1 250 VDC safety related batteries following a station blackout event subsequent to a loss of offsite power.

REPORTABILITY/ANALYSIS

As part of a comprehensive program to reduce the number and impact of identified deficiencies at SSES, a review of all open Nonconformance Reports (NCR's) was performed. A similar review of SOOR's has been completed. In addition to assessing significance, basis for continued operations, and adequacy of schedules for closure, a re-evaluation of the reportability determinations made was performed using current philosophy and NRC guidance. The above condition was deemed to meet thresholds such that had it had been discovered today, it would have been determined reportable. This subject was reviewed at the time and it was determined not reportable as it did not constitute a significant condition outside the design basis. It should also have been evaluated per 10CFR50.73(a)(2)(v) and 10CFR50.72(b)(2)(iii). The conclusion at this time is that although the condition has been corrected by procedural controls, its existence in the past constituted a reportable condition per 10CFR50.73(a)(2)(v) and 10CFR50.72(b)(2)(iii).

The safety significance of this event is that there would have been loads in excess of assumed load profiles on Unit 1 such that in case of a station blackout event subsequent to a loss of offsite power, battery banks 1D650 and 1D660 would not have lasted four hours as required. This alone could have prevented the fulfillment of the safety function of the 250 VDC battery system which is a support system for the High Pressure Cooling Injection (HPCI, EIIS Code: BJ) system. There was no impact to Unit 2 as a modification was completed on Unit 2 in 1982 which installed a non-safety related battery bank to carry non-essential loads.

In accordance with the guidance provided in NUREG 1022 Supplement 1, Item 14.1, the required submission date for this report was determined to be December 20, 1990.

CORRECTIVE ACTIONS

Plant Staff was notified on February 9, 1989 of the condition on Unit 1 and plant procedures ON-104-001, "Unit 1 Response to Loss of All Offsite Power", and EO-100-030, "Unit 1 Response to Station Blackout", were modified to provide the manual actions necessary to comply with the FSAR assumptions. These changes were completed on February 9, 1989 and ensure that the appropriate loads would be terminated at the required time during the period immediately following a station blackout event subsequent to a loss of offsite power.

ADDITIONAL INFORMATION

Failed Component Identification: Not applicable.

Previous Similar Events: Not applicable.