

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8803020196      DOC. DATE: 88/02/29      NOTARIZED: NO      DOCKET #  
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvania      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 87-003-01: on 870127, diesel generator declared inoperable due to diesel generator trip alarm investigation.

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

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	PD1-2 LA	1 1	PD1-2 PD	1 1	A
	THADANI, M	1 1			D
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2	D
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1	S
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1	
	ARM/DCTS/DAB	1 1	DEDRO	1 1	
	NRR/DEST/ADS7E4	1 0	NRR/DEST/CEB8H7	1 1	
	NRR/DEST/ESB 8D	1 1	NRR/DEST/ICSB7A	1 1	
	NRR/DEST/MEB9H3	1 1	NRR/DEST/MTB 9H	1 1	
	NRR/DEST/PSB8D1	1 1	NRR/DEST/RSB 8E	1 1	
	NRR/DEST/SGB 8D	1 1	NRR/DLPQ/HFB10D	1 1	
	NRR/DLPQ/QAB10A	1 1	NRR/DOEA/EAB11E	1 1	
	NRR/DREP/RAB10A	1 1	NRR/DREP/RPB10A	2 2	
	NRR/DRIS/SIB9A1	1 1	NRR/PMAS/ILRB12	1 1	
	<del>REG FILE</del> 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	5 5	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:		3 3			/

TOTAL NUMBER OF COPIES REQUIRED: LTTR 50 ENCL 49

LICENSEE EVENT REPORT (LER)

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

TITLE (4) **Diesel Generator Trip Alarm Investigation Necessitated Declaring One Diesel Generator Inoperable When a Second Diesel Generator Was Already Inoperable.**

EVENT DATE (5) **0 1 2 7 8 7 8 7** LER NUMBER (6) **0 0 3 0 1** REPORT DATE (7) MONTH DAY YEAR OTHER FACILITIES INVOLVED (8) **SSES - Unit 2** DOCKET NUMBER(S) **0 5 0 0 0 3 8 8**

OPERATING MODE (9) **1** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)  
20.402(b) 20.405(a)(1)(i) 20.405(a)(1)(ii) 20.405(a)(1)(iii) 20.405(a)(1)(iv) 20.405(a)(1)(v) 20.406(b) 50.38(c)(1) 50.38(c)(2) 50.73(a)(2)(i) 50.73(a)(2)(ii) 50.73(a)(2)(iii) 50.73(a)(2)(iv) 50.73(a)(2)(v) 50.73(a)(2)(vi) 50.73(a)(2)(vii) 50.73(a)(2)(viii)(A) 50.73(a)(2)(viii)(B) 50.73(a)(2)(ix) 73.71(b) 73.71(c) OTHER (Specify in Abstract below and in Text, NRC Form 366A)

LICENSEE CONTACT FOR THIS LER (12) NAME **T.S. Ryder - Power Production Engineer** TELEPHONE NUMBER **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 NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS
X	EIK	AININI	R121719	N	X	EIK	CINVI	R121719	N

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 January 27, 1987 at 0758 hours with the "B" Diesel Generator out of service for maintenance, the "A" Diesel Generator Trip Alarm was received in the control room. No alarms were lit at the "A" Diesel Generator local panel; this panel would not respond to an alarm test. The "A" Diesel Generator was declared inoperable at this time.

An investigation determined that the problem on the 'A' D/G was caused by failure of an input capacitor on an alarm flasher card. It was concluded that the input capacitor had reached the normal end of life expected for this device. This event was determined to be reportable per 10CFR50.73 (a) (2) (v), in that two diesel generators were declared inoperable, one being out of service for maintenance and another placed in local control to investigate receipt of a diesel generator trip alarm in the control room. The safety analysis for Susquehanna requires three OPERABLE D/G's and under the above circumstances only two diesels were OPERABLE. Except during the brief period when placed in local control, the "A" D/G would still have performed its safety function which would not be affected by the failed components. Maintenance work was stopped on the "B" D/G and it was returned to OPERABILITY at 1600 hours on the day of the event. The failed components were replaced on the "A" D/G and proper annunciator operation was successfully tested. The "A" D/G was returned to OPERABILITY at 1945 hours the same day.

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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 8   7	SEQUENTIAL NUMBER -   0   0   3	REVISION NUMBER -   0   1	0   2	OF 0   2

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

DESCRIPTION/CAUSE OF EVENT

On January 27, 1987 at 0758 hours with both units in condition 1 at 100% power and with the "B" Diesel Generator (D/G EIIS Code: EK) out of service for maintenance, the "A" D/G Trip Alarm was received in the control room. No alarms were lit at the "A" D/G local panel; this panel would not respond to an alarm test. Since the "B" D/G was already inoperable at this time due to maintenance activities, and investigation of the "A" D/G would require taking it to local control thereby placing a second D/G in inoperable status, a Limiting Condition for Operation (LCO) was entered in accordance with Technical Specification 3.8.1.1. An investigation determined that the problem on the "A" D/G was caused by failure of an input capacitor on an alarm flasher card (Component Function Identifier: ANN). This caused subsequent failure of three (3) DC-DC converters (Component Function Identifier: CNV), a lamp circuit diode and fuses. It was concluded that the input capacitor had reached the normal end of life expected for this device.

Reportability

This event was determined to be reportable per 10CFR50.73 (a) (2) (v), in that two diesel generators were declared inoperable, one being out of service for maintenance and another placed in local control to investigate receipt of a diesel generator trip alarm in the control room. The safety analysis for Susquehanna requires three OPERABLE D/G's and under the above circumstances only two diesels were OPERABLE. Except during the brief period when placed in local control, the "A" D/G would still have performed its safety function even with the failed components in that its emergency start and run capability were not affected. The start and run control logic power is segregated in the D/G control system to the extent necessary to assure safety function performance.

Corrective Actions

Maintenance work was stopped on the "B" D/G and it was returned to OPERABILITY at 1600 hours on the day of the event. The failed components were replaced on the "A" D/G and proper annunciator operation was successfully tested. The "A" D/G was returned to OPERABILITY at 1945 hours the same day.

Additional Information

Failed Component Identification:

- 1) Component-Alarm Flasher Card  
Manufacturer - The Riley Co., Panalarm Div.  
Model - 75B68
  
- 2) Component - DC-DC Converter  
Manufacturer - The Riley Co., Panalarm Div.  
Model - 75-PCD-25

Previous Similar Events:

None



**Pennsylvania Power & Light Company**

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February 29, 1988

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

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 87-003-01  
FILE R41-2  
PLAS - 304

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

Attached is Licensee Event Report 87-003-01. This is an update to an event determined reportable per 10CFR50.73 (a) (2) (v), in that two diesel generators were declared inoperable, one being out of service for maintenance and another placed in local control to investigate receipt of a diesel generator trip alarm in the Control Room.

R. G. Byram  
Superintendent of Plant - Susquehanna

TSR/mjm

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