

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) 1 OF 0 1 2
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TITLE (4)
Three Diesel Generators Declared Inoperable.

EVENT DATE (6)			LER NUMBER (5)			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	2 0	8 5	8 5	0 2 1	0 1	0 6	0 9	8 6	SSES - Unit 2		0 5 0 0 0 3 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 0	20.402(b)	20.406(e)	50.73(a)(2)(iv)	73.71(b)						
	20.406(a)(1)(i)	50.36(a)(1)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)	73.71(c)						
	20.406(a)(1)(ii)	50.36(a)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 356A)						
	20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)							
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)							
20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)									
NAME T. N. Creasy							TELEPHONE NUMBER 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 NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	
X	E K	2	A 1 0 9	N						

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 1600 on May 20, 1985, the 'A', 'C', and 'D' Diesel Generators were declared inoperable as a result of four loading sequence relay timers not operating within their respective allowable time settings during surveillance testing. A Limiting Condition for Operation (LCO) was declared at that time on both Unit 1 and 2 since the diesel generators are a common system. At the time of the event Unit 1 was shutdown in the refueling mode and Unit 2 was operating at approximately 80% power. Work Authorizations were initiated to time and reset the relay timers within the required tolerances. The Diesel Generators were returned to operable status within the allowable time frame of the applicable Technical Specification Action Statement and the LCO was cleared on Unit 1 at 1915 and on Unit 2 at 2000 on May 20, 1985.

A review of the surveillance strip charts for each Diesel Generator revealed that the failure of the timing relays would have had no adverse effect on the associated Diesel Generator performing its designed safety function.

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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 5	SEQUENTIAL NUMBER 0 2 1	REVISION NUMBER 0 1	0 2	OF 0 2

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

Analysis of data recorded during the performance of 18 Month Diesel Generator (EK) Surveillances determined that four loading sequence timer relays did not operate within their respective allowable time settings. The four timer relays were 62A-20102, 62X1-20304, 62X2-20310, and 62X2-20410. At 1600 on May 20, 1985, the 'A', 'C', and 'D' Diesel Generators were declared inoperable and a Limiting Condition for Operation (LCO) was declared on both Unit 1 and Unit 2 since the diesel generators are a common system. At the time of the event Unit 1 was shutdown in the refueling mode and Unit 2 was operating at approximately 80% power.

Relay timer 62A-20102 starts the 1A Residual Heat Removal (BO) pump on the 'A' Diesel Generator and is set at 3 ± 0.3 seconds. When the surveillance was performed, the timer was measured at 3.4 seconds using a calibrated stop watch. A Work Authorization (WA) was initiated to reset the timer within the allowable tolerance. The timer was checked using a Multi-Amp Timer and measured a setting of 3.24 seconds which is within the allowable tolerance. The relay setting was adjusted closer to 3.0 seconds and was verified three times to be within the tolerance. A review of the surveillance strip charts determined that the 'A' Diesel Generator voltage and frequency were sufficient to support the pump start if it had occurred during the specified time period.

Relay timer 62X1-20304 controls a 22KW Control Structure Chilled Water (KM) system load on the 'C' Diesel Generator and is set at 180 ± 18 seconds. During the surveillance test, it timed out at 200 seconds. A WA was initiated to time the relay independently, but the relay would not pickup when energized. A new relay timer was installed and calibrated under the WA. A review of the surveillance strip charts for the 'C' Diesel Generator voltage, frequency, and load determined that the timing of this 22KW load would have no impact on the 'C' Diesel Generator's ability to perform its function. The faulty relay was an Agastat, Model E7012PF002.

Relay timer 62X2-20310 ensures that the 'A' Control Structure Chiller will not restart until at least 180 ± 18 seconds after the 'C' Diesel Generator has re-energized the bus. Relay timer 62X2-20410 ensures that the 'B' Control Structure Chiller will not restart until at least 180 ± 18 seconds after the 'D' Diesel Generator has re-energized the bus. In order to time the relays during the surveillance test, a temporary light was connected across one set of contacts on each relay to monitor the relay status. During the test the lights never illuminated. Two WA's were initiated to time the relays independently, and both were found to be within tolerance. A thorough review of the design and additional trouble shooting revealed no reason why the test method used in the surveillance tests would not work. The 18 Month Diesel Generator Surveillances were performed again in April 1986. Both test lights illuminated as intended and demonstrated relays 62X2-20310 and 62X2-20410 had the correct time settings.

The Diesel Generators were returned to operable status within the allowable time frame of the applicable Technical Specification Action Statement and the LCO was cleared on Unit 1 at 1915 and on Unit 2 at 2000 on May 20, 1985.



Pennsylvania Power & Light Company

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SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 85-021-01
FILE R41-2
PLAS- 179

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

Attached is updated Licensee Event Report 85-021-01. This event was determined reportable per 10CFR50.73 (a) (2) (v), in that three diesel generators were declared inoperable due to loading sequence timer relay settings being outside of allowable tolerance. This update is being provided to correct an error made in the original report.

T.M. Crimmins, Jr.
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TNC/cdn

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