

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Susquehanna Steam Electric Station - Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 3 8 8 1 OF 0 2

PAGE (3)

TITLE (4)
Four Spurious ESF Actuations (SBGT and CREOASS).EVENT DATE (5)
MONTH DAY YEAR
0 7 0 5 8 4 8 4
LER NUMBER (6)
YEAR SEQUENTIAL NUMBER REVISION NUMBER
0 1 1 0 0 0 8 0 3 8 4
REPORT DATE (7)
MONTH DAY YEAR
0 5 0 0 0 3 8 8
OTHER FACILITIES INVOLVED (8)
FACILITY NAMES
SSES - Unit 1
DOCKET NUMBER(S)
0 5 0 0 0 3 8 1 7
0 5 0 0 0 0 0 0 0 0OPERATING MODE (9)
3
POWER LEVEL (10)
0 1 0 0
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)
20.402(b) 20.406(e) X 60.73(a)(2)(iv) 73.71(b)
20.406(a)(1)(i) 60.36(a)(1) 60.73(a)(2)(v) 73.71(c)
20.406(a)(1)(ii) 60.36(a)(2) 60.73(a)(2)(vi) OTHER (Specify in Abstract below and in Text, NRC Form 386A)
20.406(a)(1)(iii) 60.73(a)(2)(i) 60.73(a)(2)(viii)(A)
20.406(a)(1)(iv) 60.73(a)(2)(ii) 60.73(a)(2)(viii)(B)
20.406(a)(1)(v) 60.73(a)(2)(iii) 60.73(a)(2)(ix)LICENSEE CONTACT FOR THIS LER (12)
NAME
L.A. Kuczynski - Nuclear Plant Specialist, III
TELEPHONE NUMBER
AREA CODE
7 1 1 7 5 1 4 2 1 - 1 3 1 7 1 5 1 9COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NPDOS
B J E B I K I R G I O 6 6 N
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NPDOSSUPPLEMENTAL 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 July 5 and 6, 1984, over the space of 26.5 hours, the station experienced four spurious actuations of the Standby Gas Treatment System and the Control Room Emergency Outside Air Supply System. They were all caused by a malfunctioning output breaker of the 'B' Reactor Protection System Motor-Generator set. The breaker was replaced and no further spurious actuation due to the breaker have occurred.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
Susquehanna Steam Electric Station Unit 2		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		0 5 0 0 0 3 8 8	4 - 0 1 1 - 0 0 0	2	OF	0	2

TEXT (If more space is required, use additional NRC Form 388A's) (17)

On July 5, 1984 at 2040, and July 6, 1984 at 1929, 2122, and 2305, the Standby Gas Treatment System (SBGT) and Control Room Emergency Outside Air Supply System (CREOASS) experienced unanticipated actuations. All actuations were initiated by false high radiation signals that occurred when the CB8B output breaker, fed from the Unit 2 Reactor Protection System (RPS) Motor Generator Set 'B', tripped. The CB8B breaker supplies power to the 2C611 panel which contains relays dedicated to the RPS channels 'B' and 'D' and Nuclear Steam Supply Shutoff System (NS4) Channels 'B' and 'D'. Designed as de-energize to operate (fail-safe) systems, the RPS and NS4 relays actuated on the loss of power. This provided the false high radiation signal which caused the SBGT and CREOASS initiation. The SBGT and CREOASS were returned to normal lineup as soon as the initiating signals were identified as being false. Unit 1 was in Operational Condition 4 at 0% power and Unit 2 was in Operational Conditions 3 (July 5) and 2 (July 6) with power at 2% or less during these occurrences.

Investigation of the CB8B breaker after the first trip on July 5 found the current and voltage to be within tolerance. After the three trips on July 6, the breaker was replaced with a spare of the same size, type, rating, and manufacturer. Further testing concluded that the breaker's minimum trip current was just barely within the manufacturer's trip curve. The breaker has been sent to the Franklin Institute Research Laboratory for further examination.

The SBGT and CREOASS responded properly during each initiation. Since the replacement of the faulty breaker, no further spurious actuations have occurred due to the breaker tripping. It is therefore concluded that the breaker was the cause for the spurious trips and is considered an isolated event. If these occurrences had happened with the Units in Operational Condition One, there is no reason to expect that the SGTS or CREOASS would have operated any differently. The SGTS and CREOASS responses were conservative and no adverse consequences were experienced by the station or the public.



Pennsylvania Power & Light Company

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

August 3, 1984

U.S. Nuclear Regulatory Commission
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SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 84-011-00
ER 100450 FILE 841-23
PLA- 2270

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

Attached is Licensee Event Report 84-011-00. This event was determined reportable per 10CFR50.73(a)(2)(iv), in that the station experienced four spurious actuations of the Standby Gas Treatment System and Control Room Emergency Outside Air Supply System over a period of 26.5 hours. The actuations all had a common cause, which was subsequently corrected.

H.W. Keiser
Superintendent of Plant-Susquehanna

LAK/pjg

cc: Dr. Thomas E. Murley
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Mr. R.H. Jacobs
Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 52
Shickshinny, PA 18655

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