

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
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TITLE (4)  
Unanticipated ESF Actuation (RWCU High Flow Isolation).

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 5	8 5	8 5	0 1	7	0 0	0 6	0 3	8 5			0 5   0 0   0 0
DOCKET NUMBER(S) 0 5   0 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)		20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)		73.71(b)			
	20.405(a)(1)(i)		50.38(c)(1)		50.73(a)(2)(v)		73.71(c)			
	20.405(a)(1)(ii)		50.38(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)(ix)					

LICENSEE CONTACT FOR THIS LER (12)

NAME L.A. Kuczynski - Nuclear Plant Specialist, Level III	TELEPHONE NUMBER
	AREA CODE: 7 1 1 7   5 1 4 1 2 1 - 1 3 1 7 1 5 1 9

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH   DAY   YEAR
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ABSTRACT (Limit to 1400 spaces - i.e., approximately fifteen single space typewritten lines) (16)

On May 5, 1985, with the Unit shut down for its first refueling outage, the Reactor Water Cleanup (RWCU) (EIIS Code: CE) system containment outboard isolation valve closed on a high flow signal. (Unanticipated Engineered Safety Feature actuation.) RWCU had been in operation to support Induction Heating for Stress Improvement (IHSI) treatment of a weld at the pipe tee where the RWCU suction line taps off from Reactor Recirculation (EIIS Code: AD) loop 'A'. RWCU system operated as designed during the transient. There are no actions necessary to prevent recurrence of this event.

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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 8 5	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 5	- 0 1 7	- 0 0	0 2	OF 0 2

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

As part of the work scheduled for completion during the Unit's first refueling outage, Induction Heating for Stress Improvement (IHSI) treatment of the weld at the pipe tee where the Reactor Water Cleanup (RWCU) system (EIIS Code: CE) suction line taps off of the reactor recirculation (EIIS Code: AD) loop 'A' commenced on May 5, 1985. (IHSI is a process which produces a predetermined temperature difference across a pipe wall by inductively heating the outer surface of a pipe weld joint, while simultaneously cooling the inner surface with flowing water. This technique produces compressive residual stresses on the inside surface, thereby reducing the probability of intergranular stress corrosion cracking.) The IHSI procedure for this weld specified that only the reactor recirculation loop 'A' be in service to provide cooling for the inner surface of the weld. RWCU was placed in service by Operations personnel as a precautionary measure. At 0150 on May 5, 1985, the RWCU containment outboard isolation valve closed on a high flow signal. (Unanticipated actuation of an Engineered Safety Feature.) System flow at that time was below the setpoint of the differential pressure switch which provides high flow isolation. However, the switch is calibrated for normal system temperature while in Operational Condition 1 (Run). The difference in water density which results in a higher differential pressure when the system is running cold versus when the system is at normal operating temperature accounts for the switch's actuation at a lower flow rate. The heat was removed from the weld using recirculation flow and RWCU was returned to service. An evaluation of RWCU operation indicates that the system operated as designed during this occurrence. Since the IHSI treatment of the weld is a once-and-done evolution, there is no action required to prevent a similar event.



Pennsylvania Power & Light Company

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June 3, 1985

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SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 85-017-00  
ER 100450 FILE 841-23  
PLAS- 085

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

Attached is Licensee Event Report 85-017-00. This event was determined reportable per 10CFR50.73(a)(2)(iv), in that the Unit experienced the unanticipated actuation of an engineered safety feature when the reactor water cleanup system containment outboard isolation valve closed on a high flow signal.

H.W. Keiser  
Superintendent of Plant-Susquehanna

LAK/pjg

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