NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

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

TITLE (4)

Reactor Shutdown Due to Excessive Drywell Leakage

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
0 5	3 0	8 5	8 5	0 1 7	0 0	0 6	2 1	8 5		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	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)	X 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
D.J. Gandenberger - Power Production Engineer	AREA CODE 7 1 7 5 4 2 - 3 9 1 4

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	
B	A D	V 2 0	C 6 2 4	Y							

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)

At approximately 1600 on May 30, 1985 drywell sump inleakage began to increase. The leakage was calculated to be near 10 gpm and a Limiting Condition for Operation was declared at 1630. Attempts to identify and isolate the leakage were unsuccessful and at 1815 a reactor shutdown was commenced. The shutdown was completed at 0233 on May 31, 1985. A drywell entry was made and the 'A' Reactor Recirculation Pump Discharge Bypass Valve was discovered to have a severe packing leak. A small leak was also noted on the Head Drain-Vent Valve. The valves were repaired under a Work Authorization and the Unit was returned to service at 1422 on June 3, 1985.

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

At approximately 1600 on May 30, 1985, drywell sump inleakage began to increase. Operations personnel (utility, licensed) calculated the leakage to be near 10 gpm and a Limiting Condition for Operation (LCO) was declared at 1630. Drywell pressure was observed to increase from -0.05 psig to +0.15 psig and drywell temperature increased 5 degrees F. At 1615, drywell temperature reached a maximum of 120 degrees F and remained at that level. The standby drywell chiller unit also automatically started about this time which would mask a possibly higher temperature increase in the containment.

In an attempt to identify and isolate the leakage source, Operations personnel cycled valves in the Reactor Core Isolation Cooling (BN) System, High Pressure Coolant Injection (BJ) System, Reactor Water Clean Up (CE) System, and Main Steam (SB) Drain Valves. There was no noticeable change in the leakage as a result of cycling the valves. A drywell air sample was taken and the analysis indicated the same isotope concentrations normally found in reactor coolant water. At 2000, another calculation determined drywell leakage to be 8.7 gpm. A reactor shutdown was commenced at 1815 on May 30, 1985 and the shutdown was completed at 0233 on May 31, 1985.

On May 31, 1985, a drywell entry was performed to identify the source of the leak. During the inspection, reactor pressure was maintained at 70 psig to facilitate identification of leaks. The 'A' Reactor Recirculation (AD) Pump Discharge Bypass Valve was found to have a severe packing leak. A small leak (approximately one drop every 30 seconds) was also noted on the Head Drain-Vent Valve. The packing was replaced on the 'A' Reactor Recirculation Pump Discharge Bypass Valve and the packing was tightened on the Head Drain-Vent Valve. Packing was also tightened on the High Pressure Coolant Injection Inboard Steam Supply Valve. The Unit was returned to service at 1422 on June 3, 1095 with no significant drywell leakage.

PP&L Pennsylvania Power & Light Company
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June 21, 1985

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 85-017-00
ER 100450 FILE 841-23
PLAS-093

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

Attached is Licensee Event Report 85-017-00. This event was determined reportable per 10CFR50.73(a)(2)(i), in that the reactor was shutdown due to unidentified drywell leakage in excess of Technical Specification limits.

R.J. Thompson for
H.W. Keiser
Superintendent of Plant-Susquehanna

DJG/pjg

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IE22
1/1