

## 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 3									
TITLE (4) Nitrogen Drywell Inerting.																							
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)										
1	2	2	4	8	4	8	4	0	4	8	0	1	0	6	1	0	8	5	0	5	0	0	0
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																					
1		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)									
1		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vi)				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)(ix)													
LICENSEE CONTACT FOR THIS LER (12)																							
NAME D.J. Gandenberger										TELEPHONE NUMBER													
										AREA CODE													
										7 1 1 7 5 4 2 - 1 3 9 3 1 0													
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																							
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC													
A	JM	IV	*	N																			
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)

On December 21, 1984, at 2027, a vendor's nitrogen tanker began pumping nitrogen into the plant piping without clearance for the Control Room due to the misunderstanding of the auxiliary system operator's instructions. The nitrogen tanker was brought on-site to inert the Unit 1 drywell by decreasing the oxygen content. Subsequent investigation revealed the unauthorized discharge of nitrogen caused valve seats in the nitrogen purge line to leak excessively. The Unit 1 Reactor commenced shutdown on December 24, 1984 at 1100 in accordance with Technical Specification 3.6.1.1 which requires a shutdown due to Loss of Primary Containment. Valves were disassembled, repaired, and local leak rate tests were performed with satisfactory results. Unit 1 was restarted.

\*Henry Pratt Co.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1) Susquehanna Steam Electric Station Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 8 7 8 4 - 0 4 8 - 0 1 0 2 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

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

On December 21, 1984, a vendor's nitrogen tanker was brought on site for the purpose of inerting the Unit 1 containment. The tanker was connected to the plant piping and preparations were made on the nitrogen tanker for off loading. During these preparations the operating equipment on the tanker changed pitch. The auxiliary system operator stationed at the tanker asked the driver if he had started pumping (off loading) the nitrogen. The driver replied "No." The operator acknowledged "OK." The truck driver understood "OK" to mean OK to start pumping. Pumping commenced at 20:27. At this time the valve line up within the plant had not been changed for receipt of the nitrogen, nor was the Control Room aware the nitrogen tanker was pumping. Subsequently, as part of the in-plant preparation for receipt of the nitrogen, Operations personnel opened the Nitrogen Flow Valve (FV-05719), and attempted, unsuccessfully, to fully open the Primary Containment Nitrogen Purge Supply Valve (HV-15721). At this time Control Room personnel (Plant Control Operator) observed a nitrogen flow indication and in turn directed personnel at the tank truck to stop pumping. Pumping was halted within seconds.

A Work Authorization (WA) was initiated for Maintenance personnel to investigate/correct conditions which prevented Operation's personnel from fully opening the Purge Supply Valve (HV-15721). Subsequent review of the WA identified the HV-15721 valve as an outboard Primary Containment Isolation Valve and the applicability of Technical Specification 3.6.3. A Limiting Condition of Operation was declared in accordance with Technical Specification 3.6.3 and the inboard purge supply valves deactivated. Maintenance personnel disassembly of valve HV-15721 identified a damaged (deformed) clamp segment ring used for retaining the valve seat. The deformation caused the valve to stick.

Technical Staff investigation of the event included review of containment and structural integrity. A local leak rate test was performed on December 24, 1984 at 0300 to verify the integrity of purge system isolation valves HV-15722, HV-15723, HV-15724, and HV-15725. Test results indicated excessive leakage from these boundary valves. Technical Specification Limiting Conditions of Operation, section 3.6.1.1 were revoked at 0415 on December 24, 1984. The Technical Specification Action Statement required Primary Containment to be restored within 1 hour or be in hot shutdown in the next 12 hours and cold shutdown in the following 24 hours. The reactor shutdown had commenced at 1100, and was completed at 1119 on December 25, 1984 with Unit 1 in cold shutdown.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

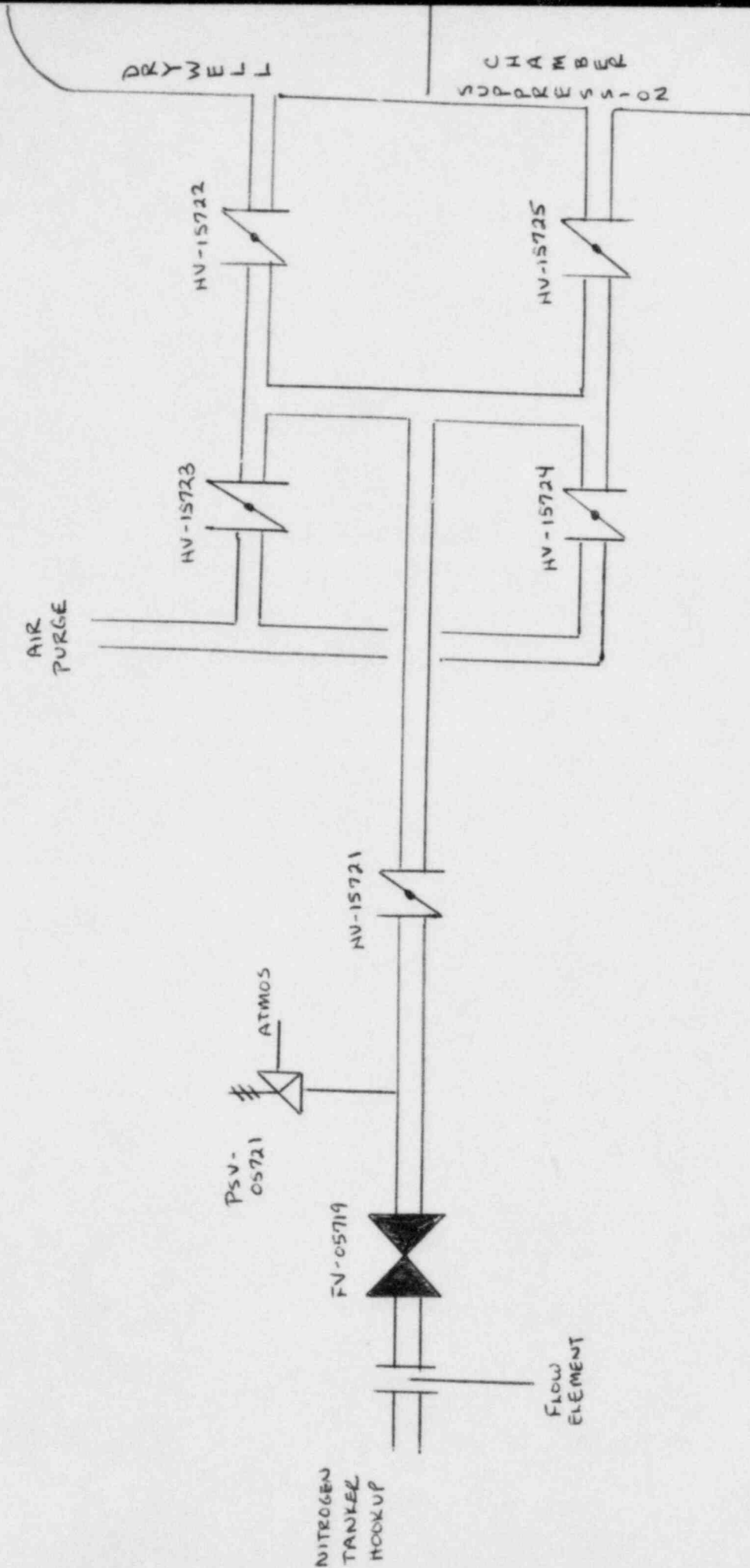
APPROVED OMB NO. 3150-0154

EXPIRES: 8/31/86

FACILITY NAME (1) Susquehanna Steam Electric Station Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7 8 4	LER NUMBER (3)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	PREVIOUS NUMBER			
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TEXT (If more space is required, use additional NRC Form 365A (9-83))

Post shutdown investigation identified a damaged valve seat in the Suppression Chamber Air Purge Line Supply Isolation Valve (HV-15724) as cause of the excessive leakage during the local leak rate test. Additionally, HV-15722, HV-15723, HV-15724 and HV-15725 were inspected for damage. The seat rings were replaced in HV-15724 and HV-15725 and a satisfactory local leak rate test was performed. Due to the potential overpressurization of valve HV-15722, HV-15723, HV-15724, and HV-15725, they were closed, de-energized, and declared inoperable. A safety evaluation was performed to justify continued operation considering the valves may have been overstressed. With the valves closed and de-energized it was determined that they still perform the design safety function of providing containment isolation in the event of a LOCA. The Primary Containment Nitrogen Purge Supply Valve HV-15721 was rebuilt. A detailed system walkdown was conducted to evaluate the condition of the piping due to the overpressurization. No piping discrepancies were noted. The Unit was restarted on December 30, 1984. Subsequent to the restart, nineteen welds on the system piping downstream of HV-15721 were NDE inspected by ultrasonic examination with satisfactory results. Based on the results of the NDE inspection and previous test results, it was determined that HV-15722 and HV-15725 could be operated on an intermittent basis under administrative controls. An inspection of system snubbers was also performed with satisfactory results. The system was modified by adding a temporary spoolpiece with a manual isolation valve and a pressure gauge at the nitrogen tanker hookup station to monitor the discharge pressure of the nitrogen tanker. The operating procedure was revised by having the operator stationed at the nitrogen tanker instruct the nitrogen tanker vendor to immediately close the nitrogen tank truck discharge valve if pressure on the local gauge increases to 80 psig. The occurrence has been reviewed by Operations personnel. Internal parts in HV-15722 and HV-15723 have been replaced under PMR 83-189 and valves HV-15724 and HV-15725 have been refurbished to restore the valves to their design condition.





Pennsylvania Power & Light Company

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June 10, 1985

U.S. Nuclear Regulatory Commission  
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SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 84-048-01  
ER 100450 FILE 841-23  
PLAS- 087

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

Attached is Licensee Event Report 84-048-01. This event was determined reportable per 10CFR50.73(a)(2)(i), in that Loss of Primary Containment due to excessive leakage required a shutdown of Unit 1.

H.W. Keiser  
Superintendent of Plant-Susquehanna

DJG/pjg

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