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ACCESSION NBR:8809290378 DOC.DATE: 88/09/23 NOTARIZED: NO DOCKET #
FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
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RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-018-00:on 880824,one channel of RWCU sys area high temp isolation instrument found inoperable.

W/8 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:LPDR 2 cys Transcripts. 05000387

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Susquehanna Steam Electric Station - Unit 1	0 5 0 0 0 3 8 7	1 OF 0 3

TITLE (4)
One Channel of RWCU System Area High Temperature Isolation Instrument Found Inoperable

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 8	2 4	8 8	8 8	— 0 1 8	— 0 0	0 9	2 3	8 8		0 5 0 0 0
										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
	AREA CODE
T.S. Ryder - Power Production Engineer	7 1 7 5 4 2 - 3 2 3 5

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)		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 August 24, 1988, it was discovered that the RWCU Pump Room ambient temperature sensor, TE-G33-1N016A, was not installed per design. TE-G33-1N016A was discovered to have been installed in a location in which it would not have detected a RWCU steam leak in the RWCU Pump Room area. The installation error was discovered during a walkdown of the steam leak detection system. The walkdown had been initiated in response to recent problems identified on the MSL DT trip logic. Root cause of this event was attributed to a lack of installation detail on the design documents for the steam leak detection system. The ventilation drawing used for identification of instrument location for TE-G33-1N016A was vague and did not clearly show the mounting location. This resulted in the temperature sensor being installed inside the main steam tunnel exhaust duct instead of being installed on the wall of the RWCU pump room. The event has been determined to be reportable per 10CFR50.73(a)(2)(i)(B), in that one trip logic channel for the RWCU Pump Room RWCU leak detection ambient temperature trip logic has been inoperable prior to August 24, 1988 and would not have been able to perform its design function. A new temperature instrument was installed in the proper location within the RWCU Pump Room and the original temperature instrument was left as a spare device in the MSL exhaust duct. A task force is in the process of reviewing the entire steam leak detection system for adequacy and will be providing recommendations for permanent corrective action. The findings of this task team will be reported in a followup to LER 88-017-00 (Docket 50-387) and this LER will not be updated.

NRC Form 366
(9-83)

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

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

CORRECTIVE ACTIONS

A request for enforcement discretion was submitted to the NRC for relief from Technical Specification 3.3.2. The provisions of this technical specification require placing the trip system in the tripped condition or closing the affected system isolation valves either of which would have caused isolation of RWCU from the reactor vessel until the inoperable channel of RWCU temperature isolation instrumentation could be restored to operable status. Having RWCU isolated from the reactor vessel for the extended period of time anticipated to return the inoperable channel to operable status would result in significant degradation of reactor coolant chemistry and could eventually require shutting the unit down. The request was granted for the period of time ending at 11:00 a.m. on August 29, 1988. On August 26, 1988 a new temperature instrument was installed in the proper location within the RWCU Pump Room and the original temperature instrument was left as a spare device at its location in the main steam tunnel exhaust duct. Appropriate drawings were revised to reflect the new plant configuration for these devices. A task team had been previously formulated to review the subject of steam leak detection. An in-depth review will be performed for all leak detection systems including the RWCU, Residual Heat Removal (RHR, EIIS Code: BO), Reactor Core Isolation Cooling (RCIC, EIIS Code: BN), High Pressure Coolant Injection (HPCI, EIIS Code: BJ), and MSL Leak Detection Systems. Calculations and design bases will be reviewed for adequacy and determination of the root cause and appropriate long-term corrective actions will be performed. The findings of this task team will be reported in a followup to LER 88-017-00 (Docket 50-387) and this LER will not be updated.

ADDITIONAL INFORMATION

Failed Component Identification: Not applicable.

Previous Similar Events: Not Applicable

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

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

DESCRIPTION OF EVENT

On August 24, 1988, it was discovered that the Reactor Water Cleanup (RWCU, EIIS Code: CE) Pump Room ambient temperature sensor, TE-G33-1N016A, was not installed per design. TE-G33-1N016A had been installed in a location in which it would not have detected a steam leak in the RWCU Pump Room area. The installation error was discovered during a walkdown of the steam leak detection system. The walkdown had been initiated in response to recent problems identified on the Main Steam Line (MSL, EIIS Code: SB) differential temperature trip logic which were reported in LER 88-016-00 (Docket 50-387).

CAUSE OF EVENT

Root cause of this event was attributed to a lack of installation detail on the design documents for the steam leak detection system. The ventilation drawing (V-28-5) used for identification of instrument location for TE-G33-1N016A was vague and did not clearly show the mounting location. This resulted in the temperature sensor being installed inside the main steam tunnel exhaust duct instead of being installed on the wall of the RWCU pump room.

REPORTABILITY/ANALYSIS

The event had been determined to be reportable per 10CFR50.73(a)(2)(i)(B), in that one trip logic channel for the RWCU Pump Room RWCU leak detection ambient temperature trip logic has been inoperable prior to August 24, 1988 and would not have been able to perform its design function. Section 7.3.1a.2.4.1.9, & .10 of the FSAR provide discussion on the various methods of leak detection available to detect a steam leak associated with the RWCU system. "Diversity of trip initiation signals for RWCU system line break is provided by high differential flow, high flow, ambient and differential temperature, and Reactor Vessel low, low water level, Level 2. An increase in differential flow, space temperature, differential temperature, or low Reactor Vessel water level will initiate RWCU isolation." With exception of this channel and the penetration room DT detection, inoperable prior to August 5, 1988 as reported in LER 88-017-00 (Docket 50-387), the remaining safety systems were in tact to detect a breech in the reactor coolant pressure boundary for the RWCU system. There was no compromise to the health and safety of the public and no safety consequences occurred.

PP&L Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101 • 215/770-5151

September 23, 1988

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 88-018-00
FILE R41-2
PLAS - 338

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

Attached is Licensee Event Report 88-018-00. This event was determined reportable per 10CFR50.73(a)(2)(i)(B) in that one channel of the Reactor Water Cleanup System Area High Temperature isolation instrumentation was found to be inoperable due to mislocation of a temperature sensor.

R.G.Byram
Superintendent of Plant - Susquehanna

TSR/mjm

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