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REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8912130329 DOC. DATE: 89/12/01 NOTARIZED: NO DOCKET #
 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388
 AUTH. NAME AUTHOR AFFILIATION
 RUSANOWSKY, P.P. Pennsylvania Power & Light Co.
 BYRAM, R.G. Pennsylvania Power & Light Co.
 RECIPIENT NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-013-00: on 891102, inadvertent opening of main turbine stop valves as result of technician error.

W/8 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: LPDR 1 cy Transcripts. 05000388

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	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
	DEDRO	1 1	NRR/DET/ECMB 9H	1 1
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	NRR/DLPQ/LHFB11	1 1	NRR/DLPQ/LPEB10	1 1
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	NUDOCS-ABSTRACT	1 1	<u>REG FILE</u> 02	1 1
	RES/DSIR/EIB	1 1	RGNI FILE 01	1 1
EXTERNAL:	EG&G WILLIAMS, S	4 4	L ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
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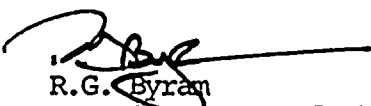
December 1, 1989

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 89-013-00
FILE R41-2
PLAS -396

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

Attached is Licensee Event Report 89-013-00. This event was determined to be reportable per 10CFR50.73(a)(2)(iv) in that it resulted in an unplanned actuation of an Engineered Safety Feature.


R.G. Byram
Superintendent of Plant - Susquehanna

PPR/mjm

cc: Mr. W.T. Russell
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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Susquehanna Steam Electric Station - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 8 8 1	PAGE (3) 1 OF 0 3
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TITLE (4) Inadvertent Opening of Main Turbine Stop Valves as a Result of Technician Error Causes an MSIV Isolation Signal

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	1	0	2	8	9	8	9	0	1	3	0	0	0	1	2	0	1	8	9			0	5	0	0	0

OPERATING MODE (9) 4	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	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME P.P. Rusanowsky - Power Production Engineer - Compliance	AREA CODE 7 1 7	5 4 2 - 3 7 5 9	5 9

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

At 1055 on 11-2-89, with the unit in cold shutdown, an unanticipated Main Steam Isolation Valve (MSIV) isolation signal was generated by the Primary Containment Isolation System (PCIS). At the time of the event, the Main Condenser was at atmospheric pressure, the Main Turbine Stop Valves were closed, and the automatic isolation signal from the PCIS to the MSIVs and Main Steam Line Drain Valves on low Main Condenser vacuum was disabled per plant operating procedures. An I&C Technician, who was working in a Main Turbine Control Panel, inadvertently applied 24 VDC to an incorrect terminal point which caused the Main Turbine Stop Valves to open. This in turn re-enabled the automatic MSIV isolation on low condenser vacuum. This event was determined to be reportable under 10CFR50.73(a)(2)(iv) in that the unanticipated PCIS signal constituted an unplanned actuation of an Engineered Safety Feature. A review of this event will be conducted with all appropriate I&C personnel. Expanding the scope of a procedure used to defeat specific trip signals during certain I&C work activities is being evaluated. Any procedure enhancements will be based on the conclusions of this evaluation. Since all systems and components functioned properly, there were no safety consequences to the health or safety of the public nor would there have been had the MSIVs been open and the reactor vessel pressurized (the MSIVs and Main Steam Line Drain Valves would have closed as a result of the automatic isolation signal).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Unit 2 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 8 8 9	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		89	013	00	02	OF	03

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

EVENT DESCRIPTION

At 1055 on 11/2/89, with the unit in cold shutdown and the Main Condenser (EIIS Code: SG) at atmospheric pressure, an I&C Technician (utility, non-licensed) inadvertently generated a Main Turbine control signal (EIIS Code: TG) which caused the Main Turbine Stop Valves to open. At the time of the event, the automatic isolation signal from the Primary Containment Isolation System (PCIS; EIIS Code: JM) to the Main Steam Isolation Valves (MSIVs) and Main Steam Line Drain Valves (EIIS Code: SB) on low main condenser vacuum was disabled per an approved plant operating procedure. The purpose of this automatic isolation signal is to protect the Main Condenser from overpressurization with the unit at power. With the unit shutdown and no vacuum established in the Main Condenser, this automatic isolation signal can be procedurally disabled using permanently installed "Main Condenser Low Vacuum Bypass" switches if the Main Turbine (EIIS Code: TA) Stop Valves are fully closed. When the Stop Valves opened, the automatic isolation signal from the PCIS was no longer disabled and an MSIV isolation signal was generated. Since the MSIVs and Main Steam Line Drain Valves were closed at the time of the event, no valve motion occurred.

CAUSE OF EVENT

The I&C Technician was testing for burned out light bulbs in a Main Turbine Control Panel using a 24 VDC source in the panel. The Technician inadvertently applied the 24 VDC to an incorrect terminal point which generated the Main Turbine control signal causing the Main Turbine Stop Valves to open.

CORRECTIVE ACTIONS

Activities in the Main Turbine Control Panel were stopped and the inadvertent action was reported to the Control Room. The Main Turbine Stop Valves were subsequently closed and the MSIV isolation signal was reset.

A review of this event will be conducted with all appropriate I&C personnel.

Specific trip signals are procedurally defeated during certain I&C work activities. Expanding the scope of this procedure is being evaluated. Any procedure enhancements will be based on the conclusions of this evaluation.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Unit 2 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 9	- 0 1 3	- 0 0	0 3	OF	0 3

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

REPORTABILITY/ANALYSIS

This event was determined to be reportable under 10CFR50.73(a) (2) (iv) in that the unanticipated isolation signal, even though no valve motion occurred, constituted an unplanned actuation of an Engineered Safety Feature (PCIS).

Since all systems and components functioned properly, there were no safety consequences to the health or safety of the public nor would there have been had the MSIVs been open and the reactor vessel pressurized (the MSIVs and Main Steam Line Drain Valves would have closed as a result of the automatic isolation signal).

ADDITIONAL INFORMATION

Past similar Licensee Event Reports: None