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ACCESSION NBR: 9305260168 DOC. DATE: 93/05/19 NOTARIZED: NO DOCKET #
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387
 AUTH. NAME AUTHOR AFFILIATION
 METER, J.J. Pennsylvania Power & Light Co.
 STANLEY, H.G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 93-004-00: on 930423, logic relay isolation occurred.
 Caused by de-energization of solenoid & half isolation of
 "A" inboard MSIV. Isolation logic restored to operable
 status. W/930519 ltr.

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 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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EXTERNAL:	EG&G BRYCE, J.H	2	2	L ST LOBBY WARD	1	1
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Pennsylvania Power & Light Company

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May 19, 1993

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 93-004-00
FILE R41-2
PLAS - 565

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

Attached is Licensee Event Report 93-004-00. This report is being made pursuant to 10CFR50.73(a)(2)(i)(B), in that Susquehanna Unit 1 was in an operating condition prohibited by the Technical Specifications while testing was performed on a relay in the Main Steam Isolation Valve isolation logic following replacement of the relay. This condition was cleared once the isolation logic was restored to operable status.


H.G. Stanley
Superintendent of Plant - Susquehanna

JJM/mkf

cc: Mr. T. T. Martin
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PDR ADDCK 05000387
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Handwritten initials/signature

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 1** DOCKET NUMBER (2) **0 5 0 0 0 3 8 7 1** PAGE (3) **1 OF 0 4**

TITLE (4) **Isolation Logic Relay - Operation Prohibited by Technical Specification During Retest**

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)
04	23	93	93	004	00	05	19	93			05000

OPERATING MODE (9) **1** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.406(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"/> 20.406(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"/> 20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.406(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)

NAME **Joseph J. Meter - Power Production Engineer** TELEPHONE NUMBER **7 1 7 5 4 2 - 1 8 7 3**

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
X	J, M	83	6080	Y					

SUPPLEMENTAL REPORT EXPECTED (14) YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

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

On April 23, 1993, at 0810 hours with Unit 1 in Condition 1 at 100% power, Relay B21H-K51 was replaced in the Main Steam Isolation Valve logic due to possible failure. In order to perform the required functional and operability testing, the affected trip system was taken out of the tripped condition required by Technical Specification 3.3.2 Action Statement b. With the trip system out of the tripped condition, the Action Statement was no longer met and Technical Specification 3.0.3 was entered. Entry into Technical Specification 3.0.3 constitutes operation prohibited by the Technical Specifications and is reportable per 10CFR50.73(a)(2)(i)(B). Taking the trip system out of the tripped condition did not create a significant degradation in the Station's ability to protect the health and safety of the public. Changes with respect to Technical Specification 3.0.3 will be pursued as part of the NRC generic Technical Specification Improvement Program. A preventative maintenance procedure for that type of relay in the MSIV isolation logic will be developed.

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 1 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7 9 3	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		93	004	00	02	OF 04

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

DESCRIPTION OF EVENT

On April 23, 1993, at 0810 hours, with Unit 1 in Condition 1 at 100% power, Relay B21H-K51 was replaced in the Main Steam Isolation Valve logic due to possible failure. This relay provides a half isolation signal to all of the inboard Main Steam Isolation Valves (MSIV, EIIS CODE: JM). When the K51 was removed, the affected trip system was declared inoperable and was placed in the tripped condition as required by Technical Specification 3.3.2 Action Statement b. Maintenance personnel (utility, non-licensed) then replaced relay K51. In order to perform the required functional and operability testing, the affected trip system had to be reset (i.e. - taken out of the tripped condition). When the trip system was taken out of the tripped condition, the Action Statement was no longer met and as a result, Technical Specification 3.0.3 was entered.

Technical Specification 3.0.3 was entered at 1110 hours on 04/23/93. Functional and operability testing of the new K51 relay were completed satisfactorily and Technical Specification 3.0.3 was exited at 1258 hours on 04/23/93.

The entry into Technical Specification 3.0.3 constituted operation prohibited by the Technical Specifications since the Technical Specifications do not recognize or allow this action of removing Technical Specification imposed trips from the tripped condition for performance of operability testing.

CAUSE OF EVENT

On two separate occasions, 03/26/93 and 04/13/93, a Nuclear Plant Operator (utility, non-licensed) on rounds observed the indicating light for the "A" inboard MSIV DC pilot solenoid valve power not illuminating. Subsequent investigation showed that one set of contacts for relay K51 was not exhibiting continuity. This resulted in the de-energization of the DC solenoid and a half isolation of the "A" inboard MSIV. Short term corrective actions to both of these occurrences consisted of cleaning the contacts. The longer term corrective action was to replace the K51 relay as described above.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 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 1 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7	LER NUMBER (6)			PAGE (3)		
		YEAR 9 3	SEQUENTIAL NUMBER - 0 0 4	REVISION NUMBER - 0 0	0 3	OF	0 4

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

REPORTABILITY/ANALYSIS

This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B), in that Technical Specification 3.3.2 action b., was not met while an inboard MSIV isolation logic relay was being tested. The affected isolation trip system had to be reset to allow functional and operability testing to restore OPERABILITY of the relay/trip system. As the Technical Specifications do not recognize or allow this action, LCO 3.0.3 was entered. This entry into Technical Specification 3.0.3 constituted operation prohibited by the Technical Specifications (NUREG 1022, Supp. 1, item 2.4).

During the replacement of relay K51, one of two trip systems in Division 1 was in the tripped condition. The other trip system for the inboard MSIV logic and both trip systems for the outboard MSIV logic were operable. Prior to replacing the relay, the new relay was bench tested to ensure it functioned properly upon coil de-energization. During the testing of the newly installed relay, the outboard MSIV isolation logic was operable as well as all other isolation functions. Therefore, taking the trip system out of the tripped condition did not create a significant degradation in the Station's ability to protect the health and safety of the public and/or plant personnel.

When the relay was removed from service, its associated trip system was placed in the tripped condition. Once the relay was replaced, the trip system had to be reset to perform the testing necessary to ensure it would provide the required trip function. The action statement was not met only during the time period that the newly installed relay was being tested. This time period was approximately two hours for the testing evolution.

In accordance with guidance provided in NUREG 1022, Supplement 1 item 14.1 and 10CFR50.4(d); the required submission date for this report was determined to be 05/24/93.

CORRECTIVE ACTION

The defective relay (K51) was replaced due to possible failure. The logic channel was then tested satisfactorily. As a longer term enhancement, a routine preventative maintenance procedure for that type of relay in the MSIV isolation logic will be developed.

Concerning entry into Limiting Condition for Operation 3.0.3, the Technical Specifications contain no provision for allowing an isolation trip signal, imposed due to action requirements, to be reset to allow performance of Technical Specification required surveillances needed to restore the system

**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 1 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7	LER NUMBER (6)			PAGE (3)		
		YEAR 9 3	SEQUENTIAL NUMBER 0 0 4	REVISION NUMBER 0 0	0 4	OF	0 4

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

to OPERABLE status. Such provisions are being pursued as part of the NRC generic Technical Specification Improvement Program.

ADDITIONAL INFORMATION

Failed Component Information:

Component - HFA DC Relay
Model - 12HFA151-A2F
Manufacturer - General Electric

Previously Reported Events with similar results but with dissimilar causes:

Docket No. 50-387 LER 90-009 Failed Reactor Pressure Switch -
Operation Prohibited by Technical Specification during Retest

Docket No. 50-387 LER 91-001 Isolation Pressure Switch -
Operation Prohibited by Technical Specification during Retest.

Docket No. 50-387 LER 91-009 Main Steam Line Radiation Monitor -
Operation Prohibited by Technical Specification during Retest.

Previous Similar Event:

Docket No. 50-388 LER 91-003-01 Main Steam Isolation Valve Isolation
Logic Relay - Operation Prohibited by Technical Specification during
Retest.