CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9609030337 DOC.DATE: 96/08/23 NOTARIZED: NO DOCKET #
FACIL:50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
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KUCZYNSKI,G.T. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 96-005-00:on 960730,surveillance was missed for RSCS during U2 startup.Caused by less than adequate human performance.Mgt expectations on procedure ad

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

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SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 50-388/96-005-00
PLAS - 674 FILE R41-2

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

Attached is Licensee Event Report 50-388/96-005-00. This report is being made pursuant to 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications in that a surveillance requirement was inadvertently missed.

G. J. Kuczynski
Plant Manager - Susquehanna SES

Attachment

cc: Mr. H. J. Miller
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NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92
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), U7.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)	DOCKET NUMBER(2)	PAGE (3)
Susquehanna Steam Electric Station - Unit 2	0 5 0 0 0 3 8 8	1 OF 0 4

TITLE (4)
Surveillance Missed For RSCS During U2 Startup - Condition Prohibited By Technical Specifications

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 7	3 0	9 6	9 6	0 0 5	0 0	0 8	2 3	9 6		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	2	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	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
Richard R. Wehry - Nuclear Licensing Engineer	AREA CODE 7 1 7 5 [illegible] 2 - 3 6 6 4

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	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)

At 1625 hours on July 30, 1996, with Unit 2 at 0% power in Condition 2 (Startup), reactor startup was in progress. The first in-sequence control rod had been selected and withdrawn to position 48. A surveillance test to verify operability of the Rod Sequence Control System (RSCS) was to be performed next. However, the operator started to withdraw the second control rod in the startup sequence instead. The error was quickly identified by the Reactivity Control Unit Supervisor and the withdrawal of the second rod was stopped at position 10. Following consultation with Reactor Engineering, the second rod was re-inserted to position 00 and startup of the reactor was put on hold until the event and its causes were reviewed with shift personnel and interim corrective actions completed. The cause of the event was a human performance work practice error in that the individuals involved did not correctly follow the controlling procedure for startup. Corrective actions include: reinforcing management expectations on procedure adherence and tailboards for reactivity manipulations, including responsibility/accountability for procedures and important requirements of the procedures; procedural enhancements; ensuring that training reinforces the key steps during startups and other non-routine evolutions; and performing a human factors review of procedural layout to determine if improvements are warranted.

DESCRIPTION OF EVENT

At 1625 hours on July 30, 1996, with Unit 2 at 0% power in Condition 2 (Startup), reactor startup was in progress. The first in-sequence control rod (EIIS Code: AA) had been selected and withdrawn to position 48. Per the controlling procedure for startup, a surveillance test to verify operability of the Rod Sequence Control System (RSCS) was to be performed next. However, the operator (utility; licensed) started to withdraw the second control rod in the startup sequence instead. The error was quickly identified by the Reactivity Control Unit Supervisor (RCUS; utility- licensed) and the withdrawal of the second control rod was stopped at position 10. Following consultation with Reactor Engineering, the second control rod was re-inserted to position 00 and startup of the reactor was put on hold.

CAUSE OF EVENT

A root cause analysis was performed for this event and determined that the root cause was less than adequate human performance (i.e., procedures not correctly followed). Immediately after the event, the two operators and the RCUS acknowledged that the controlling procedure for startup contained the correct information but none of the individuals, separately or as a team, caught it at the time. Also, no individual had clear, personal accountability for the procedure.

Two contributing causal factors were:

1) The layout of the controlling procedure for startup (poor format; problem with presentation)

2) The minimal amount of training the involved individuals had on the evolution (insufficient practice / hands-on)

REPORTABILITY / ANALYSIS

This event was determined reportable per 10CFR50.73(a)(2)(i)(B) in that a second in-sequence control rod was withdrawn during reactor startup prior to completion of Technical Specification Surveillance Requirement 4.1.4.2.b. Technical Specification Surveillance Requirement 4.1.4.2.b. states that the RSCS shall be demonstrated OPERABLE by attempting to select and move an inhibited control rod after withdrawal of the first in-sequence control rod for each reactor startup. Failure to perform this surveillance requirement constituted an operation prohibited by the plant's Technical Specifications.

There were no safety consequences or compromises to public health or safety as a result of this event. The second control rod, which was withdrawn to position 10 before being stopped, was the next in-sequence control rod which was planned to be withdrawn after the RSCS surveillance was performed. The RSCS surveillance was performed successfully immediately after the event had occurred. Also, the Rod Worth Minimizer (automatically initiates to assure that out-of-sequence control rods are not withdrawn) was OPERABLE and the startup sequence was being implemented by two licensed individuals. Therefore, the withdrawal of an improper, out-of-sequence control rod was highly unlikely.

In accordance with guidance provided in NUREG 1022, Supplement 1, item 14.1, the required submission date for this report was determined to be August 29, 1996.

CORRECTIVE ACTIONS

Upon identification that a second in-sequence control rod was being withdrawn prior to performing the RSCS surveillance test, the withdrawal of the control rod was immediately stopped (at position 10). Following consultation with Reactor Engineering, the second control rod was fully inserted to position 00 and the RSCS surveillance test was successfully completed. Reactor startup was put on hold and the first control rod was also fully inserted to position 00.

The startup was not resumed until following shift turnover when the oncoming crew was briefed on the event and the preliminary results of the investigation; and an interim action to correct the condition was completed which added a note to the startup control rod sequence to perform the RSCS surveillance following withdrawal of the first in-sequence control rod.

Actions to prevent recurrence include:

- Reinforcing management expectations on procedural adherence and tailboards for reactivity manipulations, including responsibility / accountability for procedures and important requirements of the procedures.
- Ensuring that initial and continuing training reinforces the key steps in startups and other non-routine evolutions.
- Performing a human factors review of the controlling procedure for startups and implementing appropriate recommendations.

- Revising the affiliated Reactor Engineering procedure requiring the addition of a note on the control rod sequence pull sheets to ensure that the RSCS surveillance test is performed at the appropriate time. (complete)

- Evaluating making the requirement to add the note to perform the RSCS surveillance on the startup control rod sequence pull sheets permanent.

ADDITIONAL INFORMATION

Failed Component Identification: None

Previous Similar Reported Events: LER 50-387 / 93-014-00
LER 50-387 / 90-030-00,01,02