

# CATEGORY 1

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9704240141      DOC. DATE: 97/04/18      NOTARIZED: NO      DOCKET #  
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvania      05000387  
 AUTH. NAME      AUTHOR AFFILIATION  
 WEHRY, R.R.      Pennsylvania Power & Light Co.  
 KUCZYNSKI, G.J.      Pennsylvania Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 97-007-00: on 970301, flow transmitter for jet pump 14 was isolated due to actions taken to change configuration of transmitter using info contained in note & not IAW plant procedures. Transmitter was restored. W/970418 ltr.

DISTRIBUTION CODE: IE22T      COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5  
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 05000387

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**Pennsylvania Power & Light Company**

Two North Ninth Street • Allentown, PA 18101-1179 • 610/774-5151

April 18, 1997

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

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 50-387/97-007-00  
PLAS - 707 FILE R41-2

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

Attached is Licensee Event Report 50-387 / 97-007-00. This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B) in that a jet pump flow transmitter was found isolated, which rendered the jet pump inoperable in excess of the Limiting Condition for Operation Action time. This is a condition prohibited by the Technical Specifications.

*G. J. Kuczynski*  
G. J. Kuczynski  
General Manager - Susquehanna SES

Attachment

cc: Mr. H. J. Miller  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
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U. S. Nuclear Regulatory Commission  
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PDR ADDCK 05000387  
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LICENSEE EVENT REPORT (LER)

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), 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) **Susquehanna Steam Electric Station - Unit 1** DOCKET NUMBER (2) **0 5 0 0 0 3 8 7 1** PAGE (3) **OF 0 4**

TITLE (4) **Jet Pump Flow Transmitter Found Isolated - Condition Prohibited By The 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)
03	01	97	97	007	00	04	18	97		05000

OPERATING MODE (9) **4** THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR Y: (Check one or more of the following) (11)

POWER LEVEL (10) <b>000</b>	20.402(b)	20.405(c)	50.73(a)(2)(v)	73.71(b)
	20.405(a)(1)(i)	50.39(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.39(c)(2)	50.73(a)(2)(v)(i)	
	20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	50.73(a)(2)(v)(ii)	OTHER (Specify in Abstract below and in Text, NRC Form 368A)
	20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(v)(iii)	
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(1)(2)(v)(B)	
	20.405(a)(1)(vi)	50.73(a)(2)(iv)	50.73(a)(2)(v)	

(LICENSEE CONTACT FOR THIS LER) (12)

NAME **Richard R. Wehry - Nuclear Licensing Engineer** TELEPHONE NUMBER **717 542-3664**

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NFRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NFRDS

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

EXPECTED SUBMISSION DATE (15) MONTH **03** DAY **19** YEAR **97**

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

At 0530 hours on March 19, 1997, with Unit 1 in Operational Condition 1 (Power Operation) at 73% power, it was discovered, by a field operator on rounds, that the flow transmitter for jet pump #14 was isolated and had been isolated since February 27, 1997. Since the time period from when the jet pumps were required to be operable in Operational Condition 2 (3/3/97) until the transmitter was restored exceeded the Technical Specification LCO Action time, this represented a condition prohibited by the plant's Technical Specifications. The root cause of this event was determined to be that actions had been taken to change the configuration of the transmitter using information contained in a note on the personnel protective permit for a work activity and not in accordance with plant procedures. The jet pump remained capable of performing its specified safety function throughout the time the transmitter was isolated. The transmitter was restored. Actions to prevent recurrence include: clarifying station policies and procedures regarding control of work activities and changes to work documents; and reviewing the event with station personnel.

NRC FORM 366a (6-89)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED OMB NO. 3159-0104 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), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.
<b>LICENSEE EVENT REPORT (LER) TEXT CONTINUATION</b>		

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

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

**DESCRIPTION OF EVENT**

At 0530 hours on March 19, 1997, with Unit 1 in Operational Condition 1 (Power Operation) at 73% power, it was identified by a field operator (utility; non-licensed) during performance of operator rounds, that jet pump (EISS Code: C) #14 delta-P was indicating low with respect to the other jet pump indications. Investigation discovered that the flow transmitter for the #14 jet pump was isolated. Jet Pump #14 was declared inoperable and Technical Specification Limiting Condition for Operation (LCO) 3.4.1.2 was entered. Subsequent reviews determined that the flow transmitter had been isolated on February 27, 1997 in support of another work activity and had not been restored to service following completion of the work on March 1, 1997.

**CAUSE OF EVENT**

A multi-disciplined Event Review Team was assigned to perform a root cause analysis of this event and to develop a corrective action plan. The root cause of this event was determined to be that actions had been taken to change the configuration of plant equipment (namely, the jet pump flow transmitter) using information contained in a note on the personnel protection permit for a work activity, which was not in accordance with plant procedures. A contributing causal factor was the lack of procedural guidance concerning the use of notes on personnel protection permits and a failure to properly follow plant administrative controls for maintaining plant equipment status. Because the transmitter had been isolated via a note on the personnel protection permit, and not in accordance with plant procedures, the condition was not identified by our restoration verification processes.

**REPORTABILITY / ANALYSIS**

This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B) in that a jet pump flow transmitter was found isolated, which rendered the jet pump inoperable in excess of Technical Specification LCO 3.4.1.2 Action time. The flow transmitter had been isolated on February 27, 1997 during a Unit 1 forced outage as personnel protective blocking for work being performed on a jet pump sample isolation valve. The work activity was completed on March 1, 1997 and the personnel protective permit was cleared and closed. Since neither the work document or the personnel protective permit directed restoration of the flow transmitter, the transmitter remained isolated until its discovery on March 19, 1997. Due to the calibration head correction factors used to calibrate jet pump flow transmitters for operational conditions, a delta P of zero results in an expected reading of 3.65% ± 1.75%. Therefore, an indication of 5% (which the #14 jet pump was indicating as a result of its transmitter being equalized and isolated) did not fall out of the

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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

expected range with respect to the other jet pumps until reactor power level had increased sufficiently, such that it fell out of the expected range and was identified by the operator on March 19, 1997. The time period from when the jet pumps were required to be Operable in Operational Condition 2 (3/3/97) until discovery of the isolated transmitter on March 19, 1997, when the plant was in Operational Condition 1, exceeded Technical Specification LCO 3.4.1.2 Action requirement time of 12 hours and represented a condition 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. Jet pump structural integrity was never affected or degraded and the jet pump was capable of performing its specified safety function of ensuring vessel reflooding to two-thirds core height during a LOCA throughout the time period in which the transmitter was isolated. The isolated transmitter affected core thermal limits and hydraulic stability monitoring in a conservative manner.

In accordance with the guidelines provided in NUREG-1022, Supplement 1, Items 14.1 and 14.2, the required submission date for this report was determined to be April 18, 1997. The discovery date of this event was March 19, 1997. The date in which the transmitter had been isolated in support of a work activity was February 27, 1997. The date on which the work was completed and the transmitter should have been restored was March 1, 1997 - this is the Event Date. The date on which the jet pump was initially required to be Operable, Operational Condition 2, was March 3, 1997.

**CORRECTIVE ACTIONS**

Upon discovery of the isolated jet pump transmitter, the transmitter was restored to service and the surveillance test was satisfactorily performed. All other blocking points on the subject personnel protective permit were independently verified to be in their correct position. A multi-disciplined Event Review Team was chartered to perform a root cause analysis for this event and to develop a corrective action plan.

Actions to prevent recurrence include:

- Clarifying station policy regarding the use of notes on personnel protective permits.
- Providing procedural clarification and guidance to ensure that work authorizing documents are in place for control of all work activities.
- Reviewing with all station personnel associated with the work processes that work must be performed in accordance with a work authorizing document, and not via a personnel protective permit.



**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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- Ensuring that all changes to work authorizing documents are identified and dispositioned in accordance with station procedures.
- Clarifying to station supervisory personnel the need to use station administrative controls for maintaining status.
- Communicating to all station personnel the human performance and administrative program adherence issues identified during the investigation of this event.
- Reviewing other historical station equipment mispositioning events for long term program / process enhancements.

**ADDITIONAL INFORMATION**

Failed Component Identification: None

Past Similar Events: None identified.