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ACCESSION NBR: 9310130065 DOC. DATE: 93/10/07 NOTARIZED: NO DOCKET #
 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylvania 05000388
 AUTH. NAME: METER, J.J. AUTHOR AFFILIATION: Pennsylvania Power & Light Co.
 STANLEY, H.G. Pennsylvania Power & Light Co.
 RECIPIENT NAME: RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 93-005-00: on 930908, determined pressure indicator inoperable due to loose connection within indicator dial. Replaced pressure indicator. W/931007 ltr.

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

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October 7, 1993

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 93-005-00
FILE R41-2
PLAS -575

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

Attached is Licensee Event Report 93-005-00. This report is being made pursuant to 10CFR50.73(a)(2)(i)(B), in that Susquehanna Unit 2 was in a condition prohibited by the Technical Specifications when required hydrogen sampling of the condenser offgas treatment system was not completed within four hours of the previous sample. Technical Specification 3.3.7.11 action 110 requires this sampling when in-line hydrogen analyzers are inoperable. The required hydrogen analyzers were subsequently returned to service.


H.G. Stanley
VP - Nuclear Operations

JJM/mjm

cc: Mr. T. T. Martin
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PDR ADOCK 05000388
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JE22/11

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	PAGE (3) 1 OF 0 4
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TITLE (4)
Operation Prohibited By Technical Specification - Untimely Hydrogen Sample

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	9	0	8	9	3	9	3	9	0	0	5	0	0	1	0	0	7	9	3	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) 0 4 7	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 50.73(a)(2)(ix)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
	<input type="checkbox"/> 20.405(a)(1)(vi)	<input checked="" type="checkbox"/> 20.405(a)(2)(i)	<input type="checkbox"/> 20.405(a)(2)(ii)	<input type="checkbox"/> 20.405(a)(2)(iii)	<input type="checkbox"/> 20.405(a)(2)(iv)	<input type="checkbox"/> 20.405(a)(2)(v)	<input type="checkbox"/> 20.405(a)(2)(vi)	<input type="checkbox"/> 20.405(a)(2)(vii)	<input type="checkbox"/> 20.405(a)(2)(viii)	<input type="checkbox"/> 20.405(a)(2)(ix)	<input type="checkbox"/> 20.405(a)(2)(x)	<input type="checkbox"/> 20.405(a)(2)(xi)	<input type="checkbox"/> 20.405(a)(2)(xii)	<input type="checkbox"/> 20.405(a)(2)(xiii)	<input type="checkbox"/> 20.405(a)(2)(xiv)	<input type="checkbox"/> 20.405(a)(2)(xv)	

LICENSEE CONTACT FOR THIS LER (12)										TELEPHONE NUMBER					
NAME J. J. Meter - Power Production Engineer										AREA CODE 7 1 7		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 NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	
X	WF	PI	A 5 0 1	N							

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

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

On August 8, 1993, at 1725 hours with Unit 2 in Condition 1 at 47% power, the required hydrogen sampling of the condenser offgas treatment system was not completed within four hours of the previous sample as required by Technical Specification 3.3.7.11 action 110. This Technical Specification requires grab samples to be collected at least once per 4 hours and analyzed within the following 4 hours when the required in-line hydrogen analyzers are inoperable and the main condenser offgas treatment system is in service. Eight grab samples of the offgas treatment system were satisfactorily taken and analyzed. The next sample was due at 1725 hours on 9/8/93 and the Chemistry Technician assigned to perform the sampling was unable to complete the task because a pressure indicator which is utilized to determine the sample volume was found inoperable. The failed pressure indicator was investigated and replaced. Additionally, Operations evaluated the offgas treatment system parameters and at 1855 hours on 9/8/93, the hydrogen analyzers were returned to operable status and action 110 of Technical Specification was exited. The cause of the pressure indicator failure was due to a loose connection within the indicator dial. This event was determined to be reportable per 10CFR50.73(a)(2)(i)(B), as a condition prohibited by the plant's Technical Specifications. This condition did not create a significant degradation in the Station's ability to protect the health and safety of the public. Actions to prevent recurrence include a comprehensive evaluation of the hydrogen analyzers and determining if improvements to the existing system can be made.



LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 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 9 3	SEQUENTIAL NUMBER - 0 0 5	REVISION NUMBER - 0 0	0 2	OF 0 4

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

DESCRIPTION OF EVENT

On August 8, 1993, at 1725 hours with Unit 2 in Condition 1 at 47% power, the required hydrogen sampling of the condenser offgas treatment system (EIS Code: WF) was not completed within four hours of the previous sample as required by Technical specification 3.3.7.11 action 110. This Technical Specification requires grab samples to be collected at least once per 4 hours and analyzed within the following 4 hours when the required in-line hydrogen analyzers are inoperable and the main condenser offgas treatment system is in service. Prior to the incomplete hydrogen sampling, the hydrogen analyzers were removed from service and declared inoperable on 9/7/93 at 0935 hours when the Unit 2 condenser was realigned from the Unit 2 offgas treatment system (hydrogen recombiner) to the Unit Common offgas treatment system (hydrogen recombiner). Subsequent to declaring the analyzers inoperable, eight grab samples of the offgas treatment system were satisfactorily taken and analyzed between 0945 hours on 9/7/93 and 1325 hours on 9/8/93. The next sample was due at 1725 hours on 9/8/93 and the Chemistry Technician (non-licensed, utility) assigned to perform the sampling was unable to complete the task because a pressure indicator (PI-20785) which is utilized to determine the sample volume was found inoperable. The Instrumentation and Controls group was notified and the failed pressure indicator (PI-20785) was investigated. Additionally, Operations evaluated the offgas treatment system parameters and at 1855 hours on 9/8/93, the hydrogen analyzers were returned to operable status and action 110 of Technical Specification was exited.

CAUSE OF EVENT

One cause of the event was attributed to the failure to obtain a sample of the offgas treatment system in the required time frame. This was a direct result of the failure of pressure indicator (PI-20785) which is necessary for Chemistry to determine the volume of offgas collected which in turn is utilized to determine hydrogen concentration. The cause of the pressure indicator failure was due to a loose connection within the indicator dial. Another cause of the event was that the in-line hydrogen analyzers were not available for service. Normal operational practice is to remove the in-line hydrogen analyzers from service and obtain grab samples of the offgas treatment system after realigning a main condenser to a different offgas treatment system. Usually, only the trip and alarm functions of the analyzers are effected in this configuration. The instrument recorder remains functional. The evolution is performed because of system perturbations associated with swapping offgas treatment systems (hydrogen recombiners) and the possible spurious system isolations that could occur if the in-line hydrogen analyzers trip functions are used. The in-line analyzers usually remain inoperable until the in service offgas treatment system parameters are stable. In this event the system had stabilized, however, Operations desired additional grab samples to confirm stability.



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)	
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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), as a condition prohibited by the plant's Technical Specifications in that a hydrogen sample of the offgas treatment system was not completed within 4 hours of the previous sample while the in-line hydrogen analyzers were inoperable. This 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 during the time that the offgas treatment system hydrogen sample was not taken. The eight samples that were satisfactorily taken and analyzed showed that hydrogen concentrations were stable in the .29% to .38% range which is well below the explosive concentration. Although the same pressure indicator (PI-20785) was utilized for each of the above analyses, the failure of the indicator is not believed to have effected the previous hydrogen concentration results. This conclusion is based on the behavior of the PI prior to failure (indicator at steady state) versus the behavior of the PI after failure (indicator spinning). Additionally, when the in-line hydrogen analyzer was returned to operable status the hydrogen concentrations were in the range of the grab sample results prior to the PI failure.

The elapsed time from the last completed sample until the in-line analyzers were declared operable and providing hydrogen concentrations was five and one half hours and this is less than the Technical Specification maximum allowable time for determining hydrogen concentrations. Action statement 110 of Technical Specification 3.3.7.11 allows up to 4 hours for the sample and an additional 4 hours to analyze for a total of 8 hours from the previous sample to provide hydrogen concentrations.

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 10/8/93.

CORRECTIVE ACTION

Upon discovery of the inoperable pressure indicator, the Instrument and Controls group was notified to investigate the pressure indicator and it was subsequently replaced. Operations evaluated the offgas treatment system parameters and concluded that the in-line analyzers could be restored to operable status. Actions to prevent recurrence include a comprehensive evaluation of hydrogen analyzers and determining if improvements to the existing system can be made.



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.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		93	0105	00	04	OF 04

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

ADDITIONAL INFORMATION

Failed Component Identification:

Component - Pressure Indicator PI-20785

Model - Duragauge

Manufacturer - Ashcroft

Previous Similar Events:

A review of past Licensee Event Reports (LERs) for the station identified one previous event where a required sampling of the offgas treatment system was not performed in the required time.

Unit 1 (Docket No. 50-387/License No. NPF-14)

LER 83-013