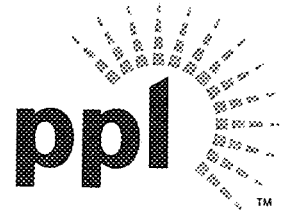


Robert F. Saunders
Vice President - Nuclear Site Operations

Susquehanna Steam Electric Station.
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OCT 28 1999

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 50-387/92-015-04
PLA - 5126

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

Attached is Licensee Event Report 50-387/92-015-04. This supplement is being provided as a result of the identification of additional fire barrier deficiencies during plant walkdowns in conjunction with the Thermo-Lag Upgrade Project. The deficient installations were determined to have been in place since the original construction of the fire barriers. Corrective actions to resolve the deficiencies are in progress in accordance with the Thermo-Lag Upgrade Project.

A handwritten signature in cursive script that reads 'R F Saunders'.

Robert F. Saunders
Vice President – Nuclear Site Operations

Attachment

cc: Mr. H. J. Miller
Regional Administrator
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

cc: Mr. S. L. Hansell
Sr. Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 35
Berwick, PA 18603-0035

IE22

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
05000387

PAGE (3)
1 OF 5

TITLE (4)
Fire Barriers Not Surveilled And Not Installed Per Specification

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 NAME	DOCKET NUMBER
09	03	92	92	-- 015	-- 04	10	28	99	Susquehanna SES Unit 2	05000388
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)								
1	100	20.2201(b)		20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)		50.73(a)(2)(viii)		
		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)		
		20.2203(a)(2)(i)		20.2203(a)(3)(iii)		50.73(a)(2)(iii)		73.71		
		20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER		
		20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A		
		20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)				

LICENSEE CONTACT FOR THIS LER (12)

NAME Cornelius T. Coddington - Senior Engineer, Licensing	TELEPHONE NUMBER (Include Area Code) 610 / 774-4019
--	--

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

This supplement is being provided as a result of the identification of additional fire barrier deficiencies during plant walkdowns in conjunction with the Thermo-Lag Upgrade Project. On September 3, 1992 with both Units in Condition 1, reviews being performed during NRC inspection 92-23 identified that Kaowool fire rated barriers were not inspected during performance of the inspection surveillance. All fire rated raceway wrap had previously been declared inoperable as outlined in LER 92-012-01. On October 9 & 29, 1992, January 13 & 29, 1993, February 5, 1993, and August 20, September 2 and October 14, 1998, several discrepancies were discovered with regards to fire rated raceway wrap and other fire rated barriers not meeting specified design requirements. This raceway wrap had also previously been declared inoperable as mentioned above. The cause of the failure to identify these discrepancies was procedural inadequacy and personnel error. The cause of the installation discrepancies appears to be from initial installation errors. Drawing inaccuracies contributed to the Appendix R Deviation Request discrepancies. These conditions were determined to be reportable per 10CFR50.70(a)(2)(i)(B) as an operation prohibited by Technical Specifications in that required surveillances were not performed and required action statements were not entered. There were no safety consequences as a result of this condition. The subject surveillance procedures were revised and personnel trained on the revision. The subject Fire Protection drawings as built configuration were verified. The appropriate rework for the installation discrepancies was completed for those discrepancies identified previous to 1998. For the discrepancies identified in 1998, the appropriate rework will be completed as part of the Thermo-Lag upgrade Project.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Susquehanna Steam Electric Station - Unit 1	05000				2 OF 5
	387	92	-- 015	-- 04	

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

EVENT DESCRIPTION

This supplement is being provided as a result of the identification of additional fire barrier deficiencies during plant walkdowns in conjunction with the Thermo-Lag Upgrade Project. On September 3, 1992 with Unit 1 in Condition 1 at 100% power and Unit 2 in Condition 1 at 92% power, reviews being performed during NRC Inspection 92-23 (Appendix R, Thermo-Lag) identified that Kaowool fire rated barriers were not inspected during performance of the Eighteen Month Fire Barrier Inspection. All fire rated raceway wrap (conduits, cable trays, etc.) had previously been declared inoperable as outlined in LER 92-012-00 and 92-012-01 and the required Technical Specification action statements entered and compensatory measures taken.

On September 4, 1992, several discrepancies were discovered with regards to Kaowool fire rated barriers not meeting the requirements of the installation specifications. In addition, two discrepancies regarding our Fire Protection Review Report Appendix R Deviation Requests were discovered. One discrepancy concerned the lack of automatic suppression in a fire zone that contained Kaowool Fire rated raceway wrap and the other related to fire barrier endurance rating. A Nonconformance Report was generated to document the discrepancies. These barriers had also been previously declared inoperable as mentioned above, thus no additional compensatory measures were necessary.

An inspection of all fire rated barriers was initiated as committed to in Revision 0 of this report. Additional discrepancies were discovered on October 9 and October 29, 1992 where fire rated wrap was installed outside of the specified design requirements. These discrepancies involved the lack of a seal at a raceway floor penetration and the lack of conduit wrap not extending the required distance out from two wrapped junction boxes. An additional Nonconformance Report was generated to document these discrepancies of October 9 and 29, 1992 and January 13, 1993 discussed below.

Additional discrepancies were discovered on January 13 and January 29, and February 5, 1993 as a result of our on-going inspection and were documented in an additional Nonconformance Report. These discrepancies were similar to those previously reported and involved the lack of raceway barrier, the lack of heat sink barrier, and raceway barrier not properly sealed at a penetration and gypsum board enclosures not installed per the applicable drawing.

Additional discrepancies were discovered on August 20, September 2, and October 14, 1998 as a result of plant walkdowns to support the Thermo-Lag Upgrade Project and were documented on separate Condition Reports. These discrepancies were similar to those previously reported and involved the lack of conduit and junction box barriers.

Refer to SUMMARY at the end of this report for historical outline of original LER as well as updates 01 through 03.

CAUSE OF EVENT

The cause of the failure to inspect the Kaowool barrier and failure to previously identify installation discrepancies during the surveillance was procedural inadequacy and personnel error. The procedure required inspection of fire barriers but did not specify any particular type barrier. Those personnel performing the inspection thought that only Thermo-Lag barriers required inspection.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

The exact cause of the discrepancies discovered on September 4, 1992, and those discovered on October 9 & 27, 1992, January 13 & 29, 1993, February 5, 1993, and August 20, September 2 and October 14, 1998, could not be determined, but they appear to be initial construction installation discrepancies. Concerning the deviation request discrepancies, the drawings utilized as the basis for the requests contained inaccuracies in that they reflected Thermo-Lag as the installed barrier but, in fact, the installed barrier was Kaowool.

Our initial evaluation determined that the cause of the failure to identify the discrepancies discovered on October 9 & 29, 1992, January 13 & 29, 1993, February 5, 1993, and August 20, September 2 and October 14, 1998 during previous surveillance inspections was procedural inadequacy and personnel error. Should this determination change following final cause determination, an update will be submitted.

REPORTABILITY/ANALYSIS

The failure to inspect the Kaowool Fire rated barriers, as well as the fire barrier installation discrepancies were determined to be reportable per 10CFR50.73(a)(2)(i)(B) as an operation prohibited by the Plant Technical Specifications. Failing to surveil the Kaowool Fire Rated Barriers constituted an operation prohibited by Tech Specs in that the required surveillance testing was not performed. The fire barrier installation discrepancies constituted an operation prohibited by Tech Specs in that the required Tech Spec action statements were not entered. There were no safety consequences as a result of this condition. At the time of discovery, fire watches were already in place and fire detection operability had already been verified. Given this compensatory action to quickly detect a fire, the likelihood of fire damage to both divisions of safety related equipment is minimal.

This condition would not have been more significant at any other operating condition.

In accordance with guidance 10CFR50.4(d), the required submission date for the original report was determined to be October 3, 1992.

CORRECTIVE ACTION

The fire barrier inspection surveillance procedures were revised to more clearly state the inspection requirements and personnel performing the inspections were trained on the revised procedure. This corrective action is applicable to the initial discrepancies of September 4, 1992 as well as those of October 9 & 29, 1992, January 13 & 29, 1993, and February 5, 1993. All Kaowool installations have been declared inoperable and compensatory fire watches are in place.

Concerning the installation and drawing discrepancies, Nuclear Engineering verified the subject Fire Protection drawing as built configurations. The appropriate rework for the installation discrepancies was determined and an action plan for implementation was developed. Repair of these deficiencies, with the exception of Kaowool, was completed on July 29, 1993. The Kaowool discrepancies and those discrepancies identified in the 1998 plant walkdowns will be addressed through a combination of reanalysis or rework / replacement in conjunction with our actions to address issues associated with Thermo-lag.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
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Susquehanna Steam Electric Station - Unit 1	05000				
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

ADDITIONAL INFORMATION

Failed Component Identification: N/A

Previous Similar Events:

Although there have been previous events involving fire barriers and missed surveillances, there were none caused by misinterpretation of procedures and initial construction deviations.

SUMMARY

This summary is provided to outline reportable conditions and corrective actions associated with fire rated raceway wrap since issuance of the initial revision of this report. Our on-going inspections have resulted in two updates to this LER and the outline is a brief summary of each revision.

LER 92-015-00

Reportable Condition: Kaowool not surveilled
Raceway wrap installation discrepancies.

Cause: Inadequate procedure and training
Initial construction errors
Drawing discrepancies

Corrective Action: Revise Surveillance Procedures
Train personnel on procedures
Verify Fire Protection drawing as-builts
and correct discrepancies
Rework installation discrepancies

LER 92-015-01

Reportable Condition: Additional installation discrepancies

Cause: Initial construction errors
Drawing discrepancies

Corrective Action: Continue drawing as-built verification
and corrections
Continue reworks.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Susquehanna Steam Electric Station - Unit 1	05000					
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

LER 92-015-02

Reportable Condition: Additional installation discrepancies.

Cause: Same as 92-015-01

Corrective Action: Same as 92-015-01

LER 92-015-03

Reportable Condition: Additional installation discrepancies.

Cause: Same as 92-015-01

Corrective Action: Same as 92-015-01