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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 50-388/00-004-00
PLA - 5226 FILE R41-2

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

Attached is Licensee Event Report 50-388/00-004-00. 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 when a Primary Containment Isolation Valve (PCIV) became inoperable, actions were not taken due to a non-conservatism in an interpretation of the Technical Specifications on the isolation requirements of the H_2O_2 Analyzer penetrations. The interpretation has been revised and a Technical Specification amendment request has been submitted. There were no safety consequences or compromises to public health and safety as a result of this event.

Bryce L. Shriver
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

NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 06/30/2001

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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Susquehanna Steam Electric Station - Unit 2	05000388	1 OF 4

TITLE (4)
Technical Specification Interpretations Incorrect – Operations 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 NAME	DOCKET NUMBER 05000
07	17	00	00	-- 004 --	00	08	16	00	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)
POWER LEVEL (10)	100		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)(ii)		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	TELEPHONE NUMBER (Include Area Code)
Cornelius T. Coddington - Senior Engineer, Licensing	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)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE).	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On July 17, 2000 at 1500 hours, with Unit 2 in Mode 1 (Power Operation) at 100 percent power, it was determined that interpretations of the plant's Technical Specifications for the actions to be performed, should a primary containment isolation barrier in the H_2O_2 Analyzer penetrations become inoperable, contained a non-conservative statement. The non-conservative statement directed that no Limiting Conditions for Operation (LCO) need be taken when one of the two Primary Containment Isolation Valves (PCIVs) becomes inoperable, since the isolation function of the two PCIVs was backed-up by a closed system. A subsequent review of work documents for the H_2O_2 Analyzer penetrations' PCIVs showed that from April 11, 2000 to April 14, 2000 one PCIV in a Unit 2 H_2O_2 Analyzer penetration had been inoperable and no LCOs were entered when required, due to the TSI. The root causes were attributed to (1) the FSAR not clearly reflecting the required design basis of the penetration and (2) human error in that at the time the TSI was developed, the preparer did not thoroughly research the licensing basis for the H_2O_2 Analyzer penetrations. The Technical Specification Interpretations (TSIs) for both units were revised to eliminate the non-conservatism. The remaining six (6) TSIs (3 on each unit) were reviewed to ensure that they did not contain non-conservative statements. The review concluded that these other TSIs did not contain any non-conservative statements. Actions are being implemented to eliminate the eight (8) existing TSIs (4 on each unit). Also, a Technical Specification change has been submitted to the NRC. Corrective actions remaining to be completed include (1) the deletion or revision of the procedure for processing TSIs and (2) revising of the FSAR to reflect the approved design of the penetration. There were no safety consequences or compromises to public health and safety since two of the three isolation barriers remained operable during this time period.

EVENT DESCRIPTION

On July 17, 2000 at 1500 hours, with Unit 2 in Mode 1 (Power Operation) at 100 percent power, it was determined that an interpretation of the plant's Technical Specifications for the actions to be performed should a primary containment isolation barrier in the H_2O_2 Analyzer (EIIS Code: IK) penetrations become inoperable contained a non-conservative statement. The non-conservative statement directed that no Limiting Conditions for Operation (LCO) need be taken when one of the two Primary Containment Isolation Valves (PCIVs) becomes inoperable since the isolation function of the two PCIVs was backed-up by a closed system. The Technical Specification Interpretation (TSI) should have directed that actions be taken to isolate the penetration within 4 hours should a PCIV become inoperable. A review of plant documents for the H_2O_2 Analyzer penetrations' PCIVs revealed that from April 11, 2000 to April 14, 2000, one PCIV in a H_2O_2 Analyzer penetration was inoperable and no LCOs were entered.

This constituted a condition prohibited by the plant's Technical Specifications.

CAUSE OF EVENT

The root causes of this condition were attributed to:

(1) The FSAR did not clearly reflect the required design basis for the H_2O_2 Analyzer penetration.

(2) Nuclear Licensing personnel (utility; non-licensed) did not perform a thorough information search on the documentation for the licensing basis of the H_2O_2 Analyzer penetration.

REPORTABILITY/ANALYSIS

TSIs 1(2)-00-001, Revision 0, were written in support of a Condition Report. This Condition Report identified that Technical Specification Bases Table 3.6.1.3-1 did not contain a note that the redundant isolation boundary for the H_2O_2 Analyzer penetrations was a closed system. The closed system is required as an isolation boundary since the PCIVs in these penetrations are not single failure proof. Both of the PCIVs in each penetration are powered from the same division of electric power. Based on the wording in FSAR Section 6.2.4.3.3.6 (which stated that the lines up to and including the H_2O_2 Analyzer panels are extensions of containment, i.e. closed systems) and the original NRC Safety Evaluation Report (Section 6.2.4), it was concluded that the licensing basis for these penetrations was that both PCIVs were considered as one isolation boundary and the second isolation boundary was the closed system. This position was technically acceptable since the NRC had approved the use of one PCIV and a closed system for other penetrations. The original NRC SER section provided acceptance of an exception to GDC 56 that appeared to apply to these penetrations. The NRC SER allowed for having at least one isolation valve and a closed system as isolation boundaries. Since the Technical Specification Bases table did not identify the closed system as an isolation boundary, the TSIs were written.

During the preparation of the Technical Specification change for the H_2O_2 Analyzer penetrations, License Amendments Nos. 101 for Unit 1 and 72 for Unit 2 were reviewed. These amendments were only in support of the installation of the isolation valves for the Containment Radiation Monitor (CRM; EIIS Code: IK) penetrations. License Amendments Nos. 101 and 72 provided evidence to support the fact that the containment isolation provisions for the H_2O_2 Analyzer penetrations included two valves and a closed system. These amendments stated that the exemption to GDC 56 (discussed in the original NRC SER) for the H_2O_2 Analyzer penetrations, described in FSAR Section 6.2.4.3.3.6, was for two valves outside primary containment. Based upon this information and the Technical Specification table, both the PCIVs and the closed system are the isolation boundaries for the H_2O_2 penetrations. Therefore, should a PCIV become inoperable, the appropriate Condition in LCO 3.6.1.3 should be entered. This information rendered Revision 0 of TSIs 1(2)-00-001 non-conservative since the TSIs stated that if one of the PCIVs was inoperable no actions were to be entered.

A review of plant documents for the H_2O_2 Analyzer PCIVs was performed to determine if the TSIs were used when a PCIV was inoperable. The review identified one event on Unit 2 where a PCIV was inoperable and the TSI directed the operator not to take any LCO action. One of the PCIVs was stroking slowly and was declared inoperable on April 11, 2000. An investigation on the valve was performed on April 14, 2000. This investigation showed that the valve was stroking properly. A decision was made to replace the valve even though it was performing acceptably. The replacement was completed on April 20, 2000.

Since the PCIV was inoperable from April 11, 2000 to April 14, 2000 and no LCO actions were taken, but should have been, this condition constitutes a condition prohibited by Technical Specifications and is reportable per 10CFR50.73(a)(2)(i)(B).

There were no safety consequences or compromises to public health and safety since the remaining two of the three required isolation barriers remained operable during this time.

In accordance with the guidelines provided in NUREG-1022, Revision 1, Section 5.1.1, the required submission date for this report was determined to be August 16, 2000.

CORRECTIVE ACTIONS

The following corrective actions have been completed:

- The TSIs have been revised to eliminate the non-conservatism.
- A Technical Specification change has been submitted to the NRC to address the H_2O_2 Analyzer penetration.
- All existing TSIs have been reviewed to determine if they contain any non-conservative statements. The review concluded that the other TSIs did not contain any non-conservative statements.
- The Licensing Engineer was coached and counseled.

The following corrective actions are to be completed:

- Revise the procedure for processing TSIs to ensure there are adequate controls to prevent future non-conservative interpretation.
- Revise the FSAR to reflect the approved design of the penetration.
- All existing TSIs will be eliminated via changes to the Technical Specifications or Technical Specifications Bases.

ADDITIONAL INFORMATION

Past Similar Events: LER 97-003-00, Docket No. 50-387/License No. NPF-14

Failed Component: None