NRC FORM 366 (4-95) | U.S. NUCLEAR REGULATORY COMMISSION | APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS 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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4)

Design Basis For Control Room/Cable Spreading Room Fire Barrier Not Fully Implemented

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
10	11	1999	1999	009	00	11	10	1999	PBNP Unit 2	05000301
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	N
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) **(11)**

	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)	X	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)
Charles Wm. Krause, Senior Regulatory Compliance Engineer	(920) 755-6809

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)**

While investigating a degradation of the fire barrier between the Point Beach Nuclear Plant (PBNP) control room and the adjacent cable spreading room (CSR), PBNP fire protection engineers identified a deficiency in the application of a plant modification which was intended to upgrade that fire wall to a three hour fire barrier rating. This constituted a failure to meet a design basis commitment from Appendix A to BTP APCSB 9.5-1 as documented in an NRC safety evaluation report. We concluded that this event should be considered as a condition outside the design basis for fire protection and was reportable in accordance with 10 CFR 50.73(a)(2)(ii)(B). Corrective actions consisted of preparation of a Fire Protection Engineering Evaluation in accordance with plant procedures and NRC Generic Letter 86-10, and a 10 CFR 50.59 evaluation which provides justification for the as-found condition as providing an acceptable fire separation barrier as defined by the requirements of 10 CFR 50 Appendix R. Since the separation criteria of Appendix R for the CSR has been documented as being satisfied, there was no impact on the health and safety of the public or plant staff from this event.

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Point Beach Nuclear Plant, Unit 1	0500266	1999	- 009	- 00	2 OF 4

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

Event Description:

On October 3, 1999, a corrective action condition report (CR 99-2352) was written to document and address several small holes found in the south wall of the Control Room (CR) kitchen. This wall is one of the fire zone boundaries for the CR fire zone (FZ-326). A slight air flow could be felt blowing out of these holes, presumably from the cable spreading room (CSR) which is the fire zone adjacent to FZ-326. The holes were associated with a paper towel dispenser which had come loose from the wall, two copper pipes that penetrated the wall, and an unused water fountain mounting bracket. At the time of this discovery, both Point Beach Nuclear Plant (PBNP) units, which share this common control room, were operating at full power.

This wall segment forms a portion of the CR/CSR envelope which was intended to provide a three hour fire-rated separation between these fire zones. This condition was evaluated and determined to represent a breach, or degradation of the CR/CSR fire barrier. In accordance with plant procedures (OM 3.27), compensatory measures were immediately initiated consisting of hourly fire rounds in the CSR. (Since the control room is continuously manned, no fire watch was necessary on that side of the barrier.) The impact of this condition on CR ventilation operability and the integrity of the CR envelope was also evaluated. The ventilation system was determined to be operable based on the recent ventilation surveillance testing of the CR ventilation in the emergency mode which demonstrated that a positive pressure in the CR was attained with the kitchen wall in the as found condition. A work order was initiated to repair the holes. The condition was subsequently resolved by sealing the penetrations using Masterflow 713 non-shrink grout.

While investigating the above condition, we identified a separate issue involving the fire resistive status of this particular wall segment. According to the PBNP Fire Protection Review, dated June 1977, which documented the licensee's strategies to establish compliance to Standard Review Plan 9.5-1 and Appendix A to Branch Technical Position (BTP) APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July 1, 1976"; we had committed to upgrading the CSR boundary to a three hour fire rating. This Fire Protection Review was accepted by the NRC and documented in a safety evaluation report (SER) dated August 2, 1979.

In 1984 a modification (MR 84-34) was performed to upgrade this wall to the committed three hour rating. To accomplish this upgrade a ¾" and ½" thickness of gypsum plaster was applied to the CSR and CR sides of the wall, respectively, resulting in a three hour plus rating of the barrier. While investigating the fire barrier degradation discussed above, we discovered that the ¾" plaster coat was not applied to a portion of the CSR wall. This portion of the wall, identified as wall segment 115/23, is covered by a plaster board enclosure which boxes out structural support column F-11. As a result of this discovery, we concluded that our licensing commitment, and the existing design basis for this wall to provide a three hour fire barrier separating the CSR from the surrounding plant areas, was not satisfied. A one hour NRC event notification in accordance with 10 CFR 50.72(b)(1)(ii)(B) was made at 1556 CDT on October 11, 1999, and a separate condition report was initiated (CR 99-2383) to document the non-conforming fire rating of the CR/CSR wall.

Cause:

The apparent cause of this discrepancy is not apparent from the available documentation. It is postulated that the plaster overcoat was not installed inside of the column F-11 plaster board enclosure for two reasons. Column F-11 is "fire proofed" with a friable asbestos containing material. Installation of the plaster overcoat on the enclosed portion of the wall would have involved a significant personnel hazard, which would have been recognized and considered in the implementation of the modification. Although this would not be reason enough to avoid applying the plaster overcoat, it is likely that the plaster board enclosure was credited as completing the barrier; therefore, no entry to the column F-11 enclosure was thought to be necessary. This conclusion eliminated the need to perform work in an asbestos contaminated area. These assumptions; however, were not documented.

Corrective Actions:

1. Hourly fire rounds were initiated for the CSR side of this fire barrier (the control room is continuously manned). This compensatory measure for this condition was relaxed after approval of the evaluations discussed in item 2.

2. In accordance with plant procedures (NP 7.7.13) and the guidance in Generic Letter 86-10, "Implementation of Fire Protection Requirements," a Fire Protection Engineering Evaluation (FPEE) of this barrier in the as-found condition has been completed. This in-depth evaluation of the in-situ fire hazards has demonstrated that the as-built configuration of this barrier provides adequate separation of the CSR and CR without modification. A 10 CFR 50.59 evaluation has also been completed which provides the justification for this change to the PBNP licensing basis.

Safety Assessment:

According to the 10 CFR 50 Appendix R Safe Shutdown Analysis (SSA) for PBNP, the response to a fire in either the CR or CSR is the same. Safe shutdown of the plant for either a CR or CSR fire scenario would be conducted in accordance with the alternative shutdown strategy described in the PBNP Fire Protection Evaluation Report (FPER). The requirement for 3 hr separation of the CSR from the rest of the plant stemmed from the requirements of Appendix A to BTP APCSB 9.5-1., Section F.3.(a)(3). The intent of that requirement was to provide assurance that at least one train of safe shutdown equipment would remain available in the event of a fire in the CSR or adjoining areas. However; the safety significance of this wall segment is currently defined by the requirements of Appendix R rather than Appendix A. As previously stated, the PBNP SSA indicates that the response to a fire in the CR or CSR is the same. Accordingly, 3 hr fire rated separation of these areas is not necessary to achieve safe shutdown of the plant. Although, this barrier is important from a loss prevention standpoint and it supports the defense-in-depth concept, it is not relied upon to ensure post fire safe shutdown of the plant. Accordingly, there was no impact on the health and safety of the public or plant staff as a result of this event.

System and Component Identifiers:

The Energy Industry Identification System component function identifier for each component/system referred to in this report are as follows:

Component/System	Identifier
Fire Detection System	IC
Detector, Flame	28
Cable	CBL

Similar Occurrences:

A review of recent LERs (past two years) identified the following events which involved concerns with the adequacy of safe shutdown equipment fire barriers:

LER NUMBER	Title
266/1999-007-00	Cable Tray Fire Stops Do Not Meet Appendix R Exemption Requirements
266/98-030-00	Assumptions for Equipment Necessary To Maintain Hot Safe Shutdown Outside Appendix R Design Basis