UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

August 25, 1994

MEMORANDUM FOR: Donald E. Funk Jr., Office Allegation Coordinator

FROM: G. C. Wright, Chief, Engineering Branch

SUBJECT: ALLEGATION NUMBER RIII-94-A-0118, FALSIFICATION OF D. C. COOK FIRE WATCH RECORDS

The Allegation Review Board met on Monday, August 22, 1994, and discussed the allegation that records of required fire watches had been falsified by a contractor employee at the D. C. Cook Plant. The individual denied that the records were falsified. The employee is no longer employed at D. C. Cook.

An inspector from the Division of Reactor Safety (DRS) reviewed the actions taken by licensee personnel on this issue. This is documented in Section 3.3 of Inspection Report 315/316/94012. In addition, DRS inspectors reviewed Licensee Event Report 94-005-00 (attached) and the descriptions of the problem and the actions taken which were included in Condition Report 94-0969 (attached). Licensee actions appeared to be adequate and no further actions are considered necessary. Allegation Number RIII-94-A-0118 should be closed.

G. C. Wright, Chief
Engineering Branch

Attachments:
1. Licensee Event Report 94-005-00
2. Condition Report 94-0969

Indiana Michigan
Power Company
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
616 465 5901

INDIANA
MICHIGAN
POWER

June 9, 1994

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852

Operating Licenses DPR-58
Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73 entitled Licensee Event Report System, the following report is being submitted:

94-005-00

Sincerely,

A. Alan Blind

A. A. Blind
Plant Manager

/sb

Attachment

c: J. B. Martin, Region III
E. E. Fitzpatrick
P. A. Barrett
R. F. Kroeger
M. A. Bailey - Ft. Wayne
NRC Resident Inspector
J. B. Hickman - NRC
J. R. Padgett
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NRC FORM 366 (5-92)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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)
D. C. Cook Nuclear Plant - Unit 1	05000 315	1 OF 3

TITLE (4) Failure of Fire Watch Personnel to Perform Assigned Duties Resulting in Missed TS Required Surveillance

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
12	28	93	94	- 0005 -	00	06	09	94	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)					
POWER LEVEL (10)	100	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)		
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)		
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER		
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)		
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)			
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
W. M. Hodge - Plant Protection Superintendent	616-465-5901

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

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 6/1/92, the fire protection for multiple areas of the Plant was declared inoperable due to the uncertainties regarding the fire proofing material used to protect components and cabling within those areas. Compensatory actions required by the Technical Specifications (TS) were established. On 2/11/94, a routine review of completed Fire Watch (FW) patrol records identified three (3) discrepancies in which an hourly FW patrol on the Essential Service Water (ESW) pump room was not conducted for a period of 1 hour 29 minutes on 12/28/93, 1 hour 38 minutes on 12/30/93 and 1 hour 29 minutes on 12/31/93. Additional reviews were conducted and identified one (1) additional discrepancy in which an hourly FW patrol was not conducted on the U-1 CD Emergency Diesel Generator (EDG) room for 1 hour 22 minutes on 2/24/94.

A random monitoring program has been developed to review FW tours. These events, lessons learned from these events, and management expectations were conveyed to Plant Protection personnel. FW patrol training and implementing procedures are being revised to incorporate the lessons learned from these events.

DESCRIPTION OF EVENT

On 6/1/92, the fire protection for multiple areas of the Plant was declared inoperable due to the uncertainties regarding the fire proofing material used to protect components and cabling within those areas.

On 2/11/94, a routine review of completed FW patrol tour records associated with TS related Fire Doors (FD) and other non-safety related FD for the months of November and December 1993, and January 1994, was conducted. This review revealed five discrepancies attributed to a single FW individual at the Unit 1 ESW pump room (door designation 1-GT-SCN212A-323).

From this review, the FW tour records generated by this individual for the time period November 17 through December 31, 1993 were examined to determine the extent of the problem. Twenty-two (22) total discrepancies were identified for this individual. Of the 22 discrepancies, three (3) were determined to have exceeded the requirements of TS 3.7.10. The other nineteen (19) were determined to have violated procedural requirements. No compensatory actions were taken as this review was of past events.

Based on these two reviews, a review was conducted of an additional 10% of the TS related FW patrols/tours and other non-safety related FW and FD tours for the period December 1993 through February 1994. This review identified six (6) additional procedural violations and one (1) discrepancy that had exceeded the requirements of TS 3.7.10. The discrepancy involved the U-1 CD EDG room.

CAUSE OF EVENT

For the documentation reviewed, it appears the cause was the failure of the individual(s) to perform their assigned duties. A contributing cause to these events was that management follow-up/monitoring of activities did not identify the discrepancies.

ANALYSIS OF EVENT

The TS 3.7.10 action statement for an inoperable fire rated assembly requires that "...within 1 hour: 1) verify that the fire detectors and/or fire suppression system on at least one side of the inoperable assembly are OPERABLE and establish an hourly fire watch patrol, or 2) establish a continuous fire watch patrol on one side of the penetration...".

Failure to maintain an hourly FW patrol was a violation of TS 3.7.10 and is reportable under 10 CFR 50.73(a)(2)(i)(B).

The U-1 ESW pump room (Fire Zone 29-G) and U-1 CD EDG room (Fire Zone 15) was being toured because it contains fire protective coating material which the Plant declared inoperable on 6/1/92. The hourly FW patrol was not conducted for a period of 1 hour 29 minutes on 12/28/93, 1 hour 38 minutes on 12/30/93 and 1 hour 29 minutes on 12/31/93 in the ESW pump room. The hourly FW patrol was not conducted for a period of 1 hour 22 minutes on 2/24/94 in the U-1 CD

ANALYSIS OF EVENT (cont'd)

EDG room. The analysis of this event concludes that in the unlikely event of a fire, personnel would have been promptly aware of its presence and would have extinguished the fire without significant spreading of the fire or equipment damage. This conclusion is based on the following:

1. The detection for FZ 29-G and FZ-15 was in an operable state, in the event of a fire, the detectors would have alarmed in the U-1 Control Room, which is manned 24 hours a day. This alarm condition would have been investigated and the appropriate Fire Brigade resources would have been dispatched to mitigate the fire.

2. Manual fire protection equipment was readily available for Fire Brigade use if they deemed necessary.

Although an hourly FW patrol was not conducted for 1 hour 29 minutes, 1 hour 38 minutes, 1 hour 29 minutes and 1 hour 22 minutes respectively, it is concluded that the alarms/detection associated with the affected FZ would have allowed timely identification of a fire. Therefore, these events are not considered to have created a significant safety concern, nor did it create a significant hazard to the health and safety of the general public.

CORRECTIVE ACTION

1. A random monitoring program was developed to review fire watch tours.

2. These events, lessons learned and management expectations were conveyed to Plant Protection personnel during meetings held during the month of May 1994.

3. Fire Watch patrol training and implementing procedures are being revised to incorporate the lessons learned from these events.

PREVIOUS SIMILAR EVENTS

None

Investigation

During a routine review of tour records, ten percent of Technical Specification Fire Doors, Appendix A Fire Doors and Fire Watch (FW) tour records were reviewed for the months of November and December 1993, and January 1994. The review consisted of a comparison of the completed logs against the security computer door transaction records. (The review was restricted to locations equipped with cardreaders.) The review found five discrepancies attributed to four security officers and five discrepancies attributed to a single FW person. Four of the security officer discrepancies were attributed to a misunderstanding of the room to be toured. There was no intentional falsification of tour records. The officers simply toured the wrong area. The fifth discrepancy was attributed to a security officer touring the required area ten minutes prior to the required start time. The five remaining discrepancies were attributed to the FW at the Unit 1 Essential Service Water pump room (FDB door designation 1-GT-SCN212A-323) and could not be mitigated.

As a follow up to the initial record review, FW tour records generated by the FW responsible for the five discrepancies noted above for November 17 through December 31, 1993 were examined to determine the extent of the problem. Twenty-three total discrepancies were identified which are attributed to this individual. Of the 23 discrepancies three were determined to be Technical Specification 3.7.10 violations which occurred on 12/28/93 (one violation 0030 - 0130), 12/30/93 (one violation 0030 - 0130) and 12/31/94 (one violation 0030 - 0130).

Computer transaction records indicate that the FW was aware of the location of the tour points. The tour points identified as having been missed were visited by the FW during tour rounds completed prior to or on the dates of the discrepancies. FW training was completed. During an investigative interview, the FW accurately described the requirements for conducting a FW tour. There were no conflicting assignments which would have prevented visiting all of the required tour points during the scheduled rounds. The FW also stated during the interview, that all required tour points were checked. The FW to which these events are attributed is no longer at Cook Plant.

Investigation

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Condition Report 94-0969

Two of the violations initially documented on the Condition Report were resolved because personnel trained as FW had entered the area within the required time frame based upon Technical Specification bases 3/4.0 paragraph 4.0.2 which allows a maximum extension not to exceed 25% of the specified surveillance interval. The areas resolved in this way are the Unit 1 Essential Service FeedWater Pump Room (ESW FDB door designation 1-GT-SCN212A-323) on 12/30/93 between 0630 and 0730 and on 12/31/93 between 0430 and 0530. One additional violation attributed to the FW was identified during this investigation. That violation was the ESW pump room on 12/31/93 form 0030 to 0130. This additional violation is reference in the text above.

Based upon the results of the initial review an additional ten percent of Technical Specification Doors, Appendix A Doors and FW tour records for the months of December 1993, and January and February 1994 were reviewed (increasing the original 10% to 20% for the months of December, 1993 and January, 1994). The results of the second review are contained in Attachment A of this investigation. The expanded review identified an additional Technical Specification 3.7.10 violation which occurred on 2/23/94 for the Unit 1 CD Diesel Generator Room between 2230 and 2330. This FW is no longer working at Cook Plant. No additional investigation is warranted.

No additional investigation is warranted in that, the reviews conducted have identified the programmatic concerns and adequate corrective/preventative actions were identified. Further, the items identified verse the sample size reviewed are not considered ineffective per Military Standard 105d.

Condition Report 94-0969

Background

PMI 2270 Fire Protection implements the requirement for FW tours to compensate for:

- inoperable fire barriers or fire barrier sealing devices
- inoperable fire doors
- inoperable Tech Spec related fire doors
- inoperable fire dampers
- non-functional cable tray or conduit fire protective material
- non-functional gap seals

The organization controlling the FW contractor is responsible for training contractor personnel in requirements of PMI 2270 or ensuring that the contractor has implemented a training program.

12 SHP 2270 FIRE.011 "Fire Watch Activities", provides for control and qualification of FW activities and establishes controls for Technical Specification compensatory measures and welding, burning, grinding Fire Watches.

The 12 SHP FIRE.011 is implemented by an onsite contractor specifically hired to provide onsite FW services The SHP provides guidance on FW requirements.

The SHP assigns responsibility to the contractor to:

a. Perform training in accordance with attachments 6 and 7 of the procedure.

b. Assure all contractor Fire Watches are properly trained in their duties in conformance with an approved training program.

c. Maintain documented evidence of the training.

d. Ensure the prompt and timely posting of all required Fire Watches.

e. Ensure only qualified Tech Spec Fire Watches are posted.

f. Assure posted Fire Watches properly discharge duties.

g. Conduct at least one surveillance per shift to assure Fire Watches discharge duties.

h. Coordinate multiple Fire Watches in an area to assure proper coverage is maintained.

i. Fill out Fire Watch log for each posting.

j. Review all completed Fire Watch logs.

k. Review and approve all Fire Watch logs.

l. Transmit completed Fire Watch logs to plant Fire Protection Coordinator.

m. Resolve questions or problems reported by Fire Watch personnel.

n. Be responsible for proper operation of Fire Watch systems.

Management direction for monitoring of contractor FW activities is initiated by SASO .018 Fire Watch Activity Verification. The SASO requires a quarterly random check of FW activities to verify that FW tours and posts are being conducted as required. The SASO allows the random checks to be accomplished by a review of security door transaction records or in-plant observations to verify the FW had arrived at the required area within the specified time.

Concerns

The investigation identified several areas of concern with the management of the FW tour activities, as follows:

1. 12 SHP 2270 FIRE.011 is unclear as to what constitutes an approved FW training program. There are no stated responsibilities for review and approval of training program materials. At the time of this event there was no periodic I&M monitoring of the training provided by the contractor to FW personnel.

2. The FW qualification process appears to be weak. There was no required supervisory monitoring of the On-The-Job Training to ensure training was adequate for it's intended purpose.

3. At the time of this event, interviews indicate shift tour surveillances were being conducted by contract supervision. However, licensee oversight was not conducted.

4. The instruction (SASO.018) implementing the quarterly monitoring of FW tours does not state requirements for sample size or acceptance criteria to ensure the FW tours are being properly implemented.

5. The current practice of generating tour log data sheets by hand increases the opportunity for transcription and legibility errors.

6. The method of identifying inoperable seals is inadequate. Presently, the seal number is written on masking or duct tape and placed on the floor. Normal foot traffic and cleaning activities degrade the tape and number over time.

7. No guidance/standards exist as to the purpose for reviewing and approving FW logs. There is no stated purpose for the review of FW tour logs or the criteria used for approving logs.

8. FW supervisor responsibilities relative to FW systems operation are not stated. It is unclear as to the intent of this responsibility as currently stated in 12 SHP 2270 FIRE.011.

9. The investigation identified situations where FW personnel did not have appropriate security cardreader access to areas to be toured.

10 The team believes there have been cases where FW personnel were confused over the difference between the Technical Support Center (TSC) and the TSC Computer Room. There also appears to have been confusion between the UPS Battery Room and the UPS Battery Inverter Room based upon FW interviews and computer transaction logs.

11. There was an accepted practice of signing off an area toured by another FW or Security Officer.

Root Cause

Based upon the existing evidence noted during this investigation and the concerns identified, the primary root cause for the three Technical Specification 3.7.10 violations is 50.01, a failure of a Fire Watch to perform the required task. A secondary cause is 13.20 Management follow-up or monitoring of activities did not identify problems. No security computer problems were identified which would have caused the door transaction records to be incomplete.

No hardware or maintenance activities could be identified which would have caused the security computer door transaction records to be incomplete.

Corrective Actions Taken

1. FP.004 Administrative Guideline to Monitor Fire Protection Tour/Surveillance was developed to establish a ten percent random monitoring program for FW tours.

2. The Security Cardreader access status for all Fire Watches has been changed to allow entry into all areas on the FW tours.

3. The FW contractor has issued a memo to all FW personnel directing them to contact security immediately if the security cardreader will not grant entry into a location to be toured.

4. Meetings were held during May 1994 with FW and Security personnel to outline expectations and the significance of falsification of tour activities.

Condition Report 94-0969

Preventive Actions

The following actions address the concerns identified during this investigation and if implemented should prevent recurrence.

1. Delineate in an appropriate procedure, the responsibilities of I & M personnel for the review and approval of the FW training program, to include lesson plan content, format and the FW qualification process.

2. Develop and implement a formalized OJT process (for each of the responsibilities of a FW) to address specific plant layout and terminology. Included in this process should be a clear understanding of management expectations for FW duties, standardized minimum plant knowledge, plant layout, and terminology which is to be demonstrated by all potential Fire Watches.

3. Develop and implemant a method of generating the tour log sheets to ensure clarity and consistency of the entries.

4. Evaluate the adequacy of the method currently used to identify inoperable seals.

5. Revise the department procedure which controls FW activities to:

   - Define what is meant by the review/approval of FW logs.
   - Define the parameters the supervisor must verify to indicate proper performance of the tour.
   - Reference the FW tour log in the procedure text.
   - Require a printed name and initials on tour log sheets.
   - State the specific FW supervisor responsibilities relative to FW systems operation.
   - Define how tour points are to be added and subtracted during a shift.
   - Revise the tour sheet to include:
     * Tour Point and location
     * Reason for tour (inoperable Gap Seal .....)
     * Requirement for proper tour (enter area, check for smoke and fire, ensure entry/exit cardreader transactions are obtained)