

NON-PUBLIC?: N
ACCESSION #: 8701210136
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Three Mile Island Unit 2 PAGE: 1 of 4

DOCKET NUMBER: 05000320

TITLE: Failure To Perform Technical Specification Required Hourly Firewatch
Due To Personnel Error
EVENT DATE: 12/04/86 LER #: 86-012-00 REPORT DATE: 01/13/87

OPERATING MODE: N POWER LEVEL: 000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION
50.73(a)(2)(i)

LICENSEE CONTACT FOR THIS LER:
NAME: Christopher J. Dell, TMI-2 Technical Analyst
TELEPHONE #: 717-948-4388

COMPONENT FAILURE DESCRIPTION:
CAUSE: X SYSTEM: KP COMPONENT: NZL MANUFACTURER: G256
REPORTABLE TO NPRDS: NO

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: On December 14, 1986, while reviewing TMI-2 Surveillance Procedure 4210-SUR-3810.07, "Fire System Deluge/Sprinkler System Flow Test", a Control Room Operator discovered a sprinkler nozzle of the deluge system for Control Room Bypass Charcoal Filter AH-F-5 had been logged as being inoperable during the performance of the surveillance on December 4, 1986, without the Control Room being notified. TMI-2 Technical Specification (Tech. Spec.) Limiting Condition for Operation (LCO) 3.7.10.2 requires the deluge system located in AH-F-5 to be operable. Per the acceptance criteria of Surveillance Procedure 4210-SUR-3810.07, the inoperable nozzle should have placed the Unit in the Action Statement for Tech. Spec. 3.7.10.2. This Action Statement requires a roving hourly firewatch with backup fire suppression equipment to be established within one (1) hour for the area affected by the inoperable equipment.

The root cause of this event was personnel error as the Auxiliary Operator (AO) performing the surveillance did not notify the Control Room upon discovery of the inoperable nozzle. Upon discovery of this condition on December 14, 1986, the Tech. Spec. Action Statement was entered. The nozzle

was subsequently cleaned, retested and satisfactorily returned to service at 1005 hours on December 14, 1986. To prevent a reoccurrence of this type of event, all operating crews will review the event and will be reminded of the need to immediately notify the Control Room of any deficiencies encountered during the performance of Tech. Spec. Surveillances.

(End of Abstract)

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I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

The TMI-2 facility is in a long-term cold shutdown state; the defueling evolution is in progress. The reactor decay heat was being removed via loss to ambient. Throughout this event there was no affect on the Reactor Coolant System or the core.

II. STATUS OF STRUCTURES, COMPONENTS, OR SYSTEMS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

N/A

III. EVENT DESCRIPTION

At 0745 hours on December 14, 1986, while reviewing TMI-2 Surveillance Procedure 4210-SUR-3810.07, "Fire System Deluge/Sprinkler System Flow Test", a Control Room Operator (CRO) discovered a sprinkler nozzle (IEEE Code NZL) of the Fire Protection System (IEEE Code KP) for Control Room Bypass Charcoal Filter AH-F-5 (IEEE Code VI) had been logged as being crushed during the performance of the surveillance on December 4, 1986, without the Control Room being notified. This condition rendered the deluge system inoperable per the surveillance procedure acceptance criteria and should have placed the Unit in the Technical Specification (Tech. Spec.) Action Statement.

TMI-2 Tech. Spec. Limiting Condition for Operation (LCO) 3.7.10.2 requires the deluge and/or sprinkler system located in the Control Room Bypass Filter AH-F-5 to be operable. The action statement for Tech. Spec. LCO 3.7.10.2 requires a roving hourly firewatch with backup fire suppression equipment to be established within one (1) hour for the area affected by the inoperable equipment and that the system be returned to operable status within 14 days.

TMI-2 Surveillance Procedure 4210-SUR-3810.07 is performed on a three (3) year interval in compliance with Recovery Operations Plan Section

4.7.10.2. This surveillance requirement demonstrates operability of the deluge system by performing an air flow test through each accessible deluge header and verifying that each deluge nozzle is unobstructed. The acceptance criteria for the surveillance is verification of non-restrictive flow through each deluge header and each nozzle must give sufficient evidence that it is unobstructed. The procedure also states that if the acceptance criteria is not met, the Unit is to enter the Action Statement for Tech. Spec. 3.7.10.2. In addition to the acceptance criteria, Section 7.1.6 of TMI-2 Procedure 4210-SUR-3810.07

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requires that any exceptions to flow verification must be noted on the data sheet and the Control Room must be notified.

In this event, the Auxiliary Operator (AO) who was performing the surveillance noted the exception on the surveillance data sheet but did not notify the Control Room. Thus, the Control Room did not enter the required Action Statement. This condition existed until December 14, 1986, when a CRO discovered, during a routine review of ongoing surveillances, that the nozzle had failed the surveillance test. Thus, from December 4, 1986 to December 14, 1986, the Unit was in a condition that represented a non-compliance with Tech. Spec. LCO 3.7.10.2. Therefore, the incident is reportable per 10 CFR 50.73(a)(2)(i)(B) due to the existence of a condition prohibited by the Plant's Tech. Specs.

The date of this event is December 4, 1986, the date the Unit failed to enter the Tech. Spec. Action Statement. This condition was not discovered until December 14, 1986; therefore, the report due date is January 14, 1987 (i.e., 30 days after the event was discovered).

IV. ROOT CAUSE OF THE EVENT

The root cause of this event was personnel error as the AO performing the surveillance did not notify the Control Room upon the discovery of the inoperable deluge nozzle. The deficiency was noted on the surveillance data sheet and the AO believed that sufficient notification had been effected.

The deluge nozzle was not crushed as originally thought but was inoperable due to an accumulation of corrosion and dirt particles at the nozzle orifice.

V. CORRECTIVE ACTIONS

Immediate

The Action Statement for TMI-2 Tech. Spec. LCO 3.7.10.2 was entered (i.e., an hourly firewatch was established).

The nozzle was cleaned, retested and satisfactorily returned to service at 1005 hours on December 14, 1986.

The Auxiliary Operator who performed the surveillance procedure was counseled.

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Long-Term - All operating crews will review this event and will be reminded of the need to immediately notify the Shift Supervisor/Shift Foreman of any deficiencies encountered during performance of Tech. Spec. surveillances.

VI. COMPONENT FAILURE DATA

Protective Spray Nozzle Type D3 manufactured by Grinnell Fire Protection.

VII. AUTOMATIC OR MANUALLY INITIATED SAFETY SYSTEM RESPONSES

N/A

VIII. ASSESSMENT OF THE SAFETY CONSEQUENCES AND THE IMPLICATIONS OF THE EVENT

The Control Room Bypass Charcoal Filter AH-F-5 deluge system discharge consists of 42 independent nozzles each designed to cover a specific area of the charcoal filter. The loss of one nozzle does not impact the discharge of the remaining 41 nozzles. In this event, it is likely that overspray from the remaining 41 nozzles would have covered the area affected by the damaged nozzle. Additionally, manual fire fighting equipment is available in the immediate vicinity and rapid fire brigade response would have been available if a fire had started within the filter housing. It is also noteworthy that Revision 1 to the TMI-2 Fire Protection Program Evaluation addressed the postulated design basis fire for the 351'-6" elevation of the Control Building (i.e., the area where the charcoal filter is located). The Safe Shutdown Analysis for this area stated that remote operation/indication for various systems would be lost, but the ability to maintain the plant in a safe cold shutdown condition would not be

affected. Therefore, based on the above discussion, this event had no impact on the health and safety of the public.

ATTACHMENT # 1 TO ANO # 8701210136 PAGE: 1 of 1

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January 13, 1987

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 86-12

Attached is Licensee Event Report 86-12 concerning the failure to comply with the action statement of Technical Specification 3.7.10.2 during the period from December 4, 1986 to December 14, 1986.

This event is considered reportable pursuant to Title 10 of the Code of Federal Regulations, Section 50.73(a)(2)(i)(B).

Sincerely,

/s/ F. R. Standerfer
F. R. Standerfer
Vice President/Director, TMI-2

FRS/CJD/eml

Attachments

cc: Regional Administrator - Office of I & E, Dr. T. E. Murley
Director - TMI-2 Cleanup Project Directorate, Dr. W. D. Travers

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