

NON-PUBLIC?: N
ACCESSION #: 8906150033
LICENSEE EVENT REPORT (LER)

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

DOCKET NUMBER: 05000320

TITLE: Performance of a Core Alteration Without the Supervision of a Fuel
Handling Senior Reactor Operator
EVENT DATE: 05/09/89 LER #: 89-003-00 REPORT DATE: 06/08/89

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: Russell D. Wells, TMI-2 Licensing Engineer TELEPHONE: 717-948-8461

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE TO NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

At approximately 0955 on Tuesday, May 9, 1989, Procedure 4730-IMP-3221.02 was being implemented in order to remove a TMI-2 core debris sample from the Reactor Vessel (RV). This activity was performed under the direction of a Task Supervisor. A Fuel Handling Senior Reactor Operator (FHSRO) was available in the Control Room, if required by the Task Supervisor, for functions requiring FHSRO supervision/authorization such as Core Alterations (i.e., movement of fuel within the RV), as required by the TMI-2 Technical Specifications (Tech. Specs.) Table 6.2-1. Section 5.4 of the referenced procedure specified that the activity being performed constituted a Core Alteration. However, the Task Supervisor failed to obtain the authorization of the FHSRO prior to performing the activity; thus, the FHSRO did not directly supervise the Core Alteration as required by Tech. Specs. Table 6.2-1. This event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) due to a condition prohibited by the plant's Tech. Specs. The root cause of this event was personnel error in that the Task Supervisor failed to properly implement Procedure 4730-IMP-3221.02. In addition, communications between the Task Supervisor and the FHSRO were not adequate. A memorandum has been issued

affirming the Tech. Specs. requirements for a Core Alteration and the need for proper communications between the Task Supervisor and the FHSRO. Each Task Supervisor and licensed SRO will be required to read and understand this LER and the requirements of the referenced memorandum.

This event is similar in nature to LERs: 89-01 and 86-05

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 was 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

This event involves a Core Alteration performed without the direct supervision of a dedicated Senior Reactor Operator (SRO) or a Fuel Handling SRO (FHSRO), as required by Table 6.2-1, "Minimum Shift Crew Composition," of the TMI-2 Technical Specification (Tech. Specs.). TMI-2 Tech. Specs. 1.15 defines Core Alteration as "the movement or manipulation of any reactor component (including fuel) within the reactor pressure vessel with the vessel head removed."

At approximately 0955 hours on Tuesday, May 9, 1989, a TMI-2 core debris sample was removed from the Reactor Vessel (RV) (IEEE 805 Code-AB) in preparation for packaging, storage, and eventual shipment off-site. Procedure 4730-IMP-3221.02, "Reactor Vessel High Rad Core Debris Sample Removal and Transfer," was being implemented to perform this activity under the direction of a Task Supervisor located in the Coordination Center. An FHSRO was available if required by the Task Supervisor for supervision/ authorization concerning functions being performed by the Defueling Support Group. A prerequisite step of this procedure (i.e. Section 5.4) states: "Prior to the start of activities under this procedure, notify the Control Room Operator (CRO) that communications between the Control Room (CR) or

Command Center (CC) and personnel in containment shall be established and functional per TS 3.5 and 6.2-1. Performance of this procedure constitutes a core alteration as defined by T.S. 1.15."

The Task Supervisor and duty FHSRO were aware that the removal of the Lore debris sample constituted a Core Alteration. However, prior to initiating the removal of the sample, the Task Supervisor failed to notify and request permission of the FHSRO to perform the Core Alteration. As a result, the Core Alteration was performed without the direct supervision of the duty FHSRO. Therefore, this event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) due to a condition prohibited by the plant's Tech. Specs.

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This event was discovered on Wednesday, May 10, 1989, during a review of the FHSRO's log of May 9, 1989. A critique of this event was held on May 12, 1989.

This LER is similar in nature to LERs 89-01 and 86-05 which involved the performance of a Core Alteration without the direct supervision of an FHSRO.

IV. ROOT CAUSE OF THE EVENT

The root cause of this event was personnel error in that the Task Supervisor failed to properly implement Procedure 4730-IMP-3221.02. In addition, communications between the Task Supervisor and the FHSRO were not adequate. As previously stated, both individuals were aware that the planned removal of the core debris sample constituted a Core Alteration. However, the Task Supervisor neglected to notify the FHSRO prior to removing the core debris sample and obtain FHSRO authorization to perform the Core Alteration. Additionally, the duty FHSRO failed to exercise prudent anticipatory action in that he neglected to reaffirm to the Task Supervisor that FHSRO authorization must be obtained prior to performing the Core Alteration so that direct supervision by the FHSRO could occur, as required.

V. CORRECTIVE ACTIONS

1. The Task Supervisor and duty FHSRO were counseled with respect to the Tech. Specs. requirements for performing a Core Alteration and with respect to their inadequate communications.
2. This event report will be reviewed by the Task Supervisors, FHSROs, and SROs. Furthermore, based on a review of this event and the

corrective actions taken as a result of LER 89-01, the Defueling Department has issued a memorandum emphasizing the following:

- o Core Alteration requires the direct supervision of an SRO or FHSRO pursuant to the TMI-2 Tech. Specs.
- o Prior to performing any work within the RV, the Task Supervisor and FHSRO must discuss the activities to be performed such that the FHSRO can assess which activities are or have the potential to be Core Alterations.
- o Prior to performing any Core Alteration, the permission of the FHSRO must be obtained to ensure that the necessary prerequisites for a Core Alteration are satisfied.

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Each Task Supervisor, FHSRO, and SRO will be required to acknowledge receipt and understanding of this memorandum. This memorandum will also be required reading for all future Task Supervisors, FHSROs, and SROs.

GPU Nuclear believes that the above corrective actions should preclude the potential for future similar-type events.

VI. COMPONENT FAILURE DATA

N/A

VII. AUTOMATIC OR MANUALLY INITIATED SAFETY SYSTEM RESPONSES

N/A

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

The basis for requiring a licensed individual to supervise a Core Alteration is to ensure that appropriate supervision is provided for those activities which could pose a potential criticality or radiological safety concern. The residual fuel quantity of the core debris sample (i.e., about 2 kg) is significantly less than the TMI-2 administrative safe fuel mass limit of 70 kg. Thus, this event did not pose a criticality safety concern. Additionally, this event did not result in personnel radiological exposure in excess of any regulatory limits. Therefore, this event did not jeopardize the

health and safety of the public.

ATTACHMENT 1 TO 8906150033 PAGE 1 OF 1

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June 8, 1989
4410-89-L-0065/0467P

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Dear Sirs:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Licensee Event Report 89-03

Attached is Licensee Event Report 89-03 concerning the performance of a Core Alteration without the supervision of a Fuel Handling Senior Reactor Operator on May 9, 1989.

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

Sincerely,

M. B. Roche
Director, TMI-2

RDW/emf

Attachment

cc: F. I. Young - Senior Resident Inspector, TMI
W. T. Russell - Regional Administrator, Region I
J. F. Stolz - Director, Plant Directorate I-4

L. H. Thonus - Project Manager, TMI Site

*** END OF DOCUMENT ***
