NON-PUBLIC?: N
ACCESSION #: 8806030354

LICENSEE EVENT REPORT (LER)

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

DOCKET NUMBER: 05000320

TITLE: Containment Airlock Door Discovered in the Open Position
EVENT DATE: 04/28/88 LER #: 88-007-00 REPORT DATE: 05/27/88

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

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: At approximately 1445 hours on April 28, 1988, a Fuel Handling Senior Reactor Operator (FHSRO) observed that only one (1) of the two (2) Reactor Building (RB) Personnel Airlock (PAL) Doors was being maintained in the closed position although there was no RB entry or exit in progress. TMI-2 Technical Specification (Tech. Spec.) 3.6.1.3 requires that each containment airlock shall be operable with both doors closed except when the airlock is being used for transit entry and exit through the containment; then, at least one (1) door shall be closed. Thus, the condition identified by the FHSRO is reportable per 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 by the airlock attendents and the RB entry supervisors, based on a lack of understanding of the above Tech. Spec. requirement. Contributing causes included a failure of the operating procedure for the airlock doors to specify the referenced Tech. Spec. requirement and a misunderstanding on the part of some licensed operators concerning the requirement of this Tech. Spec. as it related to frequent containment access. It was generally misunderstood that it was acceptable for the outer PAL door to be left open and the inner PAL door closed in anticipation of personnel entering or exiting the RB. Airlock attendents have been advised to maintain both doors closed unless a transit entry or exit actually is in progress. This event will be discussed with all licensed operators and RB entry supervisors.

(End of Abstract)

I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

The TMI-2 facility was in a long-term cold shutdown state; the defuelin 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

At approximately 1445 hours on April 28, 1988, a Fuel Handling Senior Reactor Operator (FHSRO) observed that only one (1) of the two (2) Reactor Building (RB) Personnel Airlock (PAL) Doors (IEEE-803A Code-AL) was being maintained in the closed position although no RB entry or exit was in progress. This condition appeared to the FHSRO to be in noncompliance with TMI-2 Technical Specification (Tech. Spec.) 2.6.1.3, "Containment Airlocks," which states: "Each containment air lock shall be OPERABLE with both doors closed except when the air lock is being used for transit entry and exit through the containment, then at least one air lock door shall be closed..."

The FHSRO reported the observed condition to the Control Room and an Incident Event Report was initiated. A subsequent investigation of this event, which is described below, determined that this event resulted in a condition prohibited by the plant's Tech. Specs. (i.e., failure to maintain both airlock doors closed when an RB entry or exit was not in progress). Therefore, this event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

The TMI-2 cleanup effort requires frequent containment access. The outer door of the PAL enclosed within a structure designed to prevent and control the spread of contamination as personnel enter and exit the RB. At least one (1) attendent is stationed within this structure to assist personnel entering or exiting the RB. Due to the extensive number of containment entries at TMI-2, it became a matter of operational convenience for the airlock attendents to leave the outer pal door open and the inner PAL door closed in anticipation of frequent

personnel entry or exit of the RB. Discussions with airlock attendents have indicated that the outer PAL door may have been left open under these conditions for periods greater than one (1) hour. The exact length of time of this practice cannot be determined. Discussions with the airlock attendents and operations personnel have indicated that the practice of leaving the outer PAL door open has existed for at least the past six (6) months (i.e., the period of December 1987 to May 1988).

Upon the discovery of this event, the airlock attendents were instructed to maintain both RB PAL doors closed except as authorized by the plant's Tech. Specs. (i.e., when personnel are exiting the RB or are prepared to enter the RB).

IV. ROOT CAUSE OF THE EVENT

The root cause of this event was personnel error by the airlock attendents and the RB entry supervisors due to a lack of understanding of the Tech. Spec. requirements for the containment airlocks. Tech. Specs. 3.6.1.3 requires both doors of each airlock to be closed except when transit entry or exit is in progress. However, due to the frequency of containment access at TMI-2, it became a matter of operational convenience for the airlock attendents to leave the outer PAL door open in anticipation of personnel entering or exiting the RB. This practice was also believed to be acceptable by the RB entry supervisors. Additionally, Operating Procedure 4210-OPS-3240.01, "Reactor Building Entry," does not explicitly state the requirements of Tech. Spec. 3.6.1.3 and this may have misled personnel in their belief that the actions described in this LER were acceptable.

A contributing cause to this event was a misunderstanding by some of the licensed operators concerning the requirements of Tech. Spec. 3.6.1.3; thus, a failure to identify this condition earlier.

V. CORRECTIVE ACTIONS

Immediate

Airlock attendents were instructed to maintain both PAL doors closed unless personnel are exiting the RB or are prepared to immeidately enter the RB. On the job training should ensure that future personnel employed as airlock attendents will also be so advised.

Long-Term

This event will also be discussed with TMI-2 licensed operators and RB entry supervisors with emphasis on the Tech. Spec. requirements for the Containment Airlocks. Additionally, the requirements of Tech. Spec. 3.6.1.3 will be specified in Operating Procedure 4210-OPS-3240.01, "Reactor Building Entry," which governs the operations of the containment airlocks. These actions should preclude further occurrences of this event.

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

An assessment of the safety consequences and implications of the event indicates that the actions described in this LER did not compromise the basis of Technical Specification 3.6.1.3, "Containment Airlocks," which states: "The containment air locks must be maintained OPERABLE to provide CONTAINMENT INTEGRITY. These air locks will be used during entries into the containment to ensure that radioactive materials are not released to the environs. The preferred method for ensuring that radioactive materials are not released during these entries is to maintain at least one door closed at all times; however, to permit the passage of long items into the reactor building, both doors may be open simultaneously in accordance with procedures approved pursuant to Specification 6.8.2."

During the time the outer PAL door was open without an RB entry or exit in progress, the inner PAL door was maintained closed. Additionally, at least one attendent was stationed near the airlock when the outer PAL door was open; thus the capability existed to rapidly close this door.

It is noteworthy that TMI-2 is in a long-term cold shutdown condition. The Reactor Vessel is depressurized, open to the RB, and is currently being defueled with the majority of fuel having been removed. Thus, the potential for a driving force to release radioactive material in an uncontrolled manner is essentially

nonexistent.

Based on the above analysis, this event did not adversely affect the public health and safety.

ATTACHMENT # 1 TO ANO # 8806030354 PAGE: 1 of 1

GPU NUCLEAR GPU Nuclear Corporation
Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 944-7621
TELEX 84-2386
Writer's Direct Dial Number:
(717) 948-8461

May 27, 1988
4410-88-L-0084/0390P

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 88-07

Attached is Licensee Event Report 88-07 concerning the discovery of a Containment Airlock Door in the open position on April 28, 1988.

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
Director, TMI-2

RDW/emf
Attachment
cc: Senior Resident Inspector, TMI - R. J. Conte
Regional Administrator, Region 1 - W. T. Russell
Director, Plant Directorate IV - J. F. Stolz

Systems Engineer, TMI Site - L. H. Thonus

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