

April 11, 2008

L-MT-08-023 10 CFR Part 50.73

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555

Monticello Nuclear Generating Plant Docket No. 50-263 License No. DPR-22

LER 2008-003, "Control Room Emergency Filtration Trains Inoperability in Recirculation Mode"

A Licensee Event Report (LER) for this occurrence is attached.

This letter contains no new commitments and no revisions to existing commitments.

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Timothy J. O'Connor Site Vice President, Monticello Nuclear Generating Plant Nuclear Management Company, LLC

Enclosure

cc: Administrator, Region III, USNRC Project Manager, Monticello, USNRC Resident Inspector, Monticello, USNRC

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Emergency Filtration system in a configuration where both trains were unable to automatically initiate in the High Radiation mode. This procedure placed both Control Room Emergency Filtration Master System switches in the Recirculation mode. Placing both Master switches in the Recirculation mode prevents automatic initiation of the High Radiation mode. The cause of the event was the failure by station personnel to understand the result of operation with both Master System Switches in the Recirculation mode.

The procedure was quarantined until it was revised eliminating this problem.

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

Event Description

On February 13, 2008 an action request was initiated to review the operability of the Control Room Emergency Filtration (CREF) [VI] trains while in the recirculation mode. The review determined that when both CREF master switches [HS] are in the Recirc position, both CREF subsystems are prevented from auto initiating in "pressurization mode" in response to an actuation signal. Station investigation identified one procedure that directed placing both CREF master switches in RECIRC for testing without addressing CREF operability. The consequence of this switch placement is that both trains of CREF are inoperable due to loss of auto initiation capability which requires an immediate LCO 3.0.3 entry via Required Action 3.7.4 E.1.

Event Analysis

The event is reportable under 50.73(a)(2)(i)(B) "Operation or Condition Prohibited by Technical Specifications," and a Licensee Event report is required for this event. 10 CFR 50.72 does not require a notification for this type of event.

The event is considered a safety system functional failure since neither train would be able to perform its safety function while the switches were in the Recirc position.

Safety Significance

The Probabilistic Risk Assessment (PRA) group performed an evaluation for the risk of core damage and large early release attributable to placing the both divisions of the Emergency Filtration Train (EFT) in a condition such that it will not automatically initiate in the High Radiation Mode in an event where an automatic initiation signal is present.

The impact on Core Damage Frequency (CDF) resulting from simultaneous operation of both trains of the EFT in the recirculation mode is considered to be negligible since the High Radiation Mode function of the EFT does not provide or support any of the critical safety functions capable of reducing the probability of a core damage accident. It is concluded that the frequency of a Large Early Release Frequency (LERF) is not significantly impacted by the occasional loss of automatic EFT function based on the following arguments:

- A large release is not possible without a significant core damage event therefore LERF is bounded by CDF.
- The proportion of time that the EFT system was in a configuration that would preclude both trains from automatically realigning to the High Radiation mode was small (estimated to be < 10 hours/year).

NRC FORM 366A (9-2007)

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- Airborne contamination levels in the control room are continuously monitored, and excessive levels would result in alarm, prompting action to place the EFT in the High Radiation mode manually. A control Room Area Radiation Monitor (ARM) alarm will occur at 1 mr/hr resulting in annunciator alarm. Procedures direct operators to initiate the EFT High Radiation Mode under these conditions. While manually in the recirculation mode, however, the operators will have to exit the recirculation mode, and the surveillance procedure in order for the train(s) to shift to the High Radiation Mode. The procedure requires the operators to verify proper operation of the High Radiation mode by checking for positive pressure.
- When the EFT is in the recirculation (toxic gas) mode, it affords significant protection from in-leakage of radioactive contamination to the control room.

In conclusion, the risk of core damage and large early release attributable to placing the both divisions of the Emergency Filtration Train (EFT) in a condition such that it will not automatically initiate in the High Radiation Mode in an event where an automatic initiation signal is present, is very small.

<u>Cause</u>

Station personnel failed to verify the high radiation mode of the EFT operation would not be affected by periodic testing in the recirculation mode. Procedure review guidance contained instructions to review procedures for adverse effects on safety related functions, but this effect was not recognized.

Corrective Action

The affected surveillance procedure which would have prevented operation in the High Rad mode during testing was quarantined and revised. As part of the extent of condition, other procedures that manipulate the CREF Master switches were reviewed and will be revised to identify this prohibited switch alignment.

Failed Component Identification

None

Previous Similar Events

None

NRC FORM 366A (9-2007)