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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

**DOCKET 50-255 - LICENSE DPR-20 - PALISADES NUCLEAR PLANT
SPECIAL REPORT OF INOPERABILITY OF ONE CHANNEL OF STACK GAS EFFLUENT
SYSTEM - HI RANGE NOBLE GAS MONITOR RIA-2327**

Palisades Offsite Dose Calculation Manual, Appendix A, Table A-1, Action 4, requires that a Special Report be submitted to the NRC within 30 days when the Hi Range Noble Gas Monitor, RIA-2327, is inoperable and not restored to operable status within 7 days. The report is to outline the actions taken, the cause of the inoperability, and the plans and schedule for restoring the channel to operable status. The required report is attached.

SUMMARY OF COMMITMENTS

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

Laurie Lahti

Laurie A. Lahti
Manager, Licensing

CC Regional Administrator, USNRC, Region III
NRC Resident Inspector, Palisades
Project Manager, USNRC, NRR

Attachment

JE22
A009

ATTACHMENT

**NUCLEAR MANAGEMENT COMPANY, LLC
PALISADES PLANT
DOCKET 50-255**

**SPECIAL REPORT OF INOPERABILITY OF ONE CHANNEL OF
STACK GAS EFFLUENT SYSTEM**

2 Pages Follow

HI RANGE NOBLE GAS MONITOR RIA-2327

The Hi Range Noble Gas Monitor, RIA-2327, is one of the instruments associated with the Stack Gas Effluent System. RIA-2327 is a post-accident monitor used to monitor noble gasses. This channel is activated and placed into service in the event of a high alarm signal from the normal range noble gas monitor, RIA-2326.

CAUSE OF INOPERABILITY

On August 22, 2002, at 0949 hours, an alarm was received in the control room indicating Stack Effluent fail/trouble. The Stack Gas Effluent System was cycling on and off, and could not maintain its sampling abilities. A short time later, the failure was identified as remote controller, JIC-2301-B. The Stack Gas Effluent System could no longer function with the remote controller, JIC-2301-B in service. At 1130 hours on August 22, 2002, the remote controller, JIC-2301-B, was turned to the off position. The local controller, JIC-2301-A, remained in service and the Stack Gas Effluent System appeared to function normally. All indications on the local controller were identical to the remote controller prior to the trouble/failure alarm.

On August 26, 2002, remote controller, JIC-2301-B, was removed from the control room. Troubleshooting on this date identified a failed power supply. There were no qualified power supplies available and parallel paths were undertaken to repair or replace the failed power supply.

On September 10, 2002, the quarterly channel functional test, QR-22, was performed to test all Offsite Dose Calculation Process Monitors. During the performance of this test, certain automatic functions of the Stack Effluent System failed to operate as expected.

1. Upon an alert alarm signal on RIA-2326, (Noble Gas normal range monitor), the Stack Gas Effluent System did not obtain a "grab sample" as expected. A grab sample at the alert alarm is for informational purposes only.
2. Upon the high alarm signal on RIA-2326, the Stack Gas Effluent System did not switch to the high range and divert the sample flow to the post-accident monitor RIA-2327. The automatic functions failed during the test, however, all other actions at the alert and high alarm signals functioned as desired. The control room annunciation occurred and the alert and alarm lights indicated at the respective alert and high alarm setpoints.

As a result of the failed testing, RIA-2327 was declared inoperable on September 10, 2002. In reviewing the failure mode, it was determined that the automatic functions were disabled on August 22, 2002, when the remote controller, JIC-2301-B, failed. RIA-2327 should have been declared inoperable on August 22, 2002. Plant staff did not recognize the effects of having only one controller in service at that time. The Stack Gas Effluent System is required to have both controllers operable to perform the automatic functions. With the failure date determined to be August 22, 2002, the seven-day time frame to return RIA-2327 to service was exceeded.

During the entire time period, the Plant Stack was continuously monitored by RIA-2326, (Noble Gas normal range monitor), and RIA 2325, (Iodine/Particulate sampler/monitor). The automatic functions unavailable from August 22 to September 11, 2002, could have been performed by manual methods.

SCHEDULE FOR RETURN TO SERVICE

A replacement power supply for JIC-2301-B was installed on September 11, 2002, and the unit returned to service in the control room. On September 11, 2002, channel functional test QR-22 was performed on the entire Stack Effluent System. All channels operated as desired. RIA-2327 was returned to operable status on September 12, 2002.