NMC
Committed to Nuclear Excellence

Palisades Nuclear Plant
Operated by Nuclear Management Company, LLC

January 14, 2004

Technical Specification 5.6.6

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

Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Notification Of Inoperability Of One Core Exit Temperature Channel

Palisades Technical Specifications (TS), Table 3.3.7-1, Item 19, requires that four channels of core exit temperature be operable in reactor quadrant four in Modes 1, 2, and 3. TS 5.6.6, in conjunction with TS 3.3.7.B.1, requires that a report be submitted to the NRC within 14 days when one core exit temperature channel is inoperable and not restored within 30 days. The report is to contain an outline of the preplanned alternate method of monitoring, 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 one new commitment and no revisions to existing commitments. The new commitment is:

> Full compliance with TS Table 3.3.7-1, Item 19, for core exit temperature in quadrant four, will be restored prior to startup from the next refueling outage.

Daniel J. Malone
Site Vice President, Palisades Nuclear Plant
Nuclear Management Company, LLC

Enclosure (1)

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades, USNRC

A001

27780 Blue Star Memorial Highway • Covert, Michigan 49043-9530
Telephone: 269.764.2000

ENCLOSURE 1
NOTIFICATION OF INOPERABILITY
OF ONE CORE EXIT TEMPERATURE CHANNEL

CORE EXIT THERMOCOUPLE DESIGN

Core Exit Thermocouples (CETs) are used for post accident monitoring of core exit temperature. Four environmentally qualified CETs in each reactor quadrant are required per Technical Specification Table 3.3.7-1, Items 16 through 19 (a total of 16 qualified CETs are required). The CETs provide indication only and are not used for reactor control. Loss of indication from any one of the qualified CETs results in failure to meet the requirements of Technical Specification Table 3.3.7-1.

CAUSE OF INOPERABILITY

On December 7, 2003, qualified CET-36 was declared inoperable due to erratic indication. The apparent cause of the erratic signal is a poor connection in the circuit that is subject to the build up of oxides that eventually interrupted the signal. The most probable location for the intermittent open-circuit fault is the connection at the reactor vessel head. This location is inaccessible during plant operation.

PREPLANNED ALTERNATE METHOD OF MONITORING

Plant procedures and the plant process computer use the average of qualified CETs as the monitored parameter to ensure adequate core cooling in a post-accident scenario. CET-36 is no longer included in the average. Fifteen qualified CETs remain operable as the primary means for monitoring core exit temperature.

SCHEDULE FOR RETURN TO SERVICE

Full compliance with TS Table 3.3.7-1, Item 19, for core exit temperature in quadrant four, will be restored prior to startup from the next refueling outage. The faulted connection will be corrected by replacement of the CET, and/or replacement of the associated qualified instrument cable as necessary. Alternatively, if replacement of these components is not feasible, the qualified cable may be routed to another CET within reactor quadrant four to meet the requirements of Technical Specification Table 3.3.7-1, Item 19.