



March 31, 2005

10 CFR 50.55a

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

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

Request for Authorization to Extend the Third 10-Year ISI Interval for Reactor Vessel Visual Examination

- References: 1) *Letter from NMC to NRC, "Request for Authorization to Extend the Third 10-Year ISI Interval for Reactor Vessel Weld Examination," dated March 31, 2005*
- 2) *Letter from NMC to NRC, "Request for Authorization to Extend the Third 10-Year IST Interval for Certain Relief Valves," dated March 31, 2005*

Pursuant to 10 CFR 50.55a(a)(3)(ii), Nuclear Management Company, LLC (NMC) is requesting Nuclear Regulatory Commission (NRC) approval to extend the third ten-year inservice inspection (ISI) interval for the examination of the reactor vessel interior attachments (Category B-N-2) and the core support structure (Category B-N-3) for one cycle at the Palisades Nuclear Power Plant. The one-cycle extension is being requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Palisades is currently in the third inspection interval. The third inspection interval began on May 12, 1995, and considering the ASME Code-allowed extensions, will end on or before December 12, 2006. The examination of the reactor vessel interior attachments (Category B-N-2) and the core support structure (Category B-N-3) for the third interval is currently scheduled during the spring 2006 refueling outage. NMC is requesting authorization to defer the subject exams until the 2007 refueling outage.

This request is associated with two other requests, both by letter dated March 31, 2005 (Reference 1, Reference 2). Both Reference 1 and Reference 2 were to align with the full core off load during the fall 2007 refueling outage. Approval of this request is contingent upon the approval of Reference 1 and Reference 2.

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NMC requests approval by March 1, 2006, however, NMC would like approval sooner to accommodate outage planning.

Summary of Commitments

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



W. John Hill for DAN J MALONE

Daniel J. Malone  
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Nuclear Management Company, LLC

CC Administrator, Region III, USNRC  
Project Manager, Palisades, USNRC  
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**ENCLOSURE 1**  
**REQUEST FOR APPROVAL TO EXTEND THE THIRD 10-YEAR ISI INTERVAL FOR**  
**REACTOR VESSEL VISUAL EXAMINATION**  
**PALISADES NUCLEAR PLANT**

**1.0 ASME Code Component(s) Affected**

The affected component is the Palisades Nuclear Plant reactor vessel (RV), N-50, specifically, the following American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, examination categories and item numbers covering examinations of the RV. These examination categories and item numbers are from IWB-2500 and Table IWB-2500-1 of the ASME BPV Code, Section XI.

Examination

<u>Category</u>	<u>Item No.</u>	<u>Description</u>
B-N-2	B13.50	Interior Attachments Within Beltline Region
B-N-2	B13.60	Interior Attachments Beyond Beltline Region
B-N-3	B13.70	Core Support Structure

**2.0 Applicable Code Edition and Addenda**

The Palisades Nuclear Plant third interval Inservice Inspection (ISI) Program Plan is prepared to the 1989 Edition of the Code.

**3.0 Applicable Code Requirement**

IWB-2412, Inspection Program B, requires visual examination of the reactor pressure vessel interior attachments and the core support structure identified in Table IWB-2500-1, once each ten-year interval. In accordance with IWA-2430(d) and IWA-2430(e), Palisades third inspection interval is currently scheduled to conclude on or before December 12, 2006.

**4.0 Reason for Request**

An alternative is requested from the requirements of IWA-2432, Inspection Program B, that requires visual examination, of the reactor pressure vessel interior attachments and the core support structure, to be performed once each ten-year interval. Extension of the inspection interval for examination category B-N-2 and B-N-3 by one refueling cycle beyond the currently scheduled inspection is requested.

ASME Section XI requires that the visual exams of the reactor pressure vessel interior attachments and the core support structure, required by examination categories B-N-2 and B-N-3, be performed once every inspection interval. These exams are typically performed at the end of the interval during the same refueling outage as the reactor

vessel mechanized exam. By letter dated March 31, 2005, NMC requested a one-cycle extension of the reactor vessel mechanized examination at Palisades Nuclear Plant. Both of these exams require that the fuel and the core barrel be removed from the reactor vessel.

NMC is currently planning a full core offload in 2007, to allow for replacement of the reactor vessel head at Palisades Nuclear Plant. Replacement of the reactor vessel head will require a hole to be cut in the containment building, which would require all of the fuel to be removed from the vessel. The deferral of these examinations will allow them to be performed during a planned full core offload, which would reduce the dose and risk of having to perform the full core offload twice.

## **5.0 Proposed Alternative and Basis for Use**

The third inspection interval for Palisades started on May 12, 1995, and will end on December 12, 2006. This inspection interval includes credit for the IWA-2430(d) allowed one-year extension and an IWA-2430(e) allowed 215-day extension. The subject examinations are scheduled to be performed in the spring 2006 refueling outage. The proposed inspection date is one refueling cycle beyond the Code-allowed inspection interval. In accordance with 10 CFR 50.55a(a)(3)(ii), this interval extension is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Examinations required by categories B-N-2 and B-N-3 involves removing all of the fuel and the core barrel from the reactor. Records indicate that when this was performed during the 1995 refueling outage, approximately 5.0 Rem of exposure was required for this exam. These visual exams of the reactor pressure vessel interior attachments and the core support structure have been performed several times at Palisades with no relevant indications noted during the examinations. These exams were last performed during the 1995 refueling outage with acceptable results. Additionally, review of industry surveys indicate that these exams have been performed many times by the industry without any reportable findings.

During the 2006 refueling outage, Palisades will be performing the ASME category B-N-1 visual examination. This includes the space above and below the reactor core that is made accessible for examination by the removal of components during normal refueling outages. This examination is required once each period and will provide reasonable assurance of structural integrity.

Therefore, in accordance with 10 CFR 50.55a(a)(3)(ii), this one-cycle interval extension is requested on the basis that compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

## **6.0 Duration of Proposed Alternative**

The alternative is requested to extend the third ISI interval by one refueling cycle beyond the ASME Code required 10-year inspection interval, the Code-allowed twelve month extension, and the Code-allowed 215-day extension for the subject examinations. This request is applicable to the third inspection interval only. If this relief request is approved, the third ISI interval will end at the conclusion of the fall 2007 refueling outage for the subject exams.