

June 28, 2005

Daniel J. Malone  
Site Vice President  
Nuclear Management Company, LLC  
27780 Blue Star Memorial Highway  
Covert, MI 49043

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION (RAIs) FOR THE REVIEW OF  
THE PALISADES NUCLEAR PLANT, LICENSE RENEWAL APPLICATION  
(TAC NO. MC6433)

Dear Mr. Malone:

By letter dated March 22, 2005, Nuclear Management Company, LLC, (NMC or the applicant) submitted an application pursuant to 10 CFR Part 54, to renew the operating license for Palisades Nuclear Plant (PNP), for review by the U.S. Nuclear Regulatory Commission (NRC). Subsequently, on May 5, 2005, the NRC received a supplement to the license renewal application. The NRC staff is reviewing the information contained in the license renewal application (LRA) and supplement and has identified, in the enclosure, areas where additional information is needed to complete the review.

These RAIs were discussed with your staff, Mr. Robert Vincent, and a mutually agreeable date for this response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-2232 or e-mail [MJM2@nrc.gov](mailto:MJM2@nrc.gov).

Sincerely,

***/RA/ (S. Lee for)***

Michael J. Morgan, Project Manager  
License Renewal Section A  
License Renewal and Environmental Impacts Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No.: 50-255

Enclosure: As stated

cc w/encl: See next page

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Palisades Nuclear Plant

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Palisades Nuclear Plant

- 2 -

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DISTRIBUTION: Letter to D. Malone, Re: RAIs for Palisades LRA, Dated: June 28,2005  
**ADAMS Accession No.: ML051790157**

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**PALISADES NUCLEAR PLANT  
LICENSE RENEWAL APPLICATION (LRA)  
REQUESTS FOR ADDITIONAL INFORMATION (RAIs)**

**RAI A2.3-1**

On Page A-3 of the LRA, the first two sentences in Section A2.3, Bolting Integrity Program, are not consistent with the FSAR Supplement in NUREG-1800 (e.g., Page 3.1-23). Please clarify.

**RAI B2.1.3-1**

On Page B-25 of the LRA, the applicant states that the Structural Monitoring Program in LRA Section B2.1.19 is credited for the Palisades' Bolting Integrity Program. On Page B-29, the applicant states that structural bolting and fasteners are inspected visually in accordance with the Structural Monitoring Program. However, bolting is not discussed in the Structural Monitoring Program. Please clarify why the Structural Monitoring Program is credited for the Bolting Integrity Program when bolting is not explicitly discussed in the Structural Monitoring Program.

**RAI B2.1.3-2**

On Page B-25 of the LRA, the applicant states that the system monitoring program in LRA Section B2.1.20 is credited for the Bolting Integrity Program; however, bolting is not mentioned in the system monitoring program. (1) Please clarify why the system monitoring program is credited for the Bolting Integrity Program when bolting is not discussed in the system monitoring program; (2) Under the system monitoring program, the applicant inspects piping systems visually to determine leakage during walkdowns. Most piping systems are covered with insulation. Discuss how bolting integrity (e.g., cracking, loss of preload, and loss of material due to corrosion) would be determined when bolts are covered with insulation.

**RAI B2.1.3-3**

On Page B-25 of the LRA, the applicant states that the ASME Section XI IWB, IWC, IWD, IWF Inservice Inspection (ISI) program in LRA Section B2.1.2 is credited for the Bolting Integrity Program. The ASME Section XI specifies periodic inservice examination on a sampling basis. Please clarify whether all bolts in the Palisades plant that are covered under the LRA will be examined before entering extended period of operation. If not, provide a percentage of bolts that will be examined per the ISI program before entering extended period of operation and discuss whether this percentage is sufficient to show bolting integrity of the entire bolting population.

**RAI B2.1.3-4**

On Page B-26 of the LRA, the applicant states that the attributes of the Bolting Integrity Program are adequate to manage loss of preload without hot torquing; therefore, hot torquing to establish a preload will not be credited for aging management of bolting. The applicant needs to explain in detail which attributes of the Bolting Integrity Program are adequate to manage loss of preload without hot torquing.

**RAI B2.1.3-5**

On Page B-26 of the LRA, the applicant states that "...The Bolting Integrity Program is consistent with NUREG-1801, Section XI.M18, Bolting Integrity." The applicant also states that

Enclosure

“...Two enhancements are planned to bring the Bolting Integrity Program into conformance with the NUREG-1801 program description...” These two statements seem to contradict each other. Please clarify.

**RAI B2.1.3-7**

On Page B-28 of the LRA, the applicant states that normal maintenance practices and quality verification procedures for pressure retaining bolting includes a check of bolt torque and uniformity of gasket compression. Discuss whether there are similar procedures to verify the torque of structural bolting.

**RAI B2.1.3-8**

On Page B-30 of the LRA, the applicant states that MC component support bolting is evaluated in accordance with the acceptance standards of ASME Code Case N-491-2, Section 3410. GALL XI.M18 recommends immediate replacement of the cracked bolt when indications of cracking is found in support bolting. Code Case N-491-2 provides guidance on examination and acceptance criteria, but it does not specify replacement. Discuss whether the Bolting Integrity Program has a process by which a cracked bolt will be replaced immediately.

**RAI B2.1.3-9**

On Page B-30 of the LRA, the applicant states that “...Palisades Bolting Integrity Program makes no distinction regarding ‘immediate’ repairs, but instead relies upon the plant inservice inspection program and corrective action process to evaluate, prioritize and schedule repairs...” GALL XI.M18 recommends that immediate repairs be performed for major leaks that may cause corrosion or contamination. Explain whether major leaks that are caused by degraded bolting will be repaired immediately, including bolting replacement.

**RAI B2.1.3-10**

On Page B-31 of the LRA, the applicant states that the Bolting Integrity Program has been effective in identifying six instances of bolting degradation at Palisades in a timely manner. (1) Discuss how the six instances of bolting degradation were dispositioned; (2) Discuss how the six instances of bolting degradation were detected (e.g., by routine maintenance, system walkdown, or leakage monitoring system); and (3) Describe degradation mechanism(s) of each of the six instances in question.