

June 22, 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/**

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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License Renewal Section A  
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Palisades Nuclear Plant

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Palisades Nuclear Plant

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DISTRIBUTION: Letter to D. Malone, Re: RAIs for Palisades LRA, Dated: June 22, 2005  
**ADAMS Accession No.:ML051730597**

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**PALISADES NUCLEAR PLANT  
LICENSE RENEWAL APPLICATION (LRA)  
REQUESTS FOR ADDITIONAL INFORMATION (RAIs)  
PACKAGE 13 - CRANE LOAD CYCLES**

LRA Section B2.1.15 indicates that there are no fatigue concerns for the Containment Polar Crane and the Spent Fuel Pool Crane as these cranes can not realistically approach the 20,000 to 100,000 rated lifts assumed for its design evaluation during the extended operating period. LRA Section B2.1.15 further states that Palisades does not track the number and magnitude of all lifts made by cranes. LRA Section 4.7.1 also states that the Polar Crane cannot realistically approach the 20,000 to 100,000 rated lifts assumed for components evaluated to CMAA 70 (1975) Service Level A during a 60-year licensed operating period. For the Spent Fuel Pool Crane, LRA Section 4.7.1 identifies the expected lifts between re-rating and the end of the 60- year extended license and concludes that this machine cannot realistically approach the 20,000 to 100,000 rated lifts assumed for its evaluation during a 60-year licensed operating period.

**RAI 4.7.1-1(a)**

The LRA does not characterize the estimated number of lifts for the Polar Crane. LRA Section A4.5.1 indicates that separate evaluations have been performed of polar crane planned engineering lifts (over-rated capacity) and that lifts have been evaluated and approved up to 140 T, less than 4 percent over the 135 T rating. NUREG-1744, A Survey of Crane Operating Experience at U.S. Nuclear Power Plants from 1968 through 2002, identifies that the maximum load weight for the Palisades reactor building crane was exceeded twice (greater than 125%) when lifting the reactor vessel head with additional lead shielding intact. For the Polar Crane, the applicant is requested to identify the number of lifts considered in the fatigue evaluation and clarify how the over-rated capacity lifts have been considered in combination with the other lifts for the fatigue evaluation.

**RAI 4.7.1-1(b)**

Industry experience in documents such as NUREG-1744 indicates that crane vibrations have occurred during crane operation. The applicant is requested to review plant-specific operating experience and identify if any crane vibrations have occurred during crane operation and, if so, clarify how vibrations are considered in the fatigue evaluation. If crane vibrations are not considered for license renewal, the applicant is requested to provide the technical justification.

Enclosure