

July 27, 2005

Paul A. Harden
Site Vice President
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

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

Dear Mr. Harden:

By letter dated March 22, 2005, Nuclear Management Company, LLC, (NMC or the applicant) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (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 questions 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 via e-mail at 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

July 27, 2005

Paul A. Harden
Site Vice President
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

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

Dear Mr. Harden:

By letter dated March 22, 2005, Nuclear Management Company, LLC, (NMC or the applicant) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (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 questions 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 via e-mail at 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

DISTRIBUTION: See next page

ADAMS Accession No.: ML052080205

Document Name: E:\Filenet\ML052080205.wpd

OFFICE	PM:RLEP	LA:RLEP	SC:RLEP
NAME	MMorgan (S. Lee for)	MJenkins	SLee
DATE	07/27/05	07/27/05	07/27/05

OFFICIAL RECORD COPY

Palisades Nuclear Plant

cc:

Robert A. Fenech, Senior Vice President
Nuclear, Fossil, and Hydro Operations
Consumers Energy Company
1945 Parnall Rd.
Jackson, MI 49201

Arunas T. Udry, Esquire
Consumers Energy Company
1 Energy Plaza
Jackson, MI 49201

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532-4351

Supervisor
Covert Township
P.O. Box 35
Covert, MI 49043

Office of the Governor
P.O. Box 30013
Lansing, MI 48909

U.S. Nuclear Regulatory Commission
Resident Inspector's Office
Palisades Plant
27782 Blue Star Memorial Highway
Covert, MI 49043

Michigan Department of Environmental
Quality
Waste and Hazardous Materials Division
Hazardous Waste and Radiological
Protection Section
Nuclear Facilities Unit
Constitution Hall, Lower-Level North
525 West Allegan Street
P.O. Box 30241
Lansing, MI 48909-7741

Michigan Department of Attorney General
Special Litigation Division
525 West Ottawa St.
Sixth Floor, G. Mennen Williams Building
Lansing, MI 48913

Manager, Regulatory Affairs
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

Director of Nuclear Assets
Consumers Energy Company
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

John Paul Cowan
Executive Vice President & Chief Nuclear
Officer
Nuclear Management Company, LLC
700 First Street
Hudson, WI 54016

Jonathan Rogoff, Esquire
Vice President, Counsel & Secretary
Nuclear Management Company, LLC
700 First Street
Hudson, WI 54016

Douglas E. Cooper
Senior Vice President - Group Operations
Palisades Nuclear Plant
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

Robert A. Vincent
Licensing Lead - License Renewal Project
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

Palisades Nuclear Plant

- 2 -

cc:

Darrel G. Turner
License Renewal Project Manager
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

Mr. James Ross
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708

Mr. Douglas F. Johnson
Director, Plant Life Cycle Issues
Nuclear Management Company, LLC
700 First Street
Hudson, WI 54016

Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Chairperson
Michigan Public Service Commission
PO Box 30221
Lansing, MI 48909-7721

DISTRIBUTION: Letter to P. Harden, Re: RAIs for Palisades LRA, Dated: July 27, 2005
ADAMS Accession No.: ML052080205

HARD COPY

RLEP RF
M. Morgan (PM)

E-MAIL:

RidsNrrDrip
RidsNrrDe
G. Bagchi
K. Manoly
W. Bateman
J. Calvo
R. Jenkins
J. Fair
RidsNrrDssa
RidsNrrDipm
D. Thatcher
R. Pettis
G. Galletti
C. Li
K. Winsberg (RidsOgcMailCenter)
R. Weisman
M. Mayfield
A. Murphy
S. Smith (srs3)
S. Duraiswamy
Y. L. (Renee) Li
RLEP Staff

P. Lougheed, RIII
J. Ellegood, RIII
M. Garza, RIII
A. Stone, RIII
L. Raghavan
T. Mensah
OPA

**PALISADES NUCLEAR PLANT
LICENSE RENEWAL APPLICATION (LRA)
REQUEST FOR ADDITIONAL INFORMATION (RAI)**

RAI 2.1-1 - Use of Alternatives to Seismic Anchors or Equivalent Anchors

Palisades License Renewal Project Guideline LRP3, "Scoping and Screening for License Renewal," Revision 3, Section 6.1.3, provides guidance for establishing system boundaries for non-safety-related (NSR) piping systems connected directly to safety-related (SR) piping systems. The guideline states, in part, that for NSR systems, structures, or components (SSCs) directly connected to SR SSCs, the NSR piping and supports up to and including the first anchor, or equivalent anchor, beyond the SR/NSR interface, are within the scope of license renewal. An alternative to specifically identifying a seismic anchor or series of supports comprising an equivalent anchor(s) that support the SR/NSR piping interface is to include enough of the NSR piping run to conservatively encompass the anchor(s) and ensure the piping and anchor intended functions are maintained. The guideline states that the following examples are typically used to establish the end of pipe stress analysis models and can be used to define conservative end points in the license renewal boundary:

- A flexible connection is generally considered a pipe stress analyses model end point because the flexible connection does not support loads or transfer loads across it on to connecting piping.
- A point where buried piping enters the ground because the ground acts like an anchor.

Based on the staff's review of the applicant's above scoping evaluation related to the 10 CFR 54.4(a)(2) criterion, the staff requires additional information to complete its review. Specifically, the staff requests the applicant to provide the technical basis for establishing a flexible connection and a point where buried piping enters the ground, as adequate end points for determining piping within the scope of license renewal.

RAI 2.1-2 - 10 CFR 54.4(a)(2) Scoping Criteria for Non-safety-related SSCs

By letter dated December 3, 2001, the NRC issued a staff position to the NEI, which described areas to be considered and options it expects an applicant to use in determining which SSCs meet the 10 CFR 54.4(a)(2) criterion (i.e., All non-safety-related SSCs whose failure could prevent satisfactory accomplishment of any safety-related functions identified in Paragraphs (a)(1)(i), (ii), (iii) of this section).

Specifically, the staff's concern is that Seismic II/I piping, though seismically supported, would be subjected to the same plausible aging effects as safety-related piping. For example, depending on piping material, geometrical configuration, operating condition such as water chemistry, temperature, flow velocity, and external environment, erosion and corrosion may be plausible aging effects for some Seismic II/I piping. Those effects, if not properly managed, could result in age-related failures and adversely impact the safety functions of safety-related SSCs.

Enclosure

Based on a review of the license renewal application (LRA), the applicant's scoping and screening implementation procedures, and discussions with the applicant, the staff determined that additional information is required with respect to certain aspects of the applicant's evaluation of the 10 CFR 54.4(a)(2) criteria. The staff requests the applicant provide the following information:

- Section 2.1.2.1.2(3)(b) of the LRA states that as long as the supports for these piping systems are managed, falling of piping sections is not credible, and the piping section itself would not be in scope for 54.4(a)(2) due to physical impact hazard (although the leakage/spray/flooding hazard may still apply).

The staff requests that the applicant clarify if it considered flow accelerated corrosion (FAC) piping failures, as demonstrated in NRC Information Bulletin 2001-09, regardless of whether the piping supports remain intact.

- Section 2.1.2.1.2(3)(a) of the LRA states that all pressurized liquid/steam systems in the general area of safety-related components, passive or active, be considered in scope for license renewal.

The staff requests that the applicant clarify if it utilized system pressure as a means to exclude any liquid or steam piping systems, or portions of systems from the scope of license renewal. Specifically, were nonpressurized liquid or steam systems considered within the scope of license renewal.

RAI 2.1-3 - Consumables

In Table 2.1-3 of Chapter 2 in NUREG-1800, guidance is given for screening consumables. Table 2.1-3 states that consumables may be divided into the following four categories for the purpose of license renewal: (a) packing, gaskets, component seals, and O-rings; (b) structural sealants; (c) oil, grease, and component filters; and (d) system filters, fire extinguishers, fire hoses, and air packs. For Category (b), NUREG-1800, Table 2.1-3 states that these sub-components may perform a function without moving parts or a change in configuration, and they are not typically replaced. The table further states that it is expected that the applicant's Structural Aging Management Program will address these items with respect to an aging management review program on a plant-specific basis. Section 2.1.3.2 of the LRA states, "Consumables are a special class of short-lived items that can include packing, gaskets, component seals, O-rings, oil grease, component filters, system filters, fire extinguishers, fire hoses, and air packs."

The staff requests the applicant to clarify if it considered in the screening process structural sealants in the identification of short-lived components and consumables.