

June 4, 2001

Mr. John Paul Cowan
Senior Vice President
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

SUBJECT: PALISADES PLANT - ISSUANCE OF AMENDMENT TO REVISE TECHNICAL
SPECIFICATIONS TO INCREASE ULTIMATE HEAT SINK TEMPERATURE
(TAC NO. MB1085)

Dear Mr. Cowan:

The Commission has issued the enclosed Amendment No. 202 to Facility Operating License No. DPR-20 for the Palisades Plant. The amendment consists of changes to the Technical Specifications (TSs) in response to the application by Consumers Energy Company (CEC) dated January 26, 2001, as supplemented March 13, 2001. CEC has subsequently been succeeded by Nuclear Management Company, LLC (NMC), as the licensed operator of the Palisades Plant. By letter dated May 17, 2001, NMC requested that the Commission continue to process and disposition licensing actions previously docketed and requested by CEC.

The amendment changes TS Surveillance Requirement (SR) 3.7.9.2, "Ultimate Heat Sink (UHS)," by increasing the maximum allowable temperature of Lake Michigan water from 81.5 °F to 85 °F.

A copy of our related safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Darl S. Hood, Senior Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosures: 1. Amendment No. 202 to DPR-20
2. Safety Evaluation

cc w/encls: See next page

June 4, 2001

Mr. John Paul Cowan
Senior Vice President
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

SUBJECT: PALISADES PLANT - ISSUANCE OF AMENDMENT TO REVISE TECHNICAL
SPECIFICATIONS TO INCREASE ULTIMATE HEAT SINK TEMPERATURE
(TAC NO. MB1085)

Dear Mr. Cowan:

The Commission has issued the enclosed Amendment No. 202 to Facility Operating License No. DPR-20 for the Palisades Plant. The amendment consists of changes to the Technical Specifications (TSs) in response to the application by Consumers Energy Company (CEC) dated January 26, 2001, as supplemented March 13, 2001. CEC has subsequently been succeeded by Nuclear Management Company, LLC (NMC), as the licensed operator of the Palisades Plant. By letter dated May 17, 2001, NMC requested that the Commission continue to process and disposition licensing actions previously docketed and requested by CEC.

The amendment changes TS Surveillance Requirement (SR) 3.7.9.2, "Ultimate Heat Sink (UHS)," by increasing the maximum allowable temperature of Lake Michigan water from 81.5 °F to 85 °F.

A copy of our related safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Darl S. Hood, Senior Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosures: 1. Amendment No. 202 to DPR-20
2. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION

PUBLIC	OGC	GHubbard
PDIII-1 Reading	ACRS	GHill(2)
CCraig	CHaruck	WBeckner
DHood	AVegel, RGN-III	
RBouling	JTatum	

*SE input provided by memo

** See previous concurrence

OFFICE	PDIII-1/PM	PDIII-1/LA	RTSB/SC**	SPLB/SC*	OGC	PDIII-1/SC
NAME	DHood	THarris for RBouling	RDennig	GHubbard	AHodgdon	CCraig
DATE	5/21/01	5/22/01	5/17/01	4/30/01	5/29/01	6/4/01

ACCESSION NO. ML011560336

OFFICIAL RECORD COPY

Palisades Plant

cc:

Mr. Robert A. Fenech, Senior Vice President
Nuclear, Fossil, and Hydro Operations
Consumers Energy Company
212 West Michigan Avenue
Jackson, MI 49201

Arunas T. Udry, Esquire
Consumers Energy Company
212 West Michigan Avenue
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

Drinking Water and Radiological
Protection Division
Michigan Department of
Environmental Quality
3423 N. Martin Luther King Jr Blvd
P. O. Box 30630 CPH Mailroom
Lansing, MI 48909-8130

Michigan Department of Attorney General
Special Litigation Division
630 Law Building
P.O. Box 30212
Lansing, MI 48909

Mr. Roy A. Anderson
Executive Vice President and
Chief Nuclear Officer
Nuclear Management Company, LLC
700 First Street
Hudson, WI 54016

Nathan L. Haskell, Director
Licensing and Performance Assessment
Nuclear Management Company, LLC
27780 Blue Star Memorial Highway
Covert, MI 49043

Steven T. Wawro
Nuclear Asset Director
Consumers Energy Company
Palisades Plant
27780 Blue Star Memorial Highway
Covert, MI 49043

May 2001

NUCLEAR MANAGEMENT COMPANY, LLC

DOCKET NO. 50-255

PALISADES PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 202

License No. DPR-20

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. Consumers Energy Company (CEC) submitted a letter dated January 26, 2001, requesting a license amendment for the Palisades Plant, and a letter dated March 13, 2001, supplementing that request. CEC was subsequently succeeded by Nuclear Management Company, LLC (NMC), as the licensed operator of the Palisades Plant. By letter dated May 17, 2001, NMC requested that the Commission continue to process and disposition licensing actions previously docketed and requested by CEC. The application for amendment by the licensee dated January 26, 2001, as supplemented March 13, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public; and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to the license amendment and Paragraph 2.C.(2) of Facility Operating License No. DPR-20 is hereby amended to read as follows:

The Technical Specifications contained in Appendix A, as revised through Amendment No. 202, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Claudia M. Craig, Chief, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: June 4, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 202

FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise Appendix A of the Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

3.7.9-1
B 3.7.9-2
B 3.7.9-3

INSERT

3.7.9-1
B 3.7.9-2
B 3.7.9-3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 202 TO FACILITY OPERATING LICENSE NO. DPR-20
NUCLEAR MANAGEMENT COMPANY, LLC
PALISADES PLANT
DOCKET NO. 50-255

1.0 INTRODUCTION

By application dated January 26, 2001, as supplemented by a March 13, 2001 letter, Consumers Energy Company (CEC) requested changes to the Technical Specifications (TSs) for the Palisades Plant. The proposed change would increase the ultimate heat sink (UHS) temperature limit in TS Surveillance Requirement (SR) 3.7.9.2 from 81.5 °F to 85 °F. CEC also forwarded associated changes to the TS Bases.

On May 15, 2001, CEC was succeeded by Nuclear Management Company, LLC (NMC), as the licensed operator of the Palisades Plant. By letter dated May 17, 2001, NMC requested that the U.S. Nuclear Regulatory Commission (NRC) continue to process and disposition licensing actions previously docketed and requested by CEC.

The March 13, 2001, supplemental letter provided additional clarifying information that was within the scope of the original application and did not change the NRC staff's initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

Lake Michigan is the UHS for Palisades. Cooling for safety-related equipment at Palisades is provided by the service water system (SWS) and the component cooling water (CCW) system. The SWS takes its suction from Lake Michigan and circulates that water through various heat exchangers to cool the containment building, safety-related equipment, and to cool down the reactor coolant system via the CCW and shutdown cooling heat exchangers.

Before issuance of License Amendment No. 189 on November 30, 1999, which converted the Palisades TSs to improved Technical Specifications (ITS), the Palisades TSs did not contain a temperature limit for the UHS. However, design information that was included in the TSs indicated that 75 °F was the design inlet temperature for the containment air coolers. During the period from March 27 through May 4, 1987, the UHS temperature limit was reduced to 53 °F to address questions regarding equipment conditions that existed at that time. On May 4, 1987, the NRC staff subsequently approved a request by the licensee to increase the UHS temperature limit to 80 °F, but did not require the limit to be included in the TSs. TS 5.2.3.a

continued to specify 75 °F as the service water supply design temperature for containment cooling.

In an application dated September 27, 1991, the licensee requested a change to TS 5.2.3.a to raise the specified temperature limit for containment cooling from 75 °F to 85 °F. This change was based upon an evaluation of the containment air cooler design which concluded that the containment air coolers would meet the required post-accident heat removal rates at the higher temperature with the increased SWS flow rate that was specified for the containment air coolers. The licensee indicated that the increased temperature limit would have no effect upon the containment heat removal rate that was assumed in accident analyses. The NRC staff approved the licensee's request by Amendment No. 151 dated July 28, 1992.

In 1993, the licensee completed an assessment of the SWS and identified a number of issues involving inaccuracies and inconsistencies associated with SWS testing and analysis. The licensee's corrective actions included completion of additional analyses to determine the maximum SWS temperature that could be credited with the degree of equipment degradation that was allowed. The NRC conducted a SWS Operational Performance Inspection (SWSOPI) at Palisades from January 10 through February 4, 1994, and consequently tracked this issue in inspection reports as Unresolved Item 50-255/94002-02. In a letter dated September 2, 1994, the licensee confirmed that appropriate testing and engineering analysis had been performed to show that the SWS would fulfill its safety-related function under postulated worst-case, single active failures with a UHS temperature of 85 °F. The NRC staff accepted the licensee's response in an inspection report dated July 30, 1996, closing Unresolved Item 50-255/94002-02.

3.0 EVALUATION

During its review of the licensee's application dated January 26, 2001, the NRC staff asked the licensee why it had not based its request upon the format used in Nuclear Energy Institute's TS Task Force (TSTF) change traveler TSTF-330, "Allowed Outage Time--Ultimate Heat Sink," Revision 3, which was approved by the NRC for generic resolution of UHS temperature limitation problems. TSTF-330 allows, in part, that licensees may adopt an averaging approach for satisfying the UHS temperature limit as long as certain criteria are met. One criterion is that the accident analyses do not credit the UHS for near-term (within the first 24 hours) heat removal for accident mitigation purposes, such as for limiting containment pressure. The licensee responded in its March 13, 2001, supplemental letter that the prerequisites for TSTF-330 could not be satisfied at Palisades because the containment air coolers are credited for heat removal during the first hour of a loss-of-coolant accident. Therefore, averaging the temperature over a 24-hour period as allowed by the TSTF would not be appropriate. The NRC staff agrees that TSTF-330 does not apply to the Palisades situation.

As discussed in the licensee's March 13, 2001, supplemental letter and in Section 2.0 above, the licensee has previously completed testing and analyses to justify the proposed increase in the UHS temperature limit to 85 °F. The NRC's previous acceptance of the increased UHS temperature limit was provided in Amendment No. 151 and the inspection report dated July 30, 1996. The licensee also indicates in the March 13, 2001, supplemental letter that plant procedures and test acceptance criteria currently reflect the more restrictive assumptions associated with use of the higher UHS temperature limit. On the basis of these considerations, and recognizing that the temperature averaging approach that is allowed by TSTF-330 is not a

viable option for Palisades, the NRC staff finds the proposed change to TS SR 3.7.9.2 to change the UHS temperature limit from 81.5 °F to 85 °F to be acceptable.

The NRC staff does not object to the licensee's changes to the TS bases.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes a surveillance requirement. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 13800). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based upon the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Tatum
C. Harbuck

Date: June 4, 2001