

October 20, 2005

Mr. Paul A. Harden  
Site Vice President  
Nuclear Management Company, LLC  
Palisades Nuclear Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043-9530

SUBJECT: PALISADES PLANT — CHANGES TO EMERGENCY ACTION LEVELS  
(TAC NO. MC5194)

Dear Mr. Harden:

Your letter to the Nuclear Regulatory Commission dated October 22, 2004, as supplemented June 29, and August 25, 2005, requested changes to Palisades' emergency action levels based on Revision 4 to Nuclear Energy Institute document 99-01, "Methodology for Development of Emergency Action Levels." We evaluated your proposed changes, and conclude that they meet the standards of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.47(b), and the requirements of Appendix E to 10 CFR Part 50. Accordingly, we find these changes acceptable. Enclosed is our safety evaluation.

Sincerely,

/RA

L. Mark Padovan, Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosure: Safety Evaluation

cc w/encl: See next page

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Palisades Plant

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR  
SECURITY AND INCIDENT RESPONSE  
RELATED TO PROPOSED UPGRADED EMERGENCY ACTIONS LEVELS USING  
NUCLEAR ENERGY INSTITUTE (NEI) DOCUMENT 99-01, REVISION 4, METHODOLOGY  
NUCLEAR MANAGEMENT COMPANY, LLC  
PALISADES PLANT  
DOCKET NO. 50-255

## 1.0 INTRODUCTION

The Nuclear Management Company, LLC's (NMC's), letter of October 22, 2004, as supplemented June 29, and August 25, 2005, requested changes to Palisades' emergency action levels (EALs) based on Revision 4 to NEI 99-01, "Methodology for Development of Emergency Action Levels." The Nuclear Regulatory Commission (NRC) endorsed NEI 99-01 in Regulatory Guide 1.101, Revision 4, "Emergency Planning and Preparedness for Nuclear Power Reactors." Palisades' existing EALs are based on the methodology described in Appendix 1 to NUREG-0654/Federal Emergency Management Agency (FEMA)-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980, and the NRC's Order for Interim Safeguards and Security Compensatory Measures, dated February 25, 2002.

## 2.0 REGULATORY EVALUATION

The applicable regulations and guidance that the NRC staff used to review NMC's submittals are discussed in the sections below.

### 2.1 Regulations

Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR Part 50), Section 50.47, "Emergency plans," states that no operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that the state of onsite and offsite emergency preparedness provides reasonable assurance that adequate protective measures can, and will, be taken in the event of a radiological emergency. Section 50.47 also establishes standards that must be met by the onsite and offsite emergency response plans for the NRC staff to make a positive finding that there is reasonable assurance that adequate protective measures can, and will, be taken in the event of a radiological emergency. Paragraph 50.47(b)(4) stipulates that emergency plans include a standard emergency classification and action level scheme.

Part 50 of 10 CFR, Appendix E, Section IV.B, "Emergency Planning and Preparedness for Production and Utilization Facilities," requires that emergency plans include EALs. Utilities are

to use EALs as criteria for determining the need to notify and have local and State agencies participate. The EALs are also used for determining when, and what type of, protective measures should be considered, both onsite and offsite, to protect health and safety. EALs are to be based on in-plant conditions and instrumentation, and on onsite and offsite monitoring. Section IV.B of Appendix E specifies that initial EALs shall be discussed, and agreed on, by the applicant and State and local authorities, be approved by the NRC, and reviewed annually thereafter with State and local authorities. In addition, Section IV.B of Appendix E states that an EAL revision must be approved by the NRC before implementation if:

- The licensee is changing from one EAL scheme to another EAL scheme (e.g., a change from an EAL scheme based on NUREG-0654 to a scheme based upon NEI-99-01 or Nuclear Management and Resources Council [NUMARC] document NESP-007, "Methodology for Development of Emergency Action Levels," Revision 2, dated January 1992).
- The licensee is proposing an alternate method for complying with the regulations, or
- The EAL revision decreases the effectiveness of the emergency plan.

## 2.2 Guidance

As stated in Section 1.0 of this evaluation, NEI 99-01, Revision 4, establishes acceptable alternative methods to Appendix 1 of NUREG-0654/FEMA-REP-1 or NUMARC document NESP-007 for developing EALs. Regulatory Issue Summary (RIS) 2003-18, "Use of NEI 99-01, Methodology for Development of Emergency Action Levels," dated October 8, 2003, provides guidance for developing or changing a standard emergency classification and action level scheme. In addition, this RIS provides recommendations to assist licensees, consistent with Part 50, Appendix E, Section IV.B, in determining whether to seek prior NRC approval of deviations from the new guidance. The NRC subsequently issued Supplement 1 to RIS 2003-18 on July 13, 2004, to clarify various technical positions regarding the revision of EALs.

## 3.0 TECHNICAL EVALUATION

### 3.1 Scope

The proposed revision to Palisades' EALs involves a scheme conversion from Appendix 1 of NUREG-0654/FEMA-REP-1 to NEI 99-01, Revision 4. Therefore, NMC submitted the proposed changes to the NRC for approval prior to implementation, as required in Section IV.B of 10 CFR Part 50, Appendix E.

The NRC staff's evaluation of the proposed revisions to initiating conditions (ICs) and EAL threshold values is based on NMC's letters identified in Section 1.0. The NRC did not consider ICs titled, "Defueled Station Malfunctions," and listed under Category D in NEI 99-01, Revision 4, in this technical evaluation as the ICs do not apply to Palisades since it has a current operating license.

Proposed deviations or differences (other than minor differences, such as station-specific terminology, system and component names, or formatting) from the guidance in NEI 99-01,

Revision 4, were identified in the justification matrix provided in Enclosure 5 to NMC's letter of August 25, 2005, which provided a specific evaluation for each.

A complete revised version of the EAL Technical Basis document, including EAL Matrix, ICs, and associated EAL threshold values, is provided in Enclosure 4 to NMC's letter of August 25, 2005. This Technical Basis document reflects the changes made to the EAL Matrix, ICs, EAL threshold values, and Basis discussion in response to the NRC staff's requests for additional information provided in Enclosure 1 to NMC's letters of June 29, and August 25, 2005.

### 3.2 Approval by State and Local Authorities

As stated in Section 2.1, Section IV.B of Appendix E to 10 CFR Part 50 states that initial EALs shall be discussed, and agreed to, by the applicant and State and local authorities, be approved by the NRC, and reviewed annually thereafter with State and local authorities.

In its letter of October 22, 2004, NMC stated that the proposed EALs had been discussed, and agreed to, by the applicable State and local government officials. Enclosure 3 to NMC's letter of October 22, 2004, documented these discussions with the following offsite agencies:

- State of Michigan, Emergency Management Division
- VanBuren County, Office of Domestic Preparedness
- Allegan County Emergency Management
- Berrien County Emergency Management

### 3.3 List of Commitments

NMC's letters of June 29, and August 25, 2005, contain no new commitments and withdraws the following commitment made in its letter of October 22, 2004:

If revised security EALs are issued before the enclosed EALs are approved, NMC will provide a supplement to reflect the updated security EALs.

In its June 29, 2005 letter, NMC states the following:

That commitment is withdrawn. NMC will evaluate revised security EALs at PNP [Palisades] in accordance with the provisions of 10 CFR 50.54(q).

### 3.4 Evaluation

Based on the review of the information provided in NMC's letters of October 22, 2004, as supplemented June 29, and August 25, 2005, the NRC staff finds that the proposed changes to Palisades' ICs, EAL threshold values, and the Technical Basis document are consistent with the guidance in NEI 99-01, Revision 4, or provide an acceptable alternative. Hence, the proposed changes to the Palisades' EALs, as reflected in NMC's letter of August 25, 2005, are acceptable.

Changes to Palisades' security EALs, based on the guidance provided in Attachment 1 to NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," of July 18, 2005, were not evaluated as part of this review. As indicated in Section 3.3 above, NMC intends to implement these changes to its security EALs under 10 CFR 50.54(q), which is acceptable under the guidance provided in Bulletin 2005-02.

#### 4.0 CONCLUSIONS

The NRC staff finds that the proposed Palisades' EAL revision, provided in Enclosure 4 of NMC's letter of August 25, 2005, is consistent with the guidance in NEI 99-01, Revision 4, or provides an acceptable alternative as discussed in Section 3.0 above.

The NRC staff also finds that the proposed EAL changes meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50, Section IV.B. Therefore, based on the above discussion, the NRC staff concludes 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 approval of the proposed emergency plan changes will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. Anderson, NSIR

Date: October 20, 2005