



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 5, 2012

Vice President, Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

SUBJECT: PALISADES NUCLEAR PLANT - ISSUANCE OF AMENDMENT RE: REVISED
CYBER SECURITY PLAN IMPLEMENTATION SCHEDULE MILESTONE 6
(TAC NO. ME8944)

Dear Sir or Madam:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 248 to Renewed Facility Operating License No. DPR-20 for the Palisades Nuclear Plant. The amendment consists of changes to the Technical Specifications in response to your application dated June 20, 2012, as supplemented by letter dated November 28, 2012.

The amendment revises the scope of the Cyber Security Plan Implementation Schedule Milestone No. 6 and the existing license condition in the renewed facility operating license.

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,

A handwritten signature in black ink, appearing to read "Chawla", is positioned above the typed name.

Mahesh L. Chawla, Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosures:

1. Amendment No. 248 to DPR-20
2. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-255

PALISADES NUCLEAR PLANT

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 248
License No. DPR-20

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Nuclear Operations, Inc. (the licensee), dated June 20, 2012, as supplemented by letter dated November 28, 2012, 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, paragraph 2.E of Renewed Facility Operating License No. DPR-20 is hereby amended to read as follows:
 - E. ENO shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Entergy Nuclear Palisades Nuclear Plant Physical Security Plan."

ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Palisades CSP was approved by License Amendment No. 243 as supplemented by a change approved by License Amendment No. 248.
3. This license amendment is effective as of the date of issuance and shall be implemented by December 31, 2012.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert D. Carlson, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Renewed
Facility Operating License

Date of Issuance: December 5, 2012

ATTACHMENT TO LICENSE AMENDMENT NO. 248

RENEWED FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Replace the following page of the Renewed Facility Operating License No. DPR-20 with the attached revised page. The changed area is identified by a marginal line.

REMOVE

Page 6

INSERT

Page 6

- D. The facility has been granted certain exemptions from the requirements of Section III, G of Appendix R to 10 CFR Part 50, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979." This section relates to fire protection features for ensuring the systems and associated circuits used to achieve and maintain safe shutdown are free of fire damage. These exemptions were granted in letters dated February 8, 1983, July 12, 1985, and July 23, 1985.

In addition, the facility has been granted certain exemptions from Appendix J to 10 CFR Part 50, "Primary Reactor Containment Leakage Testing for Water Cooled Power Reactors." This section contains leakage test requirements, schedules and acceptance criteria for tests of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. These exemptions were granted in a letter dated December 6, 1989.

These exemptions granted pursuant to 10 CFR 50.12, are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. ENO shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Entergy Nuclear Palisades Nuclear Plant Physical Security Plan."

ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Palisades CSP was approved by License Amendment No. 243 (as supplemented by a change approved by License Amendment No. 248).

- F. [deleted]
- G. ENP and ENO shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 248 TO RENEWED

FACILITY OPERATING LICENSE NO. DPR-20

ENTERGY NUCLEAR OPERATIONS, INC.

PALISADES NUCLEAR PLANT

DOCKET NO. 50-255

1.0 INTRODUCTION

By application dated June 20, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML121770439), as supplemented by letter dated November 28, 2012 (ADAMS Accession No. ML12333A352), Entergy Nuclear Operations, Inc. (ENO, the licensee) requested changes to the Renewed Facility Operating License for Palisades Nuclear Plant (PNP). The proposed change would revise the scope of Cyber Security Plan (CSP) Implementation Schedule Milestone No. 6 and the existing license condition in the Renewed Facility Operating License. Milestone No. 6 of the CSP implementation schedule concerns the identification, documentation, and implementation of cyber security controls (technical, operational, and management) for critical digital assets (CDAs) related to target set equipment. ENO is requesting to modify the scope of Milestone No. 6 to apply to the technical cyber security controls only. The operational and management controls, as described in Nuclear Energy Institute (NEI) 08-09, Revision 6, would be implemented concurrent with the full implementation of the Cyber Security Program (Milestone No. 8). Thus, all CSP activities would be fully implemented by the completion date, identified in Milestone No. 8 of the licensee's CSP implementation schedule.

Portions of the letter dated June 20, 2012, contain sensitive unclassified non-safeguards information and, accordingly, those portions are withheld from public disclosure.

2.0 REGULATORY EVALUATION

The Nuclear Regulatory Commission (NRC) staff reviewed and approved the licensee's existing CSP implementation schedule by License Amendment No. 243 dated July 28, 2011, (ADAMS Accession No. ML111801243), concurrent with the incorporation of the CSP into the facility current licensing basis. The NRC staff considered the following regulatory requirements and guidance in its review of the current license amendment request to modify the existing CSP implementation schedule:

- Title 10 of the *Code of Federal Regulations* (10 CFR) 73.54 states: "Each [CSP] submittal must include a proposed implementation schedule. Implementation of the licensee's cyber security program must be consistent with the approved schedule."
- The licensee's Renewed Facility Operating License includes a license condition that requires the licensee to fully implement and maintain in effect all provisions of the Commission-approved CSP.
- Amendment No. 243, dated July 28, 2011, which approved the licensee's CSP and implementation schedule, included the following statement: "The implementation of the cyber security plan (CSP), including the key intermediate milestone dates and the full implementation date, shall be in accordance with the implementation schedule submitted by the licensee on April 4, 2011, and approved by the NRC staff with this license amendment. All subsequent changes to the NRC-approved CSP implementation schedule will require prior NRC approval pursuant to 10 CFR 50.90."
- In a letter to the NEI dated March 1, 2011 (ADAMS Accession No. ML110070348), the NRC staff acknowledged that the cyber security implementation schedule template was "written generically and licensees that use the template to develop their proposed implementation schedules may need to make changes to ensure the submitted schedule accurately accounts for site-specific activities."

3.0 TECHNICAL EVALUATION

Amendment No. 243 to Renewed Facility Operating License No. DPR-20 for PNP was issued on July 28, 2011. The NRC staff also approved the licensee's CSP implementation schedule, as discussed in the safety evaluation issued with the amendment. The implementation schedule had been submitted by the licensee based on a template prepared by NEI, which the NRC staff found acceptable for licensees to use to develop their CSP implementation schedules (ADAMS Accession No. ML110600218). The licensee's proposed implementation schedule for the Cyber Security Program identified completion dates and bases for the following eight milestones:

- 1) Establish the Cyber Security Assessment Team (CSAT);
- 2) Identify Critical Systems (CSs) and CDAs;
- 3) Install a deterministic one-way device between lower level devices and higher level devices;
- 4) Implement the security control "Access Control For Portable And Mobile Devices";
- 5) Implement observation and identification of obvious cyber related tampering to existing insider mitigation rounds by incorporating the appropriate elements;

- 6) Identify, document, and implement cyber security controls as per "Mitigation of Vulnerabilities and Application of Cyber Security Controls" for CDAs that could adversely impact the design function of physical security target set equipment;
- 7) Commence ongoing monitoring and assessment activities for those target set CDAs whose security controls have been implemented; and
- 8) Fully implement the CSP.

3.1 Licensee's Proposed Change

Currently, Milestone No. 6 of PNP's CSP requires ENO to identify, document, and implement cyber security controls for CDAs that could adversely impact the design function of physical security target set equipment by December 31, 2012. These cyber security controls consist of technical, operational and management security controls. In its June 20, 2012, application, ENO proposed to modify Milestone No. 6 to change the scope of the cyber security controls due to be implemented on December 31, 2012, to include only the NEI 08-09, Revision 6, Appendix D technical security controls. ENO proposes to amend its CSP to provide that operational and management security controls, identified in Milestone No. 6, will be fully implemented by a later date, which is the completion date identified in Milestone No. 8 of the CSP implementation schedule. The licensee stated that implementing the technical cyber security controls for target set CDAs provides a high degree of protection against cyber-related attacks that could lead to radiological sabotage. The licensee further stated that many of its existing programs are primarily procedure-based programs and must be implemented in coordination with the comprehensive Cyber Security Program. The licensee also stated that the existing programs currently in place at PNP (e.g., physical protection, maintenance, configuration management, and operating experience) provide sufficient operational and management cyber security protection during the interim period until the Cyber Security Program is fully implemented.

3.2 NRC Staff Evaluation

The intent of the cyber security implementation schedule was for licensees to demonstrate ongoing implementation of their cyber security program prior to full implementation, which is set for the date specified in Milestone No. 8. In addition to Milestone No. 6 and its associated activities, licensees will be completing six other milestones (Milestones No. 1 through No. 5 and Milestone No. 7) by December 31, 2012. Activities include establishing a Cyber Security Assessment Team, identifying critical systems and CDAs, installing deterministic one-way devices between defensive levels, implementing access control for portable and mobile devices, implementing methods to observe and identify obvious cyber related tampering, and conducting ongoing monitoring and assessment activities for target set CDAs. In the aggregate, the interim milestones demonstrate ongoing implementation of the cyber security program at PNP.

The NRC staff has reviewed the licensee's evaluation of the proposed change in its submittal dated June 20, 2012 and finds that by completing Milestones No. 1 through 5, Milestone No. 6 with implementation of technical controls to target set CDAs, and Milestone No. 7, PNP will have an acceptable level of cyber security protection until full program implementation is

achieved. Technical cyber security controls include access controls, audit and accountability, CDA and communications protection, identification and authentication, and system hardening. These controls are executed by computer systems, as opposed to people, and consist of hardware and software controls that provide automated protection to a system or application. Implementation of technical cyber security controls promotes standardization, trust, interoperability, connectivity, automation, and increased efficiency. For these reasons, the NRC staff concludes that the licensee's approach is acceptable.

The NRC staff also recognizes that full implementation of operational and management cyber security controls in accordance with requirements of the PNP CSP will be achieved with full implementation of the PNP Cyber Security Program by the date set in Milestone No. 8. That is, all required elements for the operational and management cyber security controls in accordance with the PNP CSP will be implemented in their entirety at the time of full implementation of the CSP.

The NRC staff does not regard the CSP milestone implementation dates as regulatory commitments that can be changed unilaterally by the licensee, particularly in light of the regulatory requirement at 10 CFR 73.54, that "[i]mplementation of the licensee's cyber security program must be consistent with the approved schedule." As the NRC staff explained in its letter to all operating reactor licensees dated May 9, 2011 (ADAMS Accession No. ML110980538), the implementation of the plan, including the key intermediate milestone dates and the full implementation date shall be in accordance with the implementation schedule submitted by the licensee and approved by the NRC. All subsequent changes to the NRC-approved CSP implementation schedule, thus, will require prior NRC approval pursuant to 10 CFR 50.90.

3.3 Revision to License Condition

By letter dated June 20, 2012, the licensee proposed to modify Paragraph 2.E of Renewed Facility Operating License No. DPR-20 for PNP which provides a license condition to require the licensee to fully implement and maintain in effect all provisions of the NRC-approved CSP.

The license condition in Paragraph 2. E of Renewed Operating License No. DPR-20 for PNP is modified (change indicated in **bold type**) to read as follows:

ENO shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Entergy Nuclear Palisades Nuclear Plant Physical Security Plan."

ENO shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Palisades CSP was approved by License

**Amendment No. 243 as supplemented by a change approved by License
Amendment No. 248.**

3.4 Summary

Based on its review of the licensee's submissions, the NRC staff concludes that the proposed changes to Milestone No. 6 of the licensee's CSP implementation schedule are acceptable. The NRC staff also concludes that, upon full implementation of the licensee's cyber security program, the requirements of the licensee's CSP and 10 CFR 73.54 will be met. Therefore, the NRC staff finds the proposed changes acceptable.

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 Michigan State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment relates solely to safeguards matters and does not involve any significant construction impacts. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(12). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

6.0 CONCLUSION

The NRC staff has concluded, based on 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) there is reasonable assurance that 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 Contributor: Monika Coflin, NSIR

Date of Issuance: December 5, 2012

Vice President, Operations
Entergy Nuclear Operations
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

December 5, 2012

SUBJECT: PALISADES NUCLEAR PLANT - ISSUANCE OF AMENDMENT RE: REVISED
CYBER SECURITY PLAN IMPLEMENTATION SCHEDULE MILESTONE 6
(TAC NO. ME8944)

Dear Sir or Madam:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 248 to Renewed Facility Operating License No. DPR-20 for the Palisades Nuclear Plant. The amendment consists of changes to the Technical Specifications in response to your application dated June 20, 2012, as supplemented by letter dated November 28, 2012.

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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/
Mahesh L. Chawla, Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosures:

1. Amendment No. 248 to DPR-20
2. Safety Evaluation

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NAME	MChawla	BTully	CErlanger*	BMizuno	RCarlson	MChawla
DATE	12/03/12	11/28/12	08/13/12	12/03/12	12/05/12	12/05/12

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