

May 13, 2008

Mr. Kevin Bronson  
Site Vice President  
Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360-5508

SUBJECT: PILGRIM NUCLEAR POWER STATION – NRC EVALUATED EMERGENCY  
PREPAREDNESS EXERCISE – INSPECTION REPORT NO.  
05000293/2008502

Dear Mr. Bronson:

On April 4, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the 2008 evaluated emergency preparedness exercise at your Pilgrim Nuclear Power Station. The enclosed inspection report documents the inspection results, which were discussed on April 4, 2008, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

James A. Trapp, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Docket Nos. 50-293  
License Nos. DPR-35

Enclosure: NRC Inspection Report 05000293/2008502

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James A. Trapp, Chief  
Plant Support Branch 1  
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SUNSI Review Complete: JMT (Reviewer's Initials)

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DATE	05/13/08	05/13/08	05/13/08					

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cc w/encl:

Vice President, Operations, Entergy Nuclear Operations  
Vice President, Oversight, Entergy Nuclear Operations  
Senior Manager, Nuclear Safety & Licensing, Entergy Nuclear Operations  
Senior Vice President and COO, Entergy Nuclear Operations  
Assistant General Counsel, Entergy Nuclear Operations  
Director, Radiation Control Program, Commonwealth of Massachusetts  
W. Irwin, Chief, CHP, Radiological Health, Vermont Department of Health  
The Honorable Therese Murray  
The Honorable Vincent deMacedo  
Chairman, Plymouth Board of Selectmen  
Chairman, Duxbury Board of Selectmen  
Chairman, Nuclear Matters Committee  
Plymouth Civil Defense Director  
D. O'Connor, Massachusetts Secretary of Energy Resources  
J. Miller, Senior Issues Manager  
Office of the Commissioner, Massachusetts Department of Environmental Protection  
Office of the Attorney General, Commonwealth of Massachusetts  
Electric Power Division, Commonwealth of Massachusetts  
R. Shadis, New England Coalition Staff  
D. Katz, Citizens Awareness Network  
W. Meinert, Nuclear Engineer  
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-293

License No.: DPR-35

Report No.: 05000293/2008502

Licensee: Entergy Nuclear Operations, Inc.

Facility : Pilgrim Nuclear Power Station (PNPS)

Location: 600 Rocky Hill Road  
Plymouth, MA 02360

Dates: April 1-4, 2008

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector, DRS, Region I (Lead)  
J. D'Antonio, Sr. Operations Engineer, DRS, Region I  
R. Cureton, Emergency Preparedness Inspector, DRS, Region I  
R. Rolph, Health Physicist, DRS, Region I  
D. Everhart, Physical Security Inspector, DRS, Region I

Approved By: James A. Trapp, Chief  
Plant Support Branch 1  
Division of Reactor Safety

## SUMMARY OF FINDINGS

IR 05000293/2008502; 04/01-04/2008; Pilgrim Nuclear Power Station; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by five region-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### **Cornerstone: Emergency Preparedness**

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Findings

None.

## REPORT DETAILS

## 1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01 – 1 Sample)a. Inspection Scope

Prior to the April 2, 2008, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which Entergy had submitted to the NRC, to determine if the exercise would test major elements of the Pilgrim emergency plan as required by 10 CFR 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Pilgrim's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and, protective action recommendations, respectively.
- The overall adequacy of Pilgrim's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Technical Support Center (TSC), Operations Support Center (OSC), and Emergency Operations Facility (EOF).
- A review of other performance areas, such as: the emergency response organization's (ERO's) recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and, the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC exercise inspection report and Pilgrim's EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the April 2 exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate Pilgrim's self-assessment of its ERO performance during the April 2 exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04 – 1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, Revision 33 of the Pilgrim Nuclear Power Station Emergency Plan was implemented by Entergy. Entergy determined that in accordance with 10 CFR 50.54(q), the changes resulted in no decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors reviewed all EAL changes made since June 2007, and conducted a sampling review of other Emergency Plan changes, including changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in a Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator (PI) Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Pilgrim EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last EP inspection at Pilgrim was conducted in the second quarter of 2007, so the inspectors reviewed supporting documentation from EP drills and tests from the second, third, and fourth calendar quarters of 2007 to verify the accuracy of the reported PI data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 5.

This inspection activity represented the completion of three samples on an annual cycle.

b. Findings

No findings of significance were identified.



4OA6 Meetings, Including Exit

On April 4, 2008, the inspectors presented the results of this inspection to Mr. K. Bronson, the Pilgrim Site Vice President, and other members of the Pilgrim staff. No proprietary information was provided to the inspectors during this inspection.

**ATTACHMENT**  
**SUPPLEMENTAL INFORMATION**  
**KEY POINTS OF CONTACT**

**Licensee Personnel**

T. Sowdon, Pilgrim Emergency Preparedness Manager  
N. Avrakotos, Entergy Emergency Planning Senior Manager

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

None

**LIST OF DOCUMENTS REVIEWED**

**Section 1EP1: Exercise Evaluation**

Pilgrim Nuclear Power Station Emergency Plan (Revision 33)  
Pilgrim Nuclear Power Station Emergency Plan Implementing Procedures  
Pilgrim Nuclear Power Station April 2, 2008, Emergency Exercise Scenario Package  
Pilgrim Nuclear Power Station Emergency Preparedness Drill Reports, January 2007 – March 2008  
Condition Reports written for the April 2, 2008, exercise:  
CR-PNP-2008-0796, -1080, 1084, 1093, 1105, 1107, 1108, 1109, 1111, 1200, 1215, 1216,  
1218, 1219, 1220, 1222, 1234, 1235, 1236, 1238, 1241, 1344

**Section 1EP4: Emergency Action Level and Emergency Plan Changes**

Procedure EN-LI-100, Process Applicability Determination (Rev. 6)  
Procedure EN-LI-113, Licensing Basis Document Change Process (Rev. 2)  
Procedure EN-EP-305, Emergency Planning 10CFR50.54(q) Review Process (Rev. 1)  
10 CFR 50.54(q) Reviews, Performed June 2007 – March 2008

**Section 4OA1: Performance Indicator Verification**

Procedure EN-LI-114, Performance Indicator Process (Rev. 3)  
Procedure EN-EP-201, Performance Indicators (Rev. 6)  
ERO Drill Participation PI data, April 2007 - December 2007  
Public Notification System PI data, April 2007 - December 2007  
DEP PI data, April 2007 - December 2007

**LIST OF ACRONYMS**

ANS	Alert Notification System
DEP	Drill and Exercise Performance
EAL	Emergency Action Level
EOF	Emergency Operations Facility
ERO	Emergency Response Organization
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center