



Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
600 Rocky Hill Road  
Plymouth, MA 02360

John A. Dent, Jr.  
Site Vice President

June 29, 2016

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

SUBJECT: Pilgrim Nuclear Power Station's Fourth Six-Month Status Report in Response to June 6, 2013 Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109)

Pilgrim Nuclear Power Station  
Docket No. 50-293  
Renewed License No. DPR-35

REFERENCES:

1. NRC Order Number EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," dated June 6, 2013 (Accession No. ML13143A334)
2. NRC Interim Staff Guidance JLD-ISG-2013-02, "Compliance with Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 0, dated November 2013 (Accession No. ML13304B836)
3. NRC Endorsement of Industry "Hardened Containment Venting System (HCVS) Phase 1 Overall Integrated Plan Template (EA-13-109), Rev 0" (Accession No. ML14128A219)
4. NEI 13-02, "Industry Guidance for Compliance with NRC Order EA-13-109, To Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 0, dated November 2013
5. Entergy's Phase 1 Overall Integrated Plan in Response to June 6, 2013 Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109), dated June 30, 2014
6. Notification of Permanent Cessation of Power Operations dated November 10, 2015 (Accession No. ML15328A053) (PNPS letter 2.15.080)
7. Pilgrim Nuclear Power Station's Third Six-Month Status Report, Phase 2 Overall Integrated Plan, and Responses to Phase 1 Interim Staff Evaluation Open Items in Response to June 6, 2013 Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109) (Accession No. ML15358A042) (PNPS Letter 2.15.082)

LETTER NUMBER: 2.16.031

A153  
NRR

Dear Sir or Madam:

On June 6, 2013, the U. S. Nuclear Regulatory Commission (NRC) issued an order (Reference 1) to Entergy Nuclear Operations, Inc. (Entergy). Reference 1 was immediately effective and directs Entergy to install a reliable hardened venting capability for pre-core damage and under severe accident conditions, including those involving a breach of the reactor vessel by molten core debris. Specific requirements are outlined in Attachment 2 of Reference 1. Reference 1 required submission of Phase 1 and Phase 2 overall integrated plans pursuant to Section IV, Condition D. Reference 3 endorses industry guidance document NEI 13-02, Revision 0 (Reference 4) with clarifications and exceptions identified in Reference 2. References 5 and 7 provided the Entergy Phase 1 and Phase 2 overall integrated plans.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. References 2 and 4 provide direction regarding the content of the status reports. The purpose of this letter is to provide the fourth six-month status report pursuant to Section IV, Condition D, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The attached status report provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

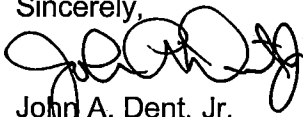
Per Reference 6, Entergy plans to permanently cease operation of PNPS no later than June 1, 2019. The Hardened Containment Vent System Phase 1 and Phase 2 strategies documented in this submittal were accurate descriptions of the planned modifications and/or strategies to satisfy the requirements of NRC Order EA-13-109. However, based on Reference 6, an alternative approach to the containment hardened vent Phase 1 and Phase 2 requirements will be submitted to the NRC with a request for extension of Order EA-13-109 to late-year 2019 to allow NRC approval of Order rescission.

If you have any questions or require additional information, please contact Mr. Everett Perkins, Jr. at (508) 830-8323.

There are no regulatory commitments contained in this letter.

I declare under penalty of perjury that the foregoing is true and correct; executed on June 29, 2016.

Sincerely,



John A. Dent, Jr.  
Site Vice President  
JAD/rb

Attachment: Pilgrim Nuclear Power Station's Fourth Six-Month Status Report in Response to June 6, 2013 Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109)

cc: Mr. Daniel H. Dorman  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-1415

U. S. Nuclear Regulatory Commission  
Director, Office of Nuclear Reactor Regulation  
Washington, DC 20555-0001

Ms. Booma Venkataraman, Project Manager  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Mail Stop O-8C2A  
Washington, DC 20555

Mr. John Giarrusso Jr.  
Planning, Nuclear and Preparedness Section Chief  
Mass. Emergency Management Agency  
400 Worcester Road  
Framingham, MA 01702

NRC Resident Inspector  
Pilgrim Nuclear Power Station

**ATTACHMENT**

**To**

**PNPS Letter 2.16.031**

**Pilgrim Nuclear Power Station's  
Fourth Six-Month Status Report in Response to June 6, 2013 Commission Order  
Modifying Licenses with Regard to Reliable Hardened Containment Vents  
Capable of Operation Under Severe Accident Conditions  
(Order Number EA-13-109)**

**(4 pages)**

## **Attachment**

### **PNPS Letter 2.16.031**

# **Pilgrim Nuclear Power Station's Fourth Six-Month Status Report in Response to June 6, 2013 Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109)**

## **1 Introduction**

In Reference 8, Pilgrim Nuclear Power Station (PNPS) informed the NRC of its intent to permanently cease power operations. PNPS will submit an alternate plan in lieu of complying with the requirements of EA-13-109. The provided information is basically unchanged except, for reflection of use of the alternate approach, from the prior six month update. PNPS is no longer pursuing any design or modifications related directly to this plan. However, to meet the regulatory requirement to provide six month updates, PNPS is submitting this update.

PNPS developed an Overall Integrated Plan (OIP) (Reference 1 in Section 8), documenting the installation of a Hardened Containment Vent System (HCVS) that provides a reliable hardened venting capability for pre-core damage and under severe accident conditions, including those involving a breach of the reactor vessel by molten core debris, in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the Phase 1 OIP and the previous Six Month Status Reports, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

## **2 Milestone Accomplishments**

The following milestone(s) have been completed since the development of the OIP (Reference 1), and are current as of June 29, 2016.

- The Overall Integrated Plan was issued on June 30, 2014.
- The First Six Month Status Report was issued on December 16, 2014.
- The Second Six Month Status Report was issued on June 30, 2015.
- The Third Six Month Status Report was issued on December 17, 2015.
- The Interim Staff Evaluation (ISE) was received on March 24, 2015.
- The Fourth Six Month Status Report was issued on June 29, 2016 (This submittal).

### 3. Milestone Schedule Status

The following provides an update to Part 5 of the OIP. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

| Milestone                                     | Target Completion Date | Activity Status | Comments                      |
|---|------------------------|-----------------|-------------------------------|
| Complete HCVS Gap Analysis                    | June 2014              | Complete        |                               |
| Submit Overall Integrated Plan                | June 2014              | Complete        |                               |
| Submit 6 Month Status Report                  | December 2014          | Complete        |                               |
| Submit 6 Month Status Report                  | June 2015              | Complete        |                               |
| Submit 6 Month Status Report                  | December 2015          | Complete        | Simultaneous with Phase 2 OIP |
| Design Engineering On-site/Complete           | July 2016              | Started         | Suspended                     |
| Submit 6 Month Status Report                  | June 2016              | Complete        | Complete                      |
| Operations Procedure Changes Developed        | December 2016          | Not Started     | Suspended                     |
| Site Specific Maintenance Procedure Developed | December 2016          | Not Started     | Suspended*                    |
| Submit 6 Month Status Report                  | December 2016          | Not Started     |                               |
| Training Complete                             | December 2016          | Not Started     | Suspended*                    |
| Implementation Outage                         | March 2017             | Not Started     | Suspended                     |
| Procedure Changes Active                      | March 2017             | Not Started     | Suspended*                    |
| Walk Through Demonstration/Functional Test    | March 2017             | Not Started     | Suspended*                    |
| Submit Completion Report                      | June 2017              | Not Started     | Suspended                     |
| Submit 6 Month Status Report                  | June 2017              | Not Started     |                               |
| Submit 6 Month Status Report                  | December 2017          | Not Started     |                               |
| Submit 6 Month Status Report                  | June 2018              | Not Started     |                               |
| Submit 6 Month Status Report                  | December 2018          | Not Started     |                               |
| Submit 6 Month Status Report                  | June 2019              | Not Started     |                               |

\*Operations procedure changes may result from the alternate approach

## **4 Changes to Compliance Method**

There are no changes to the compliance method as documented in the Phase 1 OIP (Reference 1).

## **5 Need for Relief/Relaxation and Basis for the Relief/Relaxation**

As noted in this submittal cover letter, Entergy plans to permanently cease operation of PNPS no later than June 1, 2019. The HCVS Phase 1 and Phase 2 strategies documented in this submittal were accurate descriptions of the current modifications and/or strategies to satisfy the requirements of NRC Order EA-13-109. However, based on Reference 6, an alternative approach to the containment hardened vent Phase 1 and Phase 2 will be submitted to the NRC with a request for extension of the Order EA-13-109 to mid-year 2019 to allow NRC approval of Order rescission.

## **6 Open Items from Overall Integrated Plan and Interim Staff Evaluation**

PNPS has received the Interim Staff Evaluation (ISE) with Open Items identified (Reference 7). These open items have been addressed in Attachment 2 to the Third 6-month status report submittal dated December 17, 2015 via PNPS Letter 2.15.082.

## **7 Interim Staff Evaluation Impacts**

There are no potential impacts to the Phase 1 Interim Staff Evaluation identified at this time.

## **8 References**

The following references support the updates to the Phase 1 OIP described in this enclosure.

1. Pilgrim's Overall Integrated Plan in Response to June 6, 2013 Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109), dated June 30, 2014
2. NRC Order Number EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions" dated June 6, 2013
3. NEI 13-02, "Industry Guidance for Compliance with NRC Order EA-13-109, To Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 0, dated November 2013
4. NRC Interim Staff Guidance JLD-ISG-2013-02, "Compliance with Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 0, dated November 2013 (Accession No. ML13304B836)
5. NRC Endorsement of Industry "Hardened Containment Venting System (HCVS) Phase 1 Overall Integrated Plan Template (EA-13-109) Rev 0" (Accession No. ML14128A219)
6. Nuclear Regulatory Commission Audits of Licensee Responses to Phase 1 of Order EA-13-109 to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions (Accession No. ML14126A545)

7. Nuclear Regulatory Commission Interim Staff Evaluation dated March 24, 2015, "Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Phase 1 of Order EA-13-109 (Severe Accident Capable Hardened Vents). (Accession No. ML15043A754) (PNPS Letter 1.15.016)
8. Notification of Permanent Cessation of Power Operations dated November 10, 2015 (Accession No. ML15328A053). (PNPS Letter 2.15.080)