



Entergy Nuclear Operations, Inc.  
Pilgrim Nuclear Power Station  
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Plymouth, MA 02360

John A. Dent, Jr.  
Site Vice President

December 16, 2016

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

**SUBJECT:** Pilgrim Nuclear Power Station's Fifth 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)

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8. Pilgrim Nuclear Power Station's Request for Extension to Comply with NRC Order EA-13-109, Order Modifying Licenses With Regard To Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions dated June 24, 2016 (PNPS Letter 2.16.028)

LETTER NUMBER: 2.16.074

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 fifth 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.

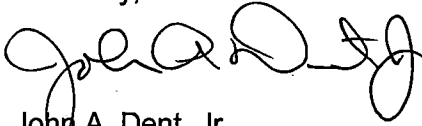
Per Reference 6, Entergy plans to permanently cease operation of PNPS no later than June 1, 2019. The Hardened Containment Vent System Phase 1 and Phase 2 strategies documented in this submittal were accurate descriptions of the planned modifications and/or strategies to satisfy the requirements of NRC Order EA-13-109. However, based on Reference 6, an alternative approach to the containment hardened vent Phase 1 and Phase 2 requirements was submitted to the NRC with a request for extension of Order EA-13-109 due date via Reference 8 to late-year 2019 to allow NRC approval of Order rescission. The NRC Staff and Entergy are currently in discussions regarding the request for extension.

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 December 16, 2016.

Sincerely,



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

Attachment: Pilgrim Nuclear Power Station's Fifth 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)

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**ATTACHMENT**

**To**

**PNPS Letter 2.16.074**

**Pilgrim Nuclear Power Station's  
Fifth 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 2.16.074

#### **Pilgrim Nuclear Power Station's Fifth 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 has submitted an alternate plan in lieu of complying with the requirements of EA-13-109 to the NRC with a request for a due date extension of Order EA-13-109 via Reference 9 to late-year 2019 to allow NRC approval of Order rescission. The NRC Staff and Entergy are currently in discussions regarding the request for extension.

The information provided 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 December 16, 2016.

- The Overall Integrated Plan was issued on June 30, 2014.
- The First Six Month Status Report was issued on December 16, 2014.
- The Interim Staff Evaluation (ISE) was received on March 24, 2015.
- 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 Fourth Six Month Status Report was issued on June 29, 2016.
- The Fifth Six Month Status Report was issued on December 16, 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	
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	Complete	
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 Reference 8, 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 was submitted to the NRC with a request for extension of the Order EA-13-109 due date via Reference 9 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)
9. Pilgrim Nuclear Power Station's Request for Extension to Comply with NRC Order EA-13-109, Order Modifying Licenses With Regard To Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions dated June 24, 2016 (PNPS Letter 2.16.028)