



**Entergy Nuclear Northeast**  
**Entergy Nuclear Operations, Inc.**  
James A. FitzPatrick NPP  
P.O. Box 110  
Lycoming, NY 13093  
Tel 315-342-3840

**Brian R. Sullivan**  
Site Vice President – JAF

JAFP-15-0080  
June 30, 2015

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

**Subject:** Entergy – James A. FitzPatrick Second 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)

James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333  
License No. DPR-059

**Reference:**

1. NRC Order, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions, EA-13-109, dated June 6, 2013
2. NRC Interim Staff Guidance, 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, JLD-ISG-2013-02, dated November 2013
3. NEI document, Industry Guidance for Compliance with NRC Order EA-13-109: BWR Mark I & II Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions, Revision 0, NEI 13-02, dated November 2013.
4. Entergy letter, James A. FitzPatrick Overall Integrated Plan In Response To June 6, 2013 Commission Order Modifying License With Regard To Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109), JAFP-14-0075, dated June 30, 2014.

Dear Sir or Madam:

On June 6, 2013, the Nuclear Regulatory Commission (“NRC” or “Commission”) issued an order [Reference 1] to James A. FitzPatrick Nuclear Power Plant (JAF). Reference 1 was immediately effective and directs JAF 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 a Phase 1 overall integrated plan pursuant to Section IV, Condition D. Reference 2 endorses industry guidance document NEI 13-02, Revision 0 [Reference 3] with clarifications and exceptions identified in Reference 2. Reference 4 provided the JAF overall integrated plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 2 (and 3) provides direction regarding the content of the status reports. The purpose of this letter is to provide the second 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 report provides an update to milestone status, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact Mr. Chris M. Adner, Regulatory Assurance Manager, at 315-349-6766.

I declare under penalty of perjury that the foregoing is true and correct; executed on June 30, 2015.

Sincerely,



*for* Brian R. Sullivan  
Site Vice President

BRS/CMA/mh

Attachment: Entergy – JAF Second 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: Director, Office of Nuclear Reactor Regulation  
NRC Regional Administrator  
NRC Resident Inspector  
Mr. Douglas Pickett, Senior Project Manager  
Ms. Bridget Frymire, NYSPSC  
Mr. John B. Rhodes, President NYSERDA

**Attachment to JAFP-15-0080**

**James A. FitzPatrick (JAF) Nuclear Power Plant's Second Six Month Status Report for the Implementation of Order EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"**

**(3 Pages)**

**James A. FitzPatrick (JAF) Nuclear Power Plant’s Second Six Month Status Report for the Implementation of Order EA-13-109, “Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions”**

**1 Introduction**

JAF developed an Overall Integrated Plan (Reference 1), 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 NRC Order Number EA-13-109 (Reference 2). This attachment provides an update of milestone accomplishments since submittal of the Phase 1 Overall Integrated Plan and the First Six Month Status Report, 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 Overall Integrated Plan (Reference 1), and are current as of June 30, 2015. See section 3

**3 Milestone Schedule Status**

The following provides an update to Part 5 of the Overall Integrated Plan (Reference 1). It provides the 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.

<b>Milestone</b>	<b>Target Completion Date</b>	<b>Activity Status</b>	<b>Comments</b>
Hold preliminary / conceptual design meeting	Jan. 2014	Complete	
Submit Overall Integrated Implementation Plan	Jun. 2014	Complete	
Submit 6 Month Status Report	Dec. 2014	Complete	
Submit 6 Month Status Report	Jun. 2015	Complete	
Design Engineering On-site/Complete	Sept. 2015	In progress	Delayed from June 2015 target completion date due to additional work required.
Submit 6 Month Status Report	Dec. 2015	Not started	Simultaneous with Phase 2 OIP
Submit 6 Month Status Report	Jun. 2016	Not started	
Operations Procedure Changes Developed	Aug. 2016	Not started	
Site Specific Maintenance Procedure Developed	Aug. 2016	Not started	
Implementation Outage	Oct. 2016	Not started	
Procedure Changes Active	Nov. 2016	Not started	
Walk Through Demonstration/Functional Test	Nov. 2016	Not started	
Submit 6 Month Status Report	Dec. 2016	Not started	
Training Complete	Dec. 2016	Not started	
Submit 6 Month Status Report	Jun. 2017	Not started	
Submit Completion Report	Jun. 2017	Not started	

## **James A. FitzPatrick (JAF) Nuclear Power Plant's Second Six Month Status Report for the Implementation of Order EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"**

### **4 Changes to Compliance Method**

There is no change to the compliance method that meets NEI 13-02 (Reference 3). The JAF design changes to the HCVS will continue to meet the requirements of Order EA-13-109 (Reference 2). During the development of the detailed design, several changes to the information provided in the JAF Overall Integrated Plan have been made. The following changes are described based on the applicable Order section items as well as the applicable sections in the Overall Integrated Plan.

*Overall Integrated Plan (Reference 1): Introduction, Part 2 [Table 2-1, Discussion of Constraints, Power and Pneumatic Supply Sources, Location of Control Panels, Monitoring of HCVS, Key Venting Parameters, First 24 Hour Coping Detail, Greater than 24 Coping Detail, BDBEE Venting, Severe Accident Venting, Sketches 3.A, 3.B, 3.C, 3.D]; Order EA-13-109 (Reference 2) Item 1.1.1, 1.2.4, 1.2.5, 1.2.6, 1.2.8, 1.2.9*

The vent operation and HCVS specific parameter indication (pressure, temperature, valve position indication, N2 bottle pressure, battery voltage and current) have been consolidated to a single, remote but readily accessible location as part of the detailed design per Order Reference 1.2.4 and NEI 13-02 Section 4.2.2. The new location is in the protected east corridor of the Administration Building at grade level (272 ft) as described in the original JAF HCVS OIP. The HCVS radiation indication will also be located within the Administration Building corridor at the HCVS Operating Station. The change in location will enhance the probability of successful operator actions to operate the HCVS when required, in accordance with Order Reference 1.1.1 and NEI 13-02 Section 4.2.6. The Main Control Room (MCR) is used for monitoring the existing Containment pressure and Wetwell Level indications. Communication will be maintained between the Main Control Room and the HCVS Operating Station when operating the HCVS in accordance with Order References 1.2.8 & 1.2.9 and NEI 13-02 Sections 4.2.2.1 & 4.2.4.1.

The backup DC battery will no longer be located in the Reactor Building Track Bay. The batteries will be located in the Division I DC Equipment Room (Station Battery Charger Room) at elevation 272'. The battery station will still meet the requirements of Order References 1.2.5 & 1.2.6 and NEI 13-02 Sections 2.5, 4.2.2, 4.2.3, 4.2.6, & 6.1.

*Overall Integrated Plan (Reference 1) Part 2 [Table 2-1, First 24 Hour Coping Detail, Sketches 1.A, 1.B]; Order EA-13-109 (Reference 2) Item 1.2.4, 1.2.5, 1.2.7*

The MCR and the key-lock switches will no longer be used for operation of the HCVS. The operation will be completed using manual operation of pneumatic supply and vent valves (administratively controlled and physically locked) from the HCVS Operating Station within the Administration Building. Operator actions will still be performed from the HCVS Operating Station in accordance with Order References 1.2.4, 1.2.5 & 1.2.7 and NEI 13-02 Sections 4.2.1, 4.2.2, & 4.2.3.

*Overall Integrated Plan (Reference 1) Part 2 [Table 2-1, Sequence of Events, Unintended Cross Flow of Vented Fluids, Vent Path and Discharge, Sketches 2.A, 2.B, 2.C], Order EA-13-109 (Reference 2) Item 1.1.1, 1.1.2, 1.1.3/ NEI 13-02 Section 4.2.5, 4.2.6. 6.1.1, Order EA-13-109 (Reference 2) Section 1.2.3, 1.2.12 / NEI 13-02 Section 4.1.2, 4.1.4, 4.1.6 and Appendix H.*

The installation of a new Air Operated (AOV) isolation valve in the common piping to Standby Gas Treatment System (SGTS) will no longer be required. The existing SGTS Motor Operated (MOV) isolation valves, 27MOV-120 and 27MOV-121, will be utilized as the isolation boundary for the HCVS. These valves are designed to ANSI Class VI leak tightness and will be manually closed, if open, upon initiation of the Extended Loss of AC Power (ELAP) event.

**James A. FitzPatrick (JAF) Nuclear Power Plant's Second Six Month Status Report for the Implementation of Order EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"**

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

JAF expects to comply with the Order implementation date and no relief / relaxation is required at this time.

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

JAF has received the Interim Staff Evaluation (ISE) with Open Items identified (Reference 7). Open Items will be addressed during completion of final design and provided in a future OIP update.

**7 Interim Staff Evaluation Impacts**

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

**8 References**

The following references support the updates to the Phase 1 Overall Integrated Plan described in this enclosure.

1. Letter JAFP-14-0075, JAF'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 (Accession No. ML14181B117).
2. 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. ML13143A321).
3. NEI 13-02, "Industry Guidance for Compliance with Order EA-13-109: BWR Mark I & II Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 0, dated November 2013 (Accession No. ML13316A853).
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 the Industry's "Hardened Containment Venting System (HCVS) Phase 1 Overall Integrated Plan Template (EA-13-109) Rev 0", dated May 14, 2014 (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, dated May 27, 2014 (Accession No. ML14126A545).
7. Nuclear Regulatory Commission Interim Staff Evaluation, dated 2/12/15, Interim Staff Evaluation by The Office of Nuclear Reactor Regulation Related To Order EA-13-109 Phase 1, Modifying Licenses With Regard To Reliable Hardened Containment Vents Capable Of Operation Under Severe Accident Conditions, Entergy Nuclear Operations, Inc., James A. FitzPatrick Nuclear Power Plant, Docket No. 50-333 (Accession No. ML15007A090).