



Order No. EA-13-109

RS-14-305

December 19, 2014

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

Peach Bottom Atomic Power Station, Units 2 and 3  
Renewed Facility Operating License Nos. DPR-44 and DPR-56  
NRC Docket Nos. 50-277 and 50-278

Subject: First Six-Month Status Report 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)

References:

1. NRC Order Number EA-13-109, "Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," dated June 6, 2013
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 14, 2013
3. NEI 13-02, "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, dated November 2013
4. Exelon Generation Company, LLC's Answer 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 26, 2013
5. Exelon Generation Company, LLC 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 (RS-14-062)

On June 6, 2013, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an order (Reference 1) to Exelon Generation Company, LLC (EGC). Reference 1 was immediately effective and directs EGC to require their BWRs with Mark I and Mark II containments to take certain actions to ensure that these facilities have a hardened containment vent system (HCVS) to remove decay heat from the containment, and maintain control of containment pressure

within acceptable limits following events that result in loss of active containment heat removal capability while maintaining the capability to operate under severe accident (SA) conditions resulting from an Extended Loss of AC Power (ELAP). Specific requirements are outlined in Attachment 2 of Reference 1.

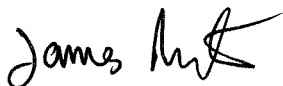
Reference 1 required submission of an initial status report 20 days following issuance of the final interim staff guidance (Reference 2) and a Phase 1 Overall Integrated Plan pursuant to Section IV, Condition D by June 30, 2014. Reference 2 endorses industry guidance document NEI 13-02, Revision 0 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the EGC initial status report regarding reliable hardened containment vents capable of operation under severe accident conditions. Reference 5 provided the Peach Bottom Atomic Power Station, Units 2 and 3 Phase 1 Overall Integrated Plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the Phase 1 overall integrated plan. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the first six-month status report for Phase 1 pursuant to Section IV, Condition D.3, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The enclosed 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.

This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact David P. Helker at 610-765-5525.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 19<sup>th</sup> day of December 2014.

Respectfully submitted,



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James Barstow  
Director - Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

Enclosure:

Peach Bottom Atomic Power Station, Units 2 and 3 First Six-Month Status Report for Phase 1 Implementation of Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions

cc: Director, Office of Nuclear Reactor Regulation  
NRC Regional Administrator - Region I  
NRC Senior Resident Inspector – Peach Bottom Atomic Power Station, Units 2 and 3  
NRC Project Manager, NRR – Peach Bottom Atomic Power Station, Units 2 and 3  
Mr. Charles H. Norton, NRR/JLD/PPSD/JOMB, NRC  
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Resources  
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Protection, Bureau of Radiation Protection

**Enclosure**

**Peach Bottom Atomic Power Station, Units 2 and 3**

**First Six-Month Status Report for Phase 1 Implementation of Order EA-13-109, Order  
Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of  
Operation Under Severe Accident Conditions**

(4 pages)

## Enclosure

### **Peach Bottom Atomic Power Station, Units 2 and 3 First Six Month Status Report for the Implementation of Order EA-13-109, “Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions”**

#### **1 Introduction**

Peach Bottom Atomic Power Station, Units 2 and 3 developed an Overall Integrated Plan (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 Overall Integrated Plan, 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 December 2, 2014:

- First Six-Month Update (complete with this submittal)

#### **3 Milestone Schedule Status**

The following provides an update to Part 5 of the Overall Integrated Plan. 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.

The revised milestone target completion dates do not impact the order implementation date.

<b>Milestone</b>	<b>Target Completion Date</b>	<b>Activity Status</b>	<b>Comments</b>
Submit Overall Integrated Plan	June 2014	Complete	
<b><u>Submit 6 Month Updates:</u></b>			
Update 1	December 2014	Complete with this submittal	
Update 2	June 2015	Not Started	
Update 3 [simultaneous with Phase 2 OIP]	December 2015	Not Started	
Update 4	June 2016	Not Started	

PBAPS's First Six Month Status Report for the Implementation of HCVS Phase 1  
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Milestone	Target Completion Date	Activity Status	Comments
Update 5	December 2016	Not Started	
Update 6	June 2017	Not Started	
Update 7	December 2017	Not Started	
Update 8	June 2018	Not Started	
<b><u>Modifications:</u></b>			
Hold preliminary/conceptual design meeting	April 2014	Complete	
U2 Design Engineering for Wetwell Vent Approved	September 2015	Started	
U3 Design Engineering for Wetwell Vent Approved	September 2016	Not Started	
<b><u>Procedures:</u></b>			
U2 Wetwell Operations Procedure Changes Developed	September 2016	Not Started	
U2 Wetwell Maintenance Procedure Changes Developed	September 2016	Not Started	
U2 Wetwell Procedure Changes Active	November 2016	Not Started	
U3 Wetwell Operations Procedure Changes Developed	September 2017	Not Started	
U3 Wetwell Maintenance Procedure Changes Developed	September 2017	Not Started	
U3 Wetwell Procedure Changes Active	October 2017	Not Started	
<b><u>Training:</u></b>			
U2 Wetwell Training Complete	September 2016	Not Started	
U3 Wetwell Training Complete	September 2017	Not Started	
<b><u>Completion:</u></b>			
U2 Wetwell Implementation Outage	November 2016	Not Started	
U2 Wetwell Walk-Through Demonstration/ Functional Test	November 2016	Not Started	
Submit U2 Wetwell Completion Report	January 2017	Not Started	
U3 Wetwell Implementation Outage	October 2017	Not Started	
U3 Wetwell Walk-Through Demonstration/ Functional Test	October 2017	Not Started	

PBAPS's First Six Month Status Report for the Implementation of HCVS Phase 1  
December 19, 2014

Milestone	Target Completion Date	Activity Status	Comments
Functional Test			
Submit U3 Wetwell Completion Report	December 2017	Not Started	

#### 4 Changes to Compliance Method

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

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

Peach Bottom Atomic Power Station, Units 2 and 3 expects to comply with the order implementation date; therefore, no relief/relaxation is required at this time.

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

The following tables provide a summary of the open items documented in the Phase 1 Overall Integrated Plan or the Interim Staff Evaluation (ISE) and the status of each item.

Overall Integrated Plan Phase 1 Open Item	Status
1. Confirm that the Remote Operating Station (ROS) will be in an accessible area following a Severe Accident (SA)	Not Started – will be confirmed during detailed design.
2. Provide procedures for HCVS Operation	Not Started – existing procedures will be revised and/or new procedures will be created during procedure development.
3. Identify Site Specific Controlling Document for HCVS out of service and compensatory measures	Not Started – existing procedures will be revised and/or new procedures will be created during procedure development.
4. Determine the design approach for combustible gas	Started – design approach discussed in preliminary conceptual design meeting is to purge the exhaust line with inert gas. This will be confirmed during detailed design.

Interim Staff Evaluation Open Item	Status
No items at the present time.	

## **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. Peach Bottom Atomic Power Station, Units 2 and 3, 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 Modifying 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 14, 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).