Order No. EA-13-109



RS-16-106

June 30, 2016

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

> Dresden Nuclear Power Station, Units 2 and 3 Renewed Facility Operating License Nos. DPR-19 and DPR-25 <u>NRC Docket Nos. 50-237 and 50-249</u>

Subject: Fourth Six-Month Status Report For Phases 1 and 2 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
- NRC Interim Staff Guidance JLD-ISG-2015-01, "Compliance with Phase 2 Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions", Revision 0, dated April 2015
- 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 1, dated April 2015
- 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
- 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-14-058)
- 6. Exelon Generation Company, LLC 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), dated December 17, 2014 (RS-14-302)
- 7. Exelon Generation Company, LLC Second 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), dated June 30, 2015 (RS-15-148)

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- 8. Exelon Generation Company, LLC Phase 1 (Updated) and Phase 2 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 December 15, 2015 (RS-15-299)
- NRC letter to Exelon Generation Company, LLC, Dresden Nuclear Power Station, Units 2 and 3 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Phase 1 of Order EA-13-109 (Severe Accident Capable Hardened Vents) (TAC Nos. MF4462 and MF4463), dated February 11, 2015

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 Overall Integrated Plan (OIP) by June 30, 2014 for Phase 1 of the Order, and an OIP by December 31, 2015 for Phase 2 of the Order. The interim staff guidance (Reference 2) provides direction regarding the content of the OIP for Phase 1 and Phase 2. Reference 2 endorses industry guidance document NEI 13-02, Revision 1 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the EGC initial response regarding reliable hardened containment vents capable of operation under severe accident conditions. Reference 5 provided the Dresden Nuclear Power Station, Units 2 and 3, Phase 1 OIP pursuant to Section IV, Condition D.1 of Reference 1. References 6 and 7 provided the first and second six-month status reports pursuant to Section IV, Condition D.3 of Reference 1 for Dresden Nuclear Power Station. Reference 8 provided the Dresden Nuclear Power Station, Units 2 and 3, Phase 1 updated and Phase 2 OIP pursuant to Section IV, Conditions D.2 and D.3 of Reference 1.

The purpose of this letter is to provide the fourth six-month update report for Phases 1 and 2, pursuant to Section IV, Condition D.3 of Reference 1, that delineates progress made in implementing the requirements of Reference 1 for Dresden Nuclear Power Station, Units 2 and 3. 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. The enclosed report also addresses the NRC Interim Staff Evaluation open items contained in Reference 9.

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

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I declare under penalty of perjury that the foregoing is true and correct. Executed on the 30th day of June 2016.

Respectfully submitted,

J. Tlogod

Glen T. Kaegi Director - Licensing & Regulatory Affairs Exelon Generation Company, LLC

Enclosure:

Dresden Nuclear Power Station, Units 2 and 3 Fourth Six-Month Status Report for Phases 1 and 2 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 III NRC Senior Resident Inspector - Dresden Nuclear Power Station NRC Project Manager, NRR - Dresden Nuclear Power Station Mr. Raj Auluck, NRR/JLD/TSD/JCBB, NRC Mr. John P. Boska, NRR/JLD/JOMB, NRC Illinois Emergency Management Agency - Division of Nuclear Safety

Enclosure

Dresden Nuclear Power Station, Units 2 and 3

Fourth Six-Month Status Report for Phases 1 and 2 Implementation of Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions

(12 pages)

Enclosure

Dresden Nuclear Power Station, Units 2 and 3 Fourth Six-Month Status Report for Phases 1 and 2 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

Dresden Nuclear 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 NRC Order EA-13-109 (Reference 2). Starting with this six month status report, updates of milestone accomplishments will be based on the combined Phases 1 and 2 Overall Integrated Plan dated December 16, 2015 (Reference 6).

Dresden Station developed an updated and combined Phases 1 and 2 Overall Integrated Plan (Reference 6), documenting:

- 1. 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.
- 2. An alternative venting strategy that makes it unlikely that a drywell vent is needed to protect the containment from overpressure-related failure under severe accident conditions, including those that involve a breach of the reactor vessel by molten core debris, in response to Reference 2

This enclosure provides an update of milestone accomplishments since submittal of the combined Phases 1 and 2 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 combined Phases 1 and 2 Overall Integrated Plan (Reference 6), and are current as of June 1, 2016.

- Major sections of 10" Vent line for Unit 3 (Lead Unit) have been routed inside the reactor building. The actual tie-in to the existing 18" vent will be done during the November 2016 outage.
- The steel tower supporting the vent lines outside the reactor building has been fabricated and its rigging and installation plans are underway.
- The nitrogen and argon piping installation is underway.
- Dose Assessment to assess impact of dose from HCVS piping on FLEX strategies has been prepared and is under final review by Exelon.

3 Milestone Schedule Status

The following provides an update to Part 5 of the combined Phases 1 and 2 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.

| Milestone | Target Completion Date | Activity Status | Comments |
|---|------------------------------|------------------------------------|----------|
| Phases 1 and 2 | HCVS Mileston | e Table | |
| Submit Overall Integrated Plan | June 2014 | Complete | |
| Submit 6 Month Updates: | | | |
| Update 1 | Dec. 2014 | Complete | |
| Update 2 | June 2015 | Complete | |
| Update 3 [Simultaneous with Phase 2 OIP] | Dec. 2015 | Complete | |
| Update 4 | June 2016 | Complete with this submittal | |
| Update 5 | Dec. 2016 | Not started | |
| Update 6 | June 2017 | Not started | |
| Update 7 | Dec. 2017 | Not started | |
| Update 8 | June 2018 | Not started | |
| Update 9 | Dec. 2018 | Not started | |
| Phase 1 Sp | pecific Mileston | es | |
| Phase 1 U3 (Lead Unit) Modifications: | | | |
| Begin Conceptual Design | Sep. 2012 | Complete | |
| Complete Conceptual Design | Mar. 2013 | Complete | |
| Begin Detailed Design | Nov. 2014 | Complete | |
| Complete Detailed Design and Issue | Jan. 2016 | Complete | |

| Milestone | Target Completion Date | Activity Status | Comments |
|--|------------------------------|--------------------|----------|
| Phases 1 and 2 | HCVS Mileston | e Table | |
| Modification Package | | | |
| Begin Online Portion of the Installation | Nov. 2015 | Complete | |
| Complete Online Installation | Oct. 2016 | Started | |
| Begin Outage Portion of the Installation | Oct. 2016 | Not started | |
| Complete Outage Installation | Nov. 2016 | Not Started | |
| Phase 1 Procedure Changes Active | | | |
| Operations Procedure Changes Developed | Oct. 2016 | Started | |
| Site Specific Maintenance Procedure Developed | Oct. 2016 | Started | |
| Procedure Changes Active | Nov. 2016 | Not Started | |
| Phase 1 Training: | | | |
| Training Complete | Oct. 2016 | Not Started | |
| Phase 1 Completion | | | |
| U3 Phase 1 HCVS Implementation | Nov. 2016 | Not Started | |
| Submit Completion Report | Jan. 2019 | Not Started | |
| Phase 1 U2 (Lag Unit) Modifications: | | | |
| Begin Conceptual Design | Sep. 2012 | Complete | |
| Complete Conceptual Design | Mar. 2013 | Complete | |
| Begin Detailed Design | Nov. 2014 | Complete | |
| Complete Detailed Design and Issue Modification Package | Sep. 2016 | Started | |
| Begin Online Portion of the Installation | Mar. 2016 | Complete | |
| Complete Online Installation | Oct. 2017 | Started | |
| Begin Outage Portion of the Installation | Oct. 2017 | Not started | |

| Milestone | Target Completion Date | Activity Status | Comments |
|--|------------------------------|--------------------|----------|
| Phases 1 and 2 | HCVS Mileston | e Table | |
| Complete Outage Installation | Nov. 2017 | Not started | |
| Phase 1 Procedure Changes Active | | | |
| Operations Procedure Changes Developed | Oct. 2017 | Not started | |
| Site Specific Maintenance Procedure Developed | Oct. 2017 | Not started | |
| Procedure Changes Active | Oct. 2017 | Not started | |
| Phase 1 Training: | | | |
| Training Complete | Oct. 2017 | Not started | |
| Phase 1 Completion | | | |
| U2 Phase 1 HCVS Implementation | Nov. 2017 | Not started | |
| Full Site HCVS Phase 1 Implementation | Nov. 2017 | Not started | |
| Submit Completion Report | Jan. 2018 | Not started | |
| Phase 2 Specific Milestones | | | |
| Phase 2 U2 (Lead Unit) Modifications: | | | |
| Begin Conceptual Design | March 2016 | Complete | |
| Complete Conceptual Design | Aug. 2016 | Started | |
| Begin Detailed Design | Jan. 2017 | Not started | |
| Complete Detailed Design and Issue Modification Package | Mar. 2017 | Not started | |
| Begin Online Portion of the Installation | May 2017 | Not started | |
| Complete Online Installation | Oct. 2017 | Not started | |
| Begin Outage Portion of the Installation | Oct. 2017 | Not started | |
| Complete Outage Installation | Nov. 2017 | Not started | |
| Phase 2 Procedure Changes Active | | | |

| Milestone | Target Completion Date | Activity Status | Comments |
|---|------------------------------|--------------------|---------------------------------------|
| Phases 1 and 2 | HCVS Milestor | ne Table | |
| Operations Procedure Changes Developed | Oct. 2017 | Not started | |
| Site Specific Maintenance Procedure Developed | Oct. 2017 | Not started | · · · · · · · · · · · · · · · · · · · |
| Procedure Changes Active | Oct. 2017 | Not started | |
| Phase 2 Training: | | | |
| Training Complete | Oct. 2017 | Not started | |
| Phase 2 Completion | | | |
| U2 Phase 2 HCVS Implementation | Nov. 2017 | Not started | |
| Submit Phase 1 and Phase 2 Completion Report [60 days after Unit achieves compliance] | Jan. 2018 | Not started | |
| Phase 2 U3 (Lag Unit) Modifications: | | | |
| Begin Conceptual Design | Mar. 2016 | Complete | |
| Complete Conceptual Design | Aug. 2016 | Started | |
| Begin Detailed Design | Apr. 2017 | Not started | |
| Complete Detailed Design and Issue Modification Package | Aug. 2017 | Not started | |
| Begin Online Portion of the Installation | Oct. 2017 | Not started | |
| Complete Online Installation | Oct. 2018 | Not started | |
| Begin Outage Portion of the Installation | Oct. 2018 | Not started | |
| Complete Outage Installation | Nov. 2018 | Not started | |
| Phase 2 Procedure Changes Active | | | |
| Operations Procedure Changes Developed | Oct. 2018 | Not started | |
| Site Specific Maintenance Procedure | Oct. 2018 | Not started | |

| Milestone | Target Completion Date | Activity Status | Comments |
|--|------------------------------|--------------------|----------|
| Phases 1 and 2 | HCVS Mileston | e Table | |
| Developed | | | |
| Procedure Changes Active | Oct. 2018 | Not started | |
| Phase 2 Training: | | | |
| Training Complete | Oct. 2018 | Not started | |
| Phase 2 Completion | | | |
| U3 Phase 2 HCVS Implementation | Nov. 2018 | Not started | |
| Full Site HCVS Phase 2 Implementation | Nov. 2018 | Not started | |
| Submit Phase 1 and Phase 2 Completion Report [60 days after full site compliance] | Jan. 2019 | Not started | |

4 Changes to Compliance Method

The dose impact of HCVS on FLEX strategies is being evaluated. Any changes to the compliance method will be reported in the December 2016 update.

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

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

6 Open Items from Combined Phases 1 and 2 Overall Integrated Plan and Interim Staff Evaluations

The following tables provide a summary of the open items documented in the combined Phases 1 and 2 Overall Integrated Plan or the Interim Staff Evaluation (ISE) and the status of each item.

| Com | bined Phases 1 and 2 OIP Open Items | Status |
|-----------|---|------------------------------------|
| ltem # | Phase 1 O | pen Items |
| OI-1 | Confirm that at least 6 hours battery coping time is available. | Closed to ISE Open Item number 1. |
| OI-2 | Determine actions to enable wetwell (WW) venting following a flooding around the torus. | Closed to ISE Open Item number 2. |
| OI-3 | Determine how Motive Power and/or HCVS Battery Power will be disabled during normal operation. | Closed to ISE Open Item number 3. |
| 01-4 | Confirm that the Remote Operating Station (ROS) will be in an accessible area following a Severe Accident (SA). | Closed to ISE Open Item number 12. |
| OI-5 | Confirm diameter on new common HCVS Piping. | Closed to ISE Open Item number 5. |
| OI-6 | Confirm suppression pool heat capacity. | Closed to ISE Open Item number 6. |
| OI-7 | Determine the approach for combustible gases. | Closed to ISE Open Item number 7. |
| Ol-8 | Provide procedures for HCVS Operation. | Closed to ISE Open Item number 18. |
| OI-9 | Perform radiological evaluation for Phase 1 vent line impact on ERO response actions. | Started |
| ltem # | Phase 2 O | pen Items |
| 01-1 | Determine SAWA flow control. | Not started |
| OI-2 | Resolve location of the FLEX DG to mitigate radiological consequences during severe accident conditions. | Started |
| OI-3 | Validate time-line for Reactor Building hose connections does not exceed 1 hour. | Not started |

| ltem # | Phase 1 Interim Staff Evaluation Open Items | Status |
|-----------|---|--|
| ISE-1 | Make available for NRC staff audit documentation confirming that at least 6 hours battery coping time is available. | Complete EC 391973 is available for NRC review on the ePortal. |
| ISE-2 | Make available for NRC staff audit documentation that confirms the ability to | Started |

| ltem # | Phase 1 Interim Staff Evaluation Open Items | Status |
|-----------|---|--|
| | operate HCVS following flooding around the suppression pool. | |
| ISE-3 | Make available for NRC staff audit documentation of a method to disable HCVS during normal operation to provide assurances against inadvertent operation that also minimizes actions to enable HCVS operation following an ELAP. | Complete with this submittal. HCVS design precludes inadvertent actuation of the system through passive design features. The HCVS vent pipe has been designed with two PCIVs, in series, in compliance with GDC-56. The PCIVs have independent actuation trains, thereby precluding inadvertent actuation by a single component failure or mis-alignment. Each PCIV isolates the vent line through its normally held closed actuator spring. A rupture disk in the vent line downstream of the PCIVs preserves the secondary containment boundary. Furthermore, to prevent inadvertent opening, the PCIVs are isolated from their motive force supply by two locked closed manual valves and require remote manual operation of a key- lock on the control switch at the primary operating station. Similarly, purge gas supply is isolated from the vent line by two locked closed manual valves and requires remote manual operation of a key-lock on the control switch at the primary operating station. Similarly, purge gas supply is isolated from the vent line by two locked closed manual valves and requires remote manual operation of a key-lock on the control switch at the primary operating station. Since there are no interfacing systems downstream of the PCIVs, no inadvertent venting cross flow can occur. Details on the configuration of the vent line PCIVs can be found in EC 401069, Design Considerations Summary (DCS). Sections 4.1.4.1, 4.1.4.1.5 and 4.1.27. Based on the details in the EC, NEI requirements 4.1.2.1 and 4.2.1, to prevent inadvertent actuation of the system, are met. EC 401069 is available for NRC review on the ePortal. |
| ISE-4 | Make available for NRC staff audit the | Started |
| | criteria for the HCVS stack. | |

| ltem # | Phase 1 Interim Staff Evaluation Open Items | Status |
|-----------|--|--|
| ISE-5 | Make available for NRC staff audit documentation of the licensee design effort to confirm the diameter on the new common HCVS piping. | Complete with this submittal. Calculation DRE15-0046 uses a RELAP5 model to determine that a 10-inch diameter vent is sufficient to remove 1% reactor thermal power. |
| | | NRC review on the ePortal. |
| ISE-6 | Make available for NRC staff audit analyses demonstrating that HCVS has the capacity to vent the steam/energy equivalent of one percent of licensed/rated thermal power (unless a lower value is justified), and that the suppression pool and the HCVS together are able to absorb and reject decay heat, such that following a reactor shutdown from full power containment pressure is restored and then maintained below the primary containment design pressure and the primary containment pressure limit. | Complete with this submittal. Calculation DRE15-0046 uses a RELAP5 model to determine that a 10-inch diameter vent is sufficient to remove 1% reactor thermal power. The steady state venting capacity of the Dresden HCVS was determined at a torus vapor space pressure of 47 psig, which corresponds to the PCPL for the torus filled with water. At a torus pressure of 47 psig, the HCVS can vent 111,071 lbm /hr of steam. At 1% reactor thermal power the required vent capacity is 110,381 lbm/hr. Therefore, Requirement 1.2.1 of Attachment 2 to NRC Order EA-13-109 is met. |
| ISE-7 | Provide a description of the final design of the HCVS to address hydrogen detonation and deflagration. | Started Dresden design will install an argon purge system to address hydrogen detonation and deflagration requirements of NEI 13- 02 Rev. 1 and consistent with HCVS-WP- 03. Argon purge system design is in progress. |
| ISE-8 | Make available for NRC staff audit documentation of a determination of seismic adequacy for the ROS location. | Started |
| ISE-9 | Make available for NRC staff audit documentation that demonstrates adequate communication between the remote HCVS operation locations and HCVS decision makers during ELAP and | Complete with this submittal. FSG-39, FLEX Communications Options, discusses the available Onsite communications. Communications may |

| ltem # | Phase 1 Interim Staff Evaluation Open Items | Status |
|-----------|--|---|
| | severe accident conditions. | be performed using the installed sound powered headset system within the power block and 800 Mhz radios in the talkaround mode. Public Address announcements are made by Nuclear Security Officers using hand-held bullhorns. |
| | | Offsite communications will utilize hand- held satellite phones staged in the Control Room and Technical Support Center. Battery chargers for portable communications equipment are stored in a robust structure. Upon initiation of the ELAP, the FLEX Diesel Generator can power the battery chargers. FSG-39 is available for NRC review on the |
| | Drevide e description of the startening for | ePortal. |
| ISE-10 | Provide a description of the strategies for hydrogen control that minimizes the potential for hydrogen gas migration and ingress into the reactor building or other buildings. | Complete with this submittal. As described in the OIP, the HCVS torus vent path in each Dresden unit, starting at and including the downstream Primary Containment Isolation Valve (PCIV), will be a dedicated HCVS flow path. There are no interconnected systems downstream of the downstream dedicated HCVS PCIV. Interconnected systems are upstream of the downstream HCVS PCIV and are isolated by normally shut, fail shut PCIVs which, if open, would shut on an ELAP. There is no shared HCVS piping between the two units. As a result, the potential for hydrogen gas migration and ingress into the reactor building or other buildings is minimized. |
| ISE-11 | Provide descriptions of design details that minimize unintended cross flow of vented fluids within a unit and between units on | Complete with this submittal. |
| | the site. | Dresden's piping layout minimizes the possibility of cross flow of vented fluids within a unit and between the two units. |
| ISE-12 | Make available for NRC staff audit an | Started |
| | evaluation of temperature and radiological conditions to ensure that operating | |

| ltem # | Phase 1 Interim Staff Evaluation Open Items | Status |
|-----------|---|---|
| | personnel can safely access and operate controls and support equipment. | |
| ISE-13 | Make available for NRC staff audit the final sizing evaluation for HCVS batteries/battery charger including incorporation into FLEX DG loading calculation. | Started |
| ISE-14 | Make available for NRC staff audit documentation of the HCVS nitrogen pneumatic system design including sizing and location. | Started |
| ISE-15 | Make available for NRC staff audit descriptions of all instrumentation and controls (existing and planned) necessary to implement this order including qualification methods. | Started Instrument design is in progress. |
| ISE-16 | Make available for NRC staff audit the descriptions of local conditions (temperature, radiation and humidity) anticipated during ELAP and severe accident for the components (valves, instrumentation, sensors, transmitters, indicators, electronics, control devices, etc.) required for HCVS venting including confirmation that the components are capable of performing their functions during ELAP and severe accident conditions. | Started Component location design is in progress. The HCVS primary control panel will be located in the Main Control Room (MCR). |
| ISE-17 | Make available for NRC staff audit documentation of an evaluation verifying the existing containment isolation valves, relied upon for the HCVS, will open under the maximum expected differential pressure during BDBEE and severe accident wetwell venting. | Started The existing containment isolation valves are being evaluated for their performance under wetwell venting conditions. |
| ISE-18 | Make available for NRC staff audit procedures for HCVS operation. | Not started |

| ltem # | Phase 2 Interim Staff Evaluation Open Items | Status |
|-----------|--|--------|
| | Phase 2 ISE not received | |

7 Interim Staff Evaluation Impacts

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

8 References

The following references support the updates to the combined Phases 1 and 2 Overall Integrated Plan described in this enclosure.

- 1. Dresden Nuclear 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 1, dated April 2015.
- 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).
- Dresden Nuclear Power Station, Units 2 and 3, Combined Phase 1 and 2 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 December 16, 2015.
- NRC Interim Staff Guidance JLD-ISG-2015-01, "Compliance with Phase 2 of Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," Revision 0, dated April 2015 (Accession No. ML15104A118).
- 8. NRC Order Number EA-12-050, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents, dated March 12, 2012.