Exelon Generation®

Order No. EA-13-109

RS-16-113
RA-16-042

May 11, 2016

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219

Subject: Revision to Commitments Relating to Relaxation of the Phase 1 Schedule Requirements for Order EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (TAC No. MF4352)

References:

1. NRC Order 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. Exelon Generation Company, LLC Letter to USNRC, 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 2, 2014 (RS-14-081)
3. Exelon Generation Company, LLC Letter to USNRC, Supplemental Response to Request for Additional Information Regarding 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 November 25, 2014 (RS-14-318)
4. Exelon Generation Company, LLC Letter to USNRC, Supplemental Response to Request for Additional Information Regarding 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 September 30, 2015 (RS-15-184)
5. USNRC letter to Exelon Generation Company, LLC, Oyster Creek Nuclear Generating Station-Relaxation of the Schedule Requirements for Order EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (TAC No. MF4352), dated November 16, 2015

On June 6, 2013, the Nuclear Regulatory Commission (NRC) issued Order EA-13-109 (Reference 1) to all licensees that operate boiling-water reactors with Mark I and Mark II containment designs. The Order was effective immediately and is applicable to Oyster Creek Nuclear Generating Station (Oyster Creek). In Reference 2, Exelon Generation Company, LLC (EGC) requested an extension of the final compliance dates of Order EA-13-109 requirements in Section IV of NRC Order EA-13-109 concerning implementation of the Phase 1 (wetwell vent) and Phase 2 (drywell vent) at Oyster Creek until January 31, 2020. In References 3 and 4, EGC provided additional information supporting the requested extension of the final compliance date for Phase 1 of Order EA-13-109. In References 3 and 4 EGC provided regulatory commitments to implement certain compensatory measures to support the requested schedule relaxation. In Reference 5, the NRC granted the requested relaxation of the required full implementation of Order EA-13-109 Phase 1 requirements until January 31, 2020.

As discussed with NRC staff on April 28, 2016, the purpose of this letter is to notify the NRC of changes to Commitment No. 1 as documented in Enclosure 2 of Reference 3, and Commitment No. 2 as documented in Enclosure 2 of Reference 4, as described below.

Commitment No. 1 as documented in Enclosure 2 of Reference 3, committed to modifications to enhance the capability of the Torus Hardened Containment Vent System (HCVS) during Extended Loss of AC Power (ELAP) conditions. The existing commitment included a modification to provide a compressed gas source and connection outside secondary containment as a means of operating Torus HCVS isolation valve control solenoids with a total loss of station AC, DC, and control air supply. This modification design is being revised to provide the compressed gas source directly to the Torus HCVS isolation valve control actuators rather than through the control solenoids. This change maintains the intent of the original commitment to provide an additional motive force to reposition the Torus HCVS isolation valves and thus enhanced capability of the Torus HCVS during ELAP conditions. Accordingly, the original commitment is clarified to state that the modification will provide a compressed gas source and connection outside secondary containment as a means of operating Torus HCVS isolation valve actuators with a total loss of station AC, DC, and control air supply. The only revision to Commitment No. 1 is to replace "valve control solenoids" with "valve control actuators." All other aspects of Commitment No. 1 remain unchanged as described in the enclosure to this letter.

Commitment No. 2 as documented in Enclosure 2 of Reference 4, committed to a modification (e.g., diverter plate) to be performed to ensure any downward flow from the 2-inch diameter drain hole on the hardened vent elbow does not interfere with the natural draft through the hatch. The existing commitment is clarified to indicate that installation of the diverter plate modification will be performed as a manual action prior to the start of venting. Installation will occur as part of the existing manual action commitment to open the hatch on the floor below the hardened vent connection to create a thermal stack effect (Reference 4, Commitment No. 1). Procedures will direct the simple installation of the diverter plate after opening the hatch prior to the start of venting. Installation hardware will be stored and maintained at the location of potential use. The area will remain accessible during the period of installation and the actions required to install the diverter plate can be accomplished. This change maintains the intent of the original commitment for the diverter plate to prevent interference with natural draft flow through the open hatch and thus provide a means of further enhancing the thermal stack effect.

The revised commitments are provided in the enclosure to this letter and replace the existing corresponding referenced commitments. Revisions to the previous commitments are shown in bold.

The revised commitments maintain the intent of the original commitments as described in References 3 and 4 to support the enhanced containment vent capability and reliability, and further reduction of severe accident risk at Oyster Creek for the period of the extension request. These commitment changes have no impact on nuclear safety or safe plant operations. These commitments have not yet been implemented at Oyster Creek Nuclear Generating Station and therefore, a notification to the NRC of the commitment changes is warranted in accordance with the EGC Commitment Management Program.

These commitment changes are being submitted for information only. There are no other new or revised regulatory commitments contained in this letter.

If you have any questions regarding this submittal, 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 11th day of May 2016.

Respectfully submitted,

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

Enclosure: Summary of Revised Regulatory Commitments

cc: Regional Administrator - NRC Region I
NRC Senior Resident Inspector – Oyster Creek Nuclear Generating Station
NRC Project Manager, NRR – Oyster Creek Nuclear Generating Station
Mr. John D. Hughey, NRR/JLD/JOMB, NRC
Manager, Bureau of Nuclear Engineering – New Jersey Department of Environmental Protection
Mayor of Lacey Township, Forked River, NJ

Enclosure

Oyster Creek Nuclear Generating Station

Summary of Revised Regulatory Commitments

The following table identifies commitments made in this document. Revision from previous commitment is shown in bold. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITTED DATE OR "OUTAGE"	COMMITMENT TYPE	
		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
Reference 3, Revised Commitment No. 1: 1. Oyster Creek will implement modifications for the Torus HCVS isolation valves V-23-15 and V-23-16. The modifications will enhance the capability of the Torus HCVS during Extended Loss of AC Power (ELAP) conditions. The modifications, once completed, will provide a supplemental compressed gas connection to the Torus HCVS isolation valves, extending the availability of this motive force. The location of this connection will allow for change out of the compressed gas source extending indefinitely the availability of the Torus HCVS isolation valve motive force. The modification and procedure changes will provide a means of operating Torus HCVS isolation valve control **actuators** with a total loss of station AC, DC and control air supply from a remote location. The supplemental compressed gas connection and means of Torus HCVS isolation valve **actuator** control will be located outside of secondary containment. The location of the modification connection points is being determined, and will take into consideration the environment and radiological conditions that the operator would be exposed to during an event. The location of the modification connection points will be protected from severe external events. The design requires the connections to be simple and not require the disassembly and reassembly of components. The use of ladders or	Prior to startup from OC1R26 Refuel Outage (Fall 2016)	Yes	No

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		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
scaffolding will not be required to make required connections or implement the modification. Procedures will be developed to perform continuity checks across isolation valve position indication switches as a means of determining valve position from the main control room when position indication is lost. Additionally, Oyster Creek is evaluating the use of a temperature probe that could be read with a portable device at the connection/control point. The operator dose assessment will use the guidelines from NEI 13-02, Appendix F and G. Means to reposition Torus HCVS isolation valve control **actuators** from a remote location during a loss of all station AC, DC, and control air supply will be provided. These means will not require operators to move temporary ladders or operate from scaffolding to access the Torus HCVS valves or remote operating locations. The gas supply to the Torus HCVS isolation valves will extend operation past the six cycles of the currently installed system. The location of this connection will allow for change-out of the compressed gas source extending indefinitely the availability of the torus HCVS isolation valve motive force during an event. A means of operating Torus HCVS isolation valve control **actuators** independent of currently installed plant systems will be provided, including unavailability of the "B" battery and the 500KW FLEX generator. Components installed as part of the HCVS modification will comply with NEI 13-02, Section 5.2 Seismic and External Conditions, and NEI 13-02, Section 5.3 Quality Requirements. The modification has the following features			

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		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
which have the capabilities or similar capabilities of those described in NEI 13-02, Section 4.2.2. • The ability to open/close the Torus HCVS isolation valves multiple times during the event by providing additional motive gas. • The ability to open/close the Torus HCVS isolation valves multiple times during the event by providing additional methods of controlling isolation valve **actuators**. • The ability to change out spent supplemental compressed gas supply source during an event providing sustained operations greater than 7 days. • Simple connection/disconnect. • Modification connection/control points protected from severe external events. • The location of connection points will be outside secondary containment and take into consideration the temperature and radiological conditions the operating personnel may encounter in transit and at the connection point. • Staged portable equipment will be consistent with the guidance for NRC Order EA-12-049 which states: "The equipment would be staged and reasonably protected from applicable site-specific severe external events to provide reasonable assurance that the equipment will remain deployable following such an event." • The modification would remove the need to work from scaffolding or ladders. • The modification would remove the need for operators to perform actions in the vicinity of the Torus HCVS isolation valves. • Continuity checks across the Torus HCVS isolation valve limit switches from the Main Control Room (MCR) will			

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		ONE-TIME ACTION (Yes/No)	PROGRAMMATIC (Yes/No)
provide position indication when normal indication is lost. • Portable radiation meters at the shield wall will provide gross fuel damage indication. • Pressures readings can be obtained from the installed pressure gauge at the shield wall. • If the temperature probe evaluation proves acceptable, then the HCVS piping temperature would be available at a remote location.			
Reference 4, Revised Commitment No. 2: **2.** A modification (e.g., a diverter plate) will be performed to ensure that any downward flow from the 2-inch diameter drain hole on the hardened vent elbow does not interfere with the natural draft through the hatch. **Installation of the diverter plate modification will be performed as a manual action prior to the start of venting. Installation will occur as part of the existing manual action commitment to open the hatch on the floor below the hardened vent connection to create a thermal stack effect (Reference 4, Commitment No. 1). Procedures will direct the simple installation of the diverter plate after opening the hatch prior to the start of venting.**	Prior to startup from OC1R26 Refuel Outage (Fall 2016)	No	Yes