



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 20, 2017

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: 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)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission (NRC) staff is responding to the request from Exelon Generation Company, LLC (Exelon, the licensee), for relaxation from the schedule requirements of NRC Order EA-13-109 for Oyster Creek Nuclear Generating Station (Oyster Creek, OCNGS). The NRC staff has determined that good cause exists for the schedule relaxation and has granted the request as described below.

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12054A694), the NRC issued Order EA-12-050 to all operating Boiling-Water Reactor licensees with Mark I and Mark II containments. The order, in part, required licensees to install a reliable hardened containment vent system. By letter dated June 6, 2013 (ADAMS Accession No. ML13143A334), the NRC superseded the requirements of Order EA-12-050, with Order EA-13-109, "Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions."

Section IV of Order EA-13-109 states that licensees proposing to deviate from requirements of the order may request that the Director, Office of Nuclear Reactor Regulation, relax or rescind certain requirements. By letter dated June 2, 2014 (ADAMS Accession No. ML14153A421), as supplemented by letters dated September 26, 2014, November 25, 2014, May 21, 2015, September 30, 2015 and February 15, 2016 (ADAMS Accession Nos. ML14272A323, ML14329A263, ML15141A120, ML15274A010, and ML16047A094, respectively), Exelon requested an extension of the final compliance dates of Order EA-13-109. Specifically, the licensee requested an extension to comply with the requirements in Section IV of Order EA-13-109 concerning implementation of the Phase 1 (severe-accident-capable wetwell vent) and Phase 2 (severe-accident-capable drywell vent requirements) at OCNGS until January 31, 2020. Based on the timelines contained in Order EA-13-109, OCNGS is required to be in compliance with Phase 1 by fall 2016, and Phase 2 by fall 2018.

By letter dated January 7, 2011 (ADAMS Accession No. ML110070507), the licensee notified the NRC of Exelon's intent to permanently shut down OCNCS and cease operation no later than December 31, 2019. The licensee's extension request dated June 2, 2014, stated that Exelon will submit a request for relief from NRC Order EA-13-109 no later than January 31, 2020, based on the permanent shutdown condition of the plant at that time. Exelon's extension request is based on the limited remaining operational time for OCNCS, the existing plant safety features currently installed along with the containment vent enhancements to address venting under severe accident conditions, and the additional FLEX strategies that were implemented in accordance with NRC Order EA-12-049 at OCNCS.

By letter dated November 16, 2015 (ADAMS Accession No. ML15092A159), the NRC staff approved the relaxation of the Phase 1 requirements implementation date until January 31, 2020. In that letter, the NRC staff stated that relaxation of the Phase 2 requirements for OCNCS would be reviewed separately.

The staff granted the relaxation for the Phase 1 requirements based on compensatory measures, in the form of plant modifications and procedural changes, taken by the licensee to enhance the capability of the already installed wetwell containment vent system. By letter dated May 11, 2016 (ADAMS Accession No. ML16132A220), the licensee informed the staff that it had revised certain commitments related to the compensatory measures that supported the Phase 1 relaxation. The staff has reviewed the revised commitments and determined that they do not adversely impact the staff's determination that the licensee has provided good cause for relaxation of the Phase 1 requirements.

With regard to the relaxation of the Phase 2 schedule, the NRC staff requested additional information on May 6, 2015 (ADAMS Accession No. ML17144A370), and the licensee responded by letter dated February 15, 2016 (ADAMS Accession No. ML16047A094). In its letter, Exelon stated that Oyster Creek will not install a severe-accident-capable drywell vent, but will instead implement a containment venting strategy that, under severe accident conditions, makes it unlikely that a severe accident capable drywell vent is needed. Exelon explained that this strategy is substantially consistent with Order EA-13-109, Attachment 2, Section B.2 (Containment Venting Strategy Requirements). Exelon also stated that this venting strategy will be in place during the period of relaxation for Phase 2 requirements. More specifically, Exelon stated that plant modifications to implement the severe accident water addition (SAWA) strategy and procedural guidance for implementing severe accident water management (SAWM) strategies would be developed and implemented by the completion of the fall 2018 refueling outage. The licensee indicated that it will provide an accessible location to control water flow to the reactor pressure vessel for SAWA/SAWM, which will be further from the containment vent piping such that operators can monitor and control the SAWA/SAWM flow rate and preserve the wetwell vent path for at least 7 days. This strategy substantially follows the guidance contained in industry guidance document NEI 13-02, Revision 1, which the NRC endorsed in JLD-ISG-2015-01 (ADAMS Accession No. ML15104A118).

The NRC staff evaluated Exelon's proposed venting strategy and associated water management guidance and concluded that the guidance and containment venting strategy, including preservation of the containment wetwell vent path, will make it unlikely that Oyster Creek would need to vent from the containment drywell during severe accident conditions, or during an extended loss of alternating current power event. The staff also notes that this approach is consistent with Attachment 2, Section B.2, of Order EA-13-109.

In light of the facts presented in the licensee's June 2, 2014, May 21, 2015, and February 15, 2016, letters, the NRC staff has determined that the licensee has demonstrated good cause for a relaxation of the implementation date of Order EA-13-109. Given the implementation of the compensatory measures, as discussed above and detailed in the licensee's supplements, the licensee has shown that prior to the current compliance date for the order, Oyster Creek's containment venting strategy will be substantially consistent with Order EA-13-109.

Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the requirement of the order for full implementation of Order EA-13-109, Phase 2 requirements for OCNCS is relaxed until January 31, 2020.

If you have any questions, please contact Jason Paige, Orders Management Branch, at 301-415-1474 or at [Jason.Paige@nrc.gov](mailto:Jason.Paige@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'W. M. Dean', with a long horizontal flourish extending to the right.

William M. Dean, Director  
Office of Nuclear Reactor Regulation

Docket No. 50-219

cc: Listserv

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**ADAMS Accession No.: ML17144A175**

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