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

July 20, 2015

Mr. Bryan C. Hanson
President and Chief Nuclear Officer
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LIMERICK GENERATING STATION, UNIT 2 – 180-DAY RELAXATION OF CERTAIN SCHEDULE REQUIREMENTS FOR ORDER EA-12-049, "ISSUANCE OF ORDER TO MODIFY LICENSES WITH REGARD TO REQUIREMENTS FOR MITIGATION STRATEGIES FOR BEYOND DESIGN BASIS EXTERNAL EVENTS" (TAC NO. MF0848)

Dear Mr. Hanson:

The purpose of this letter is to inform Exelon Generation Company, LLC (Exelon, the licensee) of the disposition of the licensee's request by letter dated July 9, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15190A332), to relax the schedule for compliance with Order EA-12-049 for Limerick Generating Station (LGS), Unit 2. By letter dated March 12, 2012 (ADAMS Accession No. ML12054A735), the U.S. Nuclear Regulatory Commission (NRC) ordered Exelon to take certain actions at Limerick Generating Station (LGS), Unit 2, associated with the Fukushima Near-Term Task Force Recommendations. Order EA-12-049 directed that actions be taken by licensees to develop and implement strategies to maintain or restore core cooling, containment cooling, and spent fuel pool cooling capabilities during beyond-design-basis external events.

Section IV of NRC Order EA-12-049 states that licensees proposing to deviate from requirements contained in the order may request that the Director of the Office of Nuclear Reactor Regulation relax or rescind certain requirements. Condition IV.A.2 of NRC Order EA-12-049 requires full implementation of the order requirements no later than two refueling cycles after submittal of the overall integrated plan, or by December 31, 2016, whichever comes first. By letter dated April 15, 2014 (ADAMS Accession No. ML14065A528), the NRC granted relaxation of certain schedule requirements of Order EA-12-049 related to full containment wetwell venting capability until completion of the spring 2017 refueling outage for LGS, Unit 2, consistent with the requirements of 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 (ADAMS Accession No. ML13143A334). The NRC relaxation approval dated April 15, 2014, identified that the equipment and modifications required to implement the mitigating strategies required by Order EA-12-049 were to be completed and available for use in accordance with the original implementation schedule requirements, except for the primary containment venting strategy.

By letter dated April 2, 2015 (ADAMS Accession No. ML15092A833), the licensee informed the NRC of its additional LGS, Unit 2, request for schedule relaxation from compliance with Order EA-12-049 for no more than 90 days following restart from the spring 2015 refueling outage. The additional schedule relaxation was requested to allow completion of two LGS Flexible

Coping Strategies (FLEX) equipment storage robust buildings. The NRC staff concluded that Exelon demonstrated good cause for relaxation and that appropriate compensatory measures were identified for the period of relaxation. Therefore, by letter dated April 29, 2015 (ADAMS Accession No. ML15106A013), the NRC staff approved the 90-day relaxation request.

By letter dated July 9, 2015, the licensee requested that the schedule relaxation from compliance with Order EA-12-049 be extended to 180 days for LGS, Unit 2, following restart from the spring 2015 refueling outage. The licensee's submittal stated that the additional relaxation is required due to further delays encountered in constructing the two LGS FLEX storage robust buildings. Specifically, Exelon identified that foundation-to-wall and wall-to-roof dowels were not installed per design drawings resulting in significant engineering redesign and construction rework. The redesign required that prefabricated construction materials be reordered with different dimensions. However, the new construction materials delivered to the site were incorrect and multiple attempts were required to obtain correctly fabricated construction materials. Additionally, the schedule delays extended the building projects into the peak construction season, resulting in difficulties obtaining qualified and trained craft resources in a timely manner.

The licensee's 180-day schedule relaxation request dated July 9, 2015, stated that corrective actions have been implemented to address the issues described above. The corrective actions include: additional resources to perform quality assurance verifications; additional engineering resources to ensure thorough review of design changes and shop drawings to mitigate errors; additional craft and supervision resources; and additional engineering hold points for the work activities to verify compliance with the design.

The licensee stated that LGS has implemented the mitigation strategy requirements imposed by NRC Order EA-12-049, with the exception of the primary containment venting strategy and the two FLEX equipment storage robust buildings, as discussed above. Therefore, the LGS FLEX mitigating strategy equipment is onsite and available, and the design and programmatic changes required to implement the LGS, Unit 2, mitigating strategies are complete.

In addition, the compensatory measures established during the current 90-day schedule relaxation period will remain in place for the entire 180-day extension request or until the FLEX buildings are completed. Specifically, in order to maintain post-deployment capability, key FLEX equipment, such as large portable generators and pumps, will be stored in locations that provide physical separation. These locations will not be susceptible to flooding events or building collapse, minimizing the likelihood of one event impacting both sets of equipment. If hurricane conditions are predicted, one set of portable FLEX equipment will be moved to a protected location.

The NRC staff has concluded that the construction quality issues, out-of-tolerance material deliveries and resource limitations reasonably prevented completion of the two FLEX equipment storage buildings within the previously approved 90-day schedule relaxation period. The staff also recognizes that Exelon has established corrective actions to address the construction delays and will maintain appropriate compensatory measures to maintain post deployment capabilities for the FLEX equipment.

In light of the facts presented in the licensee's July 9, 2015, letter, the NRC staff has determined that the licensee has demonstrated good cause to relax the NRC Order EA-12-049

implementation date for 180 days following restart from the spring 2015 refueling outage. The LGS, Unit 2 restarted from this outage on May 4, 2015. Therefore, the schedule relaxation will extend to October 31, 2015. The NRC staff also considered that, following the accident at Fukushima Dai-ichi, the NRC concluded that a sequence of events such as the Fukushima Dai-ichi accident is unlikely to occur in the United States based on the current regulatory requirements and existing plant capabilities. Given the plant-specific circumstances at LGS, and that implementation of the mitigating strategies relaxed by this letter will be completed before December 2016, the NRC staff approves the requested relaxation.

Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the requirement of implementation of mitigating strategies for LGS, Unit 2, associated with Order EA-12-049 is relaxed until no later than October 31, 2015. Full compliance with Order EA-12-049 remains the spring of 2017 refueling outage for LGS, Unit 2, as granted in NRC letter dated April 15, 2014, to allow the licensee sufficient time to implement a severe accident capable hardened containment wetwell vent.

If you have any questions, please contact John Hughey at 301-415-3204.

Sincerely,

William M. Dean, Director
Office of Nuclear Reactor Regulation

Docket No. 50-353

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**ADAMS Accession No.: ML15194A068**

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