

Constellation Energy Nuclear Group, LLC

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NRC Order No. EA-12-049

RS-15-078

February 20, 2015

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

> Calvert Cliffs Nuclear Power Plant, Unit 2 Renewed Facility Operating License No. DPR-69 <u>Docket No. 50-318</u>

Subject:

Request for Schedule Relaxation from Nuclear Regulatory Commission Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events"

References:

- 1. NRC Order Number EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012 (ML12054A735)
- 2. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013
- Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013

This letter transmits a request for schedule relaxation of the requirements contained in Nuclear Regulatory Commission (NRC) Order EA-12-049. On March 12, 2012, the NRC issued an Order (Reference 1) to Constellation Energy Nuclear Group, LLC (CENG), the previous owner and operator of the Calvert Cliffs Nuclear Power Plant (CCNPP), Units 1 and 2. Reference 1 was immediately effective and directed CENG to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. References 2 and 3 provide the Overall Integrated Plan (OIP) and a supplement OIP, respectively, for CCNPP Units 1 and 2.

A151 NRR U. S. Nuclear Regulatory Commission February 20, 2015 Page 2

The purpose of this letter is to request schedule relaxation from NRC Order EA-12-049 for CCNPP Unit 2 of 60 days following restart from the Spring 2015 refueling outage to allow completion of construction of the FLEX Storage Robust Building (FSRB) needed to fully implement strategies required by Order EA-12-049. Additional time is required to complete construction of the FSRB that has been delayed in order to correct flaws found in the structure's poured concrete walls.

Section IV of NRC Order EA-12-049 (Reference 1) states that licensees proposing to deviate from requirements contained in NRC Order EA-12-049 may request that the Director, Office of Nuclear Reactor Regulation, relax those requirements.

In accordance with Section IV of NRC Order EA-12-049, Exelon Generation Company, LLC (EGC) is requesting that the Director, Office of Nuclear Reactor Regulation, relax the requirement for completion of full implementation as prescribed in Section IV.A.2 of NRC Order EA-12-049 as described in the attachment to this letter.

EGC considers that, upon approval by the NRC, the alternative implementation date regarding NRC Order EA-12-049 proposed in the attachment will constitute a condition of the NRC Order EA-12-049 for CCNPP Unit 2. Therefore, there are no new regulatory commitments contained in this letter.

If you have any questions regarding this submittal, please contact Mr. Michael J. Fick, Acting Regulatory Assurance Manager, at (410) 495-6714.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 20th day of February 2015.

Respectfully,

Mary G. Korsnick

MGK/GGM

Attachment: Request for Schedule Relaxation from NRC Order EA-12-049 for Calvert Cliffs

Nuclear Power Plant, Unit 2

cc: Regional Administrator, Region I, USNRC

NRC Project Manager, NRR – Calvert Cliffs Nuclear Power Plant NRC Senior Resident Inspector – Calvert Cliffs Nuclear Power Plant Jeremy S. Bowen, NRR/JLD/JOMB, NRC

Jason C. Paige, NRR/JLD/JOMB, NRC

S. Gray, MD-DNR

REQUEST FOR SCHEDULE RELAXATION FROM NRC ORDER EA-12-049 FOR CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

Relaxation Request:

Pursuant to the procedure specified in Section IV of Nuclear Regulatory Commission (NRC) Order EA-12-049 (the Order), "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (Reference 1), Exelon Generation Company, LLC (EGC) hereby submits a request for relaxation for Calvert Cliffs Nuclear Power Plant (CCNPP), Unit 2 from the Order requirements for completion of full implementation currently required to be no later than two (2) refueling cycles after submittal of the overall integrated plan, as required in Condition C.1.a of the Order, or December 31, 2016, whichever comes first.

Order Requirement from Which Relaxation is Requested:

NRC Order EA-12-049, Section IV.A.2 requires completion of full implementation of the Order requirements to be no later than two (2) refueling cycles after submittal of the Overall Integrated Plan, as required by Condition C.1.a or December 31, 2016, whichever comes first. In accordance with the requirements of the Order, Constellation Energy Nuclear Group (CENG), the previous owner and operator of CCNPP, submitted the Overall Integrated Plan (Reference 2) on February 28, 2013. Subsequently, a supplement to the CCNPP OIP for FLEX was submitted to the NRC in March 2013 (Reference 3). Additionally, pursuant to Section IV, Condition C.2, of Reference 1, six-month status reports were submitted, updating milestone accomplishments, including any changes to the compliance method, schedule, or need for relief and basis, if any. The CCNPP Units 1 and 2 six-month update milestone schedule identified the compliance date for implementation of NRC Order EA-12-049 as March 2015 for Unit 2 (References 4, 5 and 6).

As described in Reference 5, CCNPP has selected a FLEX Storage Robust Building (FSRB) of reinforced concrete approximately 60' wide x 140' long x 21' high. CCNPP Unit 2 will be unable to demonstrate compliance to NRC Order EA-12-049 until such time that the FSRB is completed and is storicg the FLEX equipment required to support the mitigation strategies. The current schedule requirement for CCNPP Unit 2 implementation of NRC Order EA-12-049 is prior to restart from the CC2R21 refueling outage in March 2015. The requested relaxation would defer the compliance schedule date of NRC Order EA-12-049 to no later than 60 days following restart from the CC2R21 refueling outage. The requested relaxation would enable EGC to complete construction of the FSRB.

At this time, EGC has procured portable equipment, drafted FLEX procedures, and completed all training. Remaining activities include implementing modifications scheduled during the upcoming Unit 2 refueling outage, storing FLEX equipment in the FSRB, and conducting a familiarization walkthrough for non-licensed operators in the FSRB. EGC is proceeding with these activities to support implementation of CCNPP Unit 2 mitigation strategies.

REQUEST FOR SCHEDULE RELAXATION FROM NRC ORDER EA-12-049 FOR CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

Justification for Relaxation Request:

EGC's work in developing, implementing, and maintaining guidance and strategies to maintain or restore core cooling, containment cooling, and spent fuel pool cooling was performed following the NRC-endorsed guidance in Nuclear Energy Institute (NEI) 12-06 (Reference 7), including the selection of type and location of the FSRB presently under construction. The FSRB will be of reinforced concrete approximately 60' wide x 140' long x 21' high and located outside of the Protected Area. The FSRB has been designed for seismic, wind, tornado and tornado missiles and flooding conditions. The building will be equipped with HVAC units for internal environmental control. It will store the equipment needed to support the FLEX mitigation strategies. The stored equipment will be secured to prevent seismic interaction.

Construction of the FSRB began in August 2014. With a 6-month construction timeline, the building was scheduled to be completed in February 2015. Following the first concrete wall pour and removal of the frames in December 2014, it was discovered that there were readily visible voids (flaws) in the concrete. The construction company notified EGC and brought in a concrete consulting firm who performed Ultrasonic Pulse Velocity (UPV) testing on the concrete walls. The UPV testing results revealed that there were internal flaws in the poured concrete.

Recovery efforts have begun in order to perform the extensive repairs, re-test the affected areas of the concrete, and complete the building on or as close to the original schedule as possible. The work is being carried out by crews working seven days a week, on a 10-hour per day shift. Beginning February 9, 2015, a night shift dedicated to the concrete repairs has been added.

The cumulative impact of the concrete repair work has become critical path and has prevented other activities that are dependent on the finished concrete work, such as installation of the tornado-resistant doors, from being completed. Currently, the concrete repair work has been projected to cause a 17-day delay in the completion schedule. Inclement weather issues could cause additional construction delays, thus further impacting the building completion schedule.

The FSRB completion is the only item affecting the compliance schedule. As previously stated, other FLEX equipment and modifications required to implement the mitigation strategies required by NRC Order EA-12-049 will be completed and available for use in accordance with the implementation schedule requirements specified in the Order.

Based on the negative impact on the FSRB construction progress by the flaws found in the poured concrete walls, the necessary repairs, the continuation with the planned construction activities, and the possibility of further delays caused by inclement winter weather, EGC is requesting that the Director, Office of Nuclear Reactor Regulation, relax the requirement for the schedule of compliance implementation of Unit 2, as prescribed in Section IV.A.2 of the Order. Presently, the Unit 2 FLEX Order compliance date is prior to restart from the CC2R21 refueling outage. EGC requests a relaxation of the CCNPP Unit 2 FLEX compliance date to no later than 60 days following restart from the CC2R21 refueling outage.

The requested relaxation of 60 days has been determined to be adequate to complete repairs of the concrete flaws that caused the unanticipated delays and safely finish construction activities

REQUEST FOR SCHEDULE RELAXATION FROM NRC ORDER EA-12-049 FOR CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

in support of implementation of the FLEX mitigation strategies for CCNPP Unit 2. EGC is confident that the FSRB will be completed and become operational within the 60-day extension.

The mitigation strategy requirements imposed by NRC Order EA-12-049 provide additional defense-in-depth measures for mitigating consequences of a beyond-design-basis external event. A sequence of events such as the Fukushima Dai-ichi accident is unlikely to occur in the United States based on current regulatory requirements and existing plant capabilities. Therefore, allowing additional time for completion of the FLEX Storage Robust Building is not a significant increase in plant risk. Other design changes, equipment procurement, and programmatic changes to implement the CCNPP Unit 2 mitigation strategies will be completed and implemented in accordance with the current requirements of NRC Order EA-12-049. These strategies provide enhanced plant capability to mitigate beyond-design-basis external events. Therefore, the requested relaxation does not reduce nuclear safety or safe plant operations.

Conclusion:

As described above, compliance with the NRC Order EA-12-049 schedule required for implementation of mitigation strategies would result in hardship or unusual difficulty without a compensating increase in the level of safety. Accordingly, significant hardship and unusual difficulty exist in meeting the implementation milestone for CCNPP Unit 2. Therefore, in accordance with the provisions of Section IV of NRC Order EA-12-049, EGC requests relaxation of the schedule requirement described in Section IV.A.2 of NRC Order EA-12-049 for CCNPP Unit 2, to allow implementation of the Order to be completed no later than 60 days following restart from the CC2R21 (Spring 2015) refueling outage to allow completion of construction of the FSRB.

References:

- NRC Order EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012
- 2. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013.
- 3. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013
- Letter from E. D. Dean (CENG) to Document Control Desk (NRC), Calvert Cliffs Nuclear Power Plant, Units 1 and 2- Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 27, 2013

REQUEST FOR SCHEDULE RELAXATION FROM NRC ORDER EA-12-049 FOR CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 2

- 5. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), February 2014 Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 27, 2014
- Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), August 2014 Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 26, 2014
- 7. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, dated August 2012.