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FEB 20 2014

Order No. EA-12-049

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

SUSQUEHANNA STEAM ELECTRIC STATION REQUEST FOR RELAXATION FROM NRC ORDER EA-12-049, "ORDER MODIFYING LICENSES WITH REGARD TO REQUIREMENTS FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS"
PLA-7134

Docket No. 50-387 and No. 50-388

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*
2. *PPL Letter (PLA-6981), "PPL Susquehanna's Overall Integrated Plan 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 28, 2013*
3. *NRC Order EA-12-050, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents," dated March 12, 2012*
4. *NRC Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," dated June 6, 2013*
5. *PPL Letter (PLA-7072), "Request for Implementation Date Relief in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (NRC Order EA-12-049)," dated August 26, 2013*

This letter transmits a request for relaxation of the requirements contained in Nuclear Regulatory Commission ("NRC" or "Commission") Order EA-12-049. On March 12, 2012, the NRC issued an Order (Reference 1) to PPL Susquehanna, LLC (PPL). Reference 1 was immediately effective and directs PPL 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. As described in the Overall Integrated Plan for Susquehanna SES Units 1 and 2 (Reference 2), these mitigation strategies are dependent upon implementation of reliable hardened containment venting capability established in accordance with NRC Order

EA-12-050 (Reference 3). NRC subsequently issued NRC Order EA-13-109 (Reference 4), which rescinded the requirements of Order EA-12-050 and established revised schedule timelines and implementation dates for reliable hardened containment vents capable of operation under severe accident conditions. The revised containment venting capability schedule and implementation timeline impacts the ability to achieve full implementation of the mitigation strategy requirements of NRC Order EA-12-049 by the required dates for Susquehanna SES Units 1 and 2.

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. On August 26, 2013, PPL submitted Reference 5, which requested relaxation of the hardened containment vent requirements. This letter supersedes PPL Letter (PLA-7072), dated August 26, 2013 (Reference 5) in its entirety.

In accordance with Section IV of NRC Order EA-12-049, PPL 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.

PPL considers that, upon approval by the NRC, the alternative full implementation dates regarding NRC Order EA-12-049 proposed in the attachment will constitute a condition of the NRC Order EA-12-049 for Susquehanna SES Units 1 and 2. Therefore, there are no new regulatory commitments contained in this letter.

If you have any questions regarding this report, please contact Mr. John L. Tripoli at 570-542-3100.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 2/20/2014

Sincerely,

T. S. Rausch

Attachment: Request for Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Susquehanna SES Units 1 and 2

Copy: NRC Region I
Mr. J. E. Greives, NRC Sr. Resident Inspector
Mr. J. A. Whited, NRC Project Manager
Mr. L. J. Winker, PA DEP/BRP

Attachment to PLA-7134

REQUEST FOR RELAXATION OF NRC ORDER EA-12-049 REQUIREMENT IV.A.2 FOR SUSQUEHANNA SES UNITS 1 AND 2

Request for Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Susquehanna SES Units 1 and 2

Relaxation Request:

Pursuant to the procedure specified in Section IV of Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (Reference 1), PPL Susquehanna, LLC (PPL) hereby submits a request for relaxation 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 occurs 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, PPL submitted the Susquehanna SES Mitigation Strategies Overall Integrated Plan (Reference 2) on February 28, 2013. The Susquehanna SES Mitigation Strategies Overall Integrated Plan milestone schedule identified the completion dates for full implementation of NRC Order EA-12-049 as April 2016 in order to satisfy the requirements of NRC Order EA-12-049.

NRC Order EA-12-049 requires the development, implementation, and maintenance of guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling in the event of a beyond-design-basis external event. As described in the Overall Integrated Plan for Susquehanna SES (Reference 2), these mitigation strategies are dependent upon implementation of reliable hardened containment venting capability established in accordance with NRC Order EA-12-050 (Reference 3). NRC subsequently issued NRC Order EA-13-109 (Reference 4), which rescinded the requirements of Order EA-12-050 and established revised schedule timelines and implementation dates for reliable hardened containment vents capable of operation under severe accident conditions. The revised schedule and implementation timeline contained in NRC Order EA-13-109 impacts the ability to achieve full implementation of the mitigation strategy requirements of NRC Order EA-12-049 with respect to the current required dates for Susquehanna SES, specified above.

Request for Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Susquehanna SES Units 1 and 2

Justification for Relaxation Request:

Susquehanna SES's implementation of the NRC Order EA-12-049 mitigation strategy for core cooling and containment credits primary containment wetwell venting capability to support heat removal from the reactor pressure vessel (RPV) to the water in the suppression pool and from the suppression pool air space to the outside atmosphere. In addition, containment wetwell venting minimizes the suppression pool heat up which allows crediting the Reactor Core Isolation Cooling (RCIC) System for RPV make-up during Mitigating Strategies Phase 1 (reliance only on permanently installed equipment) if RCIC suction is from the suppression pool. Primary containment wetwell venting under Order EA-12-050 was initially planned to be implemented concurrently with the Mitigation Strategy Order EA-12-049.

As a result of NRC issuance of Order EA-13-109 (Reference 4), modifications to support primary containment wetwell venting (Severe Accident Capable Vent Phase 1 of Order EA-13-109) are not required until after 2016. Although, as discussed below, all FLEX equipment supporting the mitigation strategy requirements of NRC Order EA-12-049 will be installed as originally committed, the full mitigating strategy functional capabilities in each unit cannot be met until Phase 1 of Order EA-13-109 is implemented for that unit. Mitigation strategy procedures and training will need to reflect that the mitigating strategy functional requirements will not be fully met until Phase 1 of Order EA-13-109 is implemented.

In accordance with the requirements of NRC Order EA-13-109, Section IV.B, Susquehanna SES is required to complete implementation of the Phase 1 severe accident capable wetwell venting system no later than startup from the second refueling outage that begins after June 30, 2014, or June 30, 2018, whichever comes first.

Based on the timelines specified in NRC Order EA-13-109, the severe accident capable wetwell venting system will be implemented on the following schedule:

Susquehanna SES Unit 1 – Startup from the Susquehanna SES Unit 1 20th Refueling Outage – Spring 2018.

Susquehanna SES Unit 2 – Startup from the Susquehanna SES Unit 2 18th Refueling Outage – Spring 2017.

Thus, full implementation of the mitigation strategies for Susquehanna SES in accordance with NRC Order EA-12-049 cannot be fully completed by the Order

Request for Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Susquehanna SES Units 1 and 2

requirement date which is 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, since primary containment wetwell venting capability is an essential element of the mitigation strategies required by NRC Order EA-12-049, as described above.

The 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 NRC Order EA-12-049 except (as per the subject of this relief request) primary containment wetwell venting capability. Until full containment wetwell venting capability is installed to meet the requirements of NRC Order EA-13-109, Susquehanna SES will maintain the current primary containment venting strategy in accordance with existing Emergency Operating Procedures.

Accordingly, PPL requests that the NRC Order EA-12-049, Section IV.A.2, full implementation requirement dates for Susquehanna SES be relaxed to the following milestones in order to reflect implementation of the primary containment wetwell venting capability required by NRC Order EA-13-109:

Susquehanna SES Unit 1 – Startup from the Susquehanna SES Unit 1 20th Refueling Outage – Spring 2018.

Susquehanna SES Unit 2 – Startup from the Susquehanna SES Unit 2 18th Refueling Outage – Spring 2017.

The revised containment vent requirements imposed by NRC Order EA-13-109 provide additional defense-in-depth measures for mitigating consequences of a beyond-design-basis external event since severe accident capable vents are required to be implemented by NRC Order. 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 full implementation of the modifications required by NRC Order EA-13-109 is not a significant increase in plant risk. Mitigation strategies not impacted by the delay in the implementation of the containment vent capability described above will be completed and implemented in accordance with the current requirements of NRC Order EA-12-049. These strategies described above provide enhanced plant capability to mitigate beyond-design-basis external events. Therefore, the requested relaxation does not reduce nuclear safety or safe plant operations.

Request for Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Susquehanna SES Units 1 and 2

Conclusion:

As described above, compliance with the NRC Order EA-12-049 schedule required for full completion of implementation of mitigation strategies would result in hardship or unusual difficulty without a compensating increase in the level of safety. The detailed requirements and guidelines supporting the design, installation, and operation of the containment wetwell vent will not be finalized by the NRC and industry on a schedule concurrent with full implementation of NRC Order EA-12-049. Accordingly, significant hardship and unusual difficulty exists in proceeding with design and installation of the containment wetwell vent prior to finalization of the detailed implementation requirements and guidelines. Therefore, in accordance with the provisions of Section IV of the Order, we request relaxation of the requirement described in Section IV.A.2.

References:

1. 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. PPL Letter (PLA-6981), PPL letter to USNRC, "Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order EA-12-049)," dated February 28, 2013
3. NRC Order EA-12-050, "Order Modifying Licenses With Regard to Reliable Hardened Containment Vents," dated March 12, 2012
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