



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

November 9, 2015

Mr. Robert Braun  
President and Chief Nuclear Officer  
PSEG Nuclear LLC  
P.O. Box 236, N09  
Hancocks Bridge, NJ 08038

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NO. 2 – RELAXATION OF THE SCHEDULE REQUIREMENTS FOR ORDER EA-12-049 “ORDER MODIFYING LICENSES WITH REGARD TO REQUIREMENTS FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS”

Dear Mr. Braun:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12054A735), the U.S. Nuclear Regulatory Commission (NRC) ordered PSEG Nuclear LLC (PSEG, the licensee) to take certain actions at Salem Nuclear Generating Station, Unit No. 2 (Salem, 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, and spent fuel pool cooling capabilities during beyond-design-basis external events (BDBEES).

Section IV of the order 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 or rescind certain conditions, upon demonstration of good cause. By letter dated October 23, 2015 (ADAMS Accession No. ML15296A245), the licensee submitted a request for an extension of the Order EA-12-049 full compliance date to 90 days after startup from the fall 2015 refueling outage. The licensee stated that its current compliance date is startup from the fall 2015 refueling outage. The fall 2015 refueling outage started on October 22, 2015.

The licensee stated that there are two main areas that have fallen behind the implementation schedule. The first is related to the sheltered area between two buildings, called the canyon, where FLEX diesel generators (DGs) are pre-staged or deployed, depending on the BDBEE. FLEX equipment is the name given to portable equipment used to cope with a BDBEE in accordance with the Mitigation Strategies order. The licensee stated that during the design change process related to the use of the canyon area, analyses were needed to determine the effects from placement of the FLEX equipment and a temporary flooding barrier, and these analyses resulted in late changes to the canyon design and impacted the installation schedule.

The second main area that PSEG discussed was that the FLEX DGs in the canyon area need to be connected by electrical cables to the appropriate plant equipment that will be repowered during the event. The licensee is adding electrical conduit and cable routing to support the FLEX strategy, which requires numerous core bores for electrical penetrations through reinforced concrete walls and floors. The licensee stated that in order to reduce the impact on

the structures, the need to cut rebar was minimized by performing rebar scans and changing the field routing. This resulted in numerous field changes and impacted the installation schedule.

Another concern of the licensee is that the licensee recently conducted an exercise to support validation of the Hope Creek Generating Station FLEX strategy implementation guidelines. The licensee stated that lessons learned from that exercise suggest that actions to improve execution of the FLEX strategy may be identified for Salem, Unit 2. The requested duration of the schedule relaxation includes time to address these actions during the validation of the FLEX strategies for Salem, Unit 2.

The licensee reported that the installation of FLEX modifications will be completed prior to startup, but that additional time is needed for testing, verification and validation, approval of procedures, and training. The licensee stated that this would significantly increase the outage duration, which would be an undue hardship. The licensee reported that several measures will add defense-in-depth during the time period of the requested relaxation, including the permanent installation of a flow restricting orifice on each of the reactor coolant pump (RCP) seal leakoff lines, which will reduce RCP seal leakage during the postulated event, and the fact that the FLEX equipment is on site. The licensee requested an extension of 90 days following startup from the fall 2015 refueling outage.

In light of the facts presented in the licensee's October 23, 2015, letter, the NRC staff has determined that the licensee has demonstrated good cause for relaxation of the order implementation date. The NRC staff also considered the enhanced plant capability to mitigate a BDBEE that will be in place at Salem, Unit 2, during the 90-day relaxation period. Further, the NRC staff notes 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 Salem, Unit 2, and that completion by the proposed date is before December 2016, the ultimate implementation date established by the order, the NRC staff approves the requested relaxation.

Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the requirement of the order for full order implementation for Salem, Unit 2, is relaxed until 90 days after Salem, Unit 2, starts up from the fall 2015 refueling outage.

If you have any questions, please contact John Boska at 301-415-2901.

Sincerely,



William M. Dean, Director  
Office of Nuclear Reactor Regulation

Docket No. 50-311

cc: Listserv

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*/RA/*

William M. Dean, Director  
Office of Nuclear Reactor Regulation

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**ADAMS Accession No.: ML15300A325**

OFFICE	NRR/JLD/JOMB/PM	NRR/JLD/LA	NRR/JLD/JOMB/BC(A)	OE
NAME	JBoska	SLent	MHalter	RFretz
DATE	10/28/15	10/28/15	10/29/15	10/29/15
OFFICE	OGC-NLO	NRR/JLD/D	NRR/D	
NAME	DCylkowski	JDavis (SBailey)	WDean	
DATE	11/2/15	11/4/15	11/9/15	

Letter to Mr. Robert Braun from William M Dean dated November 9, 2015

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