



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

September 15, 2014

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

SUBJECT: SALEM NUCLEAR GENERATING STATION, UNIT NO. 1 – 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. Joyce:

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. 1 (Salem), 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, reactor coolant system inventory, containment cooling, and spent fuel pool (SFP) cooling capabilities during beyond design basis external events.

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 requirements. By letter dated July 31, 2014 (ADAMS Accession No. ML14212A355), the licensee informed the NRC of its request for an extension of one additional refueling cycle to carry out the order requirement of Condition IV.A.2, which requires full implementation of the order requirements no later than two refueling cycles after submittal of the overall integrated plan, or December 31, 2016, whichever comes first. The licensee stated that its strategy is dependent on having a maximum reactor coolant pump (RCP) seal leakage rate of 21 gallons per minute (gpm) per RCP. Recent Westinghouse evaluations of RCP seal leakage in response to Westinghouse Nuclear Safety Advisory Letter (NSAL) 14-1 indicate that the generic leak rates previously used by the licensee for its mitigation strategy do not envelope calculated leakage rates applicable to the Salem design.

PSEG is in the process of evaluating options to reduce RCP seal leakage rates, which are part of the technical bases for demonstrating Salem compliance with the requirements of NRC Order EA-12-049. To allow the time to determine the best option and to complete any necessary plant modifications, the licensee requests to move the order implementation date from the completion of the fall 2014 refueling outage to the completion of the spring 2016 refueling outage.

In light of the facts presented in the licensee's July 31, 2014 letter, the NRC staff has determined that the licensee has presented good cause for a relaxation of the order implementation date. Any plant modifications needed to increase the resistance of the seal

leakoff line and thereby reduce the calculated seal leakoff rate is a significant endeavor and will improve the safety of the plant. Such a project requires detailed design work, an allowance for the time needed to specify and procure materials, and an appropriate plant outage which would permit the installation of the plant modification. 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 Salem, completion before December 2016 is consistent with the intent of the order. The NRC staff approves the relaxation of the order implementation date.

Accordingly, based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the requirement of the order for full order implementation is relaxed until the completion of the spring 2016 refueling outage to allow the licensee sufficient time to select and implement a method to reduce the RCP seal leakage rate to within the limits determined by the licensee to be necessary.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel H. Dorman", with a stylized flourish at the end.

Daniel H. Dorman, Acting Director  
Office of Nuclear Reactor Regulation

Docket No. 50-272

cc: Listserv

T. Joyce

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Sincerely,

*/RA by Jennifer Uhle for/*

Daniel H. Dorman, Acting Director  
Office of Nuclear Reactor Regulation

Docket No. 50-272

cc: Listserv

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