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

April 12, 2013

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 NOS. 1 AND 2 AND HOPE CREEK GENERATING STATION - RELAXATION OF RESPONSE DUE DATES REGARDING FLOODING HAZARD REEVALUATIONS FOR RECOMMENDATION 2.1 OF THE NEAR-TERM TASK FORCE REVIEW OF THE INSIGHTS FROM THE FUKUSHIMA DAI-ICHI ACCIDENT

Dear Mr. Joyce:

By letter dated March 12, 2012,[1] the Nuclear Regulatory Commission (NRC) issued a request for information pursuant to Title 10 of the *Code of Federal Regulations*, Section 50.54(f) (hence referred to as the 50.54(f) letter). The request was issued as a part of implementing lessons-learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 2 to the 50.54(f) letter requested licensees to perform a reevaluation of all external flooding hazards using present-day guidance and methodologies.

By letter dated May 11, 2012,[2] the NRC issued a prioritization of due dates for all sites. The flooding hazard reevaluation was due on March 12, 2013, for Salem Nuclear Generating Station, Unit Nos. 1 and 2 (Salem) and Hope Creek Generating Station (Hope Creek).

By letter dated March 12, 2013,[3] PSEG requested a delay in submittal of the flooding hazard reevaluation for Salem and Hope Creek to March 12, 2014. The reason for this request is to allow additional time to use the Joint Probability Method to develop hurricane storm parameters and two-dimensional modeling software to analyze the site-specific storm surge. Included in this effort is time needed to collate updated topographic data, and validate it against known storm flood levels in the Delaware Bay. Additionally, PSEG provided a number of additional factors to justify a new schedule.

The NRC reviewed the justification provided and considered the following factors when reviewing the new schedule:

- Part of the rationale for assigning Salem and Hope Creek a due date of March 12, 2013, was that they are co-located with an early site permit (ESP) currently under review. It was anticipated that operating reactor sites co-located with a site associated with an ESP or combined license (COL) application would have already analyzed flooding

[1] The 50.54(f) letter is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML12053A340.
[2] The prioritization letter is available in under ADAMS Accession No. ML12097A509.
[3] The extension request from PSEG is available in under ADAMS Accession No. ML13072A033.

hazards using present-day methodologies and guidance and consistent with the current state of the practice. NUREG/CR-7046, "Design-Basis Flood Estimation for Site Characterization at Nuclear Power Plants in the United States of America," was referenced in the 50.54(f) letter as reflecting present-day methodologies used by the NRC to review ESP and COL applications. All approved ESP and COL applications have utilized two-dimensional models to analyze storm surge (if applicable to the site). The guidance in NUREG/CR-7046 related to the use of two-dimensional models is echoed in the supplemental guidance provided in JLD-ISG-2012-06, "Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment." Given the considerations above, it was expected that relatively little effort beyond analyses associated with the ESP application would be required to respond to the portion of the 50.54(f) letter requesting a reevaluation of flooding hazard at Salem and Hope Creek, using present-day guidance and methodologies. However, as indicated in the extension request provided by PSEG Nuclear LLC, the methodology utilized in the ESP application utilizes a one-dimensional model that is not generally consistent with the current state of practice, as reflected in the approved ESP and COL applications, NUREG/CR-7046, and JLD-ISG-2012-06. As a result, additional time is requested by the licensee to complete the flooding hazard assessment at Salem and Hope Creek.

- The requested extension to March 12, 2014, will provide the information requested in the 50.54(f) letter in a timely fashion relative to sites (1) with similar flooding hazards, and (2) without the capability to leverage the analyses associated with an ESP or COL application. The majority of such sites have been assigned a due date of March 12, 2015, to account for the expected complexity of the evaluation.

- The limited duration of the proposed extension (approximately 1 year), the expected warning time associated with a storm surge event, and the experience of Salem and Hope Creek in preparing for and responding to a potential flooding event (e.g., during Hurricane Sandy in October 2012) support the proposed schedule.

Given these considerations, the NRC considers the revised schedule proposed by PSEG to be acceptable. Accordingly, and based upon the authority granted to the Director, Office of Nuclear Reactor Regulation, the revised required response date for submitting the hazard reevaluation report for Salem and Hope Creek is March 12, 2014.

Sincerely,

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Docket Nos. 50-272, 50-311, and 50-354

cc: Listserv

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/ra/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

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