



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

June 4, 2015

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

SUBJECT: HOPE CREEK GENERATING STATION AND SALEM NUCLEAR
GENERATING STATION, UNIT NOS. 1 AND 2 – ENVIRONMENTAL
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT RELATED TO
THE PROPOSED LICENSE AMENDMENT TO UPDATE APPENDIX B TO THE
RENEWED FACILITY OPERATING LICNESES (TAC NOS. MF5389, MF5390
and MF5391)

Dear Mr. Braun:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for an amendment dated December 9, 2014, as supplemented by letter dated April 9, 2015, for Hope Creek Generating Station (Hope Creek) and Salem Nuclear Generating Station (Salem), Units 1 and 2. The proposed amendments would revise the PSEG Nuclear LLC (PSEG) Environmental Protection Plans (non-radiological) (EPPs), contained in Appendix B to the facility operating licenses for Hope Creek and Salem, Units 1 and 2, to clarify that PSEG must adhere to the currently applicable biological opinion issued by the National Marine Fisheries Service. The proposed changes would also simplify the Aquatic Monitoring section of the EPPs, modify reporting requirements related to New Jersey Pollutant Discharge Elimination System permits, modify the criteria for reporting Unusual or Important Environmental Events, and remove the requirement for PSEG to submit an Annual Environmental Operating Report.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink, appearing to read "Carleen J. Parker".

Carleen J. Parker, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Enclosure:
Environmental Assessment

cc w/encl: Distribution via Listserv

ENCLOSURE

FEDERAL REGISTER NOTICE

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50-272, 50-311, and 50-354; NRC-2015-XXXX]

PSEG Nuclear LLC

Salem Nuclear Generating Station, Unit Nos. 1 and 2

Hope Creek Generating Station

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of amendments to Renewed Facility Operating License Nos. DPR-70 and DPR-75, issued on June 30, 2011, and Renewed Facility Operating License No. NPF-75, issued on July 20, 2011, and held by PSEG Nuclear LLC (PSEG or the licensee) for operation of Salem Nuclear Generating Station Unit Nos. 1 and 2 (Salem) and Hope Creek Generating Station (Hope Creek) located in Lower Alloways Creek Township, Salem County, New Jersey. The proposed amendments would revise the PSEG Environmental Protection Plans (Non-Radiological) (EPPs), contained in Appendix B to the Salem and Hope Creek renewed facility operating licenses. The NRC concluded that the proposed actions will have no significant environmental impact.

DATES: The environmental assessment and finding of no significant impact referenced in this document is available on **[INSERT DATE OF PUBLICATION]**.

ADDRESSES: Please refer to Docket ID NRC-2015-XXXX when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2015-XXXX. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the NRC Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced. For the convenience of the reader, the ADAMS accession numbers are also provided in a table in the "Availability of Documents" section of this document.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Carleen Parker, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1603; e-mail: Carleen.Parker@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction.

The NRC is considering issuance of amendments to Renewed Facility Operating License Nos. DPR-70, DPR-75, and NPF-57 issued to PSEG for operation of Salem and Hope Creek, located in Lower Alloways Creek Township, Salem County, New Jersey. Therefore, as required by Section 51.21 of Title 10 of the *Code of Federal Regulations* (10 CFR), the NRC performed an environmental assessment (EA) to document its findings related to the proposed license amendments. The PSEG submitted its license amendment request by letter dated December 9, 2014 (ADAMS Accession No. ML14343A926), and subsequently supplemented its application by letter dated April 9, 2015 (ADAMS Accession No. ML15099A766). A notice of consideration of issuance, proposed no significant hazards consideration determination, and opportunity for a hearing for the proposed license amendments was issued in the *Federal Register* on April 14, 2015 (80 FR 20024). Based on information provided in PSEG's application and associated supplement and the NRC staff's independent review, the NRC did not identify any significant environmental impacts associated with the proposed license amendments.

Based on the results of the EA documented herein, the NRC has determined not to prepare an environmental impact statement for the proposed license amendments and is issuing a final finding of no significant impact (FONSI), in accordance with 10 CFR 51.32.

II. Environmental Assessment.

Plant Site and Environs

Salem is a two-unit station with pressurized water reactors that use a once-through cooling system that withdraws water from and discharges heated water to the Delaware Estuary. Hope Creek is a one-unit station with a boiling-water reactor that uses a closed-cycle cooling water system that includes a natural draft cooling tower and intake and discharge structures on the Delaware Estuary. Both facilities also withdraw water from the estuary for their service water systems.

Salem and Hope Creek lie at the southern end of Artificial Island along the east bank of the Delaware River in Lower Alloways Creek Township, Salem County, New Jersey. Artificial Island is a 1,500-acre (ac; 600-hectare [ha]) man-made island consisting of industrial lands, tidal marsh, and grassland. The U.S. Army Corps of Engineers created the island by depositing hydraulic dredge spoil material atop a natural sand bar. The average elevation of the island is about 9 feet (ft; 3 meters [m]) above mean sea level (MSL), and the maximum elevation is approximately 18 ft (5.5 m) above MSL. The PSEG owns approximately 740 ac (300 ha) at the southern end of the Artificial Island, of which Salem occupies 220 ac (89 ha) and Hope Creek occupies 153 ac (62 ha). The remainder of Artificial Island is owned by the U.S. Government and the State of New Jersey; this portion of the island remains undeveloped. The northernmost tip of Artificial Island (owned by the U.S. Government) is within the State of Delaware boundary. Artificial Island lies approximately 8 miles (mi; 13 kilometers [km]) southwest of the City of Salem, New Jersey, 17 mi (27 km) south of the Delaware Memorial Bridge, 35 mi (56 km) southwest of Philadelphia, Pennsylvania.

The U.S. Atomic Energy Commission (AEC), the NRC's predecessor agency, and the NRC have previously conducted environmental reviews of Salem and Hope Creek in several documents, and the descriptions therein continue to accurately depict the Salem and Hope Creek site and environs. Those documents include the AEC's April 1973 Final Environmental Statement (FES) Related to Operation of Salem Nuclear Generating Station, Units 1 and 2 (ADAMS Accession No. ML110400162); the NRC's March 2011 Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding Hope Creek Generating Station and Salem Nuclear Generating Station, Units 1 and 2—Final Report (NUREG-1437, Supplement 45) (ADAMS Accession No. ML11089A021); and the NRC's December 2010 Biological Assessment for Salem and Hope Creek License Renewal (ADAMS Accession No. ML103350271).

Description of the Proposed Action

The proposed action would amend the Salem and Hope Creek EPPs to clarify that PSEG must adhere to the currently applicable biological opinion issued by the National Marine Fisheries Service (NMFS). The proposed changes would also simplify the Aquatic Monitoring section of the EPPs to preclude the need for a new license amendment request in the event NMFS issues a new biological opinion in the future, modify reporting requirements related to New Jersey Pollutant Discharge Elimination System (NJPDES) permits to remove the requirement to submit copies of proposed changes or renewals to the NRC since the NRC does not issue or oversee these permits, modify the criteria for reporting Unusual or Important Environmental Events to eliminate the need for duplicative reporting, and remove the requirement for PSEG to submit an Annual Environmental Operating Report. The information contained in the Annual Environmental Operating Report would continue to be submitted to the

NRC in accordance with other sections of the EPP or would be available for NRC inspection. The proposed action is in accordance with the licensee's application dated December 9, 2014, as supplemented by letter dated April 9, 2015.

More specifically, by amending the Aquatic Monitoring sections of the EPPs to clarify that PSEG must adhere to the currently applicable biological opinion, the proposed action would require PSEG's compliance with the National Marine Fisheries Service's (NMFS) July 17, 2014, biological opinion (ADAMS Accession No. ML14202A146). PSEG does not anticipate any changes to station operation as a result of implementing the Reasonable and Prudent Measures and Terms and Conditions included in the biological opinion's Incidental Take Statement. However, PSEG may alter station procedures that contain protocol on inspection of the cooling water intake structures, maintenance of lighting at the Salem intake structure and trash racks, and availability of sea turtle rescue equipment at the Salem intake structure and trash racks.

The proposed EPP revisions would not result in or require any physical changes to Salem or Hope Creek systems, structures, or components, including those intended for the prevention of accidents.

Need for the Proposed Action

The proposed action is administrative in nature. It is needed to reflect the new biological opinion issued by NMFS on July 17, 2014. The proposed action would also remove outdated program information and relieve PSEG of the burden of submitting unnecessary or duplicative information to the NRC.

Environmental Impacts of the Proposed Action

The NRC has completed its evaluation of the proposed action and concludes that the

proposed changes are administrative in nature and have no effect on plant equipment or plant operation. No changes will be made to the design bases for either Salem or Hope Creek. The proposed action would not have a significant adverse effect on the probability or consequences of an accident occurring.

With regard to potential radiological impacts, the proposed action would not increase the probability or consequences of accidents, would not change the types of effluent that may be released offsite, would not increase the amount of any effluents that may be release offsite, and would result in no increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have any foreseeable impacts on land, air, or water resources, including impacts to biota. In addition there are no known socioeconomic or environmental justice impacts associated with the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed license amendments (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental conditions or impacts. Accordingly, the environmental impacts of the proposed action and no-action alternative are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those previously considered in NUREG-1437, Supplement 45 prepared for license renewal of Salem and Hope Creek.

Agencies and Persons Consulted

The staff did not enter into a consultation with any other Federal Agency or with the State of New Jersey regarding the environmental impact of the proposed action. On May 12, 2015, the New Jersey State official was notified. The State official had no comments.

III. Finding of No Significant Impact.

The NRC is considering issuing amendments for Renewed Facility Operating License Nos. DPR-70, DPR-75, and NPF-75, issued to PSEG for operation of Salem and Hope Creek. The proposed amendments would revise the Salem and Hope Creek EPPs to clarify that PSEG must adhere to the currently applicable biological opinion. The proposed changes would also simplify the Aquatic Monitoring section of the EPPs, modify reporting requirements related to NJPDES permits, modify the criteria for reporting Unusual or Important Environmental Events, and remove the requirement for PSEG to submit an Annual Environmental Operating Report. The NRC's evaluation considered information provided in the licensee's application and its associated supplement, as well as the NRC's staff independent review of other environmental documents. Section IV below lists the environmental documents related to the proposed action and includes information on the availability of these documents.

The NRC decided not to prepare an Environmental Impact Statement for the proposed action. On the basis of the EA presented in Section II above and incorporated by reference in this finding, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined that a finding of no significant impact is appropriate.

IV. Availability of Documents.

The following table identifies the environmental and other documents cited in this document and related to the NRC's FONSI. These documents are available for public inspection online through ADAMS at <http://www.nrc.gov/reading-rm/adams.html> or in person at the NRC's PDR as described previously.

DOCUMENT	ADAMS ACCESSION NO.
Documents Related to License Amendment Request	
PSEG Nuclear LLC. License Amendment Request to Update Appendix B to the Renewed Facility Operating Licenses. Dated December 9, 2014.	ML14343A926
U.S. Nuclear Regulatory Commission. Request for Additional Information Re: Request to Update Appendix B to the Renewed Facility Operating Licenses. Dated March 10, 2015.	ML15055A377
PSEG Nuclear LLC. Response to Request for Additional Information Re: Request to Update Appendix B to the Renewed Facility Operating Licenses. Dated April 9, 2015.	ML15099A766

DOCUMENT	ADAMS ACCESSION NO.
Other Referenced Documents	
National Marine Fisheries Service. Biological Opinion for Continued Operation of Salem and Hope Creek Nuclear Generating Stations (NER-2010-6581). Dated July 17, 2014.	ML14202A146
U.S. Atomic Energy Commission. Final Environmental Statement Related to the Operation of Salem Nuclear Generating Station, Units 1 and 2. Dated April 30, 1973.	ML110400162
U.S. Nuclear Regulatory Commission. Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Regarding Hope Creek Generating Station and Salem Nuclear Generating Station, Units 1 and 2—Final Report (NUREG-1437, Supplement 45). Dated March 31, 2011.	ML11089A021
U.S. Nuclear Regulatory Commission. Biological Assessment for Salem and Hope Creek License Renewal. Dated December 13, 2010.	ML103350271

Dated at Rockville, Maryland, this 4th day of June, 2015.

FOR THE NUCLEAR REGULATORY COMMISSION



Douglas A. Broaddus, Chief,
Plant Licensing Branch I-2,
Division of Operating Reactor Licensing,
Office of Nuclear Reactor Regulation.

June 4, 2015

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

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Sincerely,
/RA/
Carleen J. Parker, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Enclosure:
Environmental Assessment

cc w/encl: Distribution via Listserv

DISTRIBUTION:

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ADAMS Accession No: Letter ML15132A668 EA FRN ML15132A677

OFFICE	NRR/DORL/LPLI-2/PM	NRR/DORL/LPLI-2/LA	NRR/DLR/RERB/BC
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DATE	05/13/15	05/13/15	05/13/15
OFFICE	OGC	NRR/DORL/LPLI-2/BC	NRR/DORL/LPLI-2/PM
NAME	BHarris	DBroddus	CParker
DATE	05/26/15	06/04/15	06/04/15

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