

August 28, 2006

Mr. William Levis  
Senior Vice President & Chief Nuclear Officer  
PSEG Nuclear LLC - N09  
Post Office Box 236  
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION - ISSUANCE OF AMENDMENT  
RE: FUEL STORAGE AND HANDLING (TAC NO. MD0268)

Dear Mr. Levis:

The Commission has issued the enclosed Amendment No. 169 to Facility Operating License No. NPF-57 for the Hope Creek Generating Station. This amendment consists of changes to Paragraph 2.C.(6) of Facility Operating License No. NPF-57 in response to your application dated February 23, 2006. The amendment clarifies that the license condition that limits the number of fuel assemblies that can be outside of approved shipping containers, fuel storage racks, or the reactor does not apply to fuel assemblies stored in approved dry spent fuel storage systems.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

**/RA/**

Stewart N. Bailey, Senior Project Manager  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosures:

1. Amendment No. 169 to NPF-57
2. Safety Evaluation

cc w/encls: See next page

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OFFICE	LPL1-2/PM	LPL1-2/LA	SNPB/BC	OGC	LPL1-2/BC (A)
NAME	SBailey:rsa	CRaynor	FAkstulewicz (by memo)	SHamrick	BPoole
DATE	8/16/06	8/16/06	07/26/2006	8/24/06	8/28/06

**OFFICIAL RECORD COPY**

Hope Creek Generating Station

cc:

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Senior Resident Inspector  
Hope Creek Generating Station  
U.S. Nuclear Regulatory Commission  
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Hancocks Bridge, NJ 08038

PSEG NUCLEAR LLC

DOCKET NO. 50-354

HOPE CREEK GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 169  
License No. NPF-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by PSEG Nuclear LLC dated February 23, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to Paragraph 2.C.(6) of Facility Operating License No. NPF-57 as indicated in the attachment to this license amendment.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

Brooke D. Poole, Acting Chief  
Plant Licensing Branch I-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to Facility Operating License

Date of Issuance: August 28, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 169

FACILITY OPERATING LICENSE NO. NPF-57

DOCKET NO. 50-354

Replace the following page of Facility Operating License No. NPF-57 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove  
4

Insert  
4

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 169 TO FACILITY OPERATING LICENSE NO. NPF-57

PSEG NUCLEAR LLC  
HOPE CREEK GENERATING STATION

DOCKET NO. 50-354

1.0 INTRODUCTION

By letter dated February 23, 2006, PSEG Nuclear LLC (PSEG or the licensee) submitted a request to amend Paragraph 2.C.(6), "Fuel Storage and Handling," of Facility Operating License (FOL) No. NPF-57 for the Hope Creek Generating Station (Hope Creek).

The license condition in Paragraph 2.C.(6) of the Hope Creek FOL currently states the following:

- a. No more than a total of three (3) fuel assemblies shall be out of approved shipping containers or fuel assembly storage racks or the reactor at any one time.
- b. The above three (3) fuel assemblies as a group shall maintain a minimum edge-to-edge spacing of twelve (12) inches from the shipping container array and the storage rack array.
- c. Fresh Fuel assemblies, when stored in their shipping containers, shall be stacked no more than three (3) containers high.

The licensee intends to operate an onsite independent spent fuel storage installation (ISFSI) at Hope Creek under the general license provisions of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 72, Subpart K. PSEG has chosen the canister-based HI-STORM 100 Cask System for the ISFSI. The HI-STORM 100 Cask System has been approved by the Nuclear Regulatory Commission (NRC or the Commission), and is listed in 10 CFR 72.214, "List of approved spent fuel storage casks."

However, License Condition 2.C.(6), Subpart (a), would prohibit the use of the NRC-approved dry spent fuel storage systems because these systems hold more than three fuel assemblies. The licensee proposed to modify Subpart (a) to include an exception for NRC-approved dry spent fuel storage systems. Subparts (b) and (c) of the license condition are not affected by this request.

## 2.0 REGULATORY EVALUATION

The regulations in 10 CFR 50.90, "Application for Amendment of License or Construction Permit," allow a licensee to amend its license. The regulations in 10 CFR 50.92, "Issuance of Amendment," specify that the NRC staff will be guided by the considerations which govern the issuance of initial licenses to the extent applicable and appropriate in determining whether an amendment will be issued to the applicant.

The regulations in 10 CFR 72, Subpart K, "General License for Storage of Spent Fuel at Power Reactor Sites," provide the regulatory requirements for construction and operation of an ISFSI. These requirements apply to ISFSIs constructed and operated at nuclear power reactor sites by persons authorized to possess or operate a nuclear power reactor under the provisions of 10 CFR Part 50. The regulations in 10 CFR 72.212, "Conditions of general license issued under Section 72.210," state that the general license is limited to the cask systems listed in 10 CFR 72.214.

Since loading of the ISFSI casks will take place in the Hope Creek fuel building, the license conditions of the Hope Creek FOL apply to the loading operations. The licensee requested an amendment to the Hope Creek FOL to allow the loading of fuel into NRC-approved dry spent fuel storage systems.

## 3.0 TECHNICAL EVALUATION

The approved dry cask storage systems are supported by various safety analyses that demonstrate the cask systems meet all of the requirements for structural integrity, heat removal, radiation protection, and criticality. The HI-STORM 100 Cask System has been approved by the NRC staff, and is listed as an approved spent fuel storage system in 10 CFR 72.214. A licensee may deploy the HI-STORM 100 Cask System, or any other dry storage system listed in 10 CFR 72.214, at an ISFSI, subject to the conditions of 10 CFR 72.212.

The licensee proposed to modify Subpart (a) of the license condition to include NRC-approved dry spent fuel storage systems. The new sentence will read follows: "No more than a total of three (3) fuel assemblies shall be out of approved shipping containers, NRC-approved dry spent fuel storage systems, fuel assembly storage racks or the reactor at any one time."

The analyses of approved dry storage casks show that the systems remain subcritical under the most reactive conditions possible during loading, transfer, and storage operations, for fuel that meets the criteria in the cask system's certificate of compliance. Therefore, the limitation on fuel movement in the Hope Creek FOL, Paragraph 2.C.(6), Subpart (a) is not required to prevent criticality in the spent fuel storage cask systems listed in 10 CFR 72.214. Since the licensee is proposing to use NRC-approved storage cask systems in accordance with 10 CFR Part 72, the NRC staff concludes that the use of these systems and the revision to the license condition are acceptable for Hope Creek.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State Official was notified of the proposed issuance of the amendment. The state official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (71 FR 27003). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. Wu

Date: August 28, 2006