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PSEG
Nuclear LLC

10 CFR 50.54(f)

LR N16-0182

OCT 31 2016

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Hope Creek Generating Station
Renewed Facility Operating License No. NPF-57
NRC Docket No. 50-354

Subject: **RESPONSE TO NRC GENERIC LETTER 2016-01, "MONITORING OF NEUTRON-ABSORBING MATERIALS IN SPENT FUEL POOLS"**

References:
1. NRC Generic Letter 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools," (ML16097A169) dated April 7, 2016
2. "Issuance of Renewed Facility Operating License No. NPF-57 For Hope Creek Generating Station," (ML11116A200) dated July 20, 2011

On April 7, 2016 the Nuclear Regulatory Commission (NRC) issued Reference 1 to all power licensees except those that have permanently ceased operation with all power reactor fuel removed from on-site spent fuel pool storage.

The purpose of this letter is to provide a response for Hope Creek Generating Station, Unit 1 (Hope Creek). Hope Creek has been determined to be a Category 3 licensee in accordance with Reference 1. PSEG Nuclear LLC incorporated the neutron-absorbing material monitoring program into the Hope Creek licensing basis through an NRC-approved license condition in Reference 2. No changes have been made to the neutron absorbing material monitoring program as described in the license condition in Reference 2.

Attachment 1 to this letter contains the Hope Creek response to NRC GL 2016-01.

This letter contains no new regulatory commitments.

OCT 31 2016

If you have any questions or require additional information, please contact Lee Marabella at (856) 339-1208.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on OCT 31 2016

Sincerely,

Eric Carr
Site Vice President – Hope Creek

Attachment 1: Hope Creek Generating Station Response to NRC Generic Letter 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools"

C Administrator - Region I, NRC
Project Manager – Hope Creek, NRC
NRC Senior Resident Inspector – Hope Creek
Mr. P. Mulligan, Chief, NJBNE
L. Marabella, Corporate Commitment Tracking Coordinator
T. MacEwen, Hope Creek Commitment Tracking Coordinator

LR-N16-0182

Attachment 1

Hope Creek Generating Station Response to NRC Generic Letter 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools"

Hope Creek Response for GL 2016-01

Nuclear Regulatory Commission (NRC) Request

Nuclear Regulatory Commission (NRC), Generic Letter (GL) 2016-01, requested each licensee submit a written response in accordance with 10 CFR 50.54(f) within 210 days of the date of the GL to provide the requested information summarized below:

(1) a description of the neutron-absorbing material credited in the Spent Fuel Pool (SFP) nuclear criticality safety (NCS) analysis of record (AOR) and its configuration in the SFP;

(2) a description of the surveillance or monitoring program used to confirm that the credited neutron-absorbing material is performing its safety function, including the frequency, limitations, and accuracy of the methodologies used;

(3) a description of the technical basis for determining the interval of surveillance or monitoring for the credited neutron-absorbing material;

(4) a description of how the credited neutron-absorbing material is modeled in the SFP NCS AOR and how the monitoring or surveillance program ensures that the actual condition of the neutron-absorbing material is bounded by the NCS AOR; and

(5) a description of the technical basis for concluding that the safety function for the credited neutron-absorbing material in the SFP will be maintained during design-basis events.

The NRC provided four areas of categorization from which they would accept a response.

Category 1: Power reactor addressees that do not credit neutron-absorbing materials other than soluble boron in the AOR.

Category 2: Power reactor addressees that have an approved license amendment to remove credit for existing neutron-absorbing materials and that intend to complete full implementation no later than 24 months after the issuance of this GL.

Category 3: Power reactor addressees that have incorporated their neutron-absorbing material monitoring programs into their licensing basis through an NRC-approved Technical Specification (TS) change or license condition.

Category 4: All other power reactor addressees.

Category 3 includes power reactor addressees that have incorporated their neutron-absorbing material monitoring programs into their licensing basis through an NRC approved TS change or license condition. Those addressees may submit a response letter referencing their approved TS change or license condition and affirming that no change has been made to their neutron-absorbing material monitoring program, as described in the referenced license renewal condition. If a change has been made since NRC approval of the reference, the response letter should also describe any such changes.

HOPE CREEK GENERATING STATION (HOPE CREEK) RESPONSE:

Hope Creek falls within Category 3. Hope Creek received its Renewed Facility Operating Licensing on July 20, 2011 (Reference 4). Hope Creek's commitment to a Boral Monitoring Program is documented under license condition 2.C.(25) of the Hope Creek Renewed Facility Operating License.

C This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the *additional conditions specified or incorporated below*: . . .

(25) Appendix A of NUREG-2102, "Safety Evaluation Report Related to the License Renewal of Hope Creek Generating Station," dated June 2011, and the licensee's UFSAR supplement submitted pursuant to 10 CFR 54.21(d), as revised on May 19, 2011, describes certain future programs and activities to be completed before the period of extended operation. PSEG Nuclear LLC shall complete these activities no later than April 11, 2026, and shall notify the NRC in writing when implementation of these activities is complete.

Reference 5, ML11116A200.

Commitment 44 is described in Appendix A of NUREG-2102 (Reference 5).

During the review of the Hope Creek license renewal application by the staff of the NRC, PSEG Nuclear made commitments related to Aging Management Programs (AMPs) to manage aging effects of structures and components (SCs) prior to the period of extended operation. The following table lists the commitment associated with the Boral Monitoring Program:

Item Number	Commitment
44	Boral Monitoring Program is an existing program that will be enhanced to include: 1. Inspection, testing and evaluation of one coupon from the Hope Creek spent fuel pool prior to the period of extended operation and one coupon within the first 10 years after entering the period of extended operation. Testing will include dimensional and neutron attenuation measurements with an acceptance criteria of no more than a 10% increase in thickness and no more than a 5% decrease in B-10 areal density.

As stated in GL 2016-01, "Previously-docketed information may be referenced (including license renewal applications and license amendment requests) if the addressee affirms that the information remains applicable and provides any updated or missing information. In all cases, the NRC is asking licensees to provide information available, based on a reasonable search of plant records, docketed information, and licensing basis." Reference 4 docketed correspondence contains License condition 2.C.(25) which refers to the License Renewal Safety Evaluation Report (Reference 5) which describes the existing Hope Creek Boral Monitoring Program as enhanced by commitment number 44 (Reference 2).

There has been no change made to the Hope Creek neutron-absorbing material monitoring program as described in Appendix A to NUREG 2102 (Reference 5) as referenced by license condition 2.C.(25).

The correspondence referenced below represents previously docketed information from PSEG and the NRC that demonstrates that credited neutron-absorbing material in the Hope Creek Spent Fuel Pool is in compliance with the licensing and design basis, and with applicable regulatory requirements; and that there are measures in place to maintain this compliance.

References:

Letters from PSEG Nuclear:

1. LR-N09-0162, "Application for Renewed Operating License – Hope Creek Generating Station," (ML092430384) dated August 18, 2009.
2. LR-N10-0154, Response to NRC Request for Additional Information, Dated April 14, 2010, Related to Section B.2.2.5 if the Hope Creek Generating Station License Renewal Application," (ML101340117) dated May 11, 2010.

Letters from NRC:

3. "Hope Creek Generating Station License Renewal Application – Request for Additional Information for Section 2.2.5, Boral Monitoring Program," (ML100970350) dated April 14, 2010.
4. "Issuance of Renewed Facility Operating License No. NPF-57 For Hope Creek Generating Station," (ML11117A200) dated July 20, 2011.
5. NUREG – 2102, "Safety Evaluation Report Related to the License Renewal of the Hope Creek Generating Station," (ML110680606) Published June 2011.