

June 1, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING SECTIONS 4.6  
AND 4.7 OF THE HOPE CREEK GENERATING STATION LICENSE RENEWAL  
APPLICATION (TAC NO. ME1832)

Dear Mr. Joyce:

By letter dated August 18, 2009, as supplemented by letter dated January 23, 2009, Public Service Enterprise Group Nuclear, LLC, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54) for renewal of Operating License No. NPF-57 for the Hope Creek Generating Station. The staff of the U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing this application in accordance with the guidance in NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants." During its review, the staff has identified areas where additional information is needed to complete the review. The staff's request for additional information is included in the Enclosure. Further requests for additional information may be issued in the future.

Items in the enclosure were provided to John Hufnagel and other members of your staff, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me by telephone at 301-415-2981 or by e-mail at [bennett.brady@nrc.gov](mailto:bennett.brady@nrc.gov).

Sincerely,

*/RA/*

Bennett M. Brady, Project Manager  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosure:  
As stated

cc w/encl: See next page

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Bennett M. Brady, Project Manager  
Projects Branch 1  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosure:  
As stated

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OFFICE	PM:DLR:RPB1	LA:DLR	BC:DLR:RPB1	PM:DLR:RPB1
NAME	B. Brady	Ikeda King	B. Pham	B. Brady
DATE	5/24/10	5/20/10	5/28/10	6/01/10

OFFICIAL RECORD COPY

Letter to T. Joyce from B. Brady dated June 1, 2010

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING SECTIONS 4.6  
AND 4.7 OF THE HOPE CREEK GENERATING STATION LICENSE RENEWAL  
APPLICATION (TAC NO ME1832)

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Hope Creek Generating Station

cc:

Mr. Robert Braun  
Senior Vice President Nuclear  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Mr. Brian Booth  
Director Nuclear Oversight  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. John Perry  
Station Vice President – Hope Creek  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. Larry Wagner  
Plant Manager - Hope Creek  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Mr. Michael Gallagher  
Vice President – License Renewal Projects  
Exelon Nuclear LLC  
200 Exelon Way  
Kennett Square, PA 19348

Mr. Jeffrie J. Keenan, Esquire  
Manager - Licensing  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Mr. Gregory Sosson  
Director Corporate Engineering  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Mr. Michael Gaffney  
Manager - Hope Creek Regulatory  
Assurance  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Mr. Ali Fakhar  
Manager, License Renewal  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Township Clerk  
Lower Alloways Creek Township  
Municipal Building, P.O. Box 157  
Hancocks Bridge, NJ 08038

Mr. Paul Bauldauf, P.E., Asst. Director  
Radiation Protection Programs  
NJ Department of Environmental  
Protection and Energy, CN 415  
Trenton, NJ 08625-0415

Mr. Brian Beam  
Board of Public Utilities  
2 Gateway Center, Tenth Floor  
Newark, NJ 07102

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. Paul Davison  
Vice President, Operations Support  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Hope Creek Generating Station

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cc:

Ms. Christine Neely  
Director – Regulator Affairs  
PSEG Nuclear LLC  
One Alloway Creek Neck Road  
Hancocks Bridge, NJ 08038

Senior Resident Inspector  
Hope Creek Generating Station  
U.S. Nuclear Regulatory Commission  
Drawer 0509  
Hancocks Bridge, NJ 08038

Mr. Earl R. Gage  
Salem County Administrator  
Administration Building  
94 Market Street  
Salem, NJ 08079

REQUEST FOR ADDITIONAL INFORMATION  
REGARDING SECTIONS 4.6 AND 4.7 OF THE HOPE CREEK GENERATING STATION  
LICENSE RENEWAL APPLICATION (TAC NO. ME1832)

**RAI 4.6-01**

Background:

Standard Review Plan License Renewal (NUREG 1800), Section 4.6.1.1 states that containment liner plates, metal containment, and penetration sleeves may be designed and/or analyzed in accordance with ASME Code requirements. The ASME Code contains explicit metal fatigue or cyclic considerations that can be used for the time-limited aging analyses (TLAAs).

Issue:

The Hope Creek Generating Station (HCGS) license renewal application (LRA) Section 4.6.2 "Primary Containment Process Penetrations and Bellows Fatigue Analysis," states that the maximum 40-year cumulative usage factor (CUF) ratio (CUF/allowable) identified for feedwater penetrations P-2A and P-2B P heads will be included in the Metal Fatigue of Reactor Coolant Pressure Boundary Program (B.3.1.1) as a program enhancement. All relevant plant transient events will be tracked to ensure that the CUF remains less than 0.1 for these two triple flued heads.

Request:

Explain how the tracking of all relevant plant transient events for feedwater penetrations P-2A and P-2B will ensure that the CUF remains less than 0.1. The staff needs the above information to ensure that the effects of aging on the intended function will be adequately managed for the period of extended operation as required by 10 CFR 54.21(c)(1)(iii).

**RAI 4.7-01**

Background:

In LRA Section 2.3.3.8, "Scoping and Screening," the applicant listed a total of 18 cranes and hoists as in scope for license renewal. Table 3.3.2-8 of the LRA requires a TLAA of Crane/Hoist Bridge/Trolley girders for aging management due to Cumulative Fatigue Damage/Fatigue in accordance with the GALL Report recommendations.

Issue:

LRA Section 4.7.1, "Crane Load Cycle Limit," identifies TLAAs for only two cranes, the "Reactor Building Polar Crane" and the "Service Water Intake Structure Gantry Crane." TLAAs for other cranes with support girders and in the scope of license renewal are not included in LRA Section 4.7.1.

ENCLOSURE

Request:

Provide an explanation or clarification of why the “Reactor Building Polar Crane” and the “Service Water Intake Gantry Crane” are the only two cranes with a TLAA when the overall number of cranes within scope is at 18. The staff needs the above information to confirm that an evaluation of the fatigue of the in scope crane girders has been performed that will remain valid for the period of extended operation as required by 10 CFR 54.21(c)(1).