

January 23, 2008

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

SUBJECT: HOPE CREEK GENERATING STATION - REQUEST FOR ADDITIONAL  
INFORMATION REGARDING REQUEST FOR EXTENDED POWER UPRATE  
(TAC NO. MD3002)

Dear Mr. Levis:

By letter dated September 18, 2006,<sup>1</sup> as supplemented by additional letters,<sup>2</sup> PSEG Nuclear, LLC (PSEG or the licensee) submitted an amendment request for an extended power uprate (EPU) for the Hope Creek Generating Station (Hope Creek). The proposed amendment would increase the authorized maximum power level by approximately 15 percent, from 3,339 megawatts thermal (MWt) to 3,840 MWt.

The Nuclear Regulatory Commission (NRC) staff has been reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). The questions were sent by e-mail to your staff and were discussed on a phone call on January 14, 2008, to ensure that the questions were understandable, the regulatory basis was clear and to determine if the information was previously docketed.

Mr. Jeff Keenan of your staff agreed to respond by January 25, 2008, to the enclosed RAI questions.

---

<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Accession No. ML062680451

<sup>2</sup> Letters dated: October 10, 2006 (ML062920092); October 20, 2006 (ML063110164); February 14, 2007 (ML070530099); February 16, 2007 (ML070590182); February 28, 2007 (ML070680314); March 13, 2007 (ML070790508 & ML070810360); March 22, 2007 (ML070930442); March 30, 2007 (ML071010243 & ML070960103); April 13, 2007 (ML071140157); April 18, 2007 (ML071160121); April 30, 2007 (ML071290559); May 10 (ML071360375); May 18, 2007 (ML071500294, ML071720368, & ML071500317); May 24, 2007 (ML071630305); June 22, 2007 (ML071840167); July 12, 2007 (ML072110215); August 3, 2007 (ML072250369); August 17, 2007 (ML072480515, ML072480515); August 27, 2007 (ML072480570); August 31, 2007 (ML072540651); September 11, 2007 (ML072640410); October 10, 2007 (ML073100791); October 23, 2007 (ML073040393); November 15, 2007 (ML073320601); November 30, 2007 (ML073460793); December 31, 2007 (ML080080577); January 14, 2008; January 15, 2008; and January 18, 2008.

W. Levis

- 2 -

Please note that if you do not respond to this letter within the prescribed response times or provide an acceptable alternate date in writing, we may reject your application for amendment under the provisions of 10 CFR, Part 2, Section 2.108. If you have any questions, I can be reached at (301) 415-3100.

Sincerely,

*/ra/*

John G. Lamb, Senior Project Manager  
Plant Licensing Branch 1-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosure: As stated

cc: See next page

Please note that if you do not respond to this letter within the prescribed response times or provide an acceptable alternate date in writing, we may reject your application for amendment under the provisions of 10 CFR, Part 2, Section 2.108. If you have any questions, I can be reached at (301) 415-3100.

Sincerely,

*/ra/*

John G. Lamb, Senior Project Manager  
Plant Licensing Branch 1-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosure: As stated

cc: See next page

DISTRIBUTION:

PUBLIC	Lp1-2 R/F	RidsNrrDORLLp1-2	RidsOgcRP	RidsNrrLAABaxter
RidsAcrsAcnwMailCenter		TScarbrough	JQuichocho	RidsNrrPMJLamb
RidsNrrDORLDpr		RidsRgn1MailCenter		GPurciarello

ADAMS Accession Number: ML080160570

OFFICE	LPL1-2/PM	LPL1-2/LA	EMCB/BC	LPL1-2/BC
NAME	JLamb	ABaxter	KManoly	HChernoff
DATE	1/22/08	1/22/08	1/22/08	1/23/08

**OFFICIAL RECORD COPY**

REQUEST FOR ADDITIONAL INFORMATION  
REGARDING PROPOSED LICENSE AMENDMENT  
EXTENDED POWER UPRATE  
HOPE CREEK GENERATING STATION  
DOCKET NO. 50-354

By letter dated September 18, 2006,<sup>1</sup> as supplemented by additional letters,<sup>2</sup> PSEG Nuclear, LLC (PSEG or the licensee) submitted an amendment request for an extended power uprate (EPU) for the Hope Creek Generating Station (Hope Creek). The proposed amendment would increase the authorized maximum power level by approximately 15 percent, from the current licensed thermal power (CLTP) of 3,339 megawatts thermal (MWt) to 3,840 MWt.

The Nuclear Regulatory Commission staff has reviewed the information the licensee provided that supports the proposed amendment and would like to discuss the following issues to clarify the submittal.

**RAI 14.66 2<sup>nd</sup> Follow-Up - I**

Page 22 of Continuum Dynamics, Inc. (CDI) Report 07-27P, "Finite Element Modeling Bias and Uncertainty Estimates Derived from the Hope Creek Unit 2 Dryer Shaker Test, Rev. 0," presents damping values computed for the finite element (FE) model to best match FE and measured acceleration response function peaks. CDI states that the inferred FE damping values are consistent with measured damping values in STI Technologies Report PA2168, "Hope Creek Steam Dryer Vibration Test." However, no damping values (other than those for low frequency rigid body modes) are presented in the STI report.

- (a) Provide and plot the damping values from the measurements as a function of shaker location and frequency. Also include minimum, maximum, mean, and root mean square values (computed over frequency) for each shaker location consistent with those in Table 3 in CDI Report 07-27P.
- (b) Plot and compare the measured damping values and FE damping values inferred in CDI Report No. 07-27P as a function of frequency and shaker location.

---

<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Accession No. ML062680451

<sup>2</sup> Letters dated: October 10, 2006 (ML062920092); October 20, 2006 (ML063110164); February 14, 2007 (ML070530099); February 16, 2007 (ML070590182); February 28, 2007 (ML070680314); March 13, 2007 (ML070790508 & ML070810360); March 22, 2007 (ML070930442); March 30, 2007 (ML071010243 & ML070960103); April 13, 2007 (ML071140157); April 18, 2007 (ML071160121); April 30, 2007 (ML071290559); May 10 (ML071360375); May 18, 2007 (ML071500294, ML071720368, & ML071500317); May 24, 2007 (ML071630305); June 22, 2007 (ML071840167); July 12, 2007 (ML072110215); August 3, 2007 (ML072250369); August 17, 2007 (ML072480515, ML072480515); August 27, 2007 (ML072480570); August 31, 2007 (ML072540651); September 11, 2007 (ML072640410); October 10, 2007 (ML073100791); October 23, 2007 (ML073040393); November 15, 2007 (ML073320601); November 30, 2007 (ML073460793); December 31, 2007 (ML080080577); January 14, 2008; January 15, 2008; and January 18, 2008.

- (c) Reconcile the differences between the measured and inferred FE damping values, and provide the resulting FE bias and uncertainty.

**RAI 14.66 2<sup>nd</sup> Follow-Up - II**

STI Technologies Report PA2168, "Hope Creek Steam Dryer Vibration Test" states on page 7 that a Hanning window was applied to the measured vibration response. Hanning windows reduce peak amplitudes in Fourier Transforms. Was the Hanning window used during the peak response measurements conducted by driving the shaker at a single frequency? If so, how has the peak amplitude reduction been accounted for?

Hope Creek Generating Station

cc:

Mr. Thomas Joyce  
Senior Vice President - Operations  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. Dennis Winchester  
Vice President - Nuclear Assessment  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. Carl Fricker  
Vice President - Operations Support  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. John Perry  
Plant Manager - Hope Creek  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. James Mallon  
Manager - Licensing  
PSEG Nuclear  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. Jeffrie J. Keenan, Esquire  
PSEG Nuclear - N21  
P.O. Box 236  
Hancocks Bridge, NJ 08038

Mr. Michael Gaffney  
Manager - Hope Creek Regulatory  
Assurance  
PSEG Nuclear  
P.O. Box 236  
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

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