PSEG Nuclear LLC
P.O. Box 236,, Hancocks Bridge, NJ 08038-0236

PSEG
Nuclear L.L.C.

LR-N08-0111
May 08, 2008

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

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

Subject: Main Steam Line Limit Curves

Reference:
1) Letter from George P. Barnes (PSEG Nuclear LLC) to USNRC, September 18, 2006
2) Letter from George P. Barnes (PSEG Nuclear LLC) to USNRC, August 3, 2007

This letter provides information in accordance with proposed License Conditions associated with the license amendment request in Reference 1, currently under NRC review, for the Hope Creek Generating Station to increase the maximum authorized power level to 3840 megawatts thermal (MWt).

In Reference 2, PSEG Nuclear LLC (PSEG) proposed a license condition for monitoring, evaluating, and taking prompt action in response to potential adverse flow effects as a result of power uprate operation on plant structures, systems, and components (including verifying the continued structural integrity of the steam dryer).

Proposed License Condition 2.g would require PSEG to submit the flow-induced vibration related portions of the EPU startup test procedure to the NRC, including methodology for updating the main steam line (MSL) strain gage limit curves, prior to initial power ascension above 3339 MWt. Attachment 1 to this letter contains the description of the methodology used to develop the limit curves for power ascension.

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If required during power ascension, the method for updating the limit curves will follow the approach described below:

- Collect in-plant MSL strain gage data.
- Use the actual strain gage data to revise the scale model test prediction, as necessary.
- Calculate the stress ratio at the limiting steam dryer locations (loads will be based on Acoustic Circuit Model (ACM) Rev. 4, and stresses will be determined using the HCGS harmonic domain finite element model methodology).
- Generate revised limit curves based on the lowest calculated alternating stress ratio.

Biases and uncertainties in the updated limit curves will be those described in Attachment 1. The revised stress ratios will be the most limiting determined by the frequency shift on the loads between plus 10% and minus 10%.

Attachment 1 contains information proprietary to Continuum Dynamics, Inc. (C.D.I.). C.D.I. requests that the proprietary information in Attachment 1 be withheld from public disclosure in accordance with 10 CFR 2.390(a)(4). An affidavit supporting this request is included with Attachment 1. A non-proprietary version of the document in Attachment 1 is provided in Attachment 2.

The information contained in this letter and attachments is provided in anticipation of actions required to comply with proposed License Conditions. There are no new regulatory commitments contained in this submittal.

Should you have any questions regarding this submittal, please contact Mr. Paul Duke at 856-339-1466.

Sincerely,

Jeffrie Keenan
Manager - Licensing

Attachments (2)
1. C.D.I. Technical Note 07-29P, Revision 1
2. C.D.I. Technical Note No. 07-29NP, Revision 1

cc: S. Collins, Regional Administrator – NRC Region I
J. Lamb, Project Manager - USNRC
NRC Senior Resident Inspector - Hope Creek
P. Mulligan, Manager IV, NJBNE