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 (ML062680451), as supplemented by letters dated October 10 (ML062920092) and October 20, 2006 (ML063110164), February 14 (ML070530099), February 16 (ML070590182), February 28 (ML070680314), March 13 (2 letters) (ML070790508 and ML070810360), March 22 (ML070930442), March 30 (2 letters) (ML071010243 and ML070960103), April 13 (ML071140157), April 18 (ML071160121), April 30 (ML071290559), May 10 (ML071360375), May 18 (3 letters) (ML071500294, ML071720368, and ML071500317), May 24 (ML071630305), June 22 (ML071840167), July 12 (ML072110215), August 3 (ML072250369), August 17 (2 letters) (ML072480515 and ML072480515), August 27 (ML072480570), August 31 (ML072540651), September 11 (ML072640410), October 10 (ML073100791), October 23 (ML073040393), November 15 (ML073320601), November 30 (ML073460793), and December 31, 2007 (ML080080579), January 14, January 15, January 16, and January 18, 2008, 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 license 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 14.79 – 3rd Follow-up

In RAI 14.79 – 2rd Follow-up, PSEG was asked to evaluate the effects of the 10% non-conservative bias error in its FE stress calculations on the stress margins. In LR-N08-0006 dated January 15, 2008, PSEG argues that the stress underprediction bias factor associated with the dryer FE models may be neglected since it is embedded within the uncertainty associated with the FE models based on dryer shaker tests of accelerations. However, the stresses converge with mesh resolution more slowly than displacements and accelerations do (accelerations were measured and compared in the dryer shaker test study), and that stress bias errors cannot be replaced with displacement-based uncertainties. When PSEG submits its final dryer stress analyses, it should include the 10% non-conservative bias error associated with stress convergence in the margin calculations for maximum and alternating stress intensities.

RAI 14.120(e) – 2nd Follow-up

PSEG states that the final dryer stress margin is provided in CDI report 07-17P, Rev. 3. The final dryer alternating stress margin with all bias errors and uncertainties included is 3.22 at CLTP. Since PSEG is currently responding to the two staff RAI items on CDI Report 07-27P, "Finite Element Modeling Bias and Uncertainty Estimates Derived from the Hope Creek Unit 2 Dryer Shaker Test, Rev. 0," and will soon respond to RAI 14.79 – 3rd follow-up, it should update CDI Report 07-17P, Rev. 3, with the final bias and uncertainties along with the final stress margin. The revised report should also include a summary table of the final values of the bias errors and uncertainties along with references to the derivations.

RAI 14.120(f) – 2nd Follow-up

PSEG clearly explains [[

]]. So that the staff may quantitatively determine the degree to which the Main Steam Line inputs have been filtered (using equation 8 on page 83 of the report), provide plots of the frequency-dependent MSL input loads before and after filtering using the low-flow data.