

**OFFICIAL USE ONLY – PROPRIETARY INFORMATION**

March 3, 2006

Mr. William Levis  
Senior Vice President & Chief Nuclear Officer  
PSEG Nuclear LLC - X04  
Post Office Box 236  
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION - RE-ISSUANCE OF SAFETY  
EVALUATION FOR AMENDMENT 163 RE: IMPLEMENTATION OF  
ARTS/MELLLA (TAC NO. MC3390)

Dear Mr. Levis:

The Nuclear Regulatory Commission (NRC) is re-issuing the enclosed Safety Evaluation (SE) for Amendment No. 163 to Facility Operating License No. NPF-57 for the Hope Creek Generating Station (HCGS), in order to clarify certain statements in the SE and to identify information that is proprietary to General Electric Nuclear Energy (GENE). The amendment consisted of changes to the Technical Specifications (TSs) in response to your application dated June 7, 2004, as supplemented by letters dated February 18, May 20, June 16, July 8, August 3, September 23, and November 16, 2005, and February 6, 2006. The amendment reflected an expanded operating domain resulting from the implementation of the Average Power Range Monitor, Rod Block Monitor TSs/Maximum Extended Load Line Limit Analysis (ARTS/MELLLA). Amendment No. 163 was issued on February 8, 2006.

Following receipt of Amendment No. 163, your staff informed the NRC of several portions of the SE that required correction or clarification. In order to correctly reflect the current licensing basis for HCGS, the NRC has revised the SE as follows:

- (1) Page 2, 1<sup>st</sup> paragraph - The SE stated that the irradiated non-GE fuel in the HCGS Cycle 13 core was from one to two previous cycles. The SE has been revised to state that the irradiated non-GE fuel was from one to three previous cycles.
- (2) Page 4, 5<sup>th</sup> paragraph - The SE stated that the ARTS/MELLLA improvement program would increase operating efficiency, in part, by improvements in plant instrumentation accuracy. The SE has been revised to state that the efficiency would be increased by changes to instrumentation setpoints.
- (3) Page 9, 2<sup>nd</sup> paragraph - The SE stated that the power-dependent rod withdrawal event operating limit minimum critical power ratio value was statistically-based. The approved methods permit either a statistically-based or a bounding approach, and for the Cycle 13 core loading pattern a bounding value was used. The SE has been revised to delete the statement that the value was statistically-based.

Enclosure 2 transmitted  
herewith contains sensitive  
unclassified information.  
When separated from  
Enclosure 2, this  
document is decontrolled.

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- (4) Page 9, 4<sup>th</sup> paragraph - Section 3.3 on vessel overpressure indicates that there is no effect on the analyses because the design-basis case for 102% power and 105% core flow is not changed. The analyses for ARTS/MELLLA considered core flows ranging from 76.6% to 105% of core flow. The case for the new minimum core flow, 76.6%, is slightly bounding and shows acceptable results. The SE has been revised accordingly.
- (5) Page 16, last paragraph - The SE stated that the axial power range monitor and rod block monitor setpoints that are being changed are part of the original plant design and established TSs, but they are not part of the plant licensing basis and are being retained for historical reasons. The SE was clarified to state that these setpoints are not credited in the safety analyses and are being retained for operational reasons.

All changes to the SE are indicated by marginal bars. The NRC staff has determined that the corrections to the original SE do not change our previous conclusions regarding the acceptability of the changes approved in Amendment No. 163.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.390, the NRC has determined that information, indicated in **[[brackets]]**, provided in the SE (Enclosure 2) is proprietary to GENE. The NRC has prepared a nonproprietary version of the SE (Enclosure 1). GENE has reviewed the SE and concurs with the proprietary aspects.

Sincerely,

**/RA/**

Stewart N. Bailey, Senior Project Manager  
Plant Licensing Branch 1-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-354

Enclosures:

- 1. SE with Nonproprietary Information
- 2. SE with Proprietary Information

cc w/encl 1 only: See next page

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Stewart N. Bailey, Senior Project Manager  
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