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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001

HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

Subject: Special Report – Auxiliary Boiler Emission Test Failure

This special report is being submitted pursuant to the requirements of Hope Creek Environmental Protection Plan (EPP) 5.4.2, "Nonroutine Reports", due to a 10 CFR 50.72(b)(2)(xi), "Offsite Notification" required notification made on 17 May 2007 of the Auxiliary Boiler Emissions Test Failure.

On 13 April 2007 Public Service Enterprise Group (PSEG) completed initial field emission testing of the Hope Creek number 1 boiler. Evaluation of the raw test data was completed in draft form on 16 May 2007, which recognized that NOx emissions exceeded the permit limit for pounds per hours (4.5 pounds per hour). The number 2 Boiler successfully operated within all emission limitations.

During the start-up tuning and testing of our new auxiliary boilers, it appears that a malfunction of equipment during testing resulted in inconclusive test results for NOx loading for our number 1 Boiler. Both boilers were being operated in accordance with the vendor's specifications for startup and operation. For the testing runs, the measured volumetric stack flows were significantly higher than the stoichiometrically calculated stack flows based on fuel flow measurements. This results in calculated mass emission rates with a significant upward bias. The instrument accuracy measured at low exhaust gas velocities in the stacks is a likely contributor to the high bias in the volumetric stack flow measurements.

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PSEG conducted extensive reviews of the boiler, and found that it could operate within the permit limits, but at operation parameters that were different than those parameters suggested by the vendor. Specifically, the dampers to the boiler were opened at a different position than the recommended position. On 23 May 2007 and 24 May 2007, follow-up tuning and testing demonstrated that the boiler could fully meet the NOx requirements.

PSEG will continue to tune the boiler in consultation with the vendor. PSEG is also investigating the testing equipment to confirm that it was operating properly.

PSEG informed the New Jersey Department of Environmental Protection (NJDEP) of the potential exceedance at 1345 on May 17, 2007. There were no preliminary responses.

Should you have any questions concerning this letter, please contact Mr. James Clancy at (856) 339-3144.

Sincerely,

John F. Perry 6/18/07
Acting PGM

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Plant Manager – Hope Creek

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