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

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

Subject: Report of Changes, Tests, and Experiments

Pursuant to the requirements of 10CFR50.59, "Changes, Tests, and Experiments," paragraph (d)(2), Hope Creek Generating Station (HCGS) is providing the required report (Attachment 1) for Renewed Facility Operating License No. NPF-57. This report provides a summary of 10CFR50.59 evaluations for activities implemented under 10CFR50.59 at HCGS during the period of January 1, 2011, through December 31, 2012.

There are no new or revised regulatory commitments contained in this letter.

If you have any questions, please contact Mr. Paul Bonnett, at 856-339-1923.

Sincerely,

A handwritten signature in black ink that reads "Susan D. Simpson".

Susan D. Simpson
Manager Regulatory Assurance – Hope Creek
PSEG Nuclear LLC

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NR

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Attachment 1: Report of Changes, Tests, and Experiments at Hope Creek

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Hope Creek Commitment Coordinator (H02)

Corporate Commitment Coordinator (N21)

Attachment 1
Hope Creek Generating Station
Renewed Facility Operating License NPF-57
Docket No. 50-354

Report of Changes, Tests, and Experiments at Hope Creek

On-Line Noble Chemistry Application

Hope Creek Generating Station (HCGS) performed a Special Evolution by the application of the On-Line NobleChem™ (OLNC) process to the reactor coolant system. The process injected a platinum solution into the main feedwater lines during a period when the reactor was operating at high power and high core flow operating conditions. The process coats the reactor interior surfaces, including inside of existing cracks, with platinum to significantly reduce the electrochemical corrosion potential in the presence of excess hydrogen. This results in minimizing Inter-granular Stress Corrosion Cracking (IGSCC). A 50.59 Evaluation of Special Tests or Evolutions was used to implement the initial NobleChem™ injection since this involved a test or experiment not described in the Updated Final Safety Analysis Report (UFSAR).

The evaluation determined that OLNC does not create any adverse equipment interaction and no new malfunction of any equipment important to safety during OLNC application.

Installation of Chart Recorder to AK-400 Control Circuitry

Hope Creek installed a non safety-related chart recorder to the safety-related Control Room Chilled Water loop flow transmitter for troubleshooting. The activity to install the measurement and test equipment (M&TE) was performed to enhance the monitoring of the Chilled Water loop flow and to aid in troubleshooting the cause of chiller pump trips. A 50.59 Evaluation was performed because the change in plant configuration for employing this component was not described in the UFSAR.

The evaluation determined that the activity does not create the possibility for a malfunction of any equipment important to safety that would exceed the design basis described for accidents and malfunctions in the UFSAR.

DC Ground Fault Troubleshooting Using PGFD-1 Ground Fault Detector

Hope Creek implemented a new procedure for troubleshooting DC ground faults. The procedure HC.MD-GP.ZZ-0246 - DC Ground Fault Troubleshooting using PGFD-1 Ground Fault Detector, uses the PSFD-1 ground fault detector, which is a non-safety related ground fault detector that detects the polarity and magnitude of a ground on safety-related 24Vdc, 125Vdc, and 250Vdc distribution systems. A 50.59 Evaluation

was performed because the change in plant configuration for employing this detector during ground troubleshooting was not described in the UFSAR.

The evaluation determined that the activity does not create the possibility for a malfunction of any equipment important to safety that would exceed the design basis described for accidents and malfunctions in the UFSAR.