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

SEP 14 2000

PSEG
Nuclear LLC

LR-N000328
LCR H99-10

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

SUPPLEMENTAL INFORMATION FOR A REQUESTED CHANGE TO THE TECHNICAL SPECIFICATIONS - CHARCOAL FILTER TESTING CHANGES REQUIRED BY GENERIC LETTER 99-02
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NPF-57
DOCKET NO. 50-354

Gentlemen:

This letter provides supplemental information concerning a Hope Creek License Change Request (LCR H99-10), submitted on November 24, 1999, which proposes charcoal filter testing requirements for the Control Room Emergency Filtration (CREF) System and the Filtration, Recirculation and Ventilation System (FRVS) Recirculation and Ventilation Subsystems that are consistent with the requirements delineated in Generic Letter 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999. Specifically, the surveillance requirements associated with Limiting Condition for Operation (LCO) 3.6.5.3.1, 3.6.5.3.2 and 3.7.2 were revised to specify testing methodology that is consistent with American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon."

Attachment 1 of this letter contains PSEG Nuclear's response to the NRC questions raised during telephone conversations discussing the proposed changes. PSEG Nuclear has concluded that the information contained in Attachment 1 does not alter the conclusions reached in the 10CFR50.92 No Significant Hazards analysis previously submitted with LCR H99-10. Should you have any questions regarding this request, please contact Mr. James Priest at 856-339-5434.

Sincerely,

D. F. Garchow
Vice President – Technical Support

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Affidavit
Attachment

JPP

C Mr. H. Miller, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. J. Harrison, Licensing Project Manager - Hope Creek
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 8B1
11555 Rockville Pike
Rockville, MD 20852

USNRC Resident Inspector Office (X24)

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
P. O. Box 415
Trenton, NJ 08625

REF: LR-N000328
LCR H99-10

STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

D. F. Garchow, being duly sworn according to law deposes and says:

I am Vice President – Technical Support of PSEG Nuclear LLC, and as such, I find the matters set forth in the above referenced letter, concerning Hope Creek Generating Station, Unit 1, are true to the best of my knowledge, information and belief.

Subscribed and Sworn to before me
this 14 day of Sept, 2000

Notary Public of New Jersey

SHERI L. HUSTON
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 12/08/2003

My Commission expires on

SUPPLEMENTAL INFORMATION:

NRC Questions:

1. For all three systems, (1) Filtration Recirculation Ventilation System (FRVS) Ventilation, (2) Filtration Recirculation Ventilation System (FRVS) Recirculation, and (3) Control Room Emergency Filtration System (CREFS), please refer to or provide docketed information that states the residence times.

2. Since the residence times are directly related to the actual system face velocities, please provide clarification for the following statements:

a) PSE&G Letter LR-N99474, dated November 24, 1999, Attachment 1, page 2 of 4, at the end of the third paragraph: "Since the Hope Creek CREF and FRVS design utilizes safety-related heaters for humidity control, the ASTM D3803-1989 testing will be conducted at 70 percent RH. In addition, system face velocities for CREF and FRVS will be below 110% of 40 ft/min."

b) PSE&G Letter LR-N990466, dated November 24, 1999, Attachment 1, page 2 of 2, table for Hope Creek: For the CREF, FRVS-VENT and FRVS-RECIRC, it is stated for each system that the "Velocity" is 40 FPM.

***PART* 1:** Specifically, please indicate whether the two statements above are intended to state that the ASTM D3803-1989 test velocities for each system are 40 ft/min and that the actual system face velocities are less than 110% of 40 ft/min. Also, what is meant by the face velocities "will be below 110% of 40 ft/min?" Does the word "will" mean that something has changed or does it mean that it will be below 110% of 40 ft/min during an accident?

***PART* 2:** Please indicate how the actual system face velocities were determined. The actual system face velocities can be calculated by dividing the worst case design-basis accident flow rates (typically the maximum technical specification flow rates, nominal + 10% uppervalue) by the total exposed surface area of the charcoal filter media. Per GL 99-02, if this value is >110% of 40 ft/min, then the technical specification (TS) should be revised to specify that value as the test face velocity. (The guidance on calculation of the residence times in ANSI N510-1975, Section 8.3.3, and ASME AG-1-1997, Division 11, Sections FD and FE, Articles 1-1000 can be used to calculate the actual system face velocities).

***PART* 3:** Please discuss any impact on the residence times provided in response to Question 1 above. The residence times should be consistent with the actual system face velocity (face velocity =bed depth÷residence time).

PSE&G Response

The FRVS Ventilation, FRVS Recirculation and CREF System's charcoal filters were designed to incorporate a nominal face velocity of 40 feet per minute (ft/min) in accordance Regulatory Guide 1.52, Revision 2, 1978, and ANSI/ASME N509-1976. The nominal 40-ft/min charcoal bed face velocity ensures the credited charcoal efficiencies for these ventilation systems are met during a design basis accident (DBA). Correspondingly, the systems were design to have a 0.25 second residence time for the 2-inch FRVS filters and a 0.5 second residence time for the 4-inch CREF filters. The actual residence times for these filters, based upon nominal system flow rates, and using the criteria in ANSI/ASME N509-1976, are shown on the following table:

System	Carbon Filter Bed Depth	Carbon Adsorber Residence Time (sec)	System Face Velocity (ft/min)
FRVS Ventilation	2"	0.252	39.7
FRVS Recirculation	2"	0.258	38.8
CREF	4"	0.522	38.3

The face velocities for these systems at their nominal flow rates are below 40-ft/min and ASTM D3803 testing has been performed using 40-ft/min face velocity criteria. The design for this parameter accounts for ventilation flow rates of plus or minus 10% as indicated in the plant Technical Specifications for Hope Creek. The FRVS Recirculation and Ventilation Systems and the CREF System are currently operating within the 10% limits on flow rate required by the plant Technical Specifications. Therefore, the maximum expected charcoal bed face velocity remains below 44-ft/min at worst-case DBA flow rates.

ASTM D3803-1989 testing criteria for face velocity of 40-ft/min will continue to be appropriate for testing of these charcoal filters. Based upon the requirements of Generic letter 99-02, the FRVS Ventilation, FRVS Recirculation and CREF System face velocities do not need to be specified in the Technical Specification surveillance requirements since they fall within the 40-ft/min plus or minus 10% criteria.