



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 2, 2000

Mr. James Scarola, Vice President  
Shearon Harris Nuclear Power Plant  
Carolina Power & Light Company  
Post Office Box 165, Mail Code: Zone 1  
New Hill, North Carolina 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF  
AMENDMENT RE: LABORATORY TESTING OF NUCLEAR-GRADE  
ACTIVATED CHARCOAL (TAC NO. MA7183)

Dear Mr. Scarola:

The Nuclear Regulatory Commission has issued Amendment No. 98 to Facility Operating License No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit No. 1, in response to your request dated November 19, 1999, as supplemented on March 16, 2000. This amendment revises the Technical Specifications (TS) to incorporate the American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," in accordance with NRC Generic Letter (GL) 99-02, "Laboratory Testing Of Nuclear-Grade Activated Charcoal," dated June 3, 1999. Specifically, TS 4.7.6 has been revised for the Control Room Emergency Filtration System, TS 4.7.7 has been revised for the Reactor Auxiliary Building Emergency Exhaust System, and TS 4.9.12 has been revised for the Fuel Handling Building Emergency Exhaust System.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's regular bi-weekly Federal Register notice.

Sincerely,

Richard J. Laufer, Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosures:

1. Amendment No. 98 to NPF-63
2. Safety Evaluation

cc w/enclosures:  
See next page

NRR-058

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Carolina Power & Light Company  
Post Office Box 165, Mail Code: Zone 1  
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/RA/

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OFFICIAL RECORD

*Template* ~~ARR-706~~  
NRR-058

AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. NPF-63 - HARRIS, UNIT 1

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 98  
License No. NPF-63

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Carolina Power & Light Company, (the licensee), dated November 19, 1999, as supplemented on March 16, 2000, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. NPF-63 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 98, are hereby incorporated into this license. Carolina Power & Light Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Richard P. Correia, Chief, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 2, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 98

FACILITY OPERATING LICENSE NO. NPF-63

DOCKET NO. 50-400

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

Insert Pages

3/4 7-15

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3/4 7-18

3/4 9-15

3/4 9-15

## PLANT SYSTEMS

### CONTROL ROOM EMERGENCY FILTRATION SYSTEM

#### SURVEILLANCE REQUIREMENTS (Continued)

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Revision 2, March 1978, and the system flow rate is 4000 cfm  $\pm$  10% during system operation when tested in accordance with ANSI N510-1980; and

2. Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, has a methyl iodide penetration of  $\leq$  0.5% when tested at a temperature of 30°C and at a relative humidity of 70% in accordance with ASTM D3803-1989.
- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, has a methyl iodide penetration of  $\leq$  0.5% when tested at a temperature of 30°C and at a relative humidity of 70% in accordance with ASTM D3803-1989.
- d. At least once per 18 months by:
  1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 5.1 inches water gauge while operating the system at a flow rate of 4000 cfm  $\pm$  10%;
  2. Verifying that, on either a Safety Injection or a High Radiation test signal, the system automatically switches into an isolation with recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks;
  3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/8 inch Water Gauge at less than or equal to a pressurization flow of 315 cfm relative to adjacent areas during system operation;
  4. Verifying that the heaters dissipate  $14 \pm 1.4$  kW when tested in accordance with ANSI N510-1980; and
  5. Deleted.

## PLANT SYSTEMS

### 3/4.7.7 REACTOR AUXILIARY BUILDING (RAB) EMERGENCY EXHAUST SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.7.7 Two independent RAB Emergency Exhaust Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one RAB Emergency Exhaust System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.7 Each RAB Emergency Exhaust System shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heaters operating;
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following significant painting, fire, or chemical release in any ventilation zone communicating with the system by:
  1. Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the unit flow rate is 6800 cfm  $\pm$  10% during system operation when tested in accordance with ANSI N510-1980;
  2. Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, has a methyl iodide penetration of  $\leq$  2.5% when tested at a temperature of 30°C and at a relative humidity of 70% in accordance with ASTM D3803-1989.
- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978.



## PLANT SYSTEMS

### REACTOR AUXILIARY BUILDING (RAB) EMERGENCY EXHAUST SYSTEM

#### SURVEILLANCE REQUIREMENTS (Continued)

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has a methyl iodide penetration of  $\leq 2.5\%$  when tested at a temperature of  $30^{\circ}\text{C}$  and at a relative humidity of 70% in accordance with ASTM D3803-1989.

- d. At least once per 18 months by:
  - 1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber bank is less than 4.1 inches water gauge while operating the unit at a flow rate of  $6800 \text{ cfm} \pm 10\%$ .
  - 2. Verifying that the system starts on a Safety Injection test signal.
  - 3. Verifying that the system maintains the areas served by the exhaust system at a negative pressure of greater than or equal to  $1/8$  inch water gauge relative to the outside atmosphere.
  - 4. Verifying that the filter cooling bypass valve is locked in the balanced position, and
  - 5. Verifying that the heaters dissipate  $40 \pm 4 \text{ kW}$  when tested in accordance with ANSI N510-1980.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the unit satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the unit at a flow rate of  $6800 \text{ cfm} \pm 10\%$ ; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the unit satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the unit at a flow rate of  $6800 \text{ cfm} \pm 10\%$ .

## REFUELING OPERATIONS

### FUEL HANDLING BUILDING EMERGENCY EXHAUST SYSTEM

#### SURVEILLANCE REQUIREMENTS (Continued)

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##### 4.9.12 (Continued)

2. Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, has a methyl iodide penetration of  $\leq 2.5\%$  when tested at a temperature of  $30^{\circ}\text{C}$  and at a relative humidity of 70% in accordance with ASTM D3803-1989.
- c. After every 720 hours of charcoal adsorber operation by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, has a methyl iodide penetration of  $\leq 2.5\%$  when tested at a temperature of  $30^{\circ}\text{C}$  and at a relative humidity of 70% in accordance with ASTM D3803-1989.
- d. At least once per 18 months by:
  1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber bank is not greater than 4.1 inches water gauge while operating the unit at a flow rate of  $6600 \text{ cfm} \pm 10\%$ .
  2. Verifying that, on a High Radiation test signal, the system automatically starts and directs its exhaust flow through the HEPA filters and charcoal adsorber banks.
  3. Verifying that the system maintains the spent fuel storage pool area at a negative pressure of greater than or equal to 1/8 inch water gauge, relative to the outside atmosphere, during system operation at a flow rate of  $6600 \text{ cfm} \pm 10\%$  and
  4. Deleted
  5. Verifying that the heaters dissipate  $40 \pm 4 \text{ kW}$  when tested in accordance with ANSI N510-1980.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the unit satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the unit at a flow rate of  $6600 \text{ cfm} \pm 10\%$ .



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

CAROLINA POWER & LIGHT COMPANY

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

1.0 INTRODUCTION

By letter dated November 19, 1999, as supplemented on March 16, 2000, Carolina Power and Light Company (CP&L, the licensee), requested a change to the Technical Specifications (TS) for the Shearon Harris Nuclear Plant, Unit 1 (HNP). The proposed changes would revise the TS to incorporate the American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," as the standard for testing nuclear-grade activated charcoal. Specifically, TS 4.7.6 would be revised for the Control Room Emergency Filtration System, TS 4.7.7 would be revised for the Reactor Auxiliary Building Emergency Exhaust System, and TS 4.9.12 would be revised for the Fuel Handling Building Emergency Exhaust System.

The March 16, 2000, supplement provided clarifying information that did not change the scope of the November 19, 1999, application or the proposed no significant hazards consideration determination published in the Federal Register on December 15, 1999 (64 FR 70081).

2.0 BACKGROUND

On June 3, 1999, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," to all holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

The purpose of the GL was to:

- (1) Alert addressees that the NRC has determined that testing nuclear-grade activated charcoal to standards other than ASTM D3803-1989 does not provide assurance for complying with the current licensing basis as it relates to the dose limits of General Design Criterion (GDC) 19 of Appendix A to Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR) and Subpart A of 10 CFR Part 100.
- (2) Request that all addressees determine whether their TS reference ASTM D3803-1989 for charcoal filter laboratory testing. Addressees whose TS do not reference ASTM D3803-1989 should either amend their TS to reference ASTM D3803-1989 or propose an alternative test protocol and provide the information discussed in the requested actions.

- (3) Alert addressees to the staff's intent to exercise enforcement discretion under certain conditions.
- (4) Request that all addressees send the NRC written responses on the implementation of the actions requested in this GL.

The licensee submitted this amendment request in response to item (2) above.

### 3.0 EVALUATION

The NRC staff, with the technical assistance from Brookhaven National Laboratory (BNL), has reviewed the licensee's submittals. In addition, the staff has reviewed the attached BNL Technical Evaluation Report (TER) regarding the proposed TS changes for HNP. Based on its review, the staff endorses the TER. In view of the above, and because the staff considers ASTM D3803-1989 to be the most accurate and most realistic protocol for testing charcoal in safety-related ventilation systems, the staff finds that the proposed TS changes satisfy the actions requested in GL 99-02 and are acceptable.

### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration (64 FR 70081). One comment was received and is addressed below. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### 6.0 PUBLIC COMMENT

The following public comment was received in response to the staff's December 15, 1999, *Federal Register* notice (64 FR 70081) related to this amendment.

Comment: In the subject *Federal Register* you have referenced ASTM Standard D 3803-1989. Please note, the most current version of that standard is D 3803-91 (1998).

Response: The staff acknowledges that the most current version of ASTM D3803 is ASTM D3803-1991 (reaffirmed in 1998). However, it was decided for consistency purposes to have all of the nuclear reactors test to the same standard (ASTM D3803-1989) because approximately one-third of the nuclear reactor's Technical Specifications referenced ASTM D3803-1989 prior to GL 99-02 being issued, and there are no substantive changes between the 1989 and 1998 versions.

## 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Segala  
R. Laufer

Date: May 2, 2000

Attachment: BNL Technical Evaluation Report

TECHNICAL EVALUATION REPORT  
BROOKHAVEN NATIONAL LABORATORY  
FOR THE OFFICE OF NUCLEAR REACTOR REGULATION  
DIVISION OF SYSTEMS SAFETY AND ANALYSIS  
PLANT SYSTEMS BRANCH  
RELATED TO AMENDMENT TO FACILITY OPERATING LICENSE NO. NPF-63  
CAROLINA POWER AND LIGHT COMPANY  
SHEARON HARRIS NUCLEAR POWER PLANT  
(DOCKET NO. 50-400)

## 1.0 INTRODUCTION

By letter dated November 19, 1999 (HNP-99-165), Carolina Power & Light Company submitted its response to the actions requested in Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999, for the Shearon Harris Nuclear Power Plant. By letter dated March 16, 2000, (HNP-00-053), Carolina Power & Light Company submitted supplemental information to its response to the actions requested in GL 99-02. By letter dated November 19, 1999 (HNP-99-166), Carolina Power & Light Company requested changes to the Technical Specifications (TS) Sections 4.7.6.b.2 and 4.7.6c for Control Room Emergency Filtration System (CREFS), 4.7.7.b.2 and 4.7.7.c for Reactor Auxiliary Building Emergency Exhaust System (RABEES), and 4.9.12.b.2 and 4.9.12.c for Fuel Handling Building Emergency Exhaust System (FHBEES) for the Shearon Harris Nuclear Power Plant. The proposed changes would revise the TS surveillance testing of the safety related ventilation system charcoal to meet the requested actions of GL 99-02.

## 2.0 BACKGROUND

Safety-related air-cleaning units used in the engineered safety features (ESF) ventilation systems of nuclear power plants reduce the potential onsite and offsite consequences of a radiological accident by filtering radioiodine. Analyses of design basis accidents assume particular safety related charcoal adsorption efficiencies when calculating offsite and control room operator doses. To ensure that the charcoal filters used in these systems will perform in a manner that is consistent with the licensing basis of a facility, licensees have requirements in their TS to periodically perform a laboratory test (in accordance with a test standard) of charcoal samples taken from these ventilation systems.

In GL 99-02, the staff alerted licensees that testing nuclear-grade activated charcoal to standards other than American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," does not provide assurance for complying with their current licensing basis as it relates to the dose limits of General Design Criterion (GDC) 19 of Appendix A to Part 50 of Title 10 of the Code of Federal Regulations (10 CFR) and Subpart A of 10 CFR Part 100.

GL 99-02 requested that all licensees determine whether their TS reference ASTM D3803-1989 for charcoal filter laboratory testing. Licensees whose TS do not reference ASTM D3803-1989 were requested to either amend their TS to reference ASTM D3803-1989 or propose an alternative test protocol.

### **3.0 EVALUATION**

#### **3.1 Laboratory Charcoal Sample Testing Surveillance Requirements**

The current and proposed TS surveillance requirements for laboratory charcoal sample testing for the Control Room Emergency Filtration System (CREFS), Reactor Auxiliary Building Emergency Exhaust System (RABEES), and the Fuel Handling Building Emergency Exhaust System (FHBEES) are shown in Table 1 and Table 2, respectively.

The proposed use of ASTM D3803-1989 is acceptable because it is consistent with the actions requested in GL 99-02. The proposed test temperature of 30 °C and relative humidity (RH) of 70% percent, in conjunction with heaters dissipating  $14 \pm 1.4$  kW for the CREFS, and  $40 \pm 4$  kW for the RABEES and FHBEES, are acceptable because they are consistent with ASTM D3803-1989 and the actions requested in GL 99-02.

The proposed efficiency for radioactive methyl iodide for the CREFS  $\geq 99$  percent results in a safety factor of 2. In addition, the proposed efficiency for radioactive methyl iodide for the RABEES and FHBEES of  $\geq 95$  percent results in a safety factor of 2. These proposed safety factors are acceptable because they are equal to the minimum safety factor of 2 specified in GL 99-02.

The licensee stated in the March 16, 2000 letter that the above systems have a face velocity of 40 fpm. Therefore, it is not necessary to specify the face velocity in the proposed TS change. This is acceptable because it is consistent with the August 23, 1999 errata to GL 99-02.

### **4.0 CONCLUSION**

On the basis of its evaluation, BNL recommends that the NRC staff consider the proposed TS changes to be acceptable.

Principal Contributor: Anthony N. Fresco

Date: March 30, 2000

# SHEARON HARRIS NUCLEAR POWER PLANT

## TABLE 1 - CURRENT TS REQUIREMENTS

TABLE 1 - CURRENT TS REQUIREMENTS											
System Description						Current TS Requirements					
TS Section	System	Bed Thickness (inches)	Actual Charcoal		Credited Efficiency (% Organic Iodine)	Test Penetration (% methyl iodide)	Safety Factor	Test Standard	Test Temp (° C)	Test RH	Test Face Velocity (fpm)
			Res. Time (sec)	Face Velocity (fpm)							
4.7.6.b. 2 and 4.7.6.c	Control Room Emergency Filtration System (CREFS)	4	0.50	40*	99%	<0.175 %	5.7	ASTM D3803-1979** and RG 1.52, Rev. 2, March 1978	30°C	≥70%	40
4.7.7.b. 2 and 4.7.7.c+	Reactor Auxiliary Building Emergency Exhaust System (RABEES)	2	0.25	40*	95%	≤1.0%	5	ASTM D3803-1979** and RG 1.52, Rev. 2, March 1978	30°C	≥70%	40
4.9.12.b .2 and 4.9.12.c	Fuel Handling Building Emergency Exhaust System (FHBEES)	2	0.25	40*	95%	≤1.0%	5	ASTM D3803-1979** and RG 1.52, Rev. 2, March 1978	30°C	≥70%	40

\* The actual face velocities are based on the information provided in CP&L letter HNP-00-053 dated March 16, 2000.

\*\* Current TS references to ASTM D3803 do not indicate any date. The current plant procedure indicates use of ASTM D3803-1979.



# SHEARON HARRIS NUCLEAR POWER PLANT

## TABLE 2 - PROPOSED TS REQUIREMENTS

TABLE 2 - PROPOSED TS REQUIREMENTS											
System Description						Proposed TS Requirements					
TS Section.	System	Bed Thickness (inches)	Actual Charcoal		Credited Efficiency (% organic iodine)	Test Penetration (% methyl iodide)	Safety Factor	Test Standard	Test Temp (° C)	Test RH	Test Face Velocity (fpm)
			Res. Time (sec)	Face Velocity (fpm)							
4.7.6.b. 2 and 4.7.6.c	Control Room Emergency Filtration System (CREFS)	4	0.50	40*	99%	≤0.5%	2	ASTM D3803-1989	30°C	≥70%	40
4.7.7.b. 2 and 4.7.7.c	Reactor Auxiliary Building Emergency Exhaust System (RABEES)	2	0.25	40*	95%	≤2.5%	2	ASTM D3803-1989	30°C	≥70%	40
4.9.12.b .2 and 4.9.12.c	Fuel Handling Building Emergency Exhaust System (FHBEEES)	2	0.25	40*	95%	≤2.5%	2	ASTM D3803-1989	30°C	≥70%	40

\* The actual face velocities are based on the information provided in CP&L letter HNP-00-053 dated March 16, 2000.

Mr. James Scarola  
Carolina Power & Light Company

Shearon Harris Nuclear Power Plant  
Unit 1

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