



Palo Verde Nuclear
Generating Station

Gregg R. Overbeck
Senior Vice President
Nuclear

TEL (623) 393-5148
FAX (623) 393-6077

Mail Station 7602
P.O. Box 52034
Phoenix, AZ 85072-2034

102-04373 - GRO/SAB/JAP
November 19, 1999

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

Reference: 1. NRC Generic Letter 99-02: Laboratory Testing of Nuclear-Grade Activated Charcoal, dated June 3, 1999.

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN 50-528/529/530
Proposed Amendment to Technical Specification 5.5.11 for
Laboratory Testing of Nuclear-Grade Activated Charcoal and
Response to NRC Generic Letter 99-02**

In Reference 1, the NRC determined 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 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 50) and Subpart A of 10 CFR 100. The NRC requested that licensees determine whether their technical specifications (TS) reference ASTM D3803-1989 for charcoal filter laboratory testing. Addressees whose TS do not reference ASTM D3803-1989 were requested to amend their TS to reference ASTM D3803-1989 or propose an alternative test protocol and provide the information discussed in the requested actions.

Consistent with the guidance in GL 99-02, Arizona Public Service Company (APS) requests an amendment to Technical Specification 5.5.11.c, Ventilation Filter Testing Program (VFTP). This proposed amendment will require the testing of the ESF systems charcoal adsorber in accordance with the methodology and tolerances of ASTM D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon."

A081

PDR Assoc 05000528

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Proposed Amendment to Technical Specification 5.5.11
for Laboratory Testing of Nuclear-Grade Activated
Charcoal and Response to NRC Generic Letter 99-02
Page 2

Provided in Enclosure 1 to this letter are the following sections that support the proposed Technical Specification amendment:

- A. Description of the Proposed Technical Specification Amendment
- B. Purpose of the Technical Specification
- C. Need for the Technical Specification Amendment
- D. Safety Analysis for the Proposed Technical Specification Amendment
- E. No Significant Hazards Consideration Determination
- F. Environmental Impact Determination
- G. Marked-up Technical Specification Page
- H. Retyped Technical Specification Page

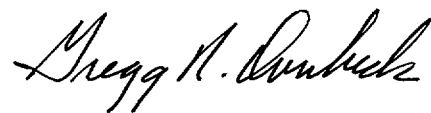
Generic Letter 99-02 also contained several requested actions for licensee response. Enclosure 2 to this letter provides APS' responses to the requested actions.

In accordance with the PVNGS Quality Assurance Program, the Plant Review Board and Offsite Safety Review Committee have reviewed and concurred with this proposed amendment. By copy of this letter, this request is being forwarded to the Arizona Radiation Regulatory Agency (ARRA) pursuant to 10 CFR 50.91(b)(1).

APS has agreed with and has requested no exceptions to the recommendations of GL 99-02. APS requests that the enclosed technical specification amendment request be reviewed and approved by March 3, 2000, with an allowance of 45 days for implementation of the approved amendment.

This letter makes no commitments to the NRC. Please contact Mr. Scott Bauer at (623) 393-5978 if you have any questions or would like additional information regarding this matter.

Sincerely,




GRO/SAB/JAP/mah

Enclosures

cc: E. W. Merschoff
M. B. Fields
J. H. Moorman
A. V. Godwin (ARRA)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, G. R. Overbeck, represent that I am Senior Vice President – Nuclear, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority to do so, and that to the best of my knowledge and belief, the statements made therein are true and correct.



G. R. Overbeck

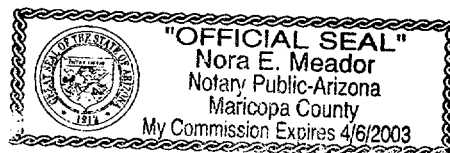
Sworn To Before Me This 19 Day Of November, 1999.



Notary Public

My Commission Expires

April 6, 2003



ENCLOSURE 1

**Proposed Amendment to
PVNGS Unit 1, 2 and 3
Technical Specification 5.5.11.c**

A. DESCRIPTION OF THE PROPOSED TECHNICAL SPECIFICATION AMENDMENT

The proposed amendment revises the Palo Verde Nuclear Generating Station (PVNGS) Technical Specification (TS) Section 5.5.11.c, Ventilation Filter Testing Program (VFTP) to incorporate the recommendations of NRC Generic Letter 99-02, Laboratory Testing of Nuclear-Grade Activated Charcoal, dated June 3, 1999. The proposed amendment changes the standard by which the safety-related air-cleaning units used in the engineering safety features (ESF) ventilation systems are tested from American Society for Testing and Materials (ASTM) D3803-1979, "Standard Test Methods for Nuclear-Grade Activated Carbon", to the ASTM D3803-1989 standard.

PVNGS initiated a carbon change-out plan in 1994 based upon testing performed in 1993 on nuclear air treatment system's adsorber media (carbon) using the ASTM D3803-1989 protocol. The change-out of ESF adsorber carbon was completed in 1996. Additionally, PVNGS continued to perform this testing in conjunction with the regulatory required surveillance tests as a trending mechanism for performance and economic information.

This amendment request also revises the references relating to the requirement for obtaining the charcoal adsorber samples per Regulatory Guide 1.52, Revision 2, and ANSI standard N510-1980. The revised reference is Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, as implemented by Section 1.8 of the UFSAR. The ANSI N510-1980 standard is an incorrect reference by which charcoal adsorber samples are obtained. The correct references for obtaining the ESF charcoal adsorber samples are Regulatory Guide 1.52, Revision 2, and ANSI N509-1980. Regulatory Guide 1.52, Revision 2, and ANSI N509-1980 standards are both contained in PVNGS UFSAR, Section 1.8 and PVNGS specific VFTP procedures for obtaining and testing the charcoal adsorber samples.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

The ESF ventilation systems function during emergency conditions to ensure that the offsite radiation exposures and exposures to operating personnel in the control room are within the guideline values of General Design Criterion (GDC) 19 of Appendix A of 10 CFR 50 and Subpart A of 10 CFR 100.

Testing the ESF nuclear-grade activated adsorber carbon (charcoal) is performed to ensure compliance with the current licensing basis as it relates to the dose limits of General Design Criterion (GDC) 19 of Appendix A of 10 CFR 50 and Subpart A of 10 CFR 100.

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

The NRC has determined that testing nuclear-grade activated charcoal to standards other than ASME D3803-1989, "Standard Test Methods for Nuclear-Grade Activated Carbon," 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 10 CFR 50 and Subpart A of 10 CFR 100.

The proposed amendment would revise the PVNGS TS Section 5.5.11.c, Ventilation Filter Testing Program for the laboratory testing and acceptance criteria of the ESF charcoal (carbon) adsorbers. The proposed amendment will revise the criteria for the ESF systems being tested from the ASTM D3803-1979 criteria of a temperature of 80°C, +/- 0.5°C and 70% relative humidity with an acceptance criteria of $\leq 1\%$ penetration, to being tested in accordance with the methodology and tolerances of ASTM D3803-1989 criteria of a temperature of 30°C and 70% relative humidity with an acceptance criteria of $\leq 2.5\%$ penetration. By changing this portion of the TS, PVNGS will be in conformance with the recommendations of NRC Generic Letter 99-02.

This amendment request also revises the references relating to the requirement for obtaining the charcoal adsorber samples per Regulatory Guide 1.52, Revision 2, and ANSI standard N510-1980. The revised reference is Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, as implemented by Section 1.8 of the UFSAR. The ANSI N510-1980 standard is an incorrect reference by which charcoal adsorber samples are obtained. This amendment request will remove the incorrect reference (ANSI N510-1980) for obtaining the ESF charcoal adsorber samples. Regulatory Guide 1.52, Revision 2, and ANSI N509-1980 are the correct standards for obtaining charcoal adsorber samples and both are contained in PVNGS UFSAR, Section 1.8 and PVNGS specific VFTP procedures.

D. SAFETY ANALYSIS FOR THE PROPOSED TECHNICAL SPECIFICATION AMENDMENT

The proposed amendment would change PVNGS TS Section 5.5.11.c, Ventilation Filter Testing Program (VFTP), to test to the ASTM D3803-1989 standard instead of the ASTM D3803-1979 standard to conform to the recommendations of NRC Generic Letter 99-02, Laboratory Testing of Nuclear-Grade Activated Charcoal. The proposed amendment is being implemented due to the NRC's position that testing nuclear-grade activated charcoal to standards other than ASTM D3803-1989, "Standard Test Methods for Nuclear-Grade Activated Carbon", 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 10 CFR 50 and Subpart A of 10 CFR 100. Testing at an elevated temperature, as specified by ASTM D3803-1979 standard, results in an overestimation of the actual iodine-removal capability of the charcoal. Testing with the ASTM D3803-1989 standard gives results that represent a more realistic assessment of the capability of the charcoal.

Adsorber carbon plays a direct role in mitigating the consequences of a radiological event. Safety-related air-cleaning units used in the ESF ventilation systems of nuclear power plants reduce the potential onsite and offsite consequences of a radiological accident by adsorbing radioiodine. The proposed amendment changes the laboratory performance test criteria on adsorber carbon and will yield more accurate results of radioiodine removal efficiency than what is currently required by the TS. Hence, it will better ensure that the adsorber carbon efficiency for PVNGS TS systems used in the mitigation of an accident remains above the assumed carbon decontamination efficiency referenced in Chapter 6 and Chapter 15 of the UFSAR. This proposed amendment implements more stringent test criteria that will produce test results more accurately, better representing the capability of the charcoal adsorbers.

The new laboratory performance test that will be required by the proposed amendment is a more stringent test than the current TS required test. This testing will better characterize the carbon's ability to adsorb radioactive gases, expressed in methyl iodide adsorption efficiency. Therefore, reliability of the charcoal will be increased. Since the test will better identify the efficiency of the carbon, the possibility of operating with carbon with an efficiency below the decontamination efficiency assumed in the accident analysis is much lower.

This proposed amendment does not change, degrade, or prevent actions described or assumed in an accident. It will not alter any assumptions previously made in evaluating radiological consequences or affect any fission product barriers. It does not increase any challenges to safety systems as well. Therefore, this proposed amendment would not increase or have any impact on the consequences of events described and evaluated in Chapter 6 or Chapter 15 of the UFSAR.

E. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility does not involve a significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or 2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or 3) Involve a significant reduction in the margin of safety.

A discussion of these standards as they relate to this amendment request follows:

Standard 1 – Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to TS 5.5.11.c, initiates a laboratory performance test of adsorber carbon (charcoal) that yields more accurate results than what is currently required by TS. The proposed change also deletes the specific reference to the ANSI standard by which the adsorber carbon sample is obtained. The proposed changes to test adsorber carbon to a more current and improved ASTM standard and delete the ANSI standard by which the adsorber carbon sample is obtained would not be plant accident initiators as described in Chapter 6 or Chapter 15 of the PVNGS UFSAR. The changes would not involve a significant increase in the probability of an accident previously evaluated.

Carbon adsorption plays a direct role in mitigating the consequences of a radiological event. Safety-related air-cleaning units used in the ESF ventilation systems of nuclear power plants reduce the potential onsite and offsite consequences of a radiological accident by the adsorption of radioiodine. The proposed amendment to change the laboratory performance test for carbon will yield more conservative results than what is currently required by TS. Hence, it will better ensure that the adsorber carbon for TS systems used in the mitigation of an accident remains above the assumed carbon decontamination efficiency referenced in Chapter 6 and Chapter 15 of the UFSAR.

This proposed amendment does not alter, degrade, or prevent actions described or assumed in an accident. It will not alter any assumptions previously made in evaluating radiological consequences or, affect any fission product barriers. It does not increase any challenges to safety systems as well. Therefore, this proposed amendment would not significantly increase the consequences of an accident previously evaluated.

Standard 2 – Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change to TS 5.5.11.c, initiates a laboratory performance test of adsorber carbon that yields more accurate results than what is currently required by TS. The proposed changes to test adsorber carbon to a more current and improved ASTM

standard and delete the specific reference to the ANSI standard by which the adsorber carbon sample is obtained would not be plant accident initiators as described in Chapter 6 or Chapter 15 of the PVNGS UFSAR. The proposed amendment does not change the function of any SSC. TS nuclear air treatment systems function to filter radiological releases during design basis accidents. This change will provide greater assurance that this function is provided. The revised TS required laboratory tests utilize practices now in place, changing only the testing parameters. The changes do not alter, degrade, or prevent actions described or assumed in an accident described in the PVNGS UFSAR from being performed. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Standard 3 – Does the proposed change involve a significant reduction in a margin of safety?

No. The proposed change does not involve a significant reduction in a margin of safety.

The margin of safety, as defined in the PVNGS Technical Specifications, is not reduced but is enhanced due to improved testing. This change initiates a laboratory performance test on adsorber carbon that yields more accurate results than what is currently required by TS and deletes the specific reference to the ANSI standard by which the adsorber carbon sample is obtained. The proposed change to test adsorber carbon to a more current and improved ASTM standard will ensure the carbon media's ability to adsorb radioactive gases will remain above that credited in the PVNGS' dose analysis for postulated accidents.

F. ENVIRONMENTAL IMPACT DETERMINATION

The proposed amendment i) involves no significant hazards consideration, ii) does not result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and iii) does not result in a significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed amendment is categorically excluded from an environmental assessment in accordance with 10 CFR51.22(c)(9).

G. Marked-up Technical Specification Page

5.5 Programs and Manuals (continued)

5.5.11 Ventilation Filter Testing Program (VFTP) (continued)

<u>ESF Ventilation System</u>	<u>Flowrate</u>
Control Room Essential Filtration System (CREFS)	28.600 CFM
Engineered Safety Feature (ESF) Pump Room Exhaust Air Cleanup System (PREACS)	6.000 CFM

- b. Demonstrate for each of the ESF systems that an in-place test of the charcoal adsorber shows a penetration and system bypass $\leq 1.0\%$ when tested in accordance with Regulatory Guide 1.52, Revision 2, and ANSI N510-1980 at the system flowrate specified as follows $\pm 10\%$:

<u>ESF Ventilation System</u>	<u>Flowrate</u>
CREFS	28.600 CFM
ESF PREACS	6.000 CFM

INSERT
A

- c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, and ANSI N510-1980 shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1979 at a temperature of $80^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ and greater than or equal to the relative humidity specified as follows:

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>RH</u>
CREFS	$\leq 1.0\%$	70%
ESF PREACS	$\leq 1.0\%$	70%

DELETE

(continued)

INSERT A TO PAGE 5.5-18

- c. Demonstrate for each of the ESF systems that a charcoal adsorber sample, when obtained in accordance with the application of Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, as described in Section 1.8 of the UFSAR, shows the methyl iodide penetration less than or equal to the value specified below, when tested in accordance with ASTM D3803-1989, at a temperature of 30°C and to the relative humidity specified as follows:

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>RH</u>
CREFS	≤2.5%	70%
ESF PREACS	≤2.5%	70%

H. Retyped Technical Specification Page

5.5 Programs and Manuals (continued)

5.5.11 Ventilation Filter Testing Program (VFTP) (continued)

<u>ESF Ventilation System</u>	<u>Flowrate</u>
Control Room Essential Filtration System (CREFS)	28,600 CFM
Engineered Safety Feature (ESF) Pump Room Exhaust Air Cleanup System (PREACS)	6,000 CFM

- b. Demonstrate for each of the ESF systems that an in-place test of the charcoal adsorber shows a penetration and system bypass $\leq 1.0\%$ when tested in accordance with Regulatory Guide 1.52, Revision 2, and ANSI N510-1980 at the system flowrate specified as follows $\pm 10\%$:

<u>ESF Ventilation System</u>	<u>Flowrate</u>
CREFS	28,600 CFM
ESF PREACS	6,000 CFM

- c. Demonstrate for each of the ESF systems that a charcoal adsorber sample, when obtained in accordance with the application of Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, as described in Section 1.8 of the UFSAR, shows the methyl iodide penetration less than or equal to the value specified below, when tested in accordance with ASTM D3803-1989, at a temperature of 30°C and to the relative humidity specified as follows:

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>RH</u>
CREFS	$\leq 2.5\%$	70%
ESF PREACS	$\leq 2.5\%$	70%

(continued)

ENCLOSURE 2

**PVNGS Response to Requested
Actions for NRC Generic
Letter 99-02, Laboratory Testing
of Nuclear-Grade Activated Charcoal**

ACTION 1:

NRC Request:

Within 180 days of the date of this generic letter, submit a written response to the NRC describing your current TS requirements for the laboratory testing of charcoal samples for each ESF ventilation system including the specific test protocol, temperature, RH, charcoal bed thickness, total residence time per bed depth, and penetration at which the TS require the test to be performed. If your current TS specifically requires laboratory testing of charcoal samples in accordance with the ASTM D3803-1989 protocol at 30 °C [86 °F], and you have been testing in accordance with this standard, then you only need to address this requested action (i.e. no TS amendment or additional testing is required).

PVNGS Response:

The existing criteria for testing each engineering safety features (ESF) system's (the Control Room Essential Ventilation System [CREVS] and the Fuel Building Essential Ventilation System [PREACS]) adsorber carbon samples at PVNGS is per Technical Specification (TS) 5.5.11, Ventilation Filter Testing Program, Part c, stating:

Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in RG 1.52, revision 2, and ANSI N510-1980 shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1979 at a temperature of 80°C (+/- 0.5°C) and greater than or equal to the relative humidity specified as follows:

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>RH</u>
CREFS	≤1.0%	70%
ESF PREACS	≤1.0%	70%

The specified surveillance test utilizes the Method B test protocol listed in ASTM D3803-1979, Table 1, Radioiodine/Methyl Iodide Standard Test Conditions, as follows:

Temperature:	80°C.
Relative Humidity:	70% (credit taken for humidity controlled environment).
Carbon Bed Depth:	2 inches.
Residence Time:	~0.25 second / 40 fpm.
Penetration:	≤ 1.0%

ACTION 2:

NRC Request:

If you choose to adopt the ASTM D3803-1989 protocol, submit a TS amendment request to require testing to this protocol within 180 days of the date of this generic letter. The request should contain the test temperature, RH, and penetration at which the proposed TS will require the test to be performed and the basis for these values. If the system has a face velocity greater than 110 percent of 0.203 m/s [40 ft/min], then the revised TS should specify the face velocity. Also, indicate when the next laboratory test is scheduled to be performed.

PVNGS Response:

PVNGS is requesting an amendment to PVNGS Technical Specification 5.5.11.c for testing each ESF system's (the Control Room Essential Ventilation System [CREVS] and the Fuel Building Essential Ventilation System [PREACS]) adsorber carbon samples in accordance with NRC Generic Letter 99-02, using the test protocol as established in ASTM D3803-1989. Thus, the test's temperature parameter will be 30°C on the basis of the D3803-1989 standard.

PVNGS will apply 70% as the relative humidity test parameter for testing each ESF Control Room Essential Ventilation System's [CREVS] adsorber carbon samples. This is an exception from the ASTM D3803-1989 test protocol, which uses a value of 95% relative humidity. The basis for the test's 70% relative humidity is that it has been determined through design calculation (13-MC-HJ-003, Revision 1, HJ System Heat Load and Equipment Selection Calculation) that air entering the CREVS carbon adsorber will be maintained less than 70% relative humidity. This value has received NRC approval in that it is the specified value for relative humidity in PVNGS' current Technical Specification 5.5.11.c.

PVNGS will apply 70% as the relative humidity test parameter for testing each ESF Fuel Building Essential Ventilation System's [PREACS] adsorber carbon samples. This is an exception from the ASTM D3803-1989 test protocol, which uses a value of 95% relative humidity. The basis for the test's 70% relative humidity is that it has been determined through design calculation (13-MC-HF-252, Revision 2, Fuel Building /Auxiliary Building Infiltration Calculation & Verification of Adequacy of Existing Unit) that air entering the PREACS carbon adsorber will be treated by the nuclear air treatment system's heater and maintained less than 70% relative humidity. This value has received NRC approval in that it is the specified value for relative humidity in PVNGS' current Technical Specification 5.5.11.c.

The penetration acceptance criterion of $\leq 2.5\%$ was based upon guidance found in NRC Generic Letter 99-02, Attachment 2. This guidance describes the equation for determining the allowable penetration. Per this guidance, testing to ASTM D3803-1989 allows for a safety factor of 2. A value of 95% was used for the methyl iodide efficiency for charcoal credited in the PVNGS accident analysis based on information found in Table 2 of Regulatory Guide 1.52, Revision 2, March, 1978 and PVNGS UFSAR Chapters 6 and 15.

Therefore, in applying the criteria of Attachment 2 to GL 99-02, PVNGS Technical Specification Section 5.5.11.c will be revised as follows:

Demonstrate for each of the ESF systems that a charcoal adsorber sample, when obtained in accordance with the application of Regulatory Position C.6.b. of Regulatory Guide 1.52, Revision 2, March 1978, as described in Section 1.8 of the UFSAR, shows the methyl iodide penetration less than or equal to the value specified below, when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and to the relative humidity specified as follows:

<u>ESF Ventilation System</u>	<u>Penetration</u>	<u>RH</u>
CREFS	$\leq 2.5\%$	70%
ESF PREACS	$\leq 2.5\%$	70%

The following two tables identify the adsorber carbon sampling/testing schedules for the Control Room Essential Ventilation Systems [CREVS] and the Fuel Building Essential Ventilation Systems [PREACS]) at the PVNGS three-unit-site. Additionally, since PVNGS has been routinely performing tests* using the ASTM D3803-1989 protocol, the most recent results are included.

Control Room Essential Ventilation System

Equipment ID NO.	Next Performance	Last Performance	Results (% Efficiency.)*
1M-HJA-F04	11/23/2000	05/21/1999	99.550
1M-HJB-F04	11/08/2000	05/06/1999	99.438
2M-HJA-F04	08/23/2000	02/18/1999	99.412
2M-HJB-F04	06/20/2000	12/16/1998	98.920
3M-HJA-F04	01/18/2001	07/16/1999	99.445
3M-HJB-F04	03/20/2000	09/15/1998	99.180

*Testing was performed using ASTM D3803-1989 (30°C/95%RH) in conjunction with regulatory required tests being performed using D3803-1979, per PVNGS technical specifications. Testing was performed as a trending mechanism for performance, economic evaluation information, and test comparisons. Results from all systems tested comply with the proposed acceptance criteria of $\leq 2.5\%$ penetration.

Fuel Building Essential Ventilation System

Equipment ID NO.	Next Performance	Last Performance	Results (% Efficiency)*
1M-HFA-J01	10/24/2000	04/21/1999	99.614
1M-HFB-J01	10/12/2000	04/05/1999	99.629
2M-HFA-J01	12/18/2000	06/15/1999	98.954
2M-HFB-J01	11/05/2000	05/03/1999	99.520
3M-HFA-J01	12/20/1999	06/16/1998	99.360
3M-HFB-J01	12/02/1999	05/29/1998	99.140

*Testing was performed using ASTM D3803-1989 (30°C/95%RH) in conjunction with regulatory required tests being performed using D3803-1979, per PVNGS technical specifications. Testing was performed as a trending mechanism for performance, economic evaluation information, and test comparisons. Results from all systems tested comply with the proposed acceptance criteria of $\leq 2.5\%$ penetration.

ACTION 3:

NRC Request:

If you are proposing an alternate test protocol, address the attributes discussed below and submit a TS amendment request to require testing to this alternate protocol within 180 days of the date of this generic letter.

PVNGS Response:

N/A. PVNGS is not proposing an alternate test protocol.

ACTION 4:

NRC Request:

At the next required laboratory surveillance test of a charcoal sample that is 60 or more days after the date of this generic letter, test your charcoal samples in accordance with ASTM D3803-1989 or replace all of the charcoal with new charcoal that has been tested in accordance with ASTM D3803-1989. In all cases, the results should meet the acceptance criterion that is derived from applying a safety factor as low as 2 (see the note in Enclosure 2) to the charcoal filter efficiency assumed in your design-basis dose analysis and the charcoal samples should continue to be tested in accordance with ASTM D3803-1989, in lieu of the current TS-required laboratory testing, until the TS amendment is approved by the NRC.

PVNGS Response:

Since PVNGS already performs testing in accordance with the ASTM D3803-1989 protocol for purposes of performance monitoring, actions have been completed to revise existing surveillance testing procedures to conform to ASTM D3803-1989 protocol.

The surveillance test procedures have been revised to test ESF carbon samples in accordance with ASTM D3803-1989, at the temperature of 30°C and 70% relative humidity, stating an acceptance criteria of less than or equal to 2.5% penetration. This testing will be performed in conjunction with the current PVNGS technical specification criteria until this proposed amendment is approved. At the time in which this proposed technical specification amendment is approved, the surveillance testing procedures' acceptance criteria will be revised to eliminate the current technical specification criteria.

ACTION 5:

NRC Request:

Addressees who choose not to do the above actions are requested to notify the NRC in writing of their decision, as soon as a decision is reached but no later than 60 days from the date of this generic letter. The 60 day written response should also discuss (1) addressee plans to pursue a proposed alternative course of action (including the basis for establishing its acceptability), (2) the schedule for submitting that proposal for NRC staff review (that proposal should be submitted to the NRC no later than 180 days from the date of this generic letter), and (3) the basis for continued operability of affected systems and components until such time that the proposed alternative course of action is approved by the NRC.

PVNGS Response:

N/A. PVNGS will comply with NRC Generic Letter 99-02.