January 11, 2001

Mr. Guy G. Campbell, Vice President - Nuclear
FirstEnergy Nuclear Operating Company
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 - ISSUANCE OF AMENDMENT (TAC NO MA5731)

Dear Mr. Campbell:

The U. S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 244 to Facility Operating License No. NPF-3 for Davis-Besse Nuclear Power Station, Unit 1. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated June 10, 1999, as supplemented by letters, dated November 4, 1999, and October 12, 2000.

The amendments change TS 5.5.11, "Ventilation Filter Testing Program (VFTP)" to include the requirement for laboratory testing of Engineered Safety Feature Ventilation System charcoal samples per American Society for Testing and Materials D3803-1989 and the application of a safety factor of 2.0 to the charcoal filter efficiency assumed in the plant design-basis dose analyses.

A copy of our related Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
/RA/

Stephen P. Sands, Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 244 to NPF-3
2. Safety Evaluation

cc w/encls: See next page

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MRR-058

Mr. Guy G. Campbell, Vice President - Nuclear
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Mr. Guy G. Campbell, Vice President - Nuclear
FirstEnergy Nuclear Operating Company
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: REVISION TO VENTILATION CHARCOAL ABSORBER TESTING PROGRAM AT DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 (TAC NO MA5731)

Dear Mr. Campbell:

The U. S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. to Facility Operating License No. NPF-3 for Davis-Besse Nuclear Power Station, Unit 1. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated June 10, as supplemented by letters dated November 4, 1999, and October 12, 2000.

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Sincerely,

Stephen P. Sands, Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. to NPF-3
2. Safety Evaluation

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OFFICE	PM:PD3-2	LA:PD3-2	OGC	SC:PD3-2
NAME	S. Sands SPS	T. Harris TLH		A. Mendiola
DATE	12/11 /00	12/8 /00	12/V/00	12/ /00

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

January 11, 2001

Mr. Guy G. Campbell, Vice President - Nuclear
FirstEnergy Nuclear Operating Company
5501 North State Route 2
Oak Harbor, OH 43449-9760

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Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures: 1. Amendment No. 244 to NPF-3
2. Safety Evaluation

cc w/encls: See next page

cc:

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Columbus, OH 43266-0573

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

FIRSTENERGY NUCLEAR OPERATING COMPANY

DOCKET NO. 50-346

DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 244
License No. NPF-3

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the FirstEnergy Nuclear Operating Company (the licensee) dated June 10, 1999, as supplemented on November 4, 1999, and October 12, 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

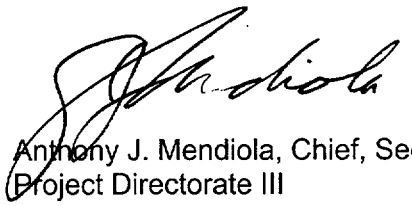
   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 244 , are hereby incorporated in the license. FirstEnergy Nuclear Operating Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented not later than 120 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Anthony J. Mendiola, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: January 11, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 244

FACILITY OPERATING LICENSE NO. NPF-3

DOCKET NO. 50-346

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	Insert
XV	XV
3/4 6-26	3/4 6-26
3/4 6-27	3/4 6-27
3/4 6-28	3/4 6-28
3/4 6-29	3/4 6-29
3/4 6-30	3/4 6-30
3/4 7-17	3/4 7-17
3/4 7-18	3/4 7-18
3/4 7-19	3/4 7-19
6-14c	6-14c
	6-14d
	6-14e
B 3/4 6-4	B 3/4 6-4
B 3/4 7-4a	B 3/4 7-4a

ADMINISTRATIVE CONTROLS

CONTAINMENT SYSTEMS

HYDROGEN PURGE SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.4.4 A containment hydrogen purge system shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With the containment hydrogen purge system inoperable, restore the hydrogen purge system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.4 The hydrogen purge system shall be demonstrated OPERABLE:

a. At least once per 18 months by initiating flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters on.

b. At least once each 18 months and in accordance with the Ventilation Filter Testing Program (VFTP).

SURVEILLANCE REQUIREMENTS (Continued)

c. [Deleted]

d. [Deleted]

e. [Deleted]

f. [Deleted]

CONTAINMENT SYSTEMS

3/4.6.5 SHIELD BUILDING

EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.1 Two independent emergency ventilation systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one emergency ventilation 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

4.6.5.1 Each emergency ventilation 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 15 minutes.

b. At least once each REFUELING INTERVAL and in accordance with the Ventilation Filter Testing Program (VFTP).

SURVEILLANCE REQUIREMENTS (Continued)

1. [Deleted]

2. [Deleted]

3. [Deleted]

c. [Deleted]

d. At least once each REFUELING INTERVAL by:

1. [Deleted]

2. Verifying that the system starts automatically on any containment isolation test signal; and

3. Verifying that the filter cooling bypass valves can be manually opened.

SURVEILLANCE REQUIREMENTS (Continued)

4. [Deleted]

e. [Deleted]

f. [Deleted]

PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 Two independent control room emergency ventilation systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one control room emergency ventilation 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.

b. With one channel of Station Vent Normal Range Radiation Monitoring instrumentation inoperable, restore the inoperable channel to OPERABLE status, or isolate the control room normal ventilation system and place at least one control room emergency ventilation system train in operation within 7 days.

c. With both channels of Station Vent Normal Range Radiation Monitoring instrumentation inoperable, within 1 hour, isolate the control room normal ventilation system and place at least one control room emergency ventilation system train in operation.

SURVEILLANCE REQUIREMENTS

4.7.6.1 Each control room emergency ventilation system shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 110°F when the control room emergency ventilation system is operating.

b. 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 15 minutes.

c. At least once each REFUELING INTERVAL and in accordance with the Ventilation Filter Testing Program (VFTP).

SURVEILLANCE REQUIREMENTS (Continued)

1. [Deleted]

2. [Deleted]

3. [Deleted]

d. [Deleted]

e. At least once each REFUELING INTERVAL by:

1. [Deleted]

2. Verifying that the control room normal ventilation system is isolated by a SFAS test signal and a Station Vent Normal Range Radiation Monitoring test signal; and

SURVEILLANCE REQUIREMENTS (Continued)

3. Verifying that the makeup flow of the system is 300 cfm ± 10% when supplying the control room with outside air.

f. [Deleted]

g. [Deleted]

6.8.4 (Continued)

e. Radiological Environmental Monitoring Program (Continued)

3) Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

f. Ventilation Filter Testing Program (VFTP):

A program shall be established to implement the following required testing of safety related filter ventilation systems in accordance with Regulatory Guide 1.52, Revision 2*, ANSI/ASME N510-1980, and ASTM D 3803-1989.

1. Demonstrate for each of the safety related systems that an in-place test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass < 1% when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI/ASME N510-1980 at the system flowrate specified below, +/- 10%.

Safety Related Ventilation System	Flowrate
Containment Hydrogen Purge System	100 cfm
Shield Building Emergency Ventilation System	8000 cfm
Control Room Emergency Ventilation System	3300 cfm

2. Demonstrate for each of the safety related systems that an in-place test of the charcoal adsorber shows a penetration and system bypass < 1% when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI/ASME N510-1980 at the system flowrate specified below, +/-10%.

Safety Related Ventilation System	Flowrate
Containment Hydrogen Purge System	100 cfm
Shield Building Emergency Ventilation System	8000 cfm
Control Room Emergency Ventilation System	3300 cfm

3. Demonstrate for each of the safety related systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified

* The periodic testing for the Shield Building Emergency Ventilation System and the Control Room Emergency Ventilation System are performed once each REFUELING INTERVAL. The need for testing following painting, a fire, or a chemical release in any ventilation zone communicating with the Containment Hydrogen Purge System, the Shield Building Emergency Ventilation System, or the Control Room Emergency Ventilation System is as specified by the VFTP. The method of testing is based on Regulatory Guide 1.52, Revision 2, except for charcoal laboratory testing which will be performed in accordance with ASTM D 3803-1989.

6.8.4 (Continued)

f. Ventilation Filter Testing Program (VFTP) (Continued)

below when tested in accordance with ASTM D 3803-1989 at a temperature of 30° C and the relative humidity (RH) specified below.

Safety Related Ventilation System	Penetration	RH
Containment Hydrogen Purge System	≤ 2.5%	70%
Shield Building Emergency Ventilation System	≤ 2.5%	95%
Control Room Emergency Ventilation System	≤ 2.5%	70%

4. Demonstrate for each of the safety related systems that the pressure drop across the combined HEPA filters, the prefilters*, and the charcoal adsorbers is less than the value specified below when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI/ASME N510-1980 at the system flowrate specified below, +/- 10%.

Safety Related Ventilation System	Delta P	Flowrate
Containment Hydrogen Purge System	25 inches Water Gauge	100 cfm
Shield Building Emergency Ventilation System	6 inches Water Gauge	8000 cfm
Control Room Emergency Ventilation System	4.4 inches Water Gauge	3300 cfm

* Containment Hydrogen Purge does not contain prefilters.

5. Demonstrate that the heaters for the safety related Containment Hydrogen Purge System dissipate 2000 watts +/- 20% when tested in accordance with ANSI/ASME N510-1980.

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the VFTP test frequencies.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the appropriate Regional Office unless otherwise noted.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial

3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the Hydrogen Analyzers, Containment Hydrogen Dilution System, and Hydrogen Purge System ensures that this equipment will be available to maintain the maximum hydrogen concentration within the containment vessel at or below three volume percent following a LOCA.

The two redundant Hydrogen Analyzers determine the content of hydrogen within the containment vessel. The Hydrogen Analyzers, although they have their OPERABILITY requirements in this Specification, are considered part of the post-accident monitoring instrumentation of Specification 3/4.3.3.6, Post-Accident Monitoring Instrumentation.

The Containment Hydrogen Dilution (CHD) System consists of two full capacity, redundant, rotary, positive displacement type blowers to supply air to the containment. The CHD System controls the hydrogen concentration by the addition of air to the containment vessel, resulting in a pressurization of the containment and suppression of the hydrogen volume fraction.

The Containment Hydrogen Purge System Filter Unit functions in conjunction with the CHD System and is designed to release air from the containment atmosphere through a HEPA filter and charcoal filter prior to discharge to the station vent. The required Hydrogen Purge System filter testing is performed in accordance with the Ventilation Filter Testing Program. The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations).

As a backup to the CHD System and the Containment Hydrogen Purge System, the capability to install an external hydrogen recombination system has been provided.

3/4.6.5 SHIELD BUILDING

3/4.6.5.1 EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the emergency ventilation systems ensures that containment vessel leakage occurring during LOCA conditions into the annulus will be filtered through the HEPA filters and charcoal adsorber trains prior to discharge to the atmosphere. This requirement is necessary to meet the assumptions used in the safety analyses and limit the site boundary radiation doses to within the limits of 10 CFR 100 during LOCA conditions. The proper functioning of the EVS fans, dampers, filters, adsorbers, etc., as a system is verified by the ability of each train to produce the required system flow rate.

The required emergency ventilation filter testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal (general use and following specific operations).

The Station Vent Normal Range Radiation Monitoring isolation function provides that under the required conditions, an isolation signal will be given. The Station Vent Normal Range Radiation Monitors provide isolation and shutdown of the control room normal ventilation system.

With one or both channels of Station Vent Normal Range Radiation Monitoring instrumentation inoperable, the provisions of Action statements b or c, respectively, are applicable. The provisions of Action statement a are not applicable.

Under the Action statements for inoperable Station Vent Normal Range Radiation Monitoring instrumentation, should the control room normal ventilation system be isolated and at least one train of the control room emergency ventilation system be placed in operation, these systems would be in a state equivalent to that which they would be in following an actual high radiation condition. Plant operation can continue indefinitely in this state, provided that control room temperature can be maintained in an acceptable range, with the control room emergency ventilation system obtaining fresh-air makeup as described in the Updated Safety Analysis Report Section 9.4.1, "Control Room."

Surveillance Requirement 4.7.6.1.e.2 requires verification that the control room normal ventilation system can be isolated by a Station Vent Normal Range Radiation Monitoring test signal.

Additional testing requirements for the Station Vent Normal Range Radiation Monitoring instrumentation are provided in the ODCM for gaseous effluent releases.

The required control room emergency ventilation system testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, minimum system flow rate, and the physical properties of the activated charcoal.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 244 TO FACILITY OPERATING LICENSE NO. NPF-3

FIRSTENERGY NUCLEAR OPERATING COMPANY

DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1

DOCKET NO. 50-346

1.0 INTRODUCTION

By letter dated June 10, 1999, FirstEnergy submitted its response for Davis-Besse Nuclear Power Station to the actions requested in Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999. By letter dated November 4, 1999, FirstEnergy requested changes to the Technical Specifications (TS) Sections 3/4.6.4.4, "Hydrogen Purge System (HPS)," 3/4.6.5.1, "Shield Building Emergency Ventilation System (SBEVS)," 3/4.7.6.1, "Control Room Emergency Ventilation System (CREVS)," and 6.0, "Administrative Controls," for Davis-Besse Nuclear Power Station. FirstEnergy proposes adoption of a Ventilation Filter Testing Program (VFTP) in TS Section 6.0 - Administrative Control and removal of the specific ventilation filter testing requirements from the plant's Surveillance Requirements of TS Sections 3/4.6.4.4, 3/4.6.5.1, and 3/4.7.6.1. By letter dated October 12, 2000, FirstEnergy provided additional information regarding relative humidity in the control room. 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.

The supplemental information contained clarifying information and did not change the initial no significant hazards consideration determination and did not expand the scope of the original Federal Register Notice.

2.0 EVALUATION

The Nuclear Regulatory Commission (NRC) staff, with 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 Davis-Besse Nuclear Power Station (DBNPS), Unit 1. Based on its review, the staff adopts the TER. In view of the above, and because the NRC staff considers American Society For Testing and Materials (ASTM) D3803-1989 to be the most accurate and most realistic protocol for testing charcoal in safety-related ventilation systems, the NRC staff finds that the proposed TS changes satisfy the actions requested in GL 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," dated June 3, 1999, and are acceptable.

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-3
FIRST ENERGY
DAVIS-BESSE NUCLEAR POWER STATION
DOCKET NO. 50-346

1.0 INTRODUCTION

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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 with respect 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 D3803-89 for charcoal filter laboratory testing. Licensees whose TS do not reference ASTM D3803-89 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 laboratory charcoal sample testing TS surveillance requirements for the Hydrogen Purge System (HPS), the Shield Building Emergency Ventilation System (SBEVS), and the Control Room Emergency Ventilation System (CREVS), are shown in Table 1 and Table 2, respectively.

The Control Room Emergency Ventilation System (CREVS) is a safety-related system but is not listed as an ESF system. The current licensing basis relies on the CREVS to mitigate the consequences of a design basis accident but does not require the CREVS to be included in the listing of ESF systems. The CREVS is required to remain operable by Technical Specification 3/4.7.6.

The proposed use of ASTM D3803-1989 is acceptable because it provides accurate and reproducible test results. The proposed test temperature of 30°C is acceptable because it is consistent with ASTM D3803-1989. The proposed relative humidity (RH) of 95 percent for the SBEVS is acceptable, because it is consistent with ASTM D3803-1989. The proposed relative humidity (RH) of 70 percent for the HPS and CREVS is acceptable during the charcoal tests, because the HPS is equipped with safety-related heaters and in accordance with the letter dated October 12, 2000, the CREVS maintains the RH at or below 70% during design basis accident conditions. This is consistent with the actions requested in GL 99-02.

Based on the FSAR Sections 6.2.5.3, 15.4.5.2.3, and 15.4.6.4, the credited efficiency for radioactive methyl iodide for all three systems, HPS, SBEVS, and CREVS, is 95 %. The proposed test penetration for methyl iodide for each of these three systems is 2.5%, resulting in a safety factor of 2. The proposed safety factors are acceptable because they ensure that the efficiencies credited in the accident analysis are still valid at the end of the surveillance interval. This is consistent with the minimum safety factor of 2 specified in GL 99-02.

The August 23, 1999 errata to GL 99-02 clarified that if the maximum actual face velocity is greater than 110% of 40 fpm, then the test face velocity should be specified in the TS. First Energy stated that the face velocity for all of the above systems is less than 110 percent of 40 fpm. This is acceptable because it ensures that the testing will be consistent with the operation of the ventilation system during accident conditions.

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 conclude the proposed TS changes to be acceptable.

DAVIS-BESSE NUCLEAR POWER STATION

TABLE 1 - CURRENT TS REQUIREMENTS

System Description						Current TS Requirements					
TS Section	System	Bed Thick-ness (inches)	Actual Charcoal		Credited Efficiency (Methyl Iodide) **	Test Penetration (Methyl Iodide)	Safety Factor	Test Standard	Test Temp (° C)	Test RH	Test Face Velocity (fpm)
			Res. Time (Sec)	Face Velocity (fpm)							
3/4.6.4.4	Hydrogen Purge System (HPS)	2	0.25	<110% of 40	95%	1%	5	ASTM D3803-1979	30	70%	Not stated (40)*
3/4.6.5.1	Shield Building Emergency Ventilation System (SBEVS)	2+2	0.25 per 2" bed	<110% of 40	95%	1%	5	ASTM D3803-1979	30	70%	Not stated (40)*
3/4.7.6.1	Control Room Emergency Ventilation System (CREVS)-Non-ESF	2	0.25	<110% of 40	95%	1%	5	ASTM D3803-1979	30	70%	Not stated (40)*

* Test face velocity of 40 ft/min is based on the test velocity specified in ASTM D3803-1979.

** Per FSAR Sections 6.2.5.3, 15.4.5.2.3, and 15.4.6.4.

TABLE 2 - PROPOSED TS REQUIREMENTS

System Description						Proposed TS Requirements					
TS Section	System	Bed Thick-ness (inches)	Actual Charcoal		Credited Efficiency (Methyl Iodide) **	Test Penetration (Methyl Iodide)	Safety Factor	Test Standard	Test Temp (° C)	Test RH	Test Face Velocity (fpm)
			Res. Time (Sec)	Face Velocity (fpm)							
6.8.4.f	Hydrogen Purge System (HPS)	2	0.25	<110% of 40	95%	2.5%	2	ASTM D3803-1989	30	70%	Not stated (40)*
6.8.4.f	Shield Building Emergency Ventilation System (SBEVS)	2+2	0.25 Per 2" bed	<110% of 40	95%	2.5%	2	ASTM D3803-1989	30	95%	Not stated (40)*
6.8.4.f	Control Room Emergency Ventilation System (CREVS)-Non-ESF	2	0.25	<110% of 40	95%	2.5%	2	ASTM D3803-1989	30	70%	Not stated (40)*

* Test face velocity of 40 ft/min is based on the test velocity specified in ASTM D3803-1989.
** Per FSAR Sections 6.2.5.3, 15.4.5.2.3, and 15.4.6.4.