

CONTAINMENT SYSTEMS

WASTE GAS CHARCOAL FILTER SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.4.3 A waste gas charcoal filter system (shared with Unit 2) shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With the waste gas charcoal filter system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.3 The waste gas charcoal filter system shall be demonstrated OPERABLE:

- a. At least once per 31 days by:
 1. Initiating flow through the HEPA filter and charcoal adsorber train using the process vent blower and verifying that the purge system operates for at least 15 minutes,
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following 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 1.0% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide i.52, Revision 2, March 1978, and the system flow rate is 300 cfm \pm 10% (except as shown in Specifications 4.6.4.3e. and f.).

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CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (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, meets the laboratory testing criteria of Regulatory Position C.6.a. of Regulatory Guide 1.52, Revision 2, March 1978. For a methyl iodide penetration of less than 1.0%, carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 95%.
 3. Verifying a system flow rate of 300 cfm \pm 10% during system operation when tested in accordance with ANSI N 510-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978. For a methyl iodide penetration of less than 1.0%, carbon samples will be laboratory tested in accordance with provisions of ASTM D 3803-79 method B with an inlet relative humidity of 95%.
- d. At least once per 18 months by:
1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is <8.5 inches Water Gauge while operating the filter train at a flow rate of 300 cfm \pm 10%.
- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks satisfies in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 while operating the system at a flow rate of 300 cfm \pm 10%.
- f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 300 cfm \pm 10%.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each control room 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 10 hours with the heaters on.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following 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 1.0%, and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000 cfm \pm 10% (except as shown in Specifications 4.7.7.1e. and f.).
 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, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 70 percent.
 3. Verifying a system flow rate of 1000 cfm \pm 10% during system operation when tested in accordance with ANSI N10-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 70%.
- d. At least once per 18 months by:
 1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is <6 inches Water Gauge while operating the filter train at a flow rate of 1000 cfm \pm 10%.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal.
 3. Verifying that the system maintains the control room at a positive pressure of ≥ 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm $\pm 10\%$.
 - e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a DOP test aerosol while operating the system at a flow rate of 1000 cfm $\pm 10\%$.
 - f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a halogenated hydrocarbon refrigerent test gas while operating the system at a flow rate of 1000 cfm $\pm 10\%$.
- 4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:
- a. At least once per 31 days by verifying that the system contains a minimum of 84 bottles of air (shared with Unit 2) each pressurized to at least 2300 psig.
 - b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of ≥ 0.05 inch W. G. relative to the outside atmosphere for at least 60 minutes.
- 4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is ≤ 120 F.

PLANT SYSTEMS

3/4.7.8 SAFEGUARDS AREA VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8.1 Two safeguards area ventilation systems (SAVS) shall be OPERABLE with:

- a. One SAVS exhaust fan
- b. One auxiliary building HEPA filter and charcoal adsorber assembly (shared with Unit 2)

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one SAVS 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

4.7.8.1 Each SAVS system shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Initiating, from the control room, flow through the auxiliary building HEPA filter and charcoal adsorber assembly and verifying that the SAVS operates for at least 10 hours with the heater on.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following 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 1.0% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 6,300 cfm \pm 10% (except as shown in Specifications 4.7.8.1e. and f.).

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (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 meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with a relative humidity of 70%.
3. Verifying a system flow rate of 6,300 cfm \pm 10% during operation when tested in accordance with ANSI N510-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 70%.
- d. At least once per 18 months by:
 1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is <6 inches Water Gauge while operating the ventilation system at a flow rate of 6,300 cfm \pm 10%.
 2. Verifying that on a Containment Hi-Hi Test Signal, the system automatically diverts its exhaust flow through the auxiliary building HEPA filter and charcoal adsorber assembly.
- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 while operating the system at a flow rate of 6,300 cfm \pm 10%.
- f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 6,300 cfm \pm 10%.

ATTACHMENT 2

CONTAINMENT SYSTEMS

WASTE GAS CHARCOAL FILTER SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.4.3 A waste gas charcoal filter system (shared with Unit 1) shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With the waste gas charcoal filter system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.3 The waste gas charcoal filter system shall be demonstrated OPERABLE:

- a. At least once per 31 days by:
 1. Initiating flow through the HEPA filter and charcoal adsorber train using the process vent blower and verifying that the purge system operates for at least 15 minutes,
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following 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 1.0% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 300 cfm \pm 10% (except as shown in Specifications 4.6.4.3e. and f.).
 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, meets the laboratory testing criteria of Regulatory Position C.6.a. of Regulatory Guide 1.52, Revision 2, March 1978. For a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 95%.
 3. Verifying a system flow rate of 300 cfm \pm 10% during system operation when tested in accordance with ANSI N510-1975.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with provisions of ASTM D 3803-79 method B with an inlet relative humidity of 95%.
- d. At least once per 18 months by:
 - 1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is less than 8.5 inches Water Gauge while operating the filter train at a flow rate of 300 cfm \pm 10%.
- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter bank satisfies in place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a DOP test aerosol while operating the system at a flow rate of 300 cfm \pm 10%.
- f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 300 cfm \pm 10%.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each control room 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 10 hours with the heaters on.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following 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 1.0%, and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 1000 cfm \pm 10% (except as shown in Specifications 4.7.7.1e. and f.).
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 3. Verifying a system flow rate of 1000 cfm \pm 10% during system operation when tested in accordance with ANSI N510-1975.
- c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 70%.
- d. At least once per 18 months by:
 1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is less than 6 inches Water Gauge while operating the filter train at a flow rate of 1000 cfm \pm 10%.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that the normal air supply and exhaust are automatically shutdown on a Safety Injection Actuation Test Signal.
 3. Verifying that the system maintains the control room at a positive pressure of greater than or equal to 0.04 inch W. G. relative to the outside atmosphere at a system flow rate of 1000 cfm \pm 10%.
 - e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a DOP test aerosol while operating the system at a flow rate of 1000 cfm \pm 10%.
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- 4.7.7.2 The bottled air pressurization system shall be demonstrated OPERABLE:
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 - b. At least once per 18 months by verifying that the system will supply at least 340 cfm of air to maintain the control room at a positive pressure of greater than or equal to 0.05 inch W. G. relative to the outside atmosphere for at least 60 minutes.
- 4.7.7.3 Each control room air-conditioning system shall be demonstrated OPERABLE at least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F.

PLANT SYSTEMS

3/4.7.8 SAFEGUARDS AREA VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8.1 Two safeguards area ventilation systems (SAVS) shall be OPERABLE with:

- a. One SAVS exhaust fan, and
- b. One auxiliary building HEPA filter and charcoal adsorber assembly (shared with Unit 1)

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one SAVS 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

4.7.8.1 Each SAVS system shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Initiating, from the control room flow through the auxiliary building HEPA filter and charcoal adsorber assembly and verifying that the SAVS operates for at least 10 hours with the heater on.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following 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 1.0% and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 6,300 cfm \pm 10% (except as shown in Specifications 4.7.8.1e. and f.).

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (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 meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with a relative humidity of 70%.
 3. Verifying a system flow rate of 6,300 cfm \pm 10% during operation when tested in accordance with ANSI N510-1975.
- c. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978 for a methyl iodide penetration of less than 1.0%. Carbon samples will be laboratory tested in accordance with the provisions of ASTM D 3803-79 method B with an inlet relative humidity of 70%.
- d. At least once per 18 months by:
1. Verifying that the pressure drop across the HEPA filter and charcoal adsorber assembly is less than 6 inches Water Gauge while operating the ventilation system at a flow rate of 6,300 cfm \pm 10%.
 2. Verifying that on a Containment Hi-Hi Test Signal, the system automatically diverts its exhaust flow through the auxiliary building HEPA filter and charcoal adsorber assembly.
- e. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter bank satisfies the in place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 while operating the system at a flow rate of 6,300 cfm \pm 10%.
- f. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber in place penetration and bypass leakage testing acceptance criteria of less than 1.0% in accordance with ANSI N510-1975 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 6,300 cfm \pm 10%.

ATTACHMENT 3

DISCUSSION OF PROPOSED TECHNICAL SPECIFICATION CHANGES

USNRC Reg. Guide 1.52, Rev. 2, Section 6.a(3) (dealing with the laboratory testing of used charcoal samples) refers to ANSI N509-76 which then refers to the testing requirements of USDOE Specification RDT-M16-1T, revision unspecified. This presents an uncertainty as to which revision of the USDOE Specification we are obligated or allowed to utilize in the testing of used charcoal samples. It is proposed to substitute ASTM D 3803-79 for RDT-M16-1T as the document governing the laboratory testing of used charcoal samples. This change is proposed in order to avoid confusion. In addition, ASTM D 3803-79 is a less obscure standard than RDT-M16-1T and is considered to yield more accurate and repeatable results. Discussions with charcoal testing personnel indicate the NRC considers ASTM D 3803-79 an acceptable substitute for RDT-M16-1T and that the use of the provisions of this standard will not result in a reduced level of conservatism. Additionally, in their July 1981 revision of SRP Section 6.5.1 which covers ESF Atmosphere Cleanup System, the NRC substitutes ANSI N509-80 (which substitutes ASTM D 3803 for RDT-M16-1T) for ANSI N509-76.

As per the provisions of NRC Generic Letter 83-13, the acceptance criteria for surveillance testing of HEPA filters and charcoal adsorbers should be stated in the body of Technical Specifications.

The probability of occurrence or the consequences of a malfunction of equipment important to safety and previously evaluated in the FSAR is not increased because the proposed Technical Specification changes clarify the method utilized during the laboratory analysis of used charcoal adsorber samples. These proposed changes in no way changes the acceptance criteria for the removal efficiency of used charcoal samples.

The possibility of a different type of accident or malfunction than was previously evaluated in the FSAR has not been created because the proposed changes do not change the acceptance criteria (required iodine removal efficiency of used charcoal), it is intended to clarify the method of testing.

The margin of safety as described in the BASES section of any part of the Technical Specifications is not reduced because the proposed changes clarify the method utilized during analysis of used charcoal adsorber samples. These proposed changes do not change the acceptance criteria for the removal efficiency of used charcoal samples.