

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

- 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, Section C.6.b 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(86°F) and the relative humidity specified below.

	<u>ESF Ventilation System</u>	
	<u>Penetration:</u> <u>(%)</u>	<u>Relative Humidity:</u> <u>(%)</u>
SGT System	2.5	70
Control Room Emergency Filter System	2.5	95

- d. Demonstrate for each of the ESF 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 at the system flowrate specified as follows:

<u>ESF Ventilation System</u>	<u>Delta P (inches Wg)</u>	<u>Flowrate (cfm)</u>
SGT System	< 6	1602 to 1958
Control Room Emergency Filter System	< 6	810 to 990

(continued)

BASES

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SURVEILLANCE  
REQUIREMENTS

SR 3.6.4.3.1 (continued)

fan motors and controls and the redundancy available in the system.

SR 3.6.4.3.2

This SR verifies that the required SGT 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). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.6.4.3.3

This SR verifies that each SGT subsystem starts on receipt of an actual or simulated initiation signal. While this Surveillance can be performed with the reactor at power, operating experience has shown that these components will pass the Surveillance when performed at the 18 month Frequency. The LOGIC SYSTEM FUNCTIONAL TEST in LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," overlaps this SR to provide complete testing of the safety function. Therefore, the Frequency was found to be acceptable from a reliability standpoint.

SR 3.6.4.3.4

This SR verifies that the SGT units cross tie damper is in the correct position, and that each SGT room air supply check valve and each air operated SGT dilution air shutoff valve open when the associated SGT subsystem fan is running. This ensures that the ventilation mode of SGT System operation is available. If the position of the SGT units cross tie damper is greater than or less than the position required for two OPERABLE SGT subsystems and one SGT subsystem is isolated with initiation of that SGT subsystem prevented, then the SGT units cross tie damper position requirement of SR 3.6.4.3.4 continues to be met for the

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BASES

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SURVEILLANCE  
REQUIREMENTS

SR 3.6.4.3.4 (continued)

remaining OPERABLE SGT subsystem, since, in this condition, adequate ventilation is available for decay heat removal from the remaining OPERABLE SGT subsystem. However, both SGT subsystems are inoperable if the SGT units cross tie damper position requirement is not met and one SGT subsystem is not isolated with initiation of that SGT subsystem prevented. If either SGT room air supply check valve or either SGT dilution air shutoff valve is inoperable, then the associated SGT subsystem is inoperable. While this Surveillance can be performed with the reactor at power, operating experience has shown that these components will pass the Surveillance when performed at the 18 month Frequency, which is based on the refueling cycle. Therefore, the Frequency was found to be acceptable from a reliability standpoint.

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REFERENCES

1. USAR, Appendix F.
  2. USAR, Section V-3.3.4.
  3. 10 CFR 50.36(c)(2)(ii).
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BASES

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SURVEILLANCE  
REQUIREMENTS  
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SR 3.7.4.2

This SR verifies that the required CREF 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). Specific test frequencies and additional information are discussed in detail in the VFTP.

SR 3.7.4.3

This SR verifies that on an actual or simulated initiation signal, the CREF System starts and operates. The LOGIC SYSTEM FUNCTIONAL TEST in LCO 3.3.7.1, "Control Room Emergency Filter (CREF) System Instrumentation," overlaps this SR to provide complete testing of the safety function. The 18 month Frequency is specified in Reference 4.

SR 3.7.4.4

This SR verifies the integrity of the control room enclosure and the assumed leakage rates of potentially contaminated air. The control room positive pressure, with respect to potentially contaminated adjacent areas, is periodically tested to verify proper function of the CREF System. During the emergency mode of operation, the CREF System is designed to slightly pressurize the control room  $\geq 0.1$  inches water gauge positive pressure with respect to the adjacent areas to prevent unfiltered leakage. The CREF System is designed to maintain this positive pressure at a flow rate of  $\leq 990$  cfm to the control room in the pressurization mode. The Frequency of 18 months is consistent with industry practice and other filtration systems SRs.

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REFERENCES

1. USAR, Chapter X.
  2. USAR, Chapter XIV.
  3. 10 CFR 50.36(c)(2)(ii).
  4. Regulatory Guide 1.52, Revision 2, March 1978.
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