## 5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

a. Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass < 0.05% when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI N510-1980 at the system flowrate specified below ± 10%:

| ESF Ventilation System | Flowrate |
|---|---|
| a) Control Room Emergency Recirculation | 30,000 cfm |
| b) Fuel Handling Building | 15,000 cfm |
| c) Annulus Exhaust Gas Treatment | 2,000 cfm |

b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass < 0.05% when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI N510-1980 at the system flowrate specified below ± 10%:

| ESF Ventilation System | Flowrate |
|---|---|
| a) Control Room Emergency Recirculation | 30,000 cfm |
| b) Fuel Handling Building | 15,000 cfm |
| c) Annulus Exhaust Gas Treatment | 2,000 cfm |

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, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and equal to the relative humidity (RH) specified below:

| ESF Ventilation System | Penetration | RH |
|---|---|---|
| a) Control Room Emergency Recirculation | 2.5% | 70% |
| b) Fuel Handling Building | 2.5% | 70% |
| c) Annulus Exhaust Gas Treatment | 0.5% | 70% |

(continued)

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters and the charcoal adsorbers is less than the value specified below when tested in accordance with Regulatory Guide 1.52, Revision 2, and ANSI N510-1980 at the system flowrate specified below ± 10%:

| ESF Ventilation System | Delta P | Flowrate |
|---|---|---|
| a) Control Room Emergency Recirculation | 4.9" $H_2O$ | 30,000 cfm |
| b) Fuel Handling Building | 4.9" $H_2O$ | 15,000 cfm |
| c) Annulus Exhaust Gas Treatment | 6.0" $H_2O$ | 2,000 cfm |

e. Demonstrate that the heaters for each of the ESF systems dissipate the value specified below ± 10% when corrected to nominal input voltage when tested in accordance with ANSI N510-1980:

| ESF Ventilation System | Wattage |
|---|---|
| a) Control Room Emergency Recirculation | 100 kW |
| b) Fuel Handling Building | 50 kW |
| c) Annulus Exhaust Gas Treatment | 20 kW |

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.8 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures contained in the main condenser offgas treatment system, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks.

The program shall include:

a. The limits for concentrations of hydrogen in the main condenser offgas treatment system and a surveillance program to ensure the limits are maintained. Such limits shall be appropriate to the system's design criteria (i.e., whether or not the system is designed to withstand a hydrogen explosion); and

(continued)