

4.15 CONTROL ROOM FILTER SYSTEM

Applicability

Applies to the fan, associated charcoal adsorber bank, and HEPA filters of the Control Room filter system.

Objective

To verify that the Control Room filter system will adequately remove radioactivity from the incoming ambient air should there be an accidental radiation release to the atmosphere.

Specification

4.15.1 At least once per operating cycle or after 720 hours of system operation, whichever comes first, and (1) after structural modifications on the HEPA filter or charcoal adsorber housing which would adversely affect the air flow distribution and (2) following significant painting, fire, or chemical release in any ventilation zone communicating with the system, the following tests shall be performed:

- a. Verify that the system flow rate is equal to the design flow rate \pm 10 percent.
- b. Verify that the charcoal adsorbers remove \geq 99 percent of a halogenated hydrocarbon refrigerant test gas when they are tested in-place while the ventilation system is operating at a flow equal to the design flow \pm 10 percent.
- c. Verify that the HEPA filter banks remove \geq 99 percent of the DOP when they are tested in-place in accordance with ANSI N101.1 (1972) while operating the ventilation system at a flow equal to the design flow \pm 10 percent. DOP particle distribution shall comply with the ANSI N510 (1975) requirement.

with an absorbent qualified according to Table 5.1 of ANSI/ASME N509-1976. The replacement tray for the absorber tray removed for the test should meet the same absorbent quality. Tests of the HEPA filters with DOP aerosol shall be performed in accordance to ANSI N101.1 (1972) except that the DOP particle distribution shall comply with the ANSI N510 (1975) requirement. Any HEPA filters found defective shall be replaced with filters qualified pursuant to Regulatory Position C.3.d Regulatory 1.52.

The Containment Purge filter system is normally run continuously during the entire refueling outage to provide cooling and ventilation and periodically during plant operation to reduce airborne radioactivity leaks inside the containment. Operation time of the Containment Purge filter system after the fuel handling operation is completed should not be added to the operation time during fuel handling operations for determination of testing and surveillance requirements given in these specifications.

If significant painting, fire, or chemical release occurs such that the HEPA filter or charcoal adsorber could become contaminated from the fumes, chemicals, or foreign material, the same laboratory tests and sample analysis shall be performed as required for operational use. The determination of significance shall be made by the operator on duty at the time of the incident. Knowledgeable staff members should be consulted prior to making this determination.

The relative humidity of the Containment atmosphere and air downstream of the heaters in the Spent Fuel Building filter system shall be monitored at least hourly to assure that the R.H. is less than 70 percent during fuel handling and Containment Purge filter system operation.