3.15.3 AUXILIARY AND FUEL HANDLING BUILDING AIR TREATMENT SYSTEM

Applicability

Applies to the Auxiliary and Fuel Handling Building Air Treatment System.

Objective

To specify the minimum availability and efficiency for the Auxiliary and Fuel Handling Building Air Treatment System.

Specification

3.15.3.1 The Auxiliary and Fuel Handling Building Air Treatment System including two pairs of exhaust fans (AH-E-14 A & B and AH-E-14 C & D) and four banks of exhaust filters (AH-F2A, B, C and D) shall be operable at all times during power operation, except as provided in 3.15.3.3 and specified in 3.22.2.4.

3.15.3.2 The Auxiliary and Fuel Handling Building Air Treatment System is operable when its surveillance requirements are met and:

a. The results of the in-place DOP and halogenated hydrocarbon tests at design flows on HEPA filters and charcoal adsorber banks shall show <0.05% DOP penetration and <0.05% halogenated hydrocarbon penetration, except that the DOP test will be conducted with prefilters installed.

b. The results of laboratory carbon sample analysis shall show ≥90% radioactive methyl iodide decontamination efficiency when tested at 30°C, 95% R.H.

c. Each set of fans (AH-E-14 A & C and AH-E-14 B & D) shall be shown to operate within the range 100,580 CFM to 130,691 CFM (design flow is specified as 118,810 CFM).

3.15.3.3 a. With one pair of Auxiliary and Fuel Handling Building Air Treatment System exhaust fans (AH-E14A and C or AH-E14B and D) inoperable, verify that the redundant pair of exhaust fans is in operation and discharging through its HEPA filters and charcoal adsorbers within 8 hours, except as provided in 3.15.3.3.b.

b. From the date that the Auxiliary and Fuel Handling Building Air Treatment System becomes inoperable for any reason during power operation, the system (at least one pair of exhaust fans discharging through its HEPA filters and charcoal adsorbers) must be restored to operable condition within 7 days. If the system is not restored to operable within 7 days, prepare and submit a special report to the NRC within the next 30 days outlining the actions taken to restore operability and the plans and schedules for restoring the system to operable status.

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TABLE 3.21-2 (Continued)
RADIOACTIVE GASEOUS PROCESS AND EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTION
5. Auxiliary and Fuel Handling Building Ventilation System			
a. Noble Gas Activity Monitor (RM-A8) or (RM-A4 and RM-A6)	1	*	27
b. Iodine Samples (RM-A8) or (RM-A4 and RM-A6)	1	*	31
c. Particulate Sampler (RM-A8) or (RM-A4 and RM-A6)	1	*	31
d. Effluent System Flow Rate Measuring Devices (FR-149 and FR-150)	1	*	26
e. Sampler Flow Rate Monitor	1	*	26
6. Fuel Handling Building ESF Air Treatment System			
a. Noble Gas Activity Monitor (RM-A14 or Suitable Equivalent)	1	****	27, 33
b. Iodine Cartridge	N/A[3]	****	27, 33
c. Particulate Filter	N/A[3]	****	31, 33
d. Effluent System Flow (UR-1104A/B)	1	****	26, 33
e. Sampler Flow Rate Monitor	1	****	26, 33

NOTE 2: DELETED

NOTE 3: No instrumentation channel is provided. However, for determining operability, the equipment named must be installed and functional or the ACTION applies.

4.12.3 AUXILIARY AND FUEL HANDLING BUILDING AIR TREATMENT SYSTEM

Applicability

Applies to the Auxiliary and Fuel Handling Building Air Treatment System and associated components.

Objective

To verify that this system and associated components will be able to perform its design function.

Specification

4.12.3.1 At least once per refueling interval:

a. The pressure drop across the combined HEPA filter and adsorber banks shall be demonstrated to be less than 6 inches of water at flow rates from 100,580 CFM to 130,691 CFM (design flow is 118,810 CFM).

b. The tests and sample analysis required by Specification 3.15.3.2 shall be performed.

4.12.3.2 Testing necessary to demonstrate operability shall be performed as follows:

a. The tests and sample analysis required by Specification 3.15.3.2 shall be performed following significant painting, steam, fire, or chemical release in any ventilation zone communicating with the system that could contaminate the HEPA filters or charcoal adsorbers.

b. DOP testing shall be performed after each complete or partial replacement of a HEPA filter bank or after any structural maintenance on the system housing that could affect the HEPA filter bank bypass leakage.

c. Halogenated hydrocarbon testing shall be performed after each complete or partial replacement of a charcoal adsorber bank or after any structural maintenance on the AH-F2A, B, C, or D housing that could affect charcoal adsorber bank bypass leakage.

d. The fan combination AH-E14A and C and AH-E14B and D shall be operated at least 10 hours every month.

4.12.3.3 An air distribution test shall be performed on the HEPA filter bank after any maintenance or testing that could affect the air distribution within the system. The air distribution across the HEPA filter bank shall be uniform within ±20%. The test shall be performed between 100,580 CFM and 130,691 CFM (design flow is 118,810 CFM).

TABLE 4.21-2 (Continued)

RADIOACTIVE GASEOUS PROCESS AND EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL TEST	APPLICABILITY
5. Auxiliary and Fuel Handling Building Ventilation System					
a. Noble Gas Activity Monitor (RM-A8) or (RM-A4 and RM-A6)	D	M	E(3)	Q(1)	*
b. Iodine Sampler (RM-A8) or (RM-A4 and RM-A6)	W	N/A	N/A	N/A	*
c. Particulate Sampler (RM-A8) or (RM-A4 and RM-A6)	W	N/A	N/A	N/A	*
d. System Effluent Flow Rate Measurement Devices (FR-149 and FR-150)	D	N/A	E	Q	*
e. Sampler Flow Rate Monitor	D	N/A	E	N/A	*
6. Fuel Handling Building ESF Air Treatment System					
a. Noble Gas Activity Monitor (RM-A14)	D	M	R(3)	Q(2)	****
b. System Effluent Flow Rate (UR-1104 A/B)	D	N/A	R	Q	****
c. Sampler Flow Rate Measurement Device	D	N/A	R	Q	****