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PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6 Two independent Control Room Emergency Ventilation Systems shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3 and 4:

With one Control Room Emergency Ventilation System 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.

MODES 5 and 6:

- a. With one Control Room Emergency Ventilation System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Emergency Ventilation System in the recirculation mode.
- b. With both Control Room Emergency Ventilation Systems inoperable, or with the OPERABLE Control Room Emergency Ventilation System, required to be in the recirculation mode by ACTION a., not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.7.6 Each Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 84°F;
- b. 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 of both the Filtration and Pressurization Systems and verifying that the Pressurization System operates for at least 10 continuous hours with the heaters operating;

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- c. 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 Control Room Emergency Ventilation System satisfies the in-place penetration and bypass leakage testing acceptance criteria; of less than 1% for HEPA filters and 0.05% for charcoal adsorbers and uses the test procedure guidance in 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 2000 cfm $\pm 10\%$ ~~at greater than or equal to 6.6 inches Water Gauge (W.G.) (dirty filter)~~ for the Filtration System and 2200 cfm $\pm 10\%$ ~~at greater than or equal to 3.8 inches W.G. (dirty filter)~~ for the Pressurization System with 500 cfm $\pm 10\%$ going through the Pressurization System filter adsorber unit; 750
- 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%; and
- 3) Verifying system flow rate of 2000 cfm $\pm 10\%$ at greater than or equal to 6.6 inches W.G. (dirty filter) for the Filtration System and 2200 cfm $\pm 10\%$ at greater than or equal to 3.8 ~~inches W.G. (dirty filter)~~ 3.6 for the Pressurization System with 500 cfm $\pm 10\%$ going through the Pressurization System filter adsorber unit during system operation when tested in accordance with ANSI N510-1980. 750

- d. After every 720 hours of charcoal adsorber operation by 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%;

- e. At least once per 18 months by:

- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6.6 inches Water Gauge while operating the system at a flow rate of 2000 cfm $\pm 10\%$ for the Filtration System and 500 cfm $\pm 10\%$ for the Pressurization System filter adsorber unit, 750
- 2) Verifying that on a Control Room Ventilation Isolation or High Gaseous Radioactivity test signal, the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks,

and less than 3.6 inches Water Gauge while operating the system at a flow rate of

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SURVEILLANCE REQUIREMENTS (Continued)

- 3) Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/4 inch Water Gauge relative to the outside atmosphere during system operation,
 - 4) Verifying that the Pressurization System filter adsorber unit heaters dissipate 15 ± 2 kW in the Pressurization System when tested in accordance with ANSI N510-1975, and
 - 5) Verifying that on a High Chlorine test signal, the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks within 15 seconds.
- f. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing criteria of less than ~~1% for HEPA filters~~ and ~~0.05% for charcoal adsorbers~~ in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a DOP test aerosol while operating the system at a flow rate of 2000 cfm $\pm 10\%$ for the Filtration System and ~~500 cfm $\pm 10\%$~~ for the Pressurization System filter adsorber unit; and (750)
- g. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing criteria of less than ~~1% for HEPA filters~~ and ~~0.05% for charcoal adsorbers~~ in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 2000 cfm $\pm 10\%$ for the Filtration System and ~~500 cfm $\pm 10\%$~~ for the Pressurization System filter adsorber unit. (750)

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3.4.7.7 EMERGENCY EXHAUST SYSTEM - AUXILIARY BUILDING

LIMITING CONDITION FOR OPERATION

3.7.7 Two independent Emergency Exhaust Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one Emergency Exhaust System inoperable, restore the inoperable Emergency Exhaust 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

4.7.7 Each Emergency Exhaust 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 continuous hours with the heaters operating;
- 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 Emergency Exhaust System satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% for HEPA filters and 0.05% for charcoal adsorbers and uses the test procedure guidance in 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 9000 cfm $\pm 10\%$ at ≥ 7.2 inches W.G. (dirty filter);
 - 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%;
- a. By performing surveillance requirements 4.9.13.a through 4.9.13.f, and,

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SURVEILLANCE REQUIREMENTS (Continued)

- 3) Verifying a system flow rate of 9000 cfm $\pm 10\%$ at > 7.2 inches W.G. (dirty filter) during system operation when tested in accordance with ANSI N510-1980.
- c. After every 720 hours of charcoal adsorber operation, by 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 1973, 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%;
- b. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks of less than or equal to 7.2 inches Water Gauge while operating the system at a flow rate of 9000 cfm $\pm 10\%$,
 - 1) 2) Verifying that the system maintains the ~~Fuel~~ ^{Auxiliary} Building at a negative pressure of greater than or equal to $\frac{1}{4}$ inch Water Gauge relative to the outside atmosphere during system operation,
 - 2) 3) Verifying that the system starts on a Safety Injection test signal, and
 - 4) Verifying that the heaters dissipate 37 ± 3 kW when tested in accordance with ANSI N510-1975.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing criteria of less than 1% for HEPA filters and 0.05% for charcoal adsorbers in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a DOP test aerosol while operating the system at a flow rate of 9000 cfm $\pm 10\%$; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing criteria of less than 1% for HEPA filters and 0.05% for charcoal adsorbers in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 9000 cfm $\pm 10\%$.

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REFUELING OPERATIONS

3/4.9.13 EMERGENCY EXHAUST SYSTEM - FUEL BUILDING

LIMITING CONDITION FOR OPERATION

3.9.13 Two independent Emergency Exhaust Systems shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool.

ACTION:

- a. With one Emergency Exhaust System inoperable, fuel movement within the fuel storage areas or crane operation with loads over the fuel storage areas may proceed provided the OPERABLE Emergency Exhaust System is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With no Emergency Exhaust System OPERABLE, suspend all operations involving movement of fuel within the fuel storage areas or crane operation with loads over the fuel storage areas until at least one Emergency Exhaust System is restored to OPERABLE status.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.13 The above required Emergency Exhaust Systems 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 continuous hours with the heaters operating;
- 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 Emergency Exhaust System satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% for HEPA filters and 0.05% for charcoal adsorbers and uses the test procedure guidance in 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 ~~9000~~ ⁶⁵⁰⁰ cfm $\pm 10\%$ at ≥ 7.2 inches W.G. ~~(dirty filter);~~

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REFUELING OPERATIONSSURVEILLANCE 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%; and
 - 3) Verifying a system flow rate of ~~9000~~ ⁶⁵⁰⁰ cfm $\pm 10\%$ at > 4.7 inches W.G. (dirty filter) during system operation when tested in accordance with ANSI N510-1980.
- c. After every 720 hours of charcoal adsorber operation, by 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%;
- d. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than or equal to ~~7.2~~ ^{4.7} inches Water Gauge while operating the system at a flow rate of ~~9000~~ ⁶⁵⁰⁰ cfm $\pm 10\%$.
 - 1) ~~2~~ Verifying that on a Fuel Building Exhaust Gaseous Radioactivity-High test signal, the system automatically starts (unless already operating) and directs its exhaust flow through the HEPA filters and charcoal adsorber banks and isolates the normal fuel building exhaust flow to the auxiliary/fuel building exhaust fan;
 - 2) ~~3~~ Verifying that the system maintains the Fuel Building at a negative pressure of greater than or equal to 1/4 inches Water Gauge relative to the outside atmosphere during system operation; and
 - 2) ~~4~~ Verifying that the heaters dissipate 37 ± 3 kW when tested in accordance with ANSI N510-1975.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% ~~for HEPA filters and 0.05% for charcoal adsorbers~~ in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a DOP test aerosol while operating the system at a flow rate of ~~9000~~ ⁶⁵⁰⁰ cfm $\pm 10\%$; and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than ~~1% for HEPA filters and 0.05% for charcoal adsorbers~~ in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of ~~9000~~ ⁶⁵⁰⁰ cfm $\pm 10\%$.
- g. At least once per 18 months by:

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PLANT SYSTEMSSASESULTIMATE HEAT SINK (Continued)

The limitations on minimum water level and maximum temperature are based on providing a 30-day cooling water supply from the Essential Service Water pumps to safety-related equipment without exceeding its design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants," March 1974.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the Control Room Emergency Ventilation System ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous-duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the charcoal adsorbers and HEPA filters. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rems or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50. ANSI N510-1975 and N510-1980 will be used as procedural guides for surveillance testing. Surveillance testing provides assurance that system and component performances continue to be in accordance with performance specifications for Wolf Creek Unit 1, including applicable parts of ANSI N509-1975.

3/4.7.7 EMERGENCY EXHAUST SYSTEM - AUXILIARY BUILDING

The OPERABILITY of the Emergency Exhaust System ensures that radioactive materials leaking from the ECCS equipment within the ~~pump room~~ following a LOCA are filtered prior to reaching the environment. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the charcoal adsorbers and HEPA filters. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the safety analyses. ANSI N510-1975 and N510-1980 will be used as procedural guides for surveillance testing. The surveillance requirements associated with the HEPA filters, charcoal adsorbers and heaters are stated in 4.9.13.

Auxiliary Building

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BASES

3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

3/4.9.12 SPENT FUEL ASSEMBLY STORAGE

The restrictions placed on spent fuel assemblies stored in Region 2 of the spent fuel pool ensure inadvertent criticality will not occur.

3/4.9.13 EMERGENCY EXHAUST SYSTEM - FUEL BUILDING

The limitations on the Emergency Exhaust System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating to maintain low humidity with automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1975 and N510-1980 will be used as procedural guides for surveillance testing.

ATTACHMENT III

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3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6 Two independent Control Room Emergency Ventilation Systems shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

With one Control Room Emergency Ventilation System 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.

MODES 5 and 6:

- a. With one Control Room Emergency Ventilation System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Emergency Ventilation System in the recirculation mode.
- b. With both Control Room Emergency Ventilation Systems inoperable, or with the OPERABLE Control Room Emergency Ventilation System, required to be in the recirculation mode by ACTION, a., not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.7.6 Each Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 84 degrees F;
- b. 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 of both the Filtration and Pressurization Systems and verifying that the Pressurization System operates for at least 10 continuous hours with the heaters operating;

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SURVEILLANCE REQUIREMENTS (Continued)

- c. 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 Control Room Emergency Ventilation System satisfies the in-place penetration and bypass leakage testing acceptance criteria; of less than 1% for HEPA Filters and 0.05% for charcoal adsorbers and uses the test procedure guidance in 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 2000 cfm $\pm 10\%$ for the Filtration System and 2200 cfm $\pm 10\%$ for the Pressurization System with 750 cfm $\pm 10\%$ going through the Pressurization System filter adsorber unit;
 - 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%; and
 - 3) Verifying system flow rate of 2000 cfm $\pm 10\%$ at greater than or equal to 6.6 inches W.G. (dirty filter) for the Filtration System and 2200 cfm $\pm 10\%$ at greater than or equal to 3.6 inches W.G. (dirty filter) for the Pressurization System with 750 cfm $\pm 10\%$ going through the Pressurization System filter adsorber unit during system operation when tested in accordance with ANSI N510-1980.
- d. After every 720 hours of charcoal adsorber operation by 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%;
- e. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6.6 " W.G. while operating the system at a flow rate of 2000 cfm $\pm 10\%$ for the Filtration System and less than 3.6" W.G. while operating the system at a flow rate of 750 cfm $\pm 10\%$ for the Pressurization System filter adsorber unit;

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SURVEILLANCE REQUIREMENTS (Continued)

- 2) Verifying that on a Control Room Ventilation Isolation or High Gaseous Radioactivity test signal, the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks,
 - 3) Verifying that the system maintains the control room at a positive pressure of greater than or equal to 1/4 inch W.G. relative to the outside atmosphere during system operation,
 - 4) Verifying that the Pressurization System filter adsorber unit heaters dissipate 15 ± 2 kW in the Pressurization System when tested in accordance with ANSI N510-1975, and
 - 5) Verifying that on a High Chlorine test signal, the system automatically switches into a recirculation mode of operation with flow through the HEPA filters and charcoal adsorber banks within 15 seconds.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing criteria of less than 1% in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a DOP test aerosol while operating the system at a flow rate of 2000 cfm $\pm 10\%$ for the Filtration System and 750 cfm $\pm 10\%$ for the Pressurization System filter adsorber unit; and
- g. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing criteria of less than 0.05% in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 2000 cfm $\pm 10\%$ for the Filtration System and 750 cfm $\pm 10\%$ for the Pressurization System filter adsorber unit.

PLANT SYSTEMS

3/4.7.7 EMERGENCY EXHAUST SYSTEM - AUXILIARY BUILDING

LIMITING CONDITION FOR OPERATION

3.7.7 Two independent Emergency Exhaust Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one Emergency Exhaust System inoperable, restore the inoperable Emergency Exhaust 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

4.7.7 Each Emergency Exhaust System shall be demonstrated OPERABLE:

- a. By performing surveillance requirements 4.9.13.a through 4.9.13.f and;
- b. At least once per 18 months by:
 1. Verifying that the system maintains the Auxiliary Building at a negative pressure of greater than or equal to 1/4 inch W.G. relative to the outside atmosphere during system operation,
 2. Verifying that the system starts on a Safety Injection test signal.

REFUELING OPERATIONS

3/4.9.13 EMERGENCY EXHAUST SYSTEM - FUEL BUILDING

LIMITING CONDITION FOR OPERATION

3.9.13 Two independent Emergency Exhaust Systems shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool.

ACTION:

- a. With one Emergency Exhaust System inoperable, fuel movement within the fuel storage areas or crane operation with loads over the fuel storage areas may proceed provided the OPERABLE Emergency Exhaust System is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With no Emergency Exhaust System OPERABLE, suspend all operations involving movement of fuel within the fuel storage areas or crane operation with loads over the fuel storage areas until at least one Emergency Exhaust System is restored to OPERABLE status.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.13 The above required Emergency Exhaust Systems 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 continuous hours with the heaters operating;
- b. At least once per 18 months, of (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 Emergency Exhaust System satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% for HEPA filters and 0.05% for charcoal adsorbers and uses the test procedure guidance in 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 6500 cfm $\pm 10\%$;

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REFUELING OPERATIONS

SUREVILLANCE 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%; and
 - 3) Verifying a system flow rate of 6500 cfm $\pm 10\%$ at > 4.7 inches W.G. (dirty filter) during system operation when tested in accordance with ANSI N510-1980.
- c. After every 720 hours of charcoal adsorber operation, by verifying, with 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%;
- d. At least once per 18 months by:
- 1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than or equal to 4.7 inches W.G. while operating the system at a flow rate of 6500 cfm $\pm 10\%$.
 - 2) Verifying that the heaters dissipate 37 ± 3 kW when tested in accordance with ANSI N510-1975.
- e. After each complete or partial replacement of a HEPA filter bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 1% in accordance with ANSI N510-1975 (however Prerequisite Testing, Section 8 and 9 shall be in accordance with ANSI N510-1980) for a DOP test aerosol while operating the system at a flow rate of 6500 cfm $\pm 10\%$ and
- f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1975 (however Prerequisite Testing, Sections 8 and 9 shall be in accordance with ANSI N510-1980) for halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 6500 cfm $\pm 10\%$.

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REFUELING OPERATIONS

SURVEILLANCE REQUIREMENTS (Continued)

g. At least once per 18 months by:

1. Verifying that on a Fuel Building Exhaust Gaseous Radioactivity-High test signal, the system automatically starts (unless already operating) and directs its exhaust flow through the HEPA filters and charcoal adsorber banks and isolates the normal fuel building exhaust flow to the auxiliary/fuel building exhaust fan;
2. Verifying that the system maintains the Fuel Building at a negative pressure of greater than or equal to 1/4 inches W.G. relative to the outside atmosphere during system operation.

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BASES

3/4.9.10 and 3/4.9.11 WATER LEVEL - REACTOR VESSEL and STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

3/4.9.12 SPENT FUEL ASSEMBLY STORAGE

The restrictions placed on spent fuel assemblies stored in Region 2 of the spent fuel pool ensure inadvertent criticality will not occur.

3/4.9.13 EMERGENCY EXHAUST SYSTEM - FUEL BUILDING

The limitations on the Emergency Exhaust System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating to maintain low humidity with automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1975 and N510-1980 will be used as procedural guides for surveillance testing.

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BASES

ULTIMATE HEAT SINK (Continued)

The limitations on minimum water level and maximum temperature are based on providing a 30-day cooling water supply from the Essential Service Water pumps to safety-related equipment without exceeding its design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants," March 1974.

3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the Control Room Emergency Ventilation system ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous-duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the charcoal adsorbers and HEPA filters. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rems of less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 of Appendix A, 10 CFR Part 50. ANSI N510-1975 and N510-1980 will be used as procedural guides for surveillance testing. Surveillance test provides assurance that system and component performances continue to be in accordance with performance specifications for Wolf Creek Unit 1, including applicable parts of ANSI N509-1976.

3/4.7.7 EMERGENCY EXHAUST SYSTEM - AUXILIARY BUILDING

The OPERABILITY of the Emergency Exhaust System ensures that radioactive materials leaking from the ECCS equipment within the Auxiliary Building following a LOCA are filtered prior to reaching the environment. Operation of the system with the heaters operating to maintain low humidity using automatic control for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the charcoal adsorbers and HEPA filters. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the safety analyses. ANSI N510-1975 and N510 - 1980 will be used as procedural guides for surveillance testing. The surveillance requirements associated with the HEPA filter, charcoal adsorbers and heaters are stated in 4.9.13.