3/4.7.7 AUXILIARY BUILDING VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.7 At least two supply fans, and three exhaust fans shall be OPERABLE(*) to maintain the Auxiliary Building at slightly negative pressure.

----------NOTE----------
The intermittent opening of the Auxiliary Building pressure boundary causing a loss of negative pressure may be performed under administrative controls.

APPLICABILITY: At all times.

ACTION:

Modes 1 thru 4

a) With one supply fan and/or one exhaust fan inoperable, restore the fan(s) to OPERABLE status within 14 days or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b) With two supply and/or two exhaust fans inoperable restore at least one inoperable supply and two exhaust fans to operable status within 24 hours or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c) With the Auxiliary Building pressure not maintained slightly negative, restore the building to slightly negative pressure within the next 4 hours or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

During CORE ALTERATIONS

d) With the Auxiliary Building pressure not maintained slightly negative, restore the Auxiliary Building to slightly negative pressure within the next 4 hours or suspend all operations involving CORE ALTERATIONS.

At all times

e) With the Auxiliary Building pressure not maintained slightly negative, suspend all operations involving radioactive gaseous releases via the Auxiliary Building immediately.

(*) One of the supply fans may be considered OPERABLE with its auto start circuit administratively controlled (removed form service) to prevent more than one supply fan from operating at any time.

SURVEILLANCE REQUIREMENTS

4.7.7 The above required Auxiliary Building Ventilation System shall be demonstrated OPERABLE:

a) In accordance with the Surveillance Frequency Control Program by verifying negative pressure in the Auxiliary Building.

b) In accordance with the Surveillance Frequency Control Program by starting each fan, from the control room, each fan operates for at least 15 minutes.

c) In accordance with the Surveillance Frequency Control Program by verifying that the system starts following a Safety Injection Test Signal.

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3/4.7.8 SEALED SOURCE CONTAMINATION

LIMITING CONDITION FOR OPERATION

3.7.8 Each sealed source containing radioactive material either in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material shall be free of greater than or equal to 0.005 microcuries of removable contamination.

APPLICABILITY: At all times.

ACTION:

a. With a sealed source having removable contamination in excess of the above limits, immediately withdraw the sealed source from use and:

   1. Either decontaminate and repair the sealed source, or

   2. Dispose of the sealed source in accordance with Commission Regulations.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.8.1 Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:

a. The licensee, or

b. Other persons specifically authorized by the Commission or an Agreement State.

The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.

4.7.8.2 Test Frequencies - Each category of sealed sources (excluding startup sources and fission detectors previously subjected to core flux) shall be tested at the frequency described below.

a. Sources in use - In accordance with the Surveillance Frequency Control Program for all sealed sources containing radioactive materials:

SURVEILLANCE REQUIREMENTS (Continued)

1. With a half-life greater than 30 days (excluding Hydrogen 3), and

2. In any form other than gas.

b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.

c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux and following repair or maintenance to the source or detector.

4.7.8.3 Reports - A report shall be prepared and submitted to the Commission on an annual basis if sealed source or fission detector leakage tests reveal the presence of greater than or equal to 0.005 microcuries of removable contamination.

3/4.7.9 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.9 All snubbers shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours, replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.9 on the supported component or declare the supported system inoperable and follow appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.9 Each snubber shall be demonstrated OPERABLE by performance of the Snubber Testing Program for examination, testing and service life monitoring of snubbers.

Pages 3/4 7-25 through 3/4 7-27 have been deleted.

3/4.7.10 CHILLED WATER SYSTEM - AUXILIARY BUILDING SUBSYSTEM

LIMITING CONDITION FOR OPERATION

3.7.10 The chilled water system loop which services the safety-related loads in the Auxiliary Building shall be OPERABLE with one of the following configurations:

	a	b	c
Configuration	1. Three OPERABLE chillers and, 2. Two OPERABLE chilled water pumps	1. Two OPERABLE chillers and, 2. Two OPERABLE chilled water pumps	1. Three OPERABLE chillers and, 2. Two OPERABLE chilled water pumps from either Unit 1 or Unit 2 (Units Cross-tied)(2)
APPLICABILITY	1. ALL MODES and during movement of irradiated fuel assemblies	1. From November 1 through April 30 in ALL MODES and during movement of irradiated fuel assemblies# 2. The Unit 2 Emergency Control Air Compressor (ECAC) is isolated from the chilled water system 3. Chilled water flow to the third chiller that is not in service is isolated(1) 4. Control Room Emergency Air Conditioning System (CREACS) alignment a. BOTH CREACS trains OPERABLE, no additional chilled water heat load removal required, OR b. Single CREACS train OPERABLE (TS 3.7.6 ACTION a.) the following restrictions apply: i. Alignment only permitted to Unit 1 ii. Unit 1 must be in the LCO 3.7.10a configuration iii. Non-essential heat loads are isolated from the chilled water system on BOTH Units	1. From November 1 through April 30 in ALL MODES and during movement of irradiated fuel assemblies## 2. The Unit 1 and Unit 2 ECACs are isolated from the chilled water system 3. Non-Essential heat loads are isolated from the chilled water system on BOTH Units 4. BOTH CREACS trains are operable per TS 3.7.6 (single filtration train alignment is not permitted) 5. Unit chilled water cross-tie valves are OPEN 6. Administrative controls are in place for the Unit providing the required components to notify the other Unit if a chiller or pump becomes inoperable

The LCO 3.7.10b configuration may only be used for periods of 60 contiguous days. The 60-contiguous days does not apply for LCO 3.7.10b entry to support the replacement of all 6 original chillers (Units 1 and 2).

The LCO 3.7.10c configuration may only be used for periods of 45 contiguous days.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION[3]: MODES 1, 2, 3, and 4

a. With one of the required chillers inoperable:

1. Remove[4] the appropriate non-essential heat loads from the chilled water system within 4 hours and;

2. Restore the chiller to OPERABLE status within 14 days or;

3. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two of the required chillers inoperable[5][6]:

1. Remove the appropriate non-essential heat loads from the chilled water system within 4 hours and;

2. Align the control room emergency air conditioning system (CREACs) for single filtration operation using the Salem Unit 1 train within 4 hours and;

3. Restore at least one chiller to OPERABLE status within 72 hours or;

4. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one chilled water pump inoperable, restore the chilled water pump 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

ACTION[3]: MODES 5 and 6 or during movement of irradiated fuel assemblies.*

a. With one of the required chillers inoperable:

1. Remove[4] the appropriate non-essential heat loads from the Chilled Water System within 4 hours and;

2. Restore the chiller to OPERABLE status within 14 days or;

3. Suspend CORE ALTERATIONS and movement of irradiated fuel assemblies.

LIMITING CONDITION FOR OPERATION (Continued)

b. With two of the required chillers inoperable[5][6]:

1. Remove the appropriate non-essential heat loads from the chilled water system within 4 hours and;

2. Align the control room emergency air conditioning system (CREACs) for single filtration operation using the Salem Unit 1 train within 4 hours and;

3. Restore at least one chiller to OPERABLE status within 72 hours or;

4. Suspend CORE ALTERATIONS and movement of irradiated fuel assemblies.

c. With one chilled water pump inoperable, restore the chilled water pump to OPERABLE status within 7 days or suspend CORE ALTERATIONS and movement of irradiated fuel assemblies.

SURVEILLANCE REQUIREMENTS

4.7.10 The chilled water loop which services the safety-related loads in the Auxiliary Building shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program by verifying that each manual valve in the chilled water system flow path servicing safety related components that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. In accordance with the Surveillance Frequency Control Program, by verifying that each automatic valve actuates to its correct position on a Safeguards Initiation signal.

c. In accordance with the Surveillance Frequency Control Program by verifying that each chillers starts and runs.

d. When in the LCO 3.7.10b configuration verify once per 24 hours:

(i) The Unit 2 ECAC is isolated from the chilled water system,
(ii) Chilled water flow is isolated to the third chiller that is not in service and,
(iii) If CREACS is in single filtration alignment verify non-essential heat loads are isolated from the chilled water system on BOTH Units.

e. When in the LCO 3.7.10c configuration verify once per 24 hours:

(i) The Unit 1 and Unit 2 ECACs are isolated from the chilled water system,
(ii) Non-essential heat loads are isolated from the chilled water system and,
(iii) Cross-tie valves are verified OPEN.

Surveillance Requirements (Continued)

NOTES

(1) When transitioning from the LCO 3.7.10b to the LCO 3.7.10a configuration, the chiller may be un-isolated (restored to service) under administrative controls

(2) The LCO 3.7.10c (Cross-Tied) configuration is common to both Units; either Unit 1 chilled water components are required operable, OR Unit 2. A combination of both Units chilled water components is not permitted. When transitioning from the LCO 3.7.10c configuration to either the LCO 3.7.10a or LCO 3.7.10b configurations, chilled water components may be restored to service under administrative controls

(3) When in the LCO 3.7.10c configuration ACTIONs are applicable for both Units

(4) When in the LCO 3.7.10c configuration this ACTION has already been implemented

(5) When in the LCO 3.7.10b configuration, implement Action b.2 AND Action b.4 OR transition to the LCO 3.7.10c configuration

(6) When in LCO 3.7.10c configuration, proceed directly to Action b.4

* During Modes 5 and 6 and during movement of irradiated fuel assemblies, chilled water components are not considered to be inoperable solely on the basis that the backup emergency power source, diesel generator, is inoperable. This is not applicable to the LCO 3.7.10c configuration.

3/4.7.11 FUEL STORAGE POOL BORON CONCENTRATION

LIMITING CONDITION FOR OPERATION

3.7.11 The fuel storage pool boron concentration shall be ≥ 800 ppm

APPLICABILITY: When fuel assemblies are stored in the fuel storage pool and a fuel storage pool verification has not been performed since the last movement of fuel assemblies in the fuel storage pool.

ACTION:

With fuel storage pool boron concentration not within limit:

a. Immediately suspend movement of fuel assemblies in the fuel storage pool and

b. Initiate action to:

1. immediately restore fuel storage pool boron concentration to within limit or

2. immediately perform a fuel storage pool verification.

c. The provisions of Specification 3.0.3 is not applicable.

SURVEILLANCE REQUIREMENTS

4.7.11 Verify the fuel storage pool boron concentration is within limit in accordance with the Surveillance Frequency Control Program.

3/4.7.12 FUEL ASSEMBLY STORAGE IN THE SPENT FUEL POOL

LIMITING CONDITION FOR OPERATION

3.7.12 The combination of initial enrichment, burnup, and Integral Fuel Burnable Absorber (IFBA) of each fuel assembly stored in Region 1 or Region 2, shall be within the acceptable limits described in the surveillance requirements below.

APPLICABILITY: When any fuel assembly is stored in Region 1 or Region 2 of the spent fuel storage pool.

ACTION:

If the requirements of the LCO are not met:

a. Immediately verify the fuel storage boron concentration meets the requirements of TS 3.7.11 and

b. Immediately initiate action to move the non-complying fuel assembly to a location that complies with the surveillance requirements.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.12.1 Prior to storing fuel assemblies in Region 1, verify by administrative means that the fuel assemblies meet one of the following storage constraints:

a. Unirradiated fuel assemblies with a maximum enrichment of 4.25 wt% U-235 have unrestricted storage.

b. Unirradiated fuel assemblies with enrichments greater than 4.25 wt% U-235 and less than or equal to 5.0 wt% U-235, that do not contain IFBA pins, may only be stored in the peripheral cells facing the concrete wall.

c. Unirradiated fuel assemblies with enrichments (E) greater than 4.25 wt% U-235 and less than or equal to 5.0 wt% U-235, which contain a minimum number of IFBA pins have unrestricted storage. This minimum number of IFBA pins shall have an equivalent reactivity hold-down which is greater than or equal to the reactivity hold-down associated with N IFBA pins, at a nominal 2.35 mg B-10/linear inch loading (1.5x), determined by the equation below:

$$N = 42.67 \ (E - 4.25)$$

d. Irradiated fuel assemblies with enrichments (E) greater than 4.25 wt% U-235 and less than or equal to 5.0 wt%, that have attained the minimum burnup (BU) as determined by the equation below, have unrestricted storage.

$$BU\ (MWD/kg\ U) = -26.212 + 6.1677E$$

4.7.12.2 Prior to storing fuel assemblies in Region 2, verify by administrative means that the fuel assemblies meet one of the following storage constraints:

a. Unirradiated fuel assemblies with a maximum enrichment of 5.0 wt% U-235 may be stored in a checkerboard pattern with intermediate cells containing only water or non-fissile bearing material.

b. Unirradiated fuel assemblies with a maximum enrichment (E) of 5.0 wt% U-235 may be stored in the central cell of any 3x3 array of cells provided the surrounding eight cells are empty or contain fuel assemblies that have attained the minimum burnup (BU) as determined by the equation below.

$$BU\ (MWD/kg\ U) = -15.48 + 17.80E - 0.7038E^2$$

In this configuration, none of the nine cells in any 3x3 array shall be common to cells in any other similar 3x3 array. Along the rack periphery, the concrete wall is equivalent to 3 outer cells in a 3x3 array.

c. Irradiated fuel assemblies with a maximum enrichment (E) of 5.0 wt% U-235 that have attained the minimum burnup (BU) as determined by the equation below, have unrestricted storage.

$$BU\ (MWD/kg\ U) = -32.06 + 25.21E - 3.723E^2 + 0.3535E^3$$

d. Irradiated fuel assemblies with a maximum enrichment (E) of 5.0 wt% U-235 that have attained the minimum burnup (BU) as determined by the equation below, may be stored in a peripheral cell facing the concrete wall.

$$BU\ (MWD/kg\ U) = -25.56 + 15.14E - 0.602E^2$$

3/4.7.13 MAIN FEEDWATER ISOLATION VALVES (FIVS), MAIN FEEDWATER REGULATING VALVES (FRVS), FRV BYPASS VALVES (FRVBVS), AND STEAM GENERATOR FEEDWATER PUMP (SGFP) TURBINE STEAM STOP VALVES

LIMITING CONDITION FOR OPERATION

3.7.13 Four Main FIVs, four Main FRVs, four Main FRVBV, and four SGFP turbine steam stop valves shall be OPERABLE.

APPLICABILITY:

For the FIV in each main feedwater line:

MODES 1, 2, and 3 except when:

a. The FIV is closed and deactivated; or
b. The associated FRV and FRVBV are closed and deactivated; or
c. The associated main feedwater line is isolated by a closed manual valve

For the FRV in each main feedwater line:

MODES 1, 2, and 3 except when:

a. The FRV is closed and deactivated; or
b. The associated FIV is closed and deactivated; or
c. The associated main feedwater line is isolated by a closed manual valve

For the FRVBV in each main feedwater line:

MODES 1, 2, and 3 except when:

a. The FRVBV is closed and deactivated; or
b. The associated FIV is closed and deactivated; or
c. The associated main feedwater line is isolated by a closed manual valve

For each SGFP Turbine Steam Stop Valve:

MODES 1, 2, and 3 except when:

a. The SGFP Turbine Steam Stop Valve is closed and deactivated; or
b. The associated steam supply to the SGFP turbine is isolated by a closed manual valve; or
c. The SGFP feedwater flow path is isolated

3/4.7.13 MAIN FEEDWATER ISOLATION VALVES (FIVS), MAIN FEEDWATER REGULATING VALVES (FRVS), FRV BYPASS VALVES (FRVBVS), AND STEAM GENERATOR FEEDWATER PUMP (SGFP) TURBINE STEAM STOP VALVES

LIMITING CONDITION FOR OPERATION (continued)

ACTION:

----------NOTE----------
Separate Condition Entry is allowed for each valve
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a. With one or more FIVs inoperable, restore the inoperable FIV(s) to OPERABLE status or close or isolate the inoperable FIV(s) within 72 hours; verify the inoperable FIV(s) is closed or isolated once per 7 days.

b. With one or more FRVs inoperable, restore the inoperable FRV(s) to OPERABLE status or close or isolate the inoperable FRV(s) within 72 hours; verify the inoperable FRV(s) is closed or isolated once per 7 days.

c. With one or more FRVBV(s) inoperable, restore the inoperable FRVBV(s) to OPERABLE status or close or isolate the inoperable FRVBV(s) within 72 hours; verify the inoperable FRVBV(s) is closed or isolated once per 7 days.

d. With one or more SGFP turbine steam stop valves inoperable, restore the inoperable SGFP turbine stop valve(s) to OPERABLE status or isolate the associated steam supply to the SGFP turbine or isolate the SGFP flow path within 72 hours; verify that the inoperable SGFP steam stop valve is isolated or the SGFP flow path is isolated once per 7 days.

e. With two (2) valves in the same feedwater flowpath inoperable resulting in a loss of feedwater isolation capability for a flow path, restore at least one valve to OPERABLE status or isolate the affected flow path within 8 hours.

f. With the required ACTION requirements above not met, be in HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.13.1 Each FIV, FRV, FRVBV and SGFP turbine steam stop valve shall be demonstrated OPERABLE by determining the isolation time of each valve to be within limits when tested pursuant to the INSERVICE TESTING PROGRAM.

4.7.13.2 In accordance with the Surveillance Frequency Control Program, verify each FIV, FRV, FRVBV and SGFP turbine steam stop valve actuates to the isolation position on an actual or simulated actuation signal.