3/4.7.6 CONTROL ROOM EMERGENCY AIR CONDITIONING SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 The common control room emergency air conditioning system (CREACS)* shall be OPERABLE with:

a. Two independent air conditioning filtration trains (one from each unit) consisting of:

1. Two fans and associated outlet dampers,
2. One cooling coil,
3. One charcoal adsorber and HEPA filter array,
4. Return air isolation damper.

b. All other automatic dampers required for operation in the pressurization or recirculation modes.

c. The control room envelope intact.

NOTE: The control room envelope (CRE) boundary may be opened intermittently under administrative control.

APPLICABILITY: ALL MODES and during movement of irradiated fuel assemblies.

ACTION: MODES 1, 2, 3, and 4

a. With one filtration train inoperable, align CREACS for single filtration train operation** within 4 hours, and restore the inoperable filtration train to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With CREACS aligned for single filtration train operation and with one of the two remaining fans or associated outlet damper inoperable, restore the inoperable fan or damper to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With the Control Room Envelope boundary inoperable:

1. Immediately, initiate action to implement mitigating actions, and

2. Within 24 hours, verify mitigating actions ensure CRE occupant exposures to radiological, chemical, and smoke hazards will not exceed limits, and

3. Within 90 days, restore the Control Room Envelope boundary to OPERABLE status, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

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* The CREACS is a shared system with Salem Unit 2

** **Alignment only permitted if the Unit with the operable CREACS train is also in Chilled Water System LCO 3.7.10.a. Alignment is not permitted if in LCO 3.7.10.c.**

LIMITING CONDITION FOR OPERATION (Continued)

d. With one or both series isolation damper(s) on a normal Control Area Air Conditioning System (CAACS) outside air intake or exhaust duct inoperable, close the affected duct within 4 hours by use of at least one isolation damper secured in the closed position or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. (Refer to ACTION 25 of Table 3.3-6.)

e. With one or both isolation damper(s) on an outside emergency air conditioning air intake duct inoperable, close the affected duct within 4 hours by use of at least one isolation damper secured in the closed position and restore the damper(s) 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 or during movement of irradiated fuel assemblies

a. With one filtration train inoperable, align CREACS for single filtration train operation** within 4 hours, or suspend movement of irradiated fuel assemblies.

b. With CREACS aligned for single filtration train operation with one of the two remaining fans or associated outlet damper inoperable, restore the fan or damper to OPERABLE status within 72 hours, or suspend movement of irradiated fuel assemblies.

c. With two filtration trains inoperable, immediately suspend movement of irradiated fuel assemblies.

d. With the Control Room Envelope boundary inoperable, immediately suspend movement of irradiated fuel assemblies.

e. With one or both series isolation damper(s) on a normal CAACS outside air intake or exhaust duct inoperable, immediately suspend movement of irradiated fuel assemblies until the affected duct is closed by use of at least one isolation damper secured in the closed position. (Refer to ACTION 25 of Table 3.3-6.)

f. With one or both series isolation damper(s) on an outside emergency air conditioning air intake duct inoperable, immediately suspend movement of irradiated fuel assemblies until the affected duct is closed by use of at least one isolation damper secured in the closed position. To resume movement of irradiated fuel assemblies, at least one emergency air intake duct must be operable on each unit.

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]**
APPLICABLITY	**1. ALL MODES and during movement of irradiated fuel assemblies**	**1. ALL MODES and during movement of irradiated fuel assemblies** **2. November 1 through April 30** **3. The Unit 1 Emergency Control Air Compressor (ECAC) is isolated from the chilled water system** **4. Chilled water flow to the third chiller that is not in service is isolated[1]** **5. Control Room Emergency Air Conditioning (CREACS) single filtration train alignment (TS 3.7.6.1 ACTION (a)) restrictions:** **a. Alignment only permitted to Unit 2** **b. Unit 2 must be in TS 3.7.10.a** **c. Non-essential heat loads are isolated from the chilled water system on BOTH Units**	**1. ALL MODES and during movement of irradiated fuel assemblies** **2. November 1 through April 30** **3. The Unit 1 and Unit 2 ECACs are isolated from the chilled water system** **4. Non-Essential heat loads are isolated from the chilled water system on BOTH Units** **5. BOTH CREACS trains are operable per TS 3.7.6.1 (single filtration train alignment is not permitted)** **6. Unit chilled water crosstie valves are OPEN** **7. Administrative controls are in place for the Unit providing the required components to notify the other Unit if a chiller or pump becomes inoperable.**

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 2 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 2 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 chiller starts and runs.

d. When in Configuration 3.7.10.b verify once per 24 hours:

(i) The Unit 1 ECAC is isolated from the chilled water system and,
(ii) Chilled water flow is isolated to the third chiller that is not in service
(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 Configuration 3.7.10.c verify once per 24 hours:

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

NOTES

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

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

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

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

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

(6) When in the 3.7.10.c 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.