

McGuire Approved Tech Spec.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

- a. Two motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and
- b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.*

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one auxiliary feedwater pump inoperable, restore the required auxiliary feedwater pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. —
- b. With two auxiliary feedwater pumps inoperable, be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. With three auxiliary feedwater pumps inoperable, immediately initiate corrective action to restore at least one auxiliary feedwater pump to operable status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

- a. At least once per 31 days by:
 - 1) Verifying that each motor-driven pump develops a discharge pressure of greater than or equal to 1210 psig at a flow of greater than or equal to 450 gpm;
 - 2) Verifying that the steam turbine-driven pump develops a discharge pressure of greater than or equal to 1210 psig at a flow of greater than or equal to 900 gpm when the secondary steam supply pressure is greater than 900 psig. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3;

*Not applicable with steam pressure less than 900 psig.

PLANT SYS1

SURVEILLANCE REQUIREMENTS (Continued)

- 3) Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position;
 - 4) Verifying that each automatic valve in the flow path is in the fully open position whenever the Auxiliary Feedwater System is placed in automatic control or when above 10% RATED THERMAL POWER; and
 - 5) Verifying that the isolation valves in the auxiliary feedwater suction line from the upper surge tanks are open with power to the valve operators removed.
- b. At least once per 18 months during shutdown by:
- 1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Auxiliary Feedwater Actuation test signal,
 - 2) Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of an Auxiliary Feedwater Actuation test signal, and
 - 3) Verifying that the valve in the suction line of each auxiliary feedwater pump from the Nuclear Service Water System automatically actuates to its full open position within less than or equal to 13 seconds on a Low Suction Pressure test signal.

3.7 PLANT SYSTEMS

3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 [Three] AFW trains shall be OPERABLE.

NOTE

Only one AFW train, which includes a motor driven pump, is required to be OPERABLE in MODE 4.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One steam supply to turbine driven AFW pump inoperable.	A.1 Restore steam supply to OPERABLE status.	7 days AND 10 days from discovery of failure to meet the LCO
B. One AFW train inoperable in MODE 1, 2 or 3 [for reasons other than Condition A].	B.1 Restore AFW train to OPERABLE status.	72 hours AND 10 days from discovery of failure to meet the LCO

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ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. Required Action and associated Completion Time for Condition A [or B] not met.</p> <p>[OR]</p> <p>Two AFW trains inoperable in MODE 2 or 3.</p>	<p>C.1 Be in MODE 3.</p> <p>[AND]</p> <p>C.2 Be in MODE 4.</p>	<p>6 hours</p> <p>[18] hours</p>
<p>D. [Three] AFW trains inoperable in MODE 1, 2, or 3.</p>	<p>D.1</p> <p>-----NOTE-----</p> <p>LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one AFW train is restored to OPERABLE status.</p> <p>Initiate action to restore one AFW train to OPERABLE status.</p>	<p>Immediately</p>
<p>E. Required AFW train inoperable in MODE 4.</p>	<p>E.1 Initiate action to restore AFW train to OPERABLE status.</p>	<p>Immediately</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.5.1	Verify each AFW manual, power operated, and automatic valve in each water flow path, [and in both steam supply flow paths to the steam turbine driven pump,] that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.5.2	<div>NOTE Not required to be performed for the turbine driven AFW pump until [24 hours] after \geq [1000] psig in the steam generator.</div> Verify the developed head of each AFW pump at the flow test point is greater than or equal to the required developed head.	[31] days on a STAGGERED TEST BASIS
SR 3.7.5.3	Verify each AFW automatic valve actuates to the correct position on an actual or simulated actuation signal when in MODE 1, 2, or 3.	[18] months
SR 3.7.5.4	<div>NOTE Not required to be performed for the turbine driven AFW pump until [24 hours] after \geq [1000] psig in the steam generator.</div> Verify each AFW pump starts automatically on an actual or simulated actuation signal when in MODE 1, 2, or 3.	[18] months

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.7.5.4</p> <div data-bbox="398 363 1141 612" style="border: 1px dashed black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;">NOTE</p> <p>Not required to be performed for the turbine driven AFW pump until [24 hours] after \geq [1000] psig in the steam generator.</p> </div> <p>Verify each AFW pump starts automatically on an actual or simulated actuation signal when in MODE 1, 2, or 3.</p>	<p>[18] months</p>
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<p>SR 3.7.5.5</p> <p>Verify proper alignment of the required AFW flow paths by verifying flow from the condensate storage tank to each steam generator.</p>	<div data-bbox="1179 889 1427 1172" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Prior to entering MODE 2, whenever unit has been in MODE 5 or 6 for > 30 days</p> </div>