3/4.4.9 SPECIFIC ACTIVITY

LIMITING CONDITION FOR OPERATION

3.4.9 The specific activity of the primary coolant shall be limited to:

a. ≤ 1.0 µCi/gram DOSE EQUIVALENT I-131, and

b. ≤ 600 µCi/gm DOSE EQUIVALENT XE-133.

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

ACTION:

NOTE
Specification 3.0.4.c is applicable

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a. With the specific activity of the primary coolant > 1.0 µCi/gram DOSE EQUIVALENT I-131:

   1. Verify DOSE EQUIVALENT I-131 ≤ 60 µCi/gram at least once every 4 hours and restore DOSE EQUIVALENT I-131 to ≤ 1.0 µCi/gram within 48 hours, or

   2. Be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With the specific activity of the primary coolant > 600 µCi/gram DOSE EQUIVALENT XE-133:

   1. Restore DOSE EQUIVALENT XE-133 to ≤ 600 µCi/gram within 48 hours, or

   2. Be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

NOTES
SR 4.4.9.1 is not required to be performed in MODE 4, and is not required to be performed in MODE 3 until 24 hours after $T_{avg} \geq 500^{o}F$.

4.4.9.1 Verify the specific activity of the primary coolant ≤600 µCi/gm DOSE EQUIVALENT XE-133 in accordance with the Surveillance Frequency Control Program.

4.4.9.2 Verify the specific activity of the primary coolant ≤1.0 µCi/gm DOSE EQUIVALENT I-131 in accordance with the Surveillance Frequency Control Program, and between 2 and 6 hours after a THERMAL POWER change of ≥15% RATED THERMAL POWER within a one hour period.

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3/4.4.10 PRESSURE/TEMPERATURE LIMITS

REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION

3.4.10.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limits specified in the PTLR with:

a. A maximum heatup rate within the limits specified in the PTLR,

b. A maximum cooldown rate within the limits specified in the PTLR, and

c. A maximum temperature change within the limits specified in the PTLR, during hydrostatic testing operations above system design pressure.

APPLICABILITY: At all times.

ACTION:

With any of the above limits exceeded, restore the temperature and/or pressure to within the limit within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System; determine that the Reactor Coolant System remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psig, respectively, within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.10.1.1 The Reactor Coolant System temperature and pressure shall be determined to be within the limits specified in the PTLR in accordance with the Surveillance Frequency Control Program during system heatup, cooldown, and inservice leak and hydrostatic testing operations.

4.4.10.1.2 The reactor vessel material irradiation surveillance specimens shall be removed and examined, to determine changes in material properties, at the intervals required by 10 CFR 50, Appendix H. The results of these examinations shall be used to update the P-T Limit Curves specified in the PTLR.

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PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.10.2 The pressurizer temperature shall be limited to:

a. A maximum heatup of 100°F in any one hour period,

b. A maximum cooldown of 200°F in any one hour period, and

c. A maximum spray water temperature differential of 320°F.

APPLICABILITY: At all times.

ACTION:

With the pressurizer temperature limits in excess of any of the above limits, restore the temperature to within the limits within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer; determine that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.10.2 The pressurizer temperatures shall be determined to be within the limits in accordance with the Surveillance Frequency Control Program during system heatup or cooldown. The spray water temperature differential shall be determined to be within the limit in accordance with the Surveillance Frequency Control Program during auxiliary spray operation.

OVERPRESSURE PROTECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.10.3 At least one of the following overpressure protection systems shall be OPERABLE:

a. Two Pressurizer Overpressure Protection System relief valves (POPS) with a lift setting of less than or equal to the value specified in the PTLR, or

b. The Reactor Coolant System (RCS) depressurized with an RCS vent of greater than or equal to 3.14 square inches.

APPLICABILITY: When the temperature of one or more of the RCS cold legs is less than or equal to the POPS enable temperature specified in the PTLR, except when the reactor vessel head is removed.

ACTION:

a. With one POPS inoperable in MODE 4 and the temperature of one or more of the RCS cold legs is less than or equal to the POPS enable temperature specified in the PTLR, restore the inoperable POPS to OPERABLE status within 7 days or depressurize and vent the RCS through a 3.14 square inch vent(s) within the next 8 hours; maintain the RCS in a vented condition until both POPSs have been restored to OPERABLE status.

b. With one POPS inoperable in MODES 5 or 6 with the Reactor Vessel Head installed, restore the inoperable POPS to OPERABLE status within 24 hours, or complete depressurization and venting of the RCS through at least a 3.14 square inch vent(s) within the next 8 hours; maintain the RCS in a vented condition until both POPSs have been restored to OPERABLE status.

c. With both POPSs inoperable, depressurize and vent the RCS through a 3.14 square inch vent(s) within 8 hours; maintain the RCS in a vented condition until both POPSs have been restored to OPERABLE status.

d. In the event either the POPS or the RCS vent(s) are used to mitigate a RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the POPS or vent(s) on the transient and any corrective action necessary to prevent recurrence.

e. LCO 3.0.4.b is not applicable when entering MODE 4.

SURVEILLANCE REQUIREMENTS

4.4.10.3.1 Each POPS shall be demonstrated OPERABLE by:

SURVEILLANCE REQUIREMENTS (Continued)

a. Performance of a CHANNEL FUNCTIONAL TEST on the POPS actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the POPS is required OPERABLE and in accordance with the Surveillance Frequency Control Program thereafter when the POPS is required OPERABLE.

b. Performance of a CHANNEL CALIBRATION on the POPS actuation channel in accordance with the Surveillance Frequency Control Program.

c. Verifying the POPS isolation valve is open in accordance with the Surveillance Frequency Control Program when the POPS is being used for overpressure protection.

d. Testing pursuant to the INSERVICE TESTING PROGRAM.

4.4.10.3.2 The RCS vent(s) shall be verified to be open in accordance with the Surveillance Frequency Control Program* when the vent(s) is being used for overpressure protection.

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* Except when the vent pathway is provided with a valve which is locked, sealed, or otherwise secured in the open position, then verify these valves open in accordance with the Surveillance Frequency Control Program.

3.4.11 DELETED

3/4.4.12 DELETED