

ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATIONS

SEQUOYAH NUCLEAR PLANT

UNITS 1 AND 2

8208200216 820812
PDR ADOCK 05000327
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INSTRUMENTATION

TABLE 4.3-9 (Continued)

TABLE NOTATION

- * At all times.
 - ** During waste gas disposal system operation.
 - *** During shield building exhaust system operation.
 - **** During waste gas releases.
- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exists:
 1. Instrument indicates measured levels above the alarm/trip setpoint.
 2. Circuit failure
 3. Downscale failure
 - (2) The CHANNEL FUNCTION TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
 1. Instrument indicates measured levels above the alarm setpoint.
 2. Circuit failure.
 3. Downscale failure.
 - (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.
 - (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 1. One volume percent hydrogen, balance nitrogen and
 2. Four volume percent hydrogen, balance nitrogen.
 - (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 1. One volume percent oxygen, balance nitrogen, and
 2. Four volume percent oxygen, balance nitrogen.

TABLE 4.3-9 (Continued)

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- * At all times.
 - ** During waste gas disposal system operation.
 - *** During shield building exhaust system operation.
 - **** During waste gas releases.
- (1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occurs if any of the following conditions exists:
 1. Instrument indicates measured levels above the alarm/trip setpoint.
 2. Circuit failure
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 - (2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
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 - (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 1. One volume percent hydrogen, balance nitrogen, and
 2. Four volume percent hydrogen, balance nitrogen.
 - (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 1. One volume percent oxygen, balance nitrogen, and
 2. Four volume percent oxygen, balance nitrogen.

CONTAINMENT SYSTEMS

ICE CONDENSER DOORS

LIMITING CONDITION FOR OPERATION

3.6.5.3 The ice condenser inlet doors, intermediate deck doors, and top deck doors shall be closed and OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more ice condenser doors open or otherwise inoperable, POWER OPERATION may continue for up to 14 days provided the ice bed temperature is monitored at least once per 4 hours and the maximum ice bed temperature is maintained less than or equal to 27°F; otherwise, restore the doors to their closed positions or OPERABLE status (as applicable) within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.3.1 Inlet Doors - Ice condenser inlet doors shall be:

- a. Continuously monitored and determined closed by the inlet door position monitoring system, and
- b. Demonstrated OPERABLE during shutdown at least once per 3 months during the first year after the initial ice bed loading and at least once per year thereafter by:
 1. Verifying that the torque required to initially open each door is less than or equal to 675 inch pounds.
 2. Verifying that opening of each door is not impaired by ice, frost or debris.
 3. Testing a sample of at least 25% of the doors and verifying that the torque required to open each door is less than 195 inch-pounds when the door is 40 degrees open. This torque is defined as the "door opening torque" and is equal to the nominal door torque plus a frictional torque component. The doors selected for determination of the "door opening torque" shall be selected to ensure that all doors are tested at least once during four test intervals.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4. Testing a sample of at least 25% of the doors and verifying that the torque required to keep each door from closing is greater than 78 inch-pounds when the door is 40 degrees open. This torque is defined as the "door closing torque" and is equal to the nominal door torque minus a frictional torque component. The doors selected for determination of the "door closing torque" shall be selected to ensure that all doors are tested at least once during four test intervals.
5. Calculation of the frictional torque of each door tested in accordance with 3 and 4, above. The calculated frictional torque shall be less than or equal to 40 inch-pounds.

4.6.5.3.2 Intermediate Deck Doors - Each ice condenser intermediate deck door shall be:

- a. Verified closed and free of frost accumulation by a visual inspection at least once per 7 days, and
- b. Demonstrated OPERABLE at least once per 3 months during the first year after the initial ice bed loading and at least once per 18 months thereafter by visually verifying no structural deterioration, by verifying free movement of the vent assemblies, and by ascertaining free movement when lifted with the applicable force shown below:

<u>Door</u>	<u>Lifting Force</u>
0-1, 0-5	Less than or equal to 33 lbs.
0-2, 0-6	Less than or equal to 30 lbs.
0-3, 0-7	Less than or equal to 28 lbs.
0-4, 0-8	Less than or equal to 28 lbs.

4.6.5.3.3 Top Deck Doors - Each ice condenser top deck door shall be determined closed and OPERABLE at least once per 92 days by visually verifying:

- a. That the doors are in place, and
- b. That no condensation, frost, or ice has formed on the doors or blankets which would restrict their lifting and opening if required.

CONTAINMENT SYSTEMS

ICE CONDENSER DOORS

LIMITING CONDITION FOR OPERATION

3.6.5.3 The ice condenser inlet doors, intermediate deck doors, and top deck doors shall be closed and OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more ice condenser doors open or otherwise inoperable, POWER OPERATION may continue for up to 14 days provided the ice bed temperature is monitored at least once per 4 hours and the maximum ice bed temperature is maintained less than or equal to 27°F; otherwise, restore the doors to their closed positions or OPERABLE status (as applicable) within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.3.1 Inlet Doors - Ice condenser inlet doors shall be:

- a. Continuously monitored and determined closed by the inlet door position monitoring system, and
- b. Demonstrated OPERABLE during shutdown at least once per 3 months during the first year after the initial ice bed loading and at least once per year thereafter by:
 1. Verifying that the torque required to initially open each door is less than or equal to 675 inch pounds.
 2. Verifying that opening of each door is not impaired by ice, frost or debris.
 3. Testing a sample of at least 25% of the doors and verifying that the torque required to open each door is less than 195 inch-pounds when the door is 40 degrees open. This torque is defined as the "door opening torque" and is equal to the nominal door torque plus a frictional torque component. The doors selected for determination of the "door opening torque" shall be selected to ensure that all doors are tested at least once during four test intervals.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4. Testing a sample of at least 25% of the doors and verifying that the torque required to keep each door from closing is greater than 78 inch-pounds when the door is 40 degrees open. This torque is defined as the "door closing torque" and is equal to the nominal door torque minus a frictional torque component. The doors selected for determination of the "door closing torque" shall be selected to ensure that all doors are tested at least once during four test intervals.
5. Calculation of the frictional torque of each door tested in accordance with 3 and 4, above. The calculated frictional torque shall be less than or equal to 40 inch-pounds.

4.6.5.3.2 Intermediate Deck Doors - Each ice condenser intermediate deck door shall be:

- a. Verified closed and free of frost accumulation by a visual inspection at least once per 7 days, and
- b. Demonstrated OPERABLE at least once per 3 months during the first year after the initial ice bed loading and at least once per 18 months thereafter by visually verifying no structural deterioration, by verifying free movement of the vent assemblies, and by ascertaining free movement when lifted with the applicable force shown below:

	<u>Door</u>	<u>Lifting Force</u>
1.	0-1, 0-5	≤ 33 lbs.
2.	0-2, 0-6	≤ 30 lbs.
3.	0-3, 0-7	≤ 28 lbs.
4.	0-4, 0-8	≤ 28 lbs.

4.6.5.3.3 Top Deck Doors - Each ice condenser top deck door shall be determined closed and OPERABLE at least once per 92 days by visually verifying:

- a. That the doors are in placed, and
- b. That no condensation, frost, or ice has formed on the doors or blankets which would restrict their lifting and opening if required.

ENCLOSURE 2

JUSTIFICATION FOR PROPOSED TECHNICAL SPECIFICATIONS FOR SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

Downscale Failure Alarms

This change is being submitted to reflect the changes to Table 4.3-9 required as a result of installation of downscale failure alarms that were required by unit 1 operating license (O/L) condition 2.C(18).a and unit 2 O/L condition 2.C(11).a. A similar change was approved for Tables 4.3-8 and 4.3-9 by Amendment 13 to unit 1 O/L and Amendment 4 to the unit 2 O/L.

Ice Condenser Doors (Inlet and Intermediate Deck)

The changes in surveillance requirements 4.6.5.3.1.b and 4.6.5.3.2.b require the ice condenser inlet and intermediate deck doors to be demonstrated operable every three months after the initial ice bed loading in lieu of after any loading as presently interpreted. The change in surveillance requirement 4.6.5.3.1.b requires the inlet doors to be demonstrated operable every year following the first year in lieu of six months.

The reason for the change in surveillance requirements 4.6.5.3.1.b and 4.6.5.3.2.b is to eliminate the possible misinterpretation requiring a 3-month surveillance on the inlet and intermediate deck doors following ice bed meltout and reload. The intent of the 3-month frequency was to ensure there were no structural or freezing problems with the doors of the new ice condenser. The operating experience and initial 3-month surveillance have demonstrated that there were no design problems. The intermediate deck doors show no sign of structural problems. There has been ice buildup on the intermediate deck doors, but the cause has been malfunctioning air handling units allowing water to spill onto the doors and freeze. Problems of this nature will continue to be monitored during the 7-day visual inspection required by surveillance requirement 4.6.5.3.2.a. The specification should therefore not require the return to a 3-month interval following meltout and reload.

For the change in surveillance requirement 4.6.5.3.1.b, there has been no evidence of structural problems and minimal maintenance and freezing problems with the inlet doors to date. Since this surveillance requires unit shutdown for performance, a yearly surveillance of the inlet doors following the first year of operation will allow the doors to be checked in conjunction with the required yearly ice weighing outage.