# PROPOSED TECHNICAL SPECIFICATION PAGES

BRUNSWICK STEAM ELECTRIC PLANT UNIT I

## REACTOR VESSEL MATERIAL SURVEILLANCE SCHEDULE

ENCLOSURE I TO NLS-85-204 (85TSB18)

8603110461 860305 PDR ADOCK 05000324 PDR (1589NLU/ccc)

# SUMMARY LIST OF REVISIONS BRUNSWICK-1

PAGE	DESCRIPTION OF CHANGE				
3/4 4-13	Revise 4.4.6.1.3 to Include Verification of Effective Full Power Years Once Per 18 Months				
3/4 4-17	Delete Table 4.4.6.1.3-1 - Replace With New Table 4.4.6.1.3-1				

### REACTOR COOLANT SYSTEM

3/4.4.6 PRESSURE/TEMPERATURE LIMITS

#### REACTOR COOLANT SYSTEM

### LIMITING CONDITION FOR OPERATION

3.4.6.1 The reactor vessel shell temperature and reactor vessel pressure shall be limited in accordance with the limit lines shown on (1) Figure 3.4.6.1-1 for heatup by non-nuclear means, cooldown following a nuclear shutdown, and low power PHYSICS TESTS; (2) Figure 3.4.6.1-2 for operations with a critical core other than low power PHYSICS TESTS or when the reactor vessel is vented; and (3) Figure 3.4.6.1-3 for inservice hydrostatic or leak testing, with:

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

b. A maximum cooldown of 100°F in any one-hour period.

APPLICABILITY: At all times.

#### ACTION:

With any of the above limits exceeded, restore the temperature and/or pressure to within the limits within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the fracture toughness properties of the reactor coolant system; determine that the system remains acceptable for continued operations or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

#### SURVEILLANCE REQUIREMENTS

4.4.6.1.1 The reactor vessel shell temperature and reactor vessel pressure shall be determined to be within the limits at least once per 30 minutes during system heatup, cooldown, and inservice leak and hydrostatic testing operations.

4.4.6.1.2 The reactor vessel shell temperature and reactor vessel pressure shall be determined to be to the right of the criticality limit line of Figure 3.4.6.1-2 within 15 minutes prior to the withdrawal of control rods to bring the reactor to criticality.

4.4.6.1.3 The reactor material irradiation surveillance specimens shall be removed and examined to determine changes in material properties at the intervals shown in Table 4.4.6.1.3-1. The results of these examinations shall be used to update Figures 3.4.6.1-1, 3.4.6.1-2, and 3.4.6.1-3. The cumulative effective full power years shall be determined at least once per 18 months.

REACTOR	VESSEL	MATERIAL	SURVEILLANCE	PROGRAM	CAPSULE	WITHDRAWAL	SCHEDULE
CAPSULE NUMBER			VESSEL	4		WITHDR/	AWAL TIME* EFPY)
3			300°			8	
2			120°		1	3	
1			30°			S	tandby

## TABLE 4.4.6.1.3-1

\* The specimen shall be withdrawn during refueling outage immediately preceeding or following the specified withdrawal time.

# PROPOSED TECHNICAL SPECIFICATION PAGES

BRUNSWICK STEAM ELECTRIC PLANT UNIT 2

# REACTOR VESSEL MATERIAL SURVEILLANCE SCHEDULE

ENCLOSURE 2 TO NLS-85-204 (85TSB18)

# SUMMARY LIST OF REVISIONS BRUNSWICK-2

PAGE	DESCRIPTION OF CHANGE				
3/4 4-13	Revise 4.4.6.1.3 to Include Verification of Effective Full Power Years Once Per 18 Months				
3/4 4-17	Delete Table 4.4.6.1.3-1 - Replace With New Table 4.4.6.1.3-1				

#### REACTOR COOLANT SYSTEM

### 3/4.4.6 PRESSURE/TEMPERATURE LIMITS

### REACTOR COOLANT SYSTEM

### LIMITING CONDITION FOR OPERATION

3.4.6.1 The reactor vessel shell temperatue and reactor vessel pressure shall be limited in accordance with the limit lines shown on (1) Figure 3.4.6.1-1 for heatup by non-nuclear means, cooldown following a nuclear shutdown, and low power PHYSICS TESTS; (2) Figure 3.4.6.1-2 for operations with a critical core other than low power PHYSICS TESTS or when the reactor vessel is vented; and (3) Figure 3.4.6.1-3 for inservice hydrostatic or leak testing, with:

- a. A maximum heatup of 100°F in any one-hour period, and
- b. A maximum cooldown of 100°F in any one-hour period.

APPLICABILITY: At all times.

## ACTION:

With any of the above limits exceeded, restore the temperature and/or pressure to within the limits within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the fracture toughness properties of the reactor coolant system; determine that the system remains acceptable for continued operations, or be in at least HOT SHUIDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

### SURVEILLANCE REQUIREMENTS

4.4.6.1.1 The reactor vessel shell temperature and reactor vessel pressure shall be determined to be within the limits at least once per 30 minutes during system heatup, cooldown, and inservice leak and hydrostatic testing operations.

4.4.6.1.2 The reactor vessel shell temperature and reactor vessel pressure shall be determined to be to the right of the criticality limit line of Figure 3.4.6.1-2 within 15 minutes prior to the withdrawal of control rods to bring the reactor to criticality.

4.4.6.1.3 The reactor material irradiation surveillance specimens shall be removed and examined to determine changes in material properties at the intervals shown in Table 4.4.6.1.3-1. The results of these examinations shall be used to update Figures 3.4.6.1-1, 3.4.6.1-2, and 3.4.6.1.3. The cumulative effective full power years shall be determined at least once per 18 months.

## TABLE 4.4.6.1.3-1

CAPSULE NUMBER	VESSEL LOCATION	WITHDRAWAL TIME* (EFPY)
3	300°	10
2	120°	15
1	30°	Standby

REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM CAPSULE WITHDRAWAL SCHEDULE

\* The specimen shall be withdrawn during refueling outage immediately preceeding or following the specified withdrawal time.

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