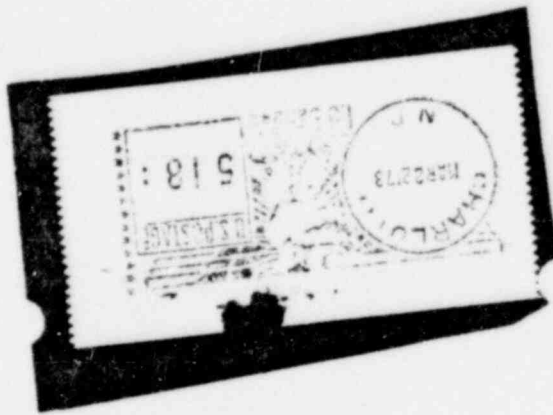


ATTACHMENT 1

PROPOSED TECHNICAL SPECIFICATION  
REVISED PAGES



7911190 594

- g. If within one (1) hour of determination of an inoperable rod, it is not determined that a 1% $\Delta$ k/k hot shutdown margin exists combining the worth of the inoperable rod with each of the other rods, the reactor shall be brought to the hot standby condition until this margin is established.
- h. Following the determination of an inoperable rod, all rods shall be exercised within 24 hours and exercised weekly until the rod problem is solved.
- i. If a control rod in the regulating or safety rod groups is declared inoperable, power shall be reduced to 60 percent of the thermal power allowable for the reactor coolant pump combination.
- j. If a control rod in the regulating or axial power shaping groups is declared inoperable, operation above 60 percent of rated power may continue provided the rods in the group are positioned such that the rod that was declared inoperable is maintained within allowable group average position limits of Specification 3.5.2.2.a and the withdrawal limits of Specification 3.5.2.5.c.

3.5.2.3 The worths of single inserted control rods during criticality are limited by the restrictions of Specification 3.1.3.5 and the control rod position limits defined in Specification 3.5.2.5.

#### 3.5.2.4 Quadrant Power Tilt

- a. Except for physics tests, if the maximum positive quadrant power tilt exceeds + 6.03% Unit 1, either the quadrant power
  - 3.41% Unit 2
  - 3.41% Unit 3
 tilt shall be reduced to less than + 6.03% Unit 1 within two
  - 3.41% Unit 2
  - 3.41% Unit 3
 hours or the following actions shall be taken:
  - (1) If four reactor coolant pumps are in operation, the allowable thermal power shall be reduced below the power level cutoff (as identified in specification 3.5.2.5) and further reduced by 2% of full power for each 1% tilt in excess of
    - 6.03% Unit 1
    - 3.41% Unit 2
    - 3.41% Unit 3
  - (2) If less than four reactor coolant pumps are in operation, the allowable thermal power for the reactor coolant pump combination shall be reduced 2% of full power for each 1% tilt.

(3) Except as provided in specification 3.5.2.4.b, the reactor shall be brought to the hot shutdown combination within four hours if the quadrant power tilt is not reduced to less than 6.03% Unit 1 within 24 hours.  
3.41% Unit 2  
3.41% Unit 3

- b. If the quadrant tilt exceeds + 6.03% Unit 1 and there is simultaneous indication of a misaligned control rod per Specification 3.5.2.2, reactor operation may continue provided power is reduced to 60% of the thermal power allowable for the reactor coolant pump combination.  
3.41% Unit 2  
3.41% Unit 3
- c. Except for physics tests, if quadrant tilt exceeds 9.44% Unit 1, 9.44% Unit 2, 9.44% Unit 3 a controlled shutdown shall be initiated immediately, and the reactor shall be brought to the hot shutdown condition within four hours.
- d. Whenever the reactor is brought to hot shutdown pursuant to 3.5.2.4.a(3) or 3.5.2.4.c above, subsequent reactor operation is permitted for the purpose of measurement, testing, and corrective action provided the thermal power and the power range high flux setpoint allowable for the reactor coolant pump combination are restricted by a reduction of 2 percent of full power for each 1 percent tilt for the maximum tilt observed prior to shutdown.
- e. Quadrant power tilt shall be monitored on a minimum frequency of once every two hours during power operation above 15 percent of rated power.
- f. Except during physics tests, if the steady-state maximum positive quadrant power tilt in Unit 1 Cycle 4 exceeds 3.5% due to causes other than the misalignment of a control rod, the Nuclear Regulatory Commission shall be notified of the occurrence within two working days after the identification of the tilt increase.

### 3.5.2.5 Control Rod Positions

- a. Technical Specification 3.1.3.5 does not prohibit the exercising of individual safety rods as required by Table 4.1-2 or apply to inoperable safety rod limits in Technical Specification 3.5.2.2.
- b. Except for physics tests, operating rod group overlap shall be 25% + 5% between two sequential groups. If this limit is exceeded, corrective measures shall be taken immediately to achieve an acceptable overlap. Acceptable overlap shall be attained within two hours or the reactor shall be placed in a hot shutdown condition within an additional 12 hours.

- c. Position limits are specified for regulating and axial power shaping control rods. Except for physics tests or exercising control rods, the regulating control rod insertion/withdrawal limits are specified on figures 3.5.2-1A1 and 3.5.2-1A2 (Unit 1); 3.5.2-1B1, 3.5.2-1B2, and 3.5.2-1B3 (Unit 2); 3.5.2-1C1, 3.5.2-1C2 and 3.5.2-1C3 (Unit 3) for four pump operation, and on figures 3.5.2-2A1 and 3.5.2-2A2 (Unit 1); 3.5.2-2B1, 3.5.2-2B2 and 3.5.2-2B3 (Unit 2); 3.5.2-2C1, 3.5.2-2C2 and 3.5.2-2C3 (Unit 3) for two or three pump operation. Also, excepting physics tests or exercising control rods, the axial power shaping control rod insertion/withdrawal limits are specified on figures 3.5.2-4A1, and 3.5.2-4A2 (Unit 1); 3.5.2-4B1, 3.5.2-4B2, 3.5.2-4A3 (Unit 2) 3.5.2-4C1, 3.5.2-4C2, and 3.5.2-4C3 (Unit 3). If the control rod position limits are exceeded, corrective measures shall be taken immediately to achieve an acceptable control rod position. An acceptable control rod position shall then be attained within two hours. The minimum shutdown margin required by Specification 3.5.2.1 shall be maintained at all times.
- d. Except for physics tests, power shall not be increased above the power level cutoff as shown on Figures 3.5.2-1A1, and 3.5.2-1A2 (Unit 1), 3.5.2-1B1, 3.5.2-1B2, and 3.5.2-1B3 (Unit 2), and 3.5.2-1C1, 3.5.2-1C2, 3.5.2-1C3 (Unit 3), unless the following requirements are met:
- (1) The xenon reactivity shall be within 10 percent of the value for operation at steady-state rated power.
  - (2) The xenon reactivity worth has passed its final maximum or minimum peak during its approach to its equilibrium value for operation at the power level cutoff.

3.5.2.6 Reactor power imbalance shall be monitored on a frequency not to exceed two hours during power operation above 40 percent rated power. Except for physics tests, imbalance shall be maintained within the envelope defined by Figures 3.5.2-3A1, 3.5.2-3B1, 3.5.2-3B2, 3.5.2-3B3, 3.5.2-3C1, 3.5.2-3C2, and 3.5.2-3C3. If the imbalance is not within the envelope defined by these figures, corrective measures shall be taken to achieve an acceptable imbalance. If an acceptable imbalance is not achieved within two hours, reactor power shall be reduced until imbalance limits are met.

3.5.2.7 The control rod drive patch panels shall be locked at all times with limited access to be authorized by the manager of his designated alternate.

Control rod groups are withdrawn in sequence beginning with Group 1. Groups 5, 6, and 7 are overlapped 25 percent. The normal position at power is for Groups 6 and 7 to be partially inserted.

The quadrant power tilt limits set forth in Specification 3.5.2.4 have been established to prevent the linear heat rate peaking increase associated with a positive quadrant power tilt during normal power operation from exceeding 9.00% for Unit 1. The limits shown in Specification 3.5.2.4

5.10% for Unit 2

5.10% for Unit 3

are measurement system independent. The actual operating limits, with the appropriate allowance for observability and instrumentation errors, for each measurement system are defined in the station operating procedures.

The quadrant tilt and axial imbalance monitoring in Specification 3.5.2.4 and 3.5.2.6, respectively, normally will be performed in the process computer. The two-hour frequency for monitoring these quantities will provide adequate surveillance when the computer is out of service.

Allowance is provided for withdrawal limits and reactor power imbalance limits to be exceeded for a period of two hours without specification violation. Acceptable rod positions and imbalance must be achieved within the two-hour time period or appropriate action such as a reduction of power taken.

Operating restrictions are included in Technical Specification 3.5.2.5d to prevent excessive power peaking by transient xenon. The xenon reactivity must be beyond its final maximum or minimum peak and approaching its equilibrium value at the power level cutoff.

#### REFERENCES

<sup>1</sup> FSAR, Section 3.2.2.1.2

<sup>2</sup> FSAR, Section 14.2.2.2

<sup>3</sup> FSAR, SUPPLEMENT 9

<sup>4</sup> B&W FUEL DENSIFICATION REPORT

BAW-1409 (UNIT 1)

BAW-1396 (UNIT 2)

BAW-1400 (UNIT 3)

<sup>5</sup> Oconee 1, Cycle 4 - Reload Report - BAW-1447, March 1977, Section 7.11.