

The seven day out of service period for the Weld Channel and Penetration Pressurization System and the Isolation Valve Seal Water System is allowed because no credit has been taken for operation of these systems in the calculation of off-site accident doses should an accident occur. No other safeguards systems are dependent on operation of these systems.<sup>(13)</sup> The minimum pressure settings for the IVSWS and WC & PPS during operation assures effective performance of these systems for the maximum containment calculated peak accident pressure of 47 psig.

#### References

- (1) FSAR Section 9
- (2) FSAR Section 6.2
- (3) FSAR Section 6.2
- (4) FSAR Section 6.3
- (5) FSAR Section 14.3.5
- (6) FSAR Section 1.2
- (7) FSAR Section 8.2
- (8) FSAR Section 9.6.1
- (9) FSAR Section 14.3
  
- (10) Indian Point Unit No. 2, "Analysis of the Emergency Core Cooling System in Accordance with the Acceptance Criteria of 10 CFR 50.46 and 10 CFR Part 50, Appendix K" dated April, 1985.
  
- (11) Letter from William J. Cahill, Jr., of Consolidated Edison Company of New York, to Robert W. Reid of the Nuclear Regulatory Commission, dated July 13, 1976. Indian Point No. 2 Small Break LOCA Analysis.
  
- (12) Indian Point Unit No. 3 FSAR Section 6.2 and 6.3 and the Safety Evaluation accompanying "Application for Amendment to Operating License" sworn to by Mr. William J. Cahill, Jr., on March 28, 1977.
  
- (13) FSAR Sections 6.5 and 6.6.

### 3.10 CONTROL ROD AND POWER DISTRIBUTION LIMITS

#### Applicability:

Applies to the limits on core fission power distributions and to the limits on control rod operations.

#### Objectives:

To ensure:

1. Core subcriticality after reactor trip,
2. Acceptable core power distribution during power operation in order to maintain fuel integrity in normal operation and transients associated with faults of moderate frequency, supplemented by automatic protection and by administrative procedures, and to maintain the design basis initial conditions for limiting faults, and
3. Limit potential reactivity insertions caused by hypothetical control rod ejection.

#### Specifications:

##### 3.10.1 Shutdown Reactivity

The shutdown margin shall be at least as great as shown in Figure 3.10-1.

##### 3.10.2 Power Distribution Limits

3.10.2.1 At all times, except during low power physics tests, the hot channel factors defined in the basis must meet the following limits:

(a)  $F_{\Delta H}^N \leq 1.55 [1 + 0.2 (1-P)]$

(b) For  $\leq 25\%$  steam generator tube plugging:

$$F_Q(Z) \leq (2.32/P) \times K(Z) \text{ for } P > .5$$

$$F_Q(Z) \leq (4.64) \times K(Z) \text{ for } P \leq .5$$

Where P is the fraction of full power at which the core is operating; K(Z) is the fraction given in Figure 3.10-2 and Z is the core height location of  $F_Q$ .