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POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS (Continued)

f. With measurements indicating

$$\begin{array}{l} \text{maximum} \\ \text{over } Z \end{array} \left(\frac{F_Q^C(Z)}{K(Z)} \right)$$

has increased since the previous determination of $F_Q^C(Z)$ either of the following actions shall be taken:

1) Increase $F_Q^C(Z)$ by 2% and verify that this value satisfies the relationship in Specification 4.2.2.2d, or

2) $F_Q^C(Z)$ shall be measured at least once per 7 Effective Full Power Days until two successive maps indicate that

$$\begin{array}{l} \text{maximum} \\ \text{over } Z \end{array} \left(\frac{F_Q^C(Z)}{K(Z)} \right) \text{ is not increasing.}$$

g. With the relationships specified in Specification 4.2.2.2d above not being satisfied:

1) Calculate the percent that $F_Q(Z)$ exceeds its limits by the following expression:

$$\left\{ \left(\begin{array}{l} \text{maximum} \\ \text{over } Z \end{array} \left[\frac{F_Q^C(Z) \times W(Z)}{\frac{F_Q^{RTP}}{P} \times K(Z)} \right] - 1 \right) \right\} \times 100 \text{ for } P > 0.5$$

$$\left\{ \left(\begin{array}{l} \text{maximum} \\ \text{over } Z \end{array} \left[\frac{F_Q^C(Z) \times W(Z)}{\frac{F_Q^{RTP}}{0.5} \times K(Z)} \right] - 1 \right) \right\} \times 100 \text{ for } P \leq 0.5, \text{ and}$$

2) The following action shall be taken:

Within 15 minutes, control the AFD to within new AFD limits which are determined by reducing the AFD limits specified in the CORE OPERATING LIMITS REPORT by 1% AFD for each percent $F_Q(Z)$ exceeds its limits as determined in Specification 4.2.2.2g.1. Within 8 hours, reset the AFD alarm setpoints to these modified limits.

POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS (Continued)

- h. The limits specified in Specification 4.2.2.2c are applicable in all core plane regions, i.e. 0 - 100%, inclusive.
- i. The limits specified in Specifications 4.2.2.2d, 4.2.2.2f, and 4.2.2.2g, above are not applicable in the following core plane regions:
 - 1. Lower core region from 0 to 15%, inclusive.
 - 2. Upper core region from 85 to 100%, inclusive.

4.2.2.3 When $F_Q(Z)$ is measured for reasons other than meeting the requirements of Specification 4.2.2.2 an overall measured $F_Q(Z)$ shall be obtained from a power distribution map and increased by 3% to account for manufacturing tolerances and further increased by 5% to account for measurement uncertainty.

POWER DISTRIBUTION LIMITS

3/4.2.3 NUCLEAR ENTHALPY RISE HOT CHANNEL FACTOR $F_{\Delta H}^N$

LIMITING CONDITION FOR OPERATION

3.2.3 $F_{\Delta H}^N$ shall be limited by the following relationship:

$$F_{\Delta H}^N \leq F_{\Delta H}^{RTP} [1.0 + PF_{\Delta H} (1.0 - P)]$$

Where:

$F_{\Delta H}^{RTP}$ = the $F_{\Delta H}^N$ limit at RATED THERMAL POWER (RTP) specified in the CORE OPERATING LIMITS REPORT (COLR),

$PF_{\Delta H}$ = the power factor multiplier for $F_{\Delta H}^N$ specified in the COLR, and

$$P = \frac{\text{THERMAL POWER}}{\text{RATED THERMAL POWER}}$$

APPLICABILITY: MODE 1.

ACTION:

With $F_{\Delta H}^N$ exceeding its limit:

- a. Within 2 hours either:
 1. Restore $F_{\Delta H}^N$ to within the above limit, or
 2. Reduce THERMAL POWER to less than 50% of RATED THERMAL POWER and reduce the Power Range Neutron Flux - High Trip Setpoint to less than or equal to 55% of RATED THERMAL POWER within the next 4 hours.
- b. Within 24 hours of initially being outside the above limit, verify through incore flux mapping that $F_{\Delta H}^N$ has been restored to within the above limit, or reduce THERMAL POWER to less than 5% of RATED THERMAL POWER within the next 2 hours.
- c. Identify and correct the cause of the out-of-limit condition prior to increasing THERMAL POWER above the reduced THERMAL POWER limit required by ACTION a.2. and/or b., above; subsequent POWER OPERATION may proceed provided that $F_{\Delta H}^N$ is demonstrated, through incore flux mapping, to be within its limit prior to exceeding the following THERMAL POWER levels:
 1. A nominal 50% of RATED THERMAL POWER,
 2. A nominal 75% of RATED THERMAL POWER, and
 3. Within 24 hours of attaining greater than or equal to 95% of RATED THERMAL POWER.

ADMINISTRATIVE CONTROLS

CORE OPERATING LIMITS REPORT (Continued)

WCAP-10216-P-A, "RELAXATION OF CONSTANT AXIAL OFFSET CONTROL FQ SURVEILLANCE TECHNICAL SPECIFICATION," June 1983 (W Proprietary). (Methodology for Specification 3.2.2 - Heat Flux Hot Channel Factor (W (z) surveillance requirements for F_Q Methodology).)

WCAP-8200, "WFLASH, A FORTRAN-IV COMPUTER PROGRAM FOR SIMULATION OF TRANSIENTS IN A MULTI-LOOP PWR," Revision 2, June 1974 (W Proprietary). (Methodology for Specification 3.2.2. - Heat Flux Hot Channel Factor.)

WCAP-9220-P-A, "Westinghouse ECCS Evaluation Model, February 1978 Version," February 1978 (W Proprietary). (Methodology for Specification 3.2.2. - Heat Flux Hot Channel Factor.)

The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, special reports shall be submitted to the Regional Administrator of the Regional Office of the NRC within the time period specified for each report.

6.10 RECORD RETENTION

6.10.1 In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

6.10.2 The following records shall be retained for at least 5 years:

- a. Records and logs of unit operation covering time interval at each power level;
- b. Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to nuclear safety;