

**3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS**  
**3/4.1 REACTIVITY CONTROL SYSTEMS**

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**SURVEILLANCE REQUIREMENTS**

- 4.1.1.4 The MTC shall be determined to be within its limits during each fuel cycle as follows:
- a) The MTC shall be measured and compared to the BOL limit specified in the COLR prior to initial operation above 5% of RATED THERMAL POWER, after each fuel loading.
  - b) The MTC shall be measured at any THERMAL POWER within 7 EFPD after reaching an equilibrium boron concentration of 300 ppm.\* The measured value shall be compared to the 300 ppm surveillance limit specified in the COLR. In the event this comparison indicates that the MTC will be more negative than the EOL limit, the MTC shall be remeasured at least once per 14 EFPD during the remainder of the fuel cycle and the MTC value compared to the EOL limit.

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\* Measurement of the MTC in accordance with SR 4.1.1.4.b may be suspended, provided that the benchmark criteria in WCAP-13749-P-A and the Revised Prediction specified in the COLR are satisfied.

## 6.0 ADMINISTRATIVE CONTROLS

### MONTHLY REACTOR OPERATING REPORT

- 6.9.1.8 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission (Attn: Document Control Desk), Washington, D.C. 20555, with a copy to the Regional Office no later than the 15th of each month following the calendar month covered by the report.

### CORE OPERATING LIMITS REPORT

- 6.9.1.9.1 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

- a. Moderator Temperature Coefficient Limits for Specification 3/4.1.1.4,
- b. Rod Drop Time Limits for Specification 3/4.1.3.3,
- c. Shutdown Rod Insertion Limits for Specification 3/4.1.3.4,
- d. Control Rod Insertion Limits for Specification 3/4.1.3.5,
- e. Axial Flux Difference for Specification 3/4.2.1,
- f. Heat Flux Hot Channel Factor for Specification 3/4.2.2,
- g. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3, and
- h. Allowable Power Level for Specification 3/4.2.6.

- 6.9.1.9.2 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:

- a. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985 (Westinghouse Proprietary),
- b. WCAP-8385, "Power Distribution Control and Load Following Procedures - Topical Report," September 1974 (Westinghouse Proprietary),
- c. WCAP-10216-P-A, Revision 1A, "Relaxation of Constant Axial Offset Control/F<sub>0</sub> Surveillance Technical Specification," February 1994 (Westinghouse Proprietary),
- d. WCAP-10266-P-A Rev. 2, "The 1981 Version of Westinghouse Evaluation Mode Using BASH Code," March 1987 (Westinghouse Proprietary).
- e. WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," July 1991 (Westinghouse Proprietary).
- f. WCAP-13749-P-A, "Safety Evaluation Supporting the Conditional Exemption of the Most Negative EOL Moderator Temperature Coefficient Measurement," March 1997, (Westinghouse Proprietary).

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.1.3.2</p> <p style="text-align: center;">-----NOTE-----</p> <p>Not required to be performed provided that the benchmark criteria in WCAP-13749-P-A and the Revised Prediction specified in the COLR are satisfied.</p> <p>-----</p> <p>Verify MTC is within lower limit.</p>	<p>Once each cycle within 7 effective full power days (EFPD) after reaching an equivalent of an equilibrium RTP all rods out (ARO) boron concentration of 300 ppm</p> <p><u>AND</u></p> <p>14 EFPD thereafter if MTC is more negative than the 300 ppm Surveillance limit (not LCO limit) specified in the COLR until the MTC measured at the equivalent of equilibrium RTP-ARO boron concentration of <math>\leq 60</math> ppm is less negative than the 60 ppm Surveillance limit specified in the COLR</p>

## 5.6 Reporting Requirements

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### 5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

5. LCO 3.1.6, "Control Bank Insertion Limits";
  6. LCO 3.2.1, "Heat Flux Hot Channel Factor ( $F_Q(Z)$ )";
  7. LCO 3.2.2, "Nuclear Enthalpy Rise Hot Channel Factor ( $F_{\Delta H}^N$ )";
  8. LCO 3.2.3, "AXIAL FLUX DIFFERENCE (AFD)";
  9. LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation," Functions 6 and 7 (Overtemperature  $\Delta T$  and Overpower  $\Delta T$ , respectively) Allowable Value parameter values;
  10. LCO 3.4.1, "RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits"; and
  11. LCO 3.9.1, "Boron Concentration."
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
1. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," (Westinghouse Proprietary);
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  4. WCAP-10266-P-A, "The 1981 Version of Westinghouse Evaluation Mode Using BASH Code," (Westinghouse Proprietary);
  5. WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," (Westinghouse Proprietary);
  6. WCAP-8745-P-A, "Design Bases for the Thermal Overpower  $\Delta T$  and Thermal Overtemperature  $\Delta T$  Trip Functions," (Westinghouse Proprietary); and
  7. WCAP-13749-P-A, "Safety Evaluation Supporting the Conditional Exemption of the Most Negative EOL Moderator Temperature Coefficient Measurement," (Westinghouse Proprietary).

## 5.6 Reporting Requirements

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### 5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

### 5.6.6 Post Accident Monitoring Report

When a report is required by Condition B or H of LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

### 5.6.7 Steam Generator Tube Inspection Report

- a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the NRC.
  - b. The complete results of the steam generator tube inservice inspection shall be submitted to the NRC prior to March 1 for the inspection that was completed in the previous calendar year. This report shall include:
    - 1. Number and extent of tubes inspected;
    - 2. Location and percent of wall-thickness penetration for each indication of an imperfection; and
    - 3. Identification of tubes plugged.
  - c. Results of steam generator tube inspections which fall into Category C-3 shall be reported to the NRC in accordance with 10 CFR 50.72. A Licensee Event Report shall be submitted in accordance with 10 CFR 50.73 and shall provide a description of investigations conducted to determine the cause of the tube degradation and corrective measures taken to prevent recurrence.
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SURVEILLANCE REQUIREMENTS

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
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