

**ENCLOSURE 6**  
**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**  
**NRC DOCKET NO. 50-261/LICENSE NO. DPR-23**  
**REQUEST FOR LICENSE AMENDMENT**  
**CORE OPERATING LIMITS REPORT METHODOLOGY AND REFERENCE CHANGE**

**TECHNICAL SPECIFICATION PAGES**

6.9.3.3.b The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC. <sup>6.9.3.3.b</sup> *The Approved revision Number shall be identified in the COLR.*

- a) XN-75-27(A), latest Revision and Supplements, "Exxon Nuclear Neutronics Design Methods for Pressurized Water Reactors," Exxon Nuclear Company, Richland WA 99352.

(Methodology for Specifications 3.1.3.1 - Moderator Temperature Coefficient, 3.10.1.2 - Shutdown Bank Insertion Limits, 3.10.1.3 and 3.10.1.4 - Control Bank Insertion Limits, 3.10.2.1, 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2 - Heat Flux Hot Channel Factor, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor, and 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2, 3.10.2.7, 3.10.2.9, and 3.10.2.11 - Axial Flux Difference)

- b) XN-NF-84-73(P), latest Revision and Supplements, "Exxon Nuclear Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Exxon Nuclear Corporation, Richland WA 99352 (Accepted by the NRC for H. B. Robinson Unit 2 in the Safety Evaluation by the Office of Nuclear Reactor Regulation related to Amendment No. 87 to Facility License No. DPR-23, 7 Nov. 84).

(Methodology for Specifications 3.1.3.1 - Moderator Temperature Coefficient, 3.10.1.2 - Shutdown Bank Insertion Limits, 3.10.1.3 and 3.10.1.4 - Control Bank Insertion Limits, 3.10.2.1, 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2 - Heat Flux Hot Channel Factor, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor, and 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2, 3.10.2.7, 3.10.2.9, and 3.10.2.11 - Axial Flux Difference)

- c) XN-NF-82-21(A), latest Revision, "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company, Richland WA 99352.

(Methodology for Specification 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor)

- d) XN-NF-82-93(A), latest Revision and Supplements, "Steamline Break Methodology for PWR's," Exxon Nuclear Corporation, Richland, WA 99352.

(Methodology for Specifications 3.1.3.1 - Moderator Temperature Coefficient, 3.10.1.2 - Shutdown Bank Insertion Limits, 3.10.1.3 and 3.10.1.4 - Control Bank Insertion Limits, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor.)

- e) XN-75-32(A), Supplements 1, 2, 3, 4, "Computational Procedure for Evaluating Rod Bow," Exxon Nuclear Company, Richland WA 99352.

(Methodology for Specifications 3.10.2.1, 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2 - Heat Flux Hot Channel Factor, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor)

- f) XN-NF-82-49(A), latest Revision, <sup>and Supplements</sup> "Exxon Nuclear Company Evaluation Model EXEM PWR Small Break Model," Exxon Nuclear Company, Richland WA 99352.

(Methodology for Specifications 3.10.2.1, 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2 - Heat Flux Hot Channel Factor, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor, and 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2, 3.10.2.7, 3.10.2.9, and 3.10.2.11 - Axial Flux Difference)

- g) EXEM PWR Large Break LOCA Evaluation Model as accepted in Letter, D. M. Crutchfield (NRC) to G. N. Ward (ENC), "Safety Evaluation of Exxon Nuclear Company's Large Break ECCS Evaluation Model EXEM/PWR and Acceptance for Referencing of Related Licensing Topical Reports," July 8, 1986.

EXEM PWR LBLOCA Model includes the following references:

XN-NF-82-20(P), latest Revision and Supplements, "Exxon Nuclear Company Evaluation Model EXEM/PWR ECCS Model Updates," Exxon Nuclear Company, Richland WA 99352.

6.9.3.3.c

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

6.9.3.3.d

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

*and Supplements*

- q) ANF-89-151(A), latest Revision<sup>y</sup>, "ANF-RELAP Methodology for Pressurized Water Reactors: Analysis of Non-LOCA Chapter 15 Events," Advanced Nuclear Fuels Corporation, Richland WA 99352.

(Methodology for Specifications 3.1.3.1 - Moderator Temperature Coefficient; 3.10.1.2 - Shutdown Bank Insertion Limits; 3.10.1.3 and 3.10.1.4 - Control Bank Insertion Limits; 3.10.2.1, 3.10.2.2, 3.10.2.2.1 and 3.10.2.2.2 - Heat Flux Hot Channel Factor; 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor, and 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2, 3.10.2.7, 3.10.2.9, and 3.10.2.11 - Axial Flux Difference)

*and Supplements*

- r) EMF-92-081(A), latest Revision<sup>y</sup>, "Statistical Setpoint/Transient Methodology for Westinghouse Type Reactors," Siemens Power Corporation - Nuclear Division, Richland WA 99352.

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- b) XN-NF-84-73(P), latest Revision and Supplements, "Exxon Nuclear Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Exxon Nuclear Corporation, Richland WA 99352 (Accepted by the NRC for H. B. Robinson Unit 2 in the Safety Evaluation by the Office of Nuclear Reactor Regulation related to Amendment No. 87 to Facility License No. DPR-23, 7 Nov. 84).

(Methodology for Specifications 3.1.3.1 - Moderator Temperature Coefficient, 3.10.1.2 - Shutdown Bank Insertion Limits, 3.10.1.3 and 3.10.1.4 - Control Bank Insertion Limits, 3.10.2.1, 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2 - Heat Flux Hot Channel Factor, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor, and 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2, 3.10.2.7, 3.10.2.9, and 3.10.2.11 - Axial Flux Difference)

- c) XN-NF-82-21(A), latest Revision, "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company, Richland WA 99352.

(Methodology for Specification 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor)

- d) XN-NF-84-95(A), latest Revision and Supplements, "Steamline Break Methodology for PWR's," Exxon Nuclear Corporation, Richland, WA 99352.

(Methodology for Specifications 3.1.3.1 - Moderator Temperature Coefficient, 3.10.1.2 - Shutdown Bank Insertion Limits, 3.10.1.3 and 3.10.1.4 - Control Bank Insertion Limits, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor.)

- e) XN-75-32(A), Supplements 1, 2, 3, 4, "Computational Procedure for Evaluating Rod Bow," Exxon Nuclear Company, Richland WA 99352.

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- q) ANF-88-133 (P)(A), "Qualification of Advanced Nuclear Fuels' PWR Design Methodology for Rod Burnups of 62 Gwd/MTU," Advanced Nuclear Fuels Corporation, Richland WA 99352, latest revisions and supplements.

(Methodology for Specifications 3.10.2.1, 3.10.2.2, 3.10.2.2.1, 3.10.2.2.2 - Heat Flux Hot Channel Factor, 3.10.2.1 - Nuclear Enthalpy Rise Hot Channel Factor).

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