Entergy

Entergy Operations, Inc.
Waterloo Road
P.O. Box 756
Port Gibson, MS 39150
Tel 601 437 6299

Charles A. Bottemiller
Manager
Plant Licensing

GNRO-2007/00021

April 11, 2007

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Technical Specification Bases, Technical Requirements Manual and Core Operating Limits Updates to the NRC for Period Dated April 7, 2007

Grand Gulf Nuclear Station
Docket No. 50-416
License No. NPF-29

Dear Sir and Madam:

Pursuant to Grand Gulf Nuclear Station (GGNS) Technical Specification 5.5.11 and Technical Requirements Manual (TRM) Section 1.04, Entergy Operations, Inc. hereby submits an update of all changes made to GGNS Technical Specification Bases since the last submittal (GNRO-2007/00019 dated March 30, 2007 and TRM since the last submittal (GNRO-2007/00017) letter dated March 1, 2007 to the NRC from GGNS. Also included is the latest revision to the Core Operating Limits Report for Cycle 16. These updates are consistent with update frequency listed in 10CFR50.71(e).

This letter does not contain any commitments.

Should you have any questions, please contact James Owens at (601) 437-6219.

Yours truly,

CAB/JEO
attachments: 1. Technical Specification Bases
2. Technical Requirement Manual Page
3. Core Operating Limits Report
cc: (See Next Page)

cc:

NRC Senior Resident Inspector Grand Gulf Nuclear Station Port Gibson, MS 39150	
U.S. Nuclear Regulatory Commission ATTN: Dr. Bruce S. Mallett (w/2) 611 Ryan Plaza Drive, Suite 400 Arlington, TX 76011-4005	ALL LETTERS
U.S. Nuclear Regulatory Commission ATTN: Mr. **Bhalchandra Vaidya**, NRR/DORL (w/2) **ATTN: ADDRESSEE ONLY** ATTN: Courier Delivery Only Mail Stop OWFN/O-7D1A 11555 Rockville Pike Rockville, MD 20852-2378	ALL LETTERS – COURIER DELIVERY (FEDEX, ETC.) ADDRESS ONLY - ******DO NOT USE FOR U.S. POSTAL SERVICE ADDRESS***** NOT USED IF EIE USED**

ATTACHMENT 1 to GNRO-2007/00021

Grand Gulf Technical Specification Bases Pages

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs	LCO 3.0.1 through LCO 3.0.8 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated.
LCO 3.0.1	LCO 3.0.1 establishes the Applicability statement within each individual Specification as the requirement for when the LCO is required to be met (i.e., when the unit is in the MODES or other specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	LCO 3.0.2 establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met. The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of an LCO are not met. This Specification establishes that: a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification; and b. Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. There are two basic types of Required Actions. The first type of Required Action specifies a time limit in which the LCO must be met. This time limit is the Completion Time to restore an inoperable system or component to OPERABLE status or to restore variables to within specified limits. If this type of Required Action is not completed within the specified Completion Time, a shutdown may be required to place the unit in a MODE or condition in which the Specification is not applicable. (Whether stated as a Required Action or not, correction of the entered Condition is an action that may always be considered upon entering ACTIONS.) The second type of Required Action specifies the remedial measures that permit continued operation of the

(continued)

BASES

LCO 3.0.6 (continued)

exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

LCO 3.0.7

There are certain special tests and operations required to be performed at various times over the life of the unit. These special tests and operations are necessary to demonstrate select unit performance characteristics, to perform special maintenance activities, and to perform special evolutions. Special Operations LCOs in Section 3.10 allow specified TS requirements to be changed to permit performances of these special tests and operations, which otherwise could not be performed if required to comply with the requirements of these TS. Unless otherwise specified, all the other TS requirements remain unchanged. This will ensure all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed to perform the special test or operation will remain in effect.

The Applicability of a Special Operations LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with Special Operations LCOs is optional. A special operation may be performed either under the provisions of the appropriate Special Operations LCO or under the other applicable TS requirements. If it is desired to perform the special operation under the provisions of the Special Operations LCO, the requirements of the Special Operations LCO shall be followed. When a Special Operations LCO requires another LCO to be met, only the requirements of the LCO statement are required to be met regardless of that LCO's Applicability (i.e., should the requirements of this other LCO not be met, the ACTIONS of the Special Operations LCO apply, not the ACTIONS of the other LCO). However, there are instances where the Special Operations LCO's ACTIONS may direct the other LCO's ACTIONS be met. The Surveillances of the other LCO are not required to be met, unless specified in the Special Operations LCO. If conditions exist such that the Applicability of any other LCO is met, all the other LCO's requirements (ACTIONS and SRs) are required to be met concurrent with the requirements of the Special Operations LCO.

(continued)

BASES (continued)

LCO 3.0.8

LCO 3.0.8 establishes conditions under which systems are considered to remain capable of performing their intended safety function when associated snubbers are not capable of providing their associated support function(s). This LCO states that the supported system is not considered to be inoperable solely due to one or more snubbers not capable of performing their associated support function(s). This is appropriate because a limited length of time is allowed for maintenance, testing, or repair of one or more snubbers not capable of performing their associated support function(s) and appropriate compensatory measures are specified in the snubber requirements, which are located outside of the Technical Specifications (TS) under licensee control. The snubber requirements do not meet the criteria in 10 CFR 50.36(c)(2)(ii), and, as such, are appropriate for control by the licensee.

If the allowed time expires and the snubber(s) are unable to perform their associated support function(s), the affected supported system's LCO(s) must be declared not met and the Conditions and Required Actions entered in accordance with LCO 3.0.2.

LCO 3.0.8.a applies when one or more snubbers are not capable of providing their associated support function(s) to a single train or subsystem of a multiple train or subsystem supported system or to a single train or subsystem supported system. LCO 3.0.8.a allows 72 hours to restore the snubber(s) before declaring the supported system inoperable. The 72 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function and due to the availability of the redundant train of the supported system.

LCO 3.0.8.b applies when one or more snubbers are not capable of providing their associated function(s) to more than one train or subsystem of a multiple train or subsystem supported system. LCO 3.0.8.b allows 12 hours to restore the snubber(s) before declaring the supported system inoperable. The 12 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an

(continued)

BASES

LCO 3.0.8 (continued)

event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function.

LCO 3.0.8 requires that risk be assessed and managed. Industry and NRC guidance on the implementation of 10 CFR 50.65(a)(4) (the Maintenance Rule) does not address seismic risk. However, use of LCO 3.0.8 should be considered with respect to other plant maintenance activities, and integrated into the existing Maintenance Rule process to the extent possible so that maintenance on any unaffected train or subsystem is properly controlled, and emergent issues are properly addressed. The risk assessment need not be quantified, but a qualitative awareness of the vulnerability of systems and components when one or more snubbers are not able to perform their associated support function.

ATTACHMENT 2 to GNRO-2007/00021

Grand Gulf Technical Requirement Manual

b. a determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

Shall become effective upon review and acceptance by the OSRC and the approval of the General Manager, Plant Operations.

7.6.3.9 OFFSITE DOSE CALCULATION MANUAL (ODCM)

Licensee initiated changes to the ODCM shall become effective upon review and acceptance by the OSRC.

7.6.3.10 SNUBBER PROGRAM

7.6.3.10.1 Deleted

7.6.3.10.2 Deleted

7.6.3.10.3 Surveillance Requirements

Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program in lieu of the requirements of Technical Specification 5.5.6 or TRM 7.6.3.3.

a. Inspection Types

As used in this program, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspection

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 7.6.3.10-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 7.6.3.10-1 and the first inspection interval determined using these criteria shall be based upon the previous inspection interval as established by the requirements in effect before July 8, 1991.

c. Visual Inspection Acceptance Criteria

Visual inspection shall verify that:

(1) the snubber has no visible indications or damage or impaired OPERABILITY,

(2) attachments to the foundation or supporting structure are functional, and

(3) fasteners for the attachment of the snubber to the component and the snubber anchorage are functional.

Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that:

(1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and

(2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 7.6.3.10.3.f.

A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the LCO 3.0.8 requirements shall be met.

3) For RF07 a one time deviation was taken to the Functional Testing described in 1) and 2) above for PSA 1/4 and 1/2 snubbers. In lieu of functionally testing a sample of PSA 1/4 and 1/2 snubbers, "freedom of motion" testing was performed on 173 of 176 PSA 1/4 and 1/2 snubbers (the remaining 3 snubbers are RF06 failures and require functional testing). The snubbers tested using "freedom of motion" testing suspect of high drags are functionally tested.

To perform Functional Testing 60 days prior to a planned shutdown on a system that is operable the following limitations must be applied.

a) The functional testing of snubbers on operable systems shall not start until 60 days before the planned outage.

b) Only one snubber can be removed from a stress problem at a time without further engineering review.

c) Snubbers adjacent to critical locations (equipment nozzles, large valves with motors) shall not be removed while the system is operable.

d) Snubbers on one train of multiple train systems shall not be removed while a snubber is removed from the other train.

Testing equipment failure during functional testing may invalidate that day's testing and allow that day's testing to resume anew at a later time, providing all snubbers tested with the failed equipment during the day of equipment failure are retested. The representative sample selected for the functional test sample plans shall be randomly selected from the snubbers of each type and reviewed before beginning the testing. The review shall ensure as far as practical that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers of each type. Snubbers placed in the same locations as snubbers which failed the previous functional test shall be retested at the time of the next functional test but shall not be included in the sample plan. If during the functional testing, additional sampling is required due to failure of only one type of snubber, the functional testing results shall be reviewed at the time to determine if additional samples should be limited to the type of snubber which has failed the functional testing.

ATTACHMENT 3 to GNRO-2007/00021

Grand Gulf Core Operating Limits Report

CORE OPERATING LIMITS REPORT

REASON FOR REVISION

This revision provides the Cycle 16 core operating limits. These limits are based on a core power of 3898 MWt.

TABLE OF CONTENTS

CORE OPERATING LIMITS REPORT

1.0 PURPOSE

On October 4, 1988, the NRC issued Generic Letter 88-16 [3.1.1] encouraging licensees to remove cycle-specific parameter limits from Technical Specifications and to place these limits in a formal report to be prepared by the licensee. As long as the parameter limits were developed with NRC-approved methodologies, the letter indicated that this would remove unnecessary burdens on licensee and NRC resources.

On October 29, 1992, Entergy Operations submitted a Proposed Amendment to the Grand Gulf Operating License requesting changes to the GGNS Technical Specifications to remove certain reactor physics parameter limits that change each fuel cycle [3.1.2]. This amendment committed to placing these operating limits in a separate Core Operating Limits Report (COLR) which is defined in Technical Specifications. This PCOL was approved by the NRC by SER dated January 21, 1993 [3.1.3].

The COLR is controlled as a License Basis Document and revised accordingly for each fuel cycle or remaining portion of a fuel cycle. Any revisions to the COLR must be submitted to the NRC for information as required by Tech Spec 5.6.5 and tracked by LCTS 29132. This COLR reports the Cycle 16 core operating and stability limits.

2.0 SCOPE

As defined in Technical Specification 1.1, the COLR is the GGNS document that provides the core operating limits for the current fuel cycle. This document is prepared in accordance with Technical Specification 5.6.5 for each reload cycle using NRC-approved analytical methods.

The Cycle 16 core operating and stability limits included in this report are:

- the Average Planar Linear Heat Generation Rate (APLHGR),
- the Minimum Critical Power Ratio (MCPR) (including EOC-RPT inoperable),
- the Linear Heat Generation Rate (LHGR) limit, and
- the E1A stability limits.

3.0 REFERENCES

This section contains the background, cycle-specific, and methodology references used in the safety analysis of Grand Gulf Cycle 16.

3.1 Background References

3.1.1 MAEC-88/0313, Generic Letter 88-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications", October 4, 1988.

3.1.2 GNRO-92-00093, Proposed Amendment to Grand Gulf Operating License, PCOL-92/07, dated October 29, 1992.

3.1.3 GNRI-93-0008, Amendment 106 to Grand Gulf Operating License, January 21, 1993.

3.1.4 GEXI 2000-00116, K.V. Walters to J.B. Lee, "Technical Specification and COLR References for Grand Gulf Nuclear Station and River Bend Station," November 3, 2000.

3.2 Current Cycle References

3.2.1 ANP-2581 Revision 0, Grand Gulf Nuclear Station Cycle 16 Reload Analysis, dated December 2006.

3.2.2 CEO 2000-00094, Jim Head to M.D. Withrow, "Revised E1A Related COLR Input," dated April 20, 2000.

3.3 Methodology References

The Technical Specifications (TS) supported by each methodology reference are provided in brackets.

3.3.1 XN-NF-81-58(P)(A) Revision 2 and Supplements 1 and 2, "RODEX2 Fuel Rod Thermal-Mechanical Response Evaluation Model," Exxon Nuclear Company, March 1984 [TS 3.2.1, TS 3.2.2, TS 3.2.3].

3.3.2 XN-NF-85-67(P)(A) Revision 1, "Generic Mechanical Design for Exxon Nuclear Jet Pump BWR Reload Fuel," Exxon Nuclear Company, September 1986 [TS 3.2.3].

3.3.3 EMF-85-74(P) Revision 0 Supplement 1 (P)(A) and Supplement 2 (P)(A), "RODEX2A (BWR) Fuel Rod Thermal-Mechanical Evaluation Model, Siemens Power Corporation," February 1998 [TS 3.2.3].

3.3.4 ANF-89-98(P)(A) Revision 1 and Supplement 1, "Generic Mechanical Design Criteria for BWR Fuel Designs," Advanced Nuclear Fuels Corporation, May 1995 [TS 3.2.3].

3.3.5 Deleted

3.3.6 XN-NF-80-19(P)(A) Volume 1 and Supplements 1 and 2, "Exxon Nuclear Methodology for Boiling Water Reactors – Neutronic Methods for Design and Analysis, Exxon Nuclear Company," March 1983 [TS 3.2.1, TS 3.2.2, TS 3.2.3].

3.3.7 XN-NF-80-19(P)(A) Volume 4 Revision 1, "Exxon Nuclear Methodology for Boiling Water Reactors: Application of the ENC Methodology to BWR Reloads, Exxon Nuclear Company," June 1986 [TS 3.2.1, TS 3.2.2, TS 3.2.3].

3.3.8 EMF-2158(P)(A) Revision 0, "Siemens Power Corporation Methodology for Boiling Water Reactors: Evaluation and Validation of CASMO-MICROBURN-B2, Siemens Power Corporation," October 1999 [TS 3.2.2, TS 3.2.3] .

3.3.9 XN-NF-80-19(P)(A) Volume 3 Revision 2, "Exxon Nuclear Methodology for Boiling Water Reactors, THERMEX: Thermal Limits Methodology Summary Description," Exxon Nuclear Company, January 1987 [TS 3.2.2].

3.3.10 XN-NF-84-105(P)(A), Volume 1 and Supplements 1 and 2, "XCOBRA-T: A Computer Code for BWR Transient Thermal Hydraulic Core Analysis," Exxon Nuclear Company, February 1987 [TS 3.2.2].

3.3.11 ANF-524(P)(A) Revision 2 and Supplements 1 and 2, "ANF Critical Power Methodology for Boiling Water Reactors," Advanced Nuclear Fuels Corporation, November 1990 [TS 3.2.2].

3.3.12 ANF-913 (P)(A), Volume 1, Revision 1 and Volume 1 Supplements 2, 3 and 4, "COTRANSA2: A Computer Program for Boiling Water Reactor Transient Analyses," Advanced Nuclear Fuels Corporation, August 1990 [TS 3.2.2].

3.3.13 XN-NF-825(P)(A) Supplement 2, "BWR/6 Generic Rod Withdrawal Error Analysis, $MCPR_p$ for Plant Operation Within the Extended Operating Domain," Exxon Nuclear Company, October 1986 [TS 3.2.2].

3.3.14 ANF-1358(P)(A) Revision 3, "The Loss of Feedwater Heating Transient in Boiling Water Reactors," Framatome ANP, September 2005 [TS 3.2.2].

3.3 Methodology References (continued)

3.3.15* EMF-1997(P)(A) Revision 0, "ANFB-10 Critical Power Correlation," Siemens Power Corporation, July 1998 [TS 3.2.2].

3.3.16* EMF-1997(P), Supplement 1(P)(A), Revision 0, "ANFB-10 Critical Power Correlation: High Local Peaking Results, Siemens Power Corporation," July 1998 [TS 3.2.2].

3.3.17 EMF-2209(P)(A) Revision 2, "SPCB Critical Power Correlation, Siemens Power Corporation," September 2003 [TS 3.2.2].

3.3.18* EMF-2245(P)(A) Revision 0, "Application of Siemens Power Corporation's Critical Power Correlations to Co-Resident Fuel," Siemens Power Corporation, August 2000 [TS 3.2.2].

3.3.19 EMF-2361 (P)(A) Revision 0, "EXEM BWR-2000 ECCS Evaluation Model," Framatome ANP Richland, Inc., May 2001 [TS 3.2.1].

3.3.20 Deleted

3.3.21 Deleted

3.3.22 Deleted

3.3.23 EMF-2292(P)(A) Revision 0, "ATRIUM-10: Appendix K Spray Heat Transfer Coefficients, Siemens Power Corporation," September 2000 [TS 3.2.1].

3.3.24 EMF-CC-074(P)(A) Volume 4 Revision 0, "BWR Stability Analysis-Assessment of STAIF with Input from MICROBURN-B2," Siemens Power Corporation, August 2000 [TS 3.2.4].

3.3.25* NEDE-24011-P-A, General Electric Standard Application for Reactor Fuel (GESTAR-II) [TS 3.2.1, TS 3.2.2, TS 3.2.3].

* Note: These references are applicable when GE fuel is in the reactor.

4.0 DEFINITIONS

4.1 Average Planar Linear Heat Generation Rate (APLHGR) - the APLHGR shall be applicable to a specific planar height and is equal to the sum of the linear heat generation rates for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

4.2 Average Planar Exposure - the Average Planar Exposure shall be applicable to a specific planar height and is equal to the sum of the exposure of all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

4.3 Critical Power Ratio (CPR) - the ratio of that power in the assembly, which is calculated by application of the fuel vendor's appropriate boiling correlation, to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.

4.4 Core Operating Limits Report (COLR) - The Grand Gulf Nuclear Station specific document that provides core operating limits for the current reload cycle in accordance with Technical Specification 5.6.5.

4.5 Linear Heat Generation Rate (LHGR) - the LHGR shall be the heat generation per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.

4.6 Minimum Critical Power Ratio (MCPR) - the MCPR shall be the smallest CPR which exists in the core.

4.7 MCPR Safety Limit - the minimum value of the CPR at which the fuel could be operated with the expected number of rods in boiling transition not exceeding 0.1% of the fuel rods in the core.

4.8 Aligned Drive Flow – Adjusted FCTR card input drive flow signal that accounts for actual variations in the core flow to drive flow relationship.

4.9 Monitored Region – The area of the core power and flow operating domain where the reactor may be susceptible to reactor instabilities under conditions exceeding the licensing basis of the current reactor system.

4.10 Restricted Region – The area of the core power and flow operating domain where the reactor is susceptible to reactor instabilities in the absence of restrictions on core void distributions.

4.11 Setpoint "Setup" – A FCTR card feature that sets the normal "non-setup" E1A APRM flow–biased scram and control rod block trip reference setpoints associated with the Exclusion and Restricted Regions higher to permit required reactor maneuvering in the Restricted Region when stability controls are in effect.

4.12 Middle of Cycle (MOC) – The Cycle 16 MOC Core Average Exposure (CAE) is 32,106 MWd/MTU [3.2.1].

4.13 End of Cycle (EOC) – The Cycle 16 EOC CAE is 34,063 MWd/MTU [3.2.1].

4.14 Extended End of Cycle (EEOC) – The Cycle 16 EEOC CAE is 34,885 MWd/MTU [3.2.1].

5.0 GENERAL REQUIREMENTS

5.1 Average Planar Linear Heat Generation Rates

Consistent with Technical Specification 3.2.1, all APLHGRs shall not exceed the exposure-dependent limits reported in Figure 1-1 [3.2.1].

5.2 Minimum Critical Power Ratio

Consistent with Technical Specification 3.2.2, the MCPR shall be equal to or greater than the limits reported in Figure(s) 2 as functions of power, flow, and exposure [3.2.1].

Additional MCPR operating limits are provided to support operation with EOC-RPT inoperable as described in Technical Specification 3.3.4.1.

5.3 Linear Heat Generation Rate

Consistent with Technical Specification 3.2.3, the LHGR shall not exceed the exposure-dependent limits reported in Figure 3-1 multiplied by the smaller of either the power-dependent or flow-dependent LHGR factors reported in Figures 3-2 and 3-3, respectively [3.2.1].

The LHGR limits given in Figure 3-1 may be linearly extrapolated beyond a pellet exposure of 70.4 GWd/MTU provided the rod and fuel assembly exposure limits are maintained [3.2.1].

5.4 Stability

The stability regions and allowable values specified in Technical Specifications are reported in Figure(s) 4 [3.2.2].

5.5 Applicability

The following core operating limits are applicable for operation in the Maximum Extended Operating Domain (MEOD), with Feedwater Heaters Out of Service (FHOOS), and EOC-RPT inoperable. For operation with EOC-RPT inoperable, the alternate MCPR limits described in Section 5.2 above must be implemented. Since the maximum licensed GGNS feedwater temperature reduction is 50 °F at rated power operation, an alternate set of stability limits is not required. For single-loop operation (SLO), the following additional requirements must be satisfied.

1. A SLO MAPLHGR multiplier of 0.97 is required [3.2.1].

2. The MCPR shall be equal to or greater than the limits determined in accordance with Section 5.2 above increased by 0.02 to account for the difference between the two-loop and single-loop MCPR safety limits for the allowable range of single-loop operation [3.2.1].

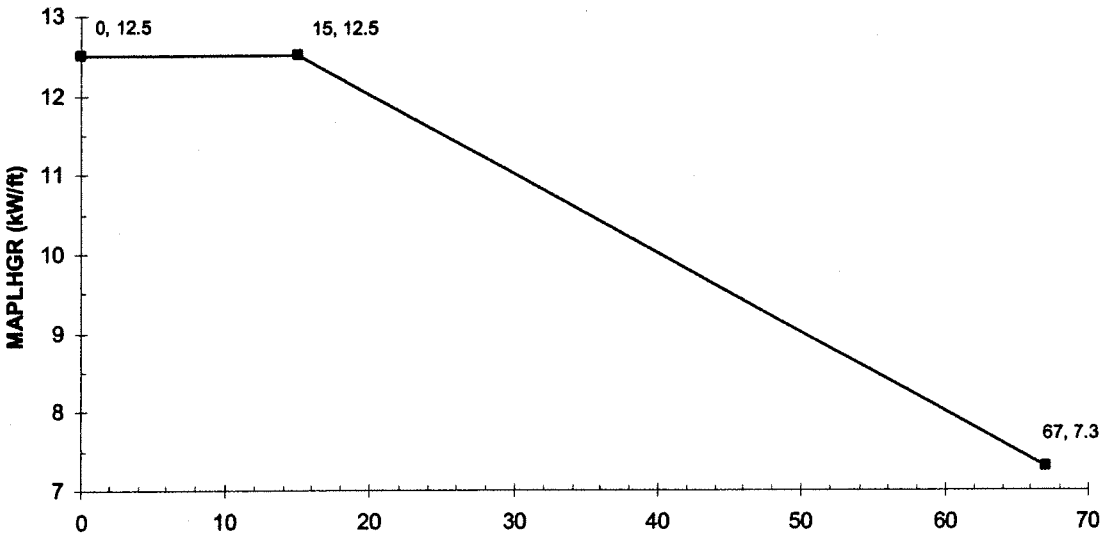

Figure 1-1
Maximum Average Planar Linear Heat Generation Rate
Note: Actual limits described in Sections 5.1 and 5.5

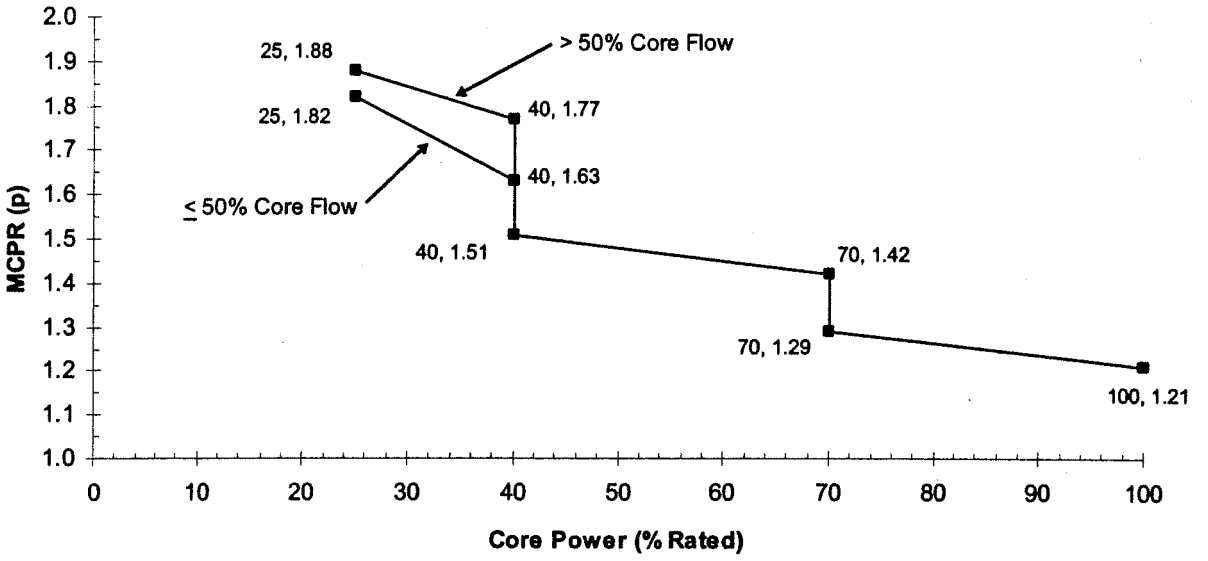

Figure 2-1 Cycle 16 Power-Dependent MCPR Limits BOC to MOC

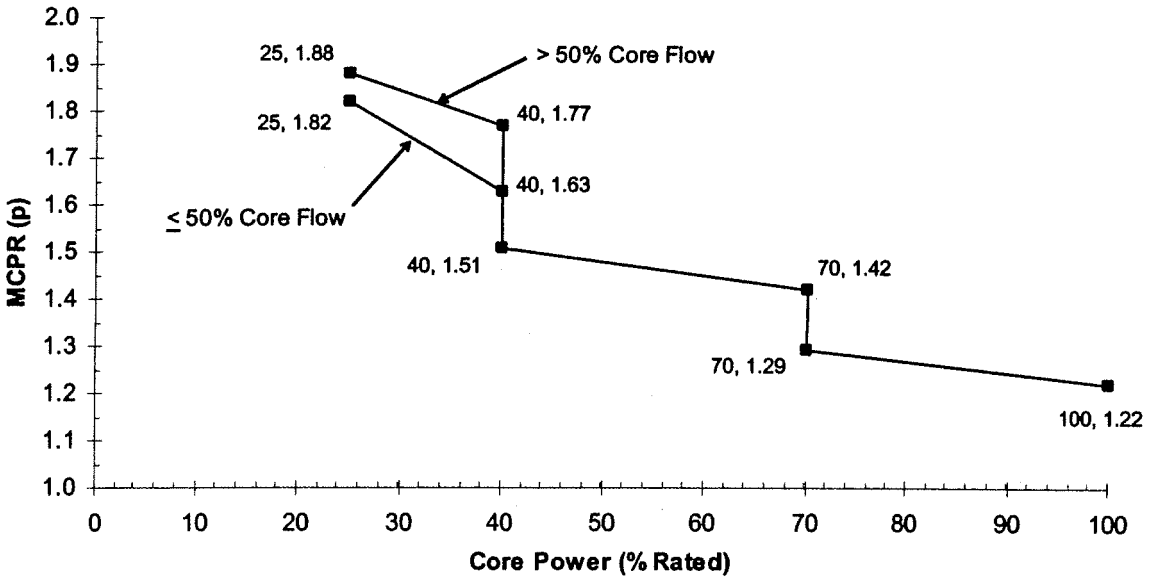

Figure 2-2 Cycle 16 Power-Dependent MCPR Limits BOC to MOC with EOC-RPT Inoperable

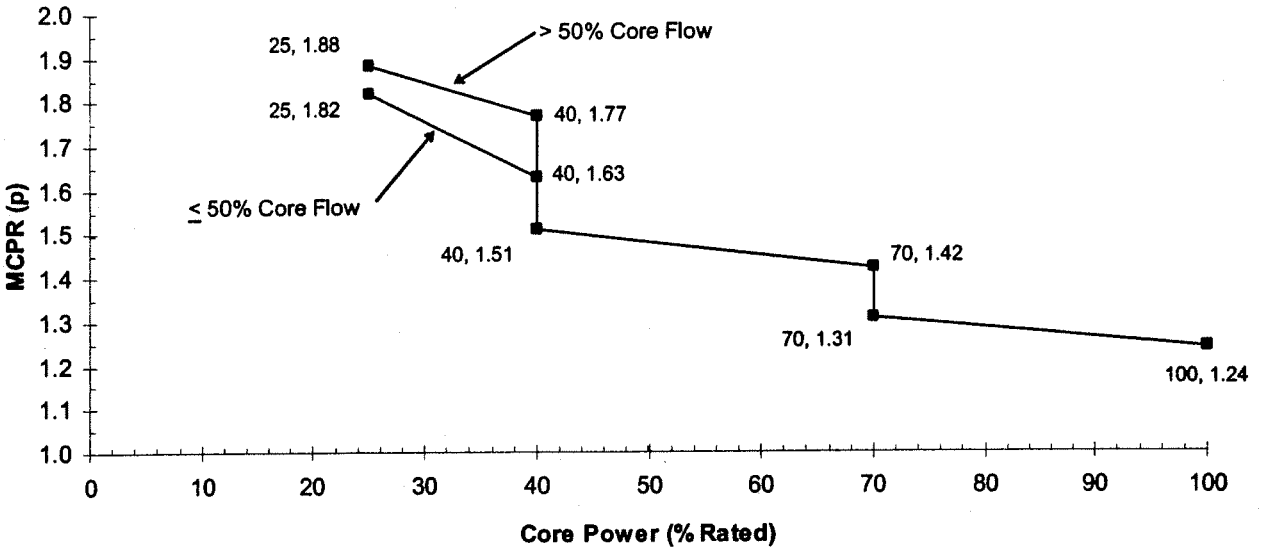

Figure 2-3 Cycle 16 Power-Dependent MCPR Limits MOC to EOC

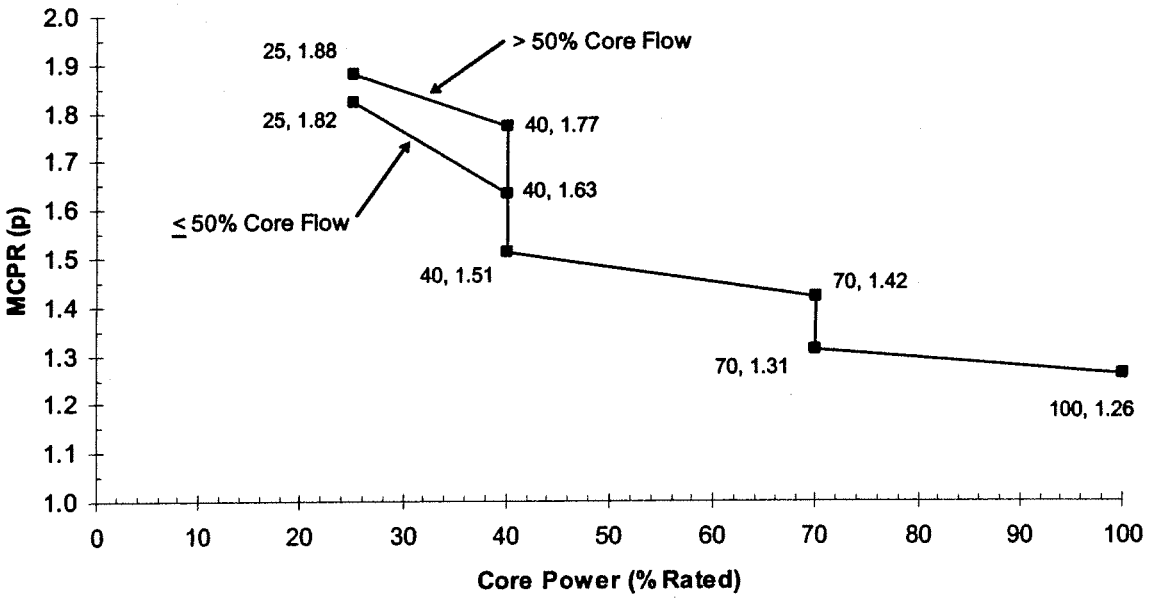

Figure 2-4 Cycle 16 Power-Dependent MCPR Limits MOC to EOC with EOC-RPT Inoperable

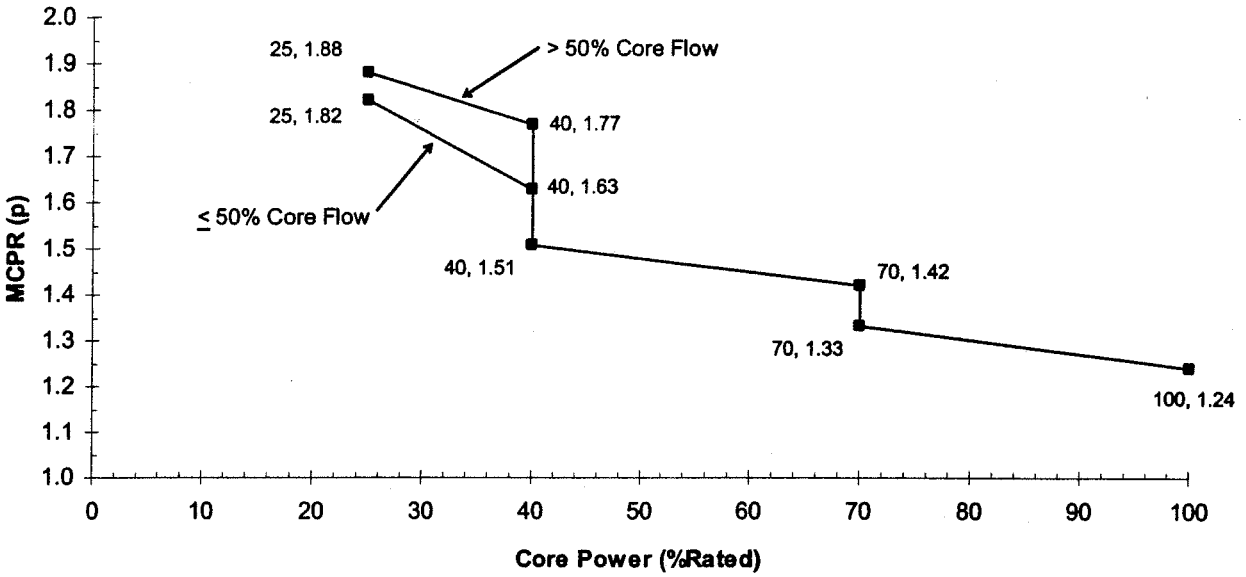

Figure 2-5 Cycle 16 Power-Dependent MCPR Limits EOC to EEOC

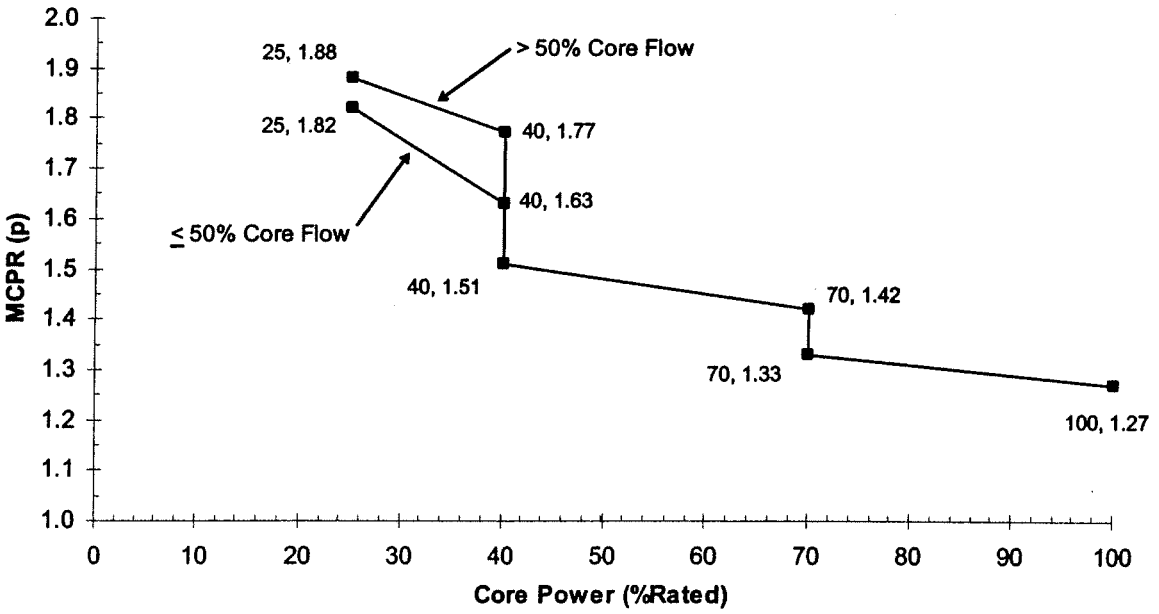

Figure 2-6 Cycle 16 Power-Dependent MCPR Limits EOC to EEOC with EOC-RPT Inoperable

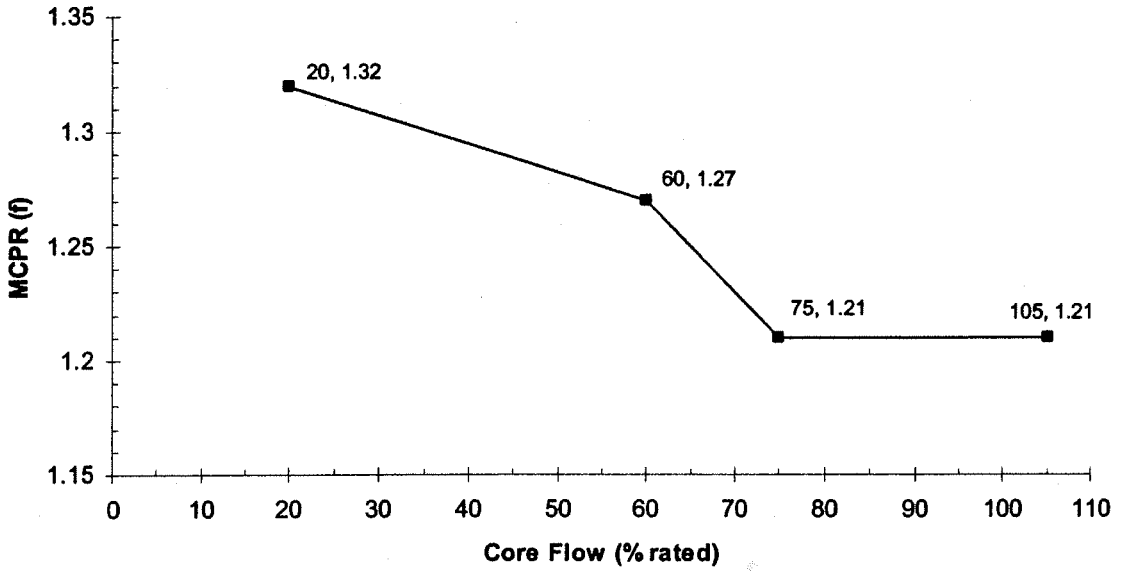

Figure 2-7 Cycle 16 Flow-Dependent MCPR Limits

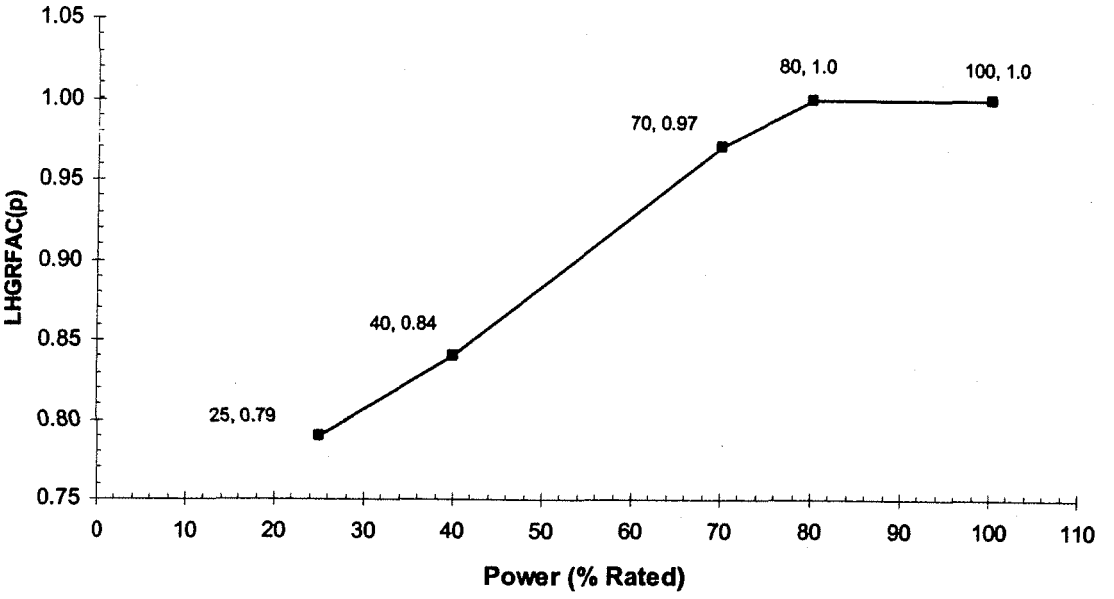

Figure 3-2
Cycle 16 Power-Dependent LHGR Factor BOC-EEOC
Note: These factors to be applied to the exposure-dependent limits as described in Section 5.3

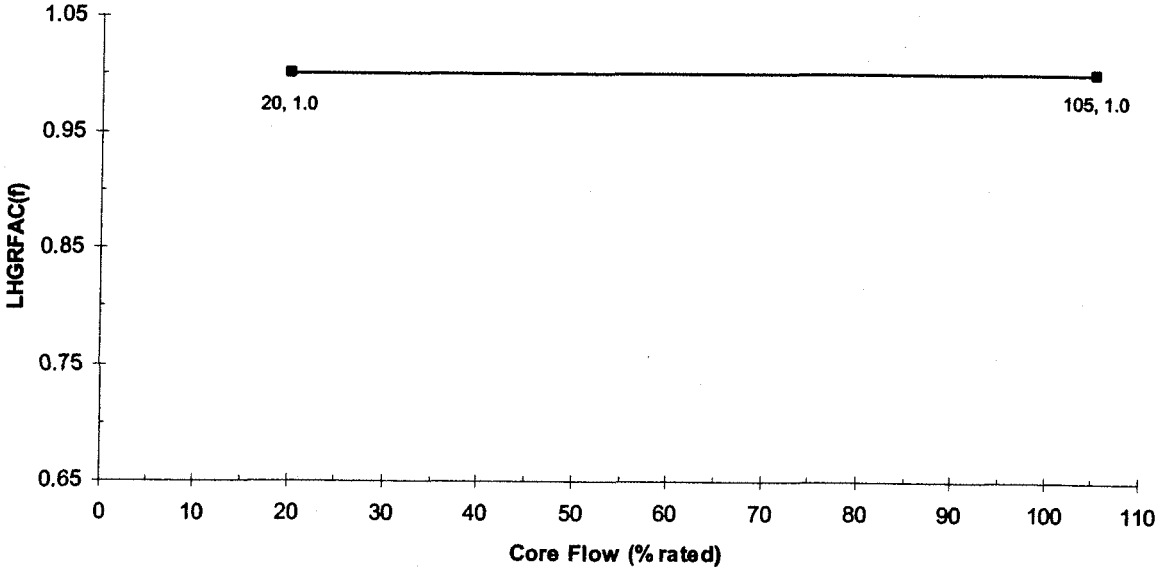

Figure 3-3
Cycle 16 Flow-Dependent LHGR Factor for ATRIUM-10
Note: These factors to be applied to the exposure-dependent limits as described in Section 5.3