

April 22, 1994

Mr. Ross P. Barkhurst  
 Vice President Operations  
 Entergy Operations, Inc.  
 Post Office Box B  
 Killona, Louisiana 70066

Dear Mr. Barkhurst:

**SUBJECT: ISSUANCE OF AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE  
 NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3 (TAC NO. M88326)**

The Commission has issued the enclosed Amendment No. 93 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated November 16, 1993 as supplemented by letter dated April 5, 1994. The increase in the required power operating reduction from 13% to 16% was withdrawn by your letter dated April 5, 1994.

The amendment changes the Appendix A TSs to provide acceptable conditions for operation when the core operating limit supervisory system (COLSS) is out of service and either or both control element assembly calculators (CEACs) are operable.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

David L. Wigginton, Senior Project Manager  
 Project Directorate IV-1  
 Division of Reactor Projects - III/IV  
 Office of Nuclear Reactor Regulation

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 P PDR

Enclosures:

1. Amendment No. 93 to NPF-38
2. Safety Evaluation

cc w/enclosures:

See next page

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PD4-1 Reading

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 W. Johnson, RIV  
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OFC	LA:PD4-1	PM:PD4-1	OGC <i>OK as revised</i>	D:PD4-1
NAME	PNoonan	DWigginton/bc	<i>WBeckner</i>	WBeckner
DATE	4/14/94	4/12/94	4/14/94	4/12/94
COPY	YES/NO	YES/NO	YES/NO	YES/NO

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 22, 1994

Docket No. 50-382

Mr. Ross P. Barkhurst  
Vice President Operations  
Entergy Operations, Inc.  
Post Office Box B  
Killona, Louisiana 70066

Dear Mr. Barkhurst:

SUBJECT: ISSUANCE OF AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE  
NPF-38 - WATERFORD STEAM ELECTRIC STATION, UNIT 3 (TAC NO. M88326)

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The amendment changes the Appendix A TSs to provide acceptable conditions for operation when the core operating limit supervisory system (COLSS) is out of service and either or both control element assembly calculators (CEACs) are operable.

A copy of our related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,

A handwritten signature in dark ink, appearing to read "D. L. Wigginton", written in a cursive style.

David L. Wigginton, Senior Project Manager  
Project Directorate IV-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 93 to NPF-38
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Ross P. Barkhurst  
Entergy Operations, Inc.

Waterford 3

cc:

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ENERGY OPERATIONS, INC.

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93  
License No. NPF-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Entergy Operations, Inc. (the licensee) dated November 16, 1993, as supplemented by letter dated April 5, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-38 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 93, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



William D. Beckner, Director  
Project Directorate IV-1  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 22, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 93

TO FACILITY OPERATING LICENSE NO. NPF-38

DOCKET NO. 50-382

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains a vertical line indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

REMOVE PAGE

3/4 2-8

INSERT PAGE

3/4 2-8

POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS (Continued)

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COLSS OUT OF SERVICE DNBR LIMIT LINE

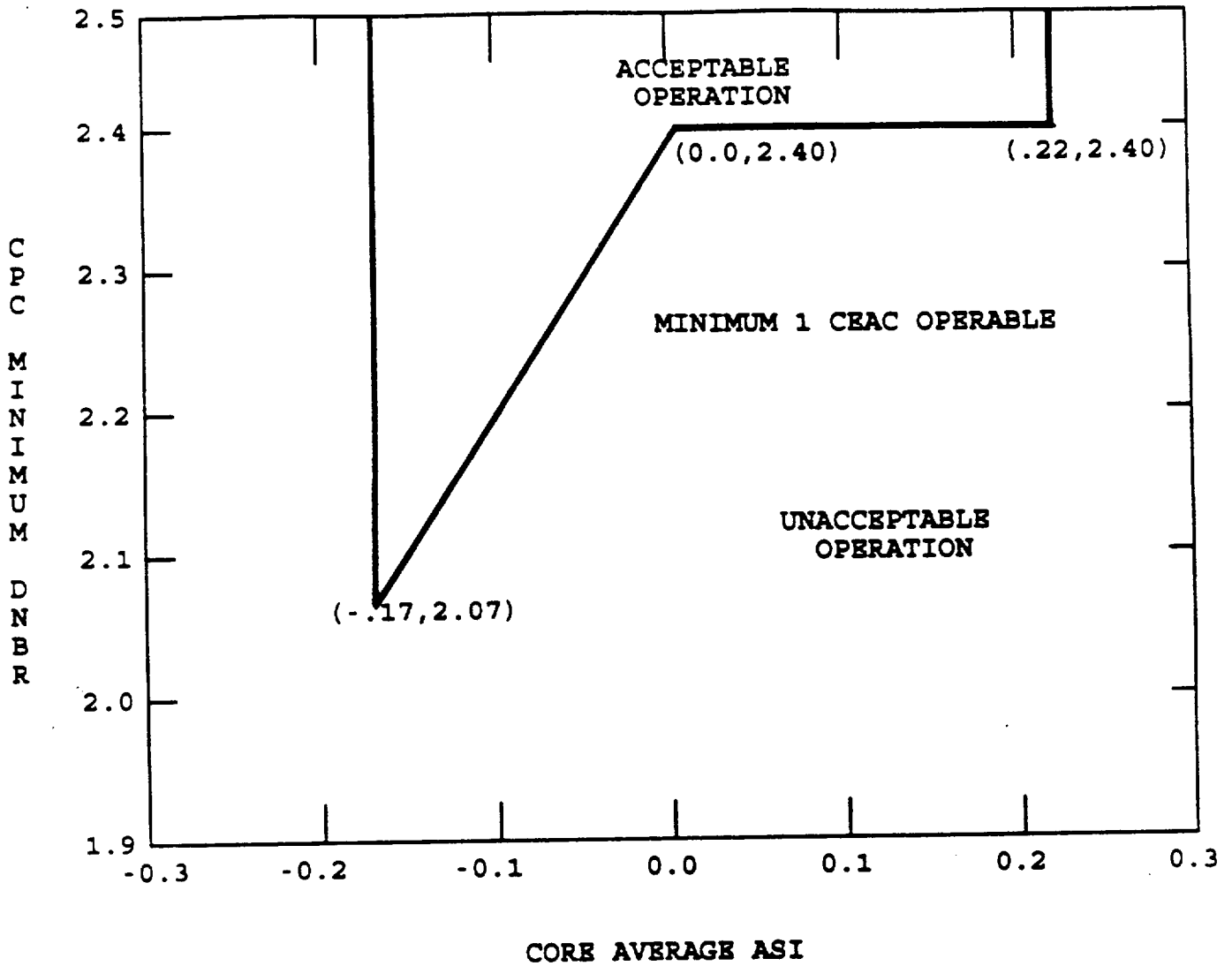


FIGURE 3.2-2

DNBR MARGIN OPERATING LIMIT BASED ON CORE PROTECTION CALCULATORS  
(COLSS OUT OF SERVICE, CEACs OPERABLE)





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 93 TO

FACILITY OPERATING LICENSE NO. NPF-38

ENERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

By application dated November 16, 1993, Entergy Operations, Inc. (the licensee), submitted a request for changes to the Waterford Steam Electric Station, Unit 3, Technical Specification (TS) 3.2.4, "Power Distribution Limits, DNBR Margin." The proposed changes (NPF-38-144) would revise TS 3.2.4b (when the Core Operating Limit Supervisory System (COLSS) is in service and neither Control Element Assembly Calculator (CEAC) is operable) and TS 3.2.4c (when COLSS is out of service and either one or both CEACs are operable). By letter dated April 5, 1994, the licensee withdrew the proposed change related to TS 3.2.4b.

2.0 DISCUSSION

There are two systems that monitor core power distribution online: the COLSS and the Core Protection Calculators (CPCs). CEACs monitor CEA position and transmit an appropriate penalty factor to the CPCs if a CEA should deviate from its allowable subgroup position. The COLSS is normally used to monitor departure from nucleate boiling ratio (DNBR) margin. When COLSS is in service and at least one CEAC is operable, TS 3.2.4a provides enough margin to departure from nucleate boiling (DNB) to accommodate the limiting anticipated operational occurrence (AOO) without failing fuel. This has been reverified by the Cycle 7 safety analyses.

When the COLSS is out of service but at least one CEAC is operable, TS 3.2.4c requires that the DNBR operating margin shall be maintained by comparing the DNBR indicated on any operable CPC channel with the allowable value from TS Figure 3.2-2. Whenever the COLSS is out of service, the CPCs are used to perform the same monitoring function. However, the extra conservatisms built into the CPCs for transient protection are not all required when the CPCs are being used for monitoring. In order not to affect the transient protection, these conservatisms are not taken from the CPC but are credited in the COLSS out-of-service limits given in TS Figure 3.2-2.

### 3.0 EVALUATION

The licensee has reevaluated the limiting A00s based on the Cycle 7 core parameters as part of the Cycle 7 reload safety analyses. The results have indicated that the acceptable operating region shown in the proposed revised Figure 3.2-2 provides sufficient margin to ensure that fuel failure will not result during normal operation or A00s, thereby conforming to General Design Criterion (GCD) 10 of Appendix A to 10 CFR Part 50. The analyses were performed using staff approved methods and assumptions. The staff, therefore, finds that the proposed revision to this figure is acceptable.

### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Louisiana State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (59 FR 620). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: L. Kopp

Date: April 22, 1994