



Entergy Operations

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August 15, 1990

W. T. Cottle
Vice President
Operations
Grand Gulf Nuclear Station

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Proposed Amendment to the Operating
License (PCOL-90/07, Revision 1)
Cycle 5 Reload
AECM-90/0146

Reference: AECM-90/0092, dated June 8, 1990; Proposed Amendment to the
Operating License (PCOL-90/07)

Entergy Operations, Inc. is submitting a revision to the proposed amendment to the Grand Gulf Nuclear Station (GGNS) Operating License submitted via the above reference. The revision addresses changes made to certain GGNS Cycle 5 reload analyses as a result of NRC comments on the treatment of TIP asymmetry uncertainty with the new CASMO/MICROBURN based licensing methodology. A list of affected pages is included before each attachment. The affected pages have been marked with change bars to indicate revised information.

The change in the TIP asymmetry uncertainty required reevaluation of the Cycle 5 reload analysis. The increased uncertainty had a direct effect on the safety limit MCPR (SLMCPR) analysis. As a result, the SLMCPR increased by 0.01, from 1.08 to 1.09, for both two-loop and single-loop operations. The effect of the SLMCPR increase on the operating limit MCPR (OLMCPR) was assessed. The exposure, power and flow dependent operating limits (MCPR_e, MCPR_p and MCPR_f) were adjusted appropriately to ensure protection of the SLMCPR during anticipated transients. Transient simulations performed in support of the revised OLMCPR included slow flow excursion and loss of feedwater heating (LFWH) events. The slow flow excursion analysis uses the SLMCPR explicitly as an input and was therefore rerun with the revised SLMCPR value of 1.09.

Initially for Cycle 5, the delta CPR for the LFWH event was established based on the methodology used for Cycle 4 (XTGBWR/XN-3). With the introduction of the accepted treatment of TIP asymmetry uncertainty, use of the Cycle 4 methodology for the Cycle 5 LFWH event yielded an overly restrictive OLMCPR. Therefore, the LFWH event has been reanalyzed using MICROBURN-B/ANFB following the same calculational approach as was previously used for Cycle 4 and with an expanded GGNS-1 database.

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The conclusions of the previously submitted No Significant Hazards Consideration (Reference), as posted in the Federal Register (55 FR 30297, July 25, 1990), are not affected by these changes. However, there was an increase in the safety limit MCPR from 1.08 to 1.09.

This submittal has been reviewed and approved by the GGNS Plant Safety Review Committee. The original submittal (Reference) was approved by the GGNS Plant Safety Review Committee and the Safety Review Committee. If you have any questions, please advise.

Yours truly,

W T Cobb

WTC:tkm

Enclosure: Affirmation per 10CFR50.30

Attachments: 1. GGNS PCOL-90/07, Revision 1
2. Cycle 5 Reload Summary Report, August, 1990
3. Cycle 5 Proposed Startup Physics Tests
4. ANF-90-022, Grand Gulf Cycle 5 Reload Analysis, Revision 2
5. ANF-90-021, Grand Gulf Cycle 5 Plant Transient Analysis, Revision 2

cc: Mr. D. C. Hintz (w/a)
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BEFORE THE
UNITED STATES NUCLEAR REGULATORY COMMISSION

LICENSE NO. NPF-29

DOCKET NO. 50-416

IN THE MATTER OF
MISSISSIPPI POWER & LIGHT COMPANY
and
SYSTEM ENERGY RESOURCES, INC.
and
SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION
and
ENTERGY OPERATIONS, INC.

AFFIRMATION

I, W. T. Cottle, being duly sworn, state that I am Vice President, Operations GGNS of Entergy Operations, Inc.; that on behalf of Entergy Operations, Inc., System Energy Resources, Inc., and South Mississippi Electric Power Association I am authorized by Entergy Operations, Inc. to sign and file with the Nuclear Regulatory Commission, this application for amendment of the Operating License of the Grand Gulf Nuclear Station; that I signed this application as Vice President, Operations GGNS of Entergy Operations, Inc.; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information and belief.

W. T. Cottle

W. T. Cottle

STATE OF MISSISSIPPI
COUNTY OF CLAIBORNE

SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the
County and State above named, this 15 day of August, 1990.

(SEAL)

Patricia Heaghegan
Notary Public

My commission expires:

My commission expires July 1, 1991