



Entergy Operations, Inc.  
Waterloo Road  
PO Box 756  
Port Gibson, MS 39150  
Tel 601 437 6470

**Jerry C. Roberts**  
Director  
Nuclear Safety Assurance

GNRO-2003/00002

January 28, 2003

U.S. Nuclear Regulatory Commission  
Attn. Document Control Desk  
Washington, DC 20555

**SUBJECT:** Grand Gulf Nuclear Station, Unit 1 (GGNS)  
Docket No. 50-416  
Updated Risk Metrics for Extending the Emergency Diesel  
Generator Allowed Outage Time (TAC No.MB3973).

**REFERENCES:**

1. Letter GNRO-2002/00007 from William A. Eaton to U.S. NRC Document Control Desk, "License Amendment Request Emergency Diesel Generator Extended Allowed Out-of-Service Time" dated January 31, 2002
2. Letter GNRO-2002/00056 from Jerry C. Roberts to U.S. NRC Document Control Desk, "Supplement to Amendment Request – Emergency Diesel Generator Extended Allowed Outage Time, TS 3.8.1", dated June 20, 2002.

Dear Sir or Madam:

By letter (Reference 1), Entergy Operations, Inc. (Entergy) proposed a change to the Grand Gulf Nuclear Station, Unit 1 Technical Specifications (TS) to extend the allowed out-of-service time for a Division I or Division II Emergency Diesel Generators (EDGs) from 72 hours to 14 days (TAC No MB3973). The NRC approved and issued the change as Amendment No. 151. The NRC approval was based in part on the evaluation of risk impacts associated with the change. These risk impacts were evaluated by Entergy using an interim Probabilistic Safety Analysis (PSA) model. Prior to issuance of the amendment, Entergy committed in a letter (Reference 2) to evaluate the risk metrics using the updated PSA model, when available, and provide a summary of the results to the NRC staff.

Revision 2 of the GGNS PSA model is now complete and has been used to evaluate the risk of an extended EDG AOT. A summary of the results of the evaluation are contained in Attachment 1. As expected, the risk metric values are less than the results reported using the interim model and continue to show that the increase in plant risk is small and consistent with regulatory guidance.

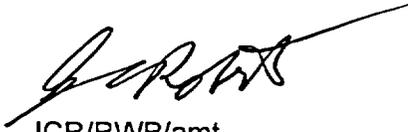
There are no new commitments contained in this letter.

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January 28, 2003  
GNRO-2003/00002  
Page 2 of 2

If you have any questions or require additional information, please contact  
Ron Byrd at 601-368-5792.

Sincerely,



JCR/RWB/amt  
attachment:

Updated Risk Metrics

cc:

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Ellis W. Merschoff  
Regional Administrator, Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-4005

U. S. Nuclear Regulatory Commission  
ATTN: Mr. David H. Jaffe NRR/DLPM (w/2)  
ATTN: U.S. Postal Delivery Address Only  
Mail Stop OWFN/7D-I  
Washington, D.C. 20555-0001

Mr. T. L. Hoeg, GGNS Senior Resident  
Mr. D. E. Levanway (Wise Carter)  
Mr. L. J. Smith (Wise Carter)  
Mr. N. S. Reynolds  
Mr. H. L. Thomas

Dr. E. F. Thompson (w/a)  
State Health Officer  
State Board of Health  
P. O. Box 1700  
Jackson, Mississippi 39205

**Attachment 1**

**To**

**GNR0-2003/00002**

**Updated Risk Metrics**

**Updated Risk Metrics for EDG AOT Extension**

By letter dated January 31, 2002 (Reference 1), Entergy requested a Technical Specification Amendment to extend the Emergency Diesel Generator (EDG) allowed outage time (AOT) from 72 hours to 14 days. The request was a risk informed submittal which relied upon an interim Probabilistic Safety Analysis (PSA) model to develop the risk metric values for NRC review. In a supplemental letter dated June 20, 2002 (Reference 2) GGNS committed to evaluate the risk metrics for the EDG extended AOT using the updated risk model, when available, and provide a summary of the results to the NRC staff. Revision 2 of the GGNS PSA model is now complete and has been used to evaluate the risk of an extended EDG AOT. A summary of the results is provided below.

Updated PSA Results:

Model	Updated CDF	Updated LERF
Baseline	4.27E-6/yr	5.30E-8/yr
EDG A OOS	6.17E-6/yr	1.35E-7/yr
EDG B OOS	5.99E-6/yr	1.31E-7/yr

Updated Risk Metrics for EDG Extended AOT:

Risk Metric	Significance Guidance Criterion <sup>1</sup>	GGNS Initial Results	GGNS Updated Results
$\Delta$ CDF <sub>AVG</sub>	<1.0E-06/yr	2.73E-7/yr	1.09E-7/yr
ICCDP	<5.0E-07	2.15E-7	7.30E-8
$\Delta$ LERF <sub>AVG</sub>	<1.0E-07/yr	1.04E-8/yr	4.74E-9/yr
ICLERP	<5.0E-08	8.32E-9	3.15E-9

These results are based on EDG A, Division I, which still provides the limiting values for the risk metrics. As can be seen from the above table, the GGNS updated results continue to show that the increase in plant risk is small and still within the significance guidance of Regulatory Guides 1.174 and 1.177.

<sup>1</sup> Reference RG 1.174 & RG 1.177