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Jerry C. Roberts
Director
Nuclear Safety Assurance

GNRO-2003/00044

August 7, 2003

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

SUBJECT: Supplement to Amendment Request
Removal of MODE Restrictions for Surveillance Testing of the
Division 3 Battery (TAC No. MB8938)
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

REFERENCE: Letter GNRO-2003/00033 from J. C. Roberts to USNRC, "License
Amendment Request – Removal of MODE Restrictions for
Surveillance Testing of the Division 3 Battery" dated May 12, 2003
(ADAMS Accession No. ML031420552)

Dear Sir or Madam:

By letter (Reference 1), Entergy Operations, Inc. (Entergy) proposed a change to the Grand Gulf Nuclear Station, Unit 1 (GGNS) Technical Specifications (TS) to remove the MODE restrictions for performance of Surveillance Requirements (SR) 3.8.4.7 and 3.8.4.8 for the Division 3 DC electrical power subsystem.

On June 25, 2003, Entergy and members of your staff held a call to discuss the current TS Bases definition of "degradation" for SR 3.8.4.8. SR 3.8.4.8 requires a battery performance test every 60 months to determine overall battery degradation due to age and usage. The surveillance is required to be performed more frequently if the battery shows "degradation" or reaches 85% of the expected life. The current TS Bases defines "degradation" as when battery capacity drops by more than 10% of rated capacity from the average of previous tests or is below 90% of the manufacturer's rating. The NRC staff reviewer expressed concern over the effectiveness of determining battery condition by comparing measured capacity to the average capacity of previous tests. After discussion and review of IEEE Standard 450 and NUREG 1434, Entergy agreed to revise the TS Bases for SR 3.8.4.8 such that future performance tests will compare battery capacity with the previous performance test rather than the average of the previous performance tests.

ASU1

The definition of "degradation" is taken from IEEE Standard 450, *IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications*. Early editions of the IEEE standard defined degradation in relation to a change in capacity from the average of previous tests. However, newer editions of the standard define degradation in relation to the change in capacity from only the previous performance test. NUREG 1434, *Standard Technical Specifications General Electric Plants, BWR/6*, also defines degradation in relation to the previous test rather than the average of the previous tests.

The TS Bases will be revised in accordance with TS 5.5.11, "Technical Specification (TS) Bases Control Program," from:

"Degradation is indicated when the battery capacity drops by more than 10% of rated capacity from its average on previous performance tests or is below 90% of the manufacturer's rating"

to:

"Degradation is indicated when the battery capacity drops by more than 10% of rated capacity relative to its capacity on the previous performance test or is below 90% of the manufacturer's rating."

A mark-up of TS Bases page B 3.8-59 was provided with Reference 1 for your information. A revised mark-up of TS Bases page B 3.8-59 showing the above additional changes is provided in Attachment 1 for your information. As discussed in Reference 1, the TS Bases changes will be implemented within 60 days of amendment issuance. The original no significant hazards consideration included in Reference 1 is not affected by any information contained in the supplemental letter. There is one new commitment contained in this letter.

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

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 7, 2003.

Sincerely,



JCR/RWB/amt

Attachments:

1. Revised Markup of Technical Specification Bases Pages
2. List of Regulatory Commitments

cc: (See Next Page)

cc: Mr. Thomas P. Gwynn
Acting Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-4005

U. S. Nuclear Regulatory Commission
Attn: Mr. B. K. Vaidya MS OWFN/7D-1
Washington, DC 20555-0001

Mr. Brian W. Amy, MD, MHA, MPH
Mississippi Department of Health
P. O. Box 1700
Jackson, MS 39215-1700

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

Attachment 1

To

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Revised Markup of Technical Specification Bases Pages

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.4.8 (continued)

The Surveillance Frequency for this test is normally 60 months. If the battery shows degradation, or if the battery has reached 85% of its expected life and capacity is < 100% of the manufacturer's rating, the Surveillance Frequency is reduced to 12 months. However, if the battery shows no degradation but has reached 85% of its expected life, the Surveillance Frequency is only reduced to 24 months for batteries that retain capacity \geq 100% of the manufacturer's rating. Degradation is indicated when the battery capacity drops by more than 10% of rated capacity ~~from its average of~~ previous performance tests or is below 90% of the manufacturer's rating. These Frequencies are based on the recommendations in IEEE-450 (Ref. 8).

relative to
its capacity
on the

The Division 3
test may be
performed in
MODE 1, 2, or 3 in
conjunction with
HPCS system
outages.

This SR is modified by a Note. The reason for the Note is that performing the Surveillance would remove a required DC electrical power subsystem from service, perturb the electrical distribution system, and challenge safety systems. Credit may be taken for unplanned events that satisfy the Surveillance.

REFERENCES

1. 10 CFR 50, Appendix A, GDC 17.
2. Regulatory Guide 1.6, March 10, 1971.
3. IEEE Standard 308, 1978.
4. UFSAR, Section 8.3.2.
5. UFSAR, Chapter 6.
6. UFSAR, Chapter 15.
7. Regulatory Guide 1.93, December 1974.
8. IEEE Standard 450, 1987.
9. Regulatory Guide 1.32, February 1977.
10. Regulatory Guide 1.129, December 1974.
11. IEEE Standard 485.

Attachment 2

To

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List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE (If Required)
	ONE- TIME ACTION	CONTINUING COMPLIANCE	
Entergy agreed to revise the TS Bases for SR 3.8.4.8 such that future performance tests will compare battery capacity with the previous performance test rather than the average of the previous performance tests.	X		Within 60 days of amendment issuance