



Entergy Operations, Inc.

Waterloo Rd.  
P.O. Box 756  
Port Gibson, MS 39150  
Tel 601 437 6470

**Michael A. Krupa**

Director  
Nuclear Safety Assurance

GNRO-2006/00032

June 5, 2006

U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Document Control Desk

Subject: Response to Generic Letter 2006-03, Potentially Nonconforming  
Hemyc and MT Fire Barrier Configurations

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

Reference: 1. NRC letter dated April 10, 2006, *Potentially Nonconforming Hemyc  
and MT Fire Barrier Configurations* (GNRI-2006/00039)

Dear Sir or Madam:

Per Reference 1, the NRC issued Generic Letter (GL) 2006-03 to request facilities to confirm compliance with existing applicable regulatory requirements, and if appropriate, take additional actions. Specifically, although Heymc and MT fire barriers may be relied on to protect electrical and instrumentation cables and equipment that provide safe shutdown capability during a fire, 2005 NRC testing has revealed that both materials failed to provide the protective function intended for compliance with existing regulations. The requested information is being provided under the requirements of 10 CFR 50.54(f).

The Grand Gulf Nuclear Station response to the requested information in GL 2006-03 is contained in the attachment to this submittal. Entergy is not making any commitments as a result of our response to this letter. If you have any questions or require additional information, please contact Randy Sorrels at 601-437-2249.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 5, 2006.

Sincerely,



MAK/WBA:wba

Attachment: Response to Generic Letter 2006-03 for GGNS

cc: NRC Senior Resident Inspector  
Grand Gulf Nuclear Station  
Port Gibson, MS 39150

U. S. Nuclear Regulatory Commission  
ATTN: Dr. Bruce S. Mallet (w/2)  
Regional Administrator, Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-4005

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Bhalchandra Vaidya, NRR/DORL (w/2)  
**ATTN: ADDRESSEE ONLY**  
ATTN: U. S. Postal Delivery Address Only  
Mail Stop OWFN/O-7D1A  
Washington, DC 20555-0001

Mr. D. E. Levanway (Wise Carter)  
Mr. L. J. Smith (Wise Carter)  
Mr. N. S. Reynolds  
Mr. J. N. Compton

**Attachment to**

**GNRO-2006/00032**

**Response to Generic Letter 2006-03 for GGNS**

## **Response to Generic Letter 2006-03 for GGNS**

### **Requested Information**

*Addressees are requested to determine whether or not Hemyc or MT fire barrier material is installed and relied upon for separation and/or safe shutdown purposes to satisfy applicable regulatory requirements. In addition, licensees are asked to describe controls that were used to ensure the adequacy of other fire barrier types, consistent with the assessment requested in GL 92-08.*

*Addressees that credit Hemyc or MT for compliance are requested to provide information regarding the extent of installation, whether the material complies with regulatory requirements, and any compensatory actions in place to provide equivalent protection and maintain safe shutdown function of affected areas of the plant in light of the recent findings associated with Hemyc and MT. Licensees are requested to provide evaluations to support conclusions that they are in compliance with regulatory requirements for the Hemyc and MT applications. Licensees that cannot justify their continued reliance on Hemyc or MT are requested to provide a description of corrective actions taken or planned and a schedule for milestones, including when full compliance will be achieved.*

*Compensatory measures and corrective actions must be implemented in accordance with existing regulations commensurate with the safety significance of the nonconforming condition. The NRC expects all licensees to fully restore compliance with 10CFR50.48 and submit the required documentation to the NRC by December 1, 2007.*

### **NRC Request 1(a)**

*Provide a statement on whether Hemyc or MT fire barrier material is used and whether it is relied upon for separation and/or safe shutdown purposes in accordance with the licensing basis, including whether Hemyc or MT is credited in other analyses (e.g., exemptions, license amendments, GL 86-10 analyses).*

### **GGNS Response to Request 1(a):**

Grand Gulf Nuclear Station (GGNS) does not rely on either Hemyc or MT for separation and/or safe shutdown purposes to meet 10CFR50 Appendix R requirements.

### **NRC Request 1(b)**

*A description of the controls that were used to ensure that other fire barrier types relied on for separation of redundant trains located in a single fire area are capable of providing the necessary level of protection. Addressees may reference their responses to GL 92-08 to the extent that the responses address this specific issues.*

**GGNS Response to Request 1(b):**

GGNS relies **only** on 2 types of rated fire wrap configurations in order to fulfill the requirement of 10CFR50 Appendix R, Section III.G.2.c and Section III.G.2.f; Thermo-Lag 330 and 3M Interam.

The Kaowool material previously utilized at GGNS to meet 10CFR50 Appendix R, Section III.G.2.c has been replaced with a qualified 1 hour rated 3M Interam wrap system (deterministic approach) for the Control Building.

The Kaowool material previously utilized at GGNS to meet 10CFR50 Appendix R, Section III.G.2.c in the Auxiliary Building is no longer credited. A qualified 1 hour rated 3M Interam wrap system is installed in accordance with a risk informed, performance based approach using NFPA 805 methods. This change is currently submitted to the NRC for license change approval. Reference GNRO-2005/00050, from M. A. Krupa to USNRC, "License Amendment Request – Proposed Resolution of Kaowool issues at Grand Gulf" dated August 17, 2005.

Thermo-Lag 330 is used currently utilized at GGNS to meet 10CFR50 Appendix R, Section III.G.2.c in the Control and Auxiliary Building. Per NRC correspondence dated April 21, 1997 (GNRI-1997/00059), the NRC concluded that the GGNS program plan is acceptable to resolve the issues of Thermo-Lag fire barrier systems in GL 92-08.

The Kaowool material previously utilized as the radiant energy shield in the Containment to meet 10CFR50 Appendix R, Section III.G.2.f has been replaced with the 3M Interam material with the exception of Suppression Pool Temperature Monitoring circuit. An alternate method of suppression pool temperature monitoring (located outside of Containment) is provided for a fire in the containment. The non-rated Kaowool radiant energy shield material was left in place on the suppression pool temperature monitoring circuits for added margin but is not credited.

Both the 3M Interam and Thermo-Lag 330 fire wrap systems are qualified by fire tests in accordance with fire test protocol as established in Generic Letter 86-10, Supplement 1.

**NRC Request 2(a)**

*For those addressees that have installed Hemyc or MT fire barrier materials, discuss the extent of the installation (e.g., linear feet of wrap, areas installed, systems protected).*

**GGNS Response to Request 2(a): Not applicable**

**NRC Request 2(b)**

*For those addressees that have installed Hemyc or MT fire barrier materials, discuss whether the Hemyc and/or MT installed in their plants is conforming with their licensing basis in light of recent findings, and if these recent findings do not apply, why not.*

**GGNS Response to Request 2(b): Not applicable.**

**NRC Request 2(c)**

*For those addressees that have installed Hemyc or MT fire barrier materials, the compensatory measures that have been implemented to provide protection and maintain the safe shutdown function of affected areas of the plant in light of the recent findings associated with Hemyc and MT installations, including evaluations to support the addressees' conclusions..*

**GGNS Response to Request 2(c): Not applicable.**

**NRC Request 2(d)**

*For those addressees that have installed Hemyc or MT fire barrier materials, provide a description of, and implementation schedules for, corrective actions, including a description of any licensing actions or exemption requests needed to support changes to the plant licensing basis.*

**GGNS Response to Request 2(d): Not applicable.**

**NRC Request 3**

*No later than December 1, 2007, addressees that identified Hemyc and/or MT configurations are requested to provide a description of actions taken to resolve the nonconforming conditions described in 2.d.*

**GGNS Response to Request 3: Not applicable**