



Entergy Operations, Inc.  
1340 Echelon Parkway  
Jackson, Mississippi 39213-8298  
Tel 601-368-5758

**F. G. Burford**  
Acting Director  
Nuclear Safety & Licensing

CNRO-2006-00051

December 14, 2006

U. S. Nuclear Regulatory Commission  
Attn.: Document Control Desk  
Washington, DC 20555-0001

**SUBJECT:** Response to Request for Additional Information Concerning  
Request for Alternative GG-ISI-003

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

**REFERENCE:** Entergy Operations, Inc. letter CNRO-2006-00043 to the NRC dated  
September 22, 2006

Dear Sir or Madam:

In the referenced letter, Entergy Operations, Inc. (Entergy) submitted Request for Alternative GG-ISI-003, which requested approval to extend the second Inservice Inspection (ISI) interval for piping at Grand Gulf Nuclear Station (GGNS) to the end of its sixteenth refueling outage. In an e-mail to Entergy dated November 21, 2006, the NRC staff requested additional information needed to conclude its review of the request. The enclosure contains the responses to the staff's requests. Should you have any questions regarding this submittal, please contact Guy Davant at (601) 368-5756.

This letter contains no new commitments.

Sincerely,

A handwritten signature in black ink, appearing to read "F. G. Burford".

FGB/GHD/ghd

**Enclosure:** Response to Request for Additional Information Pertaining to Request for  
Alternative GG-ISI-003

**cc:** (see next page)

A047

cc: Mr. W. A. Eaton (ECH)  
Mr. W. R. Bryan (GGNS)

Dr. Bruce S. Mallet  
Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

NRC Senior Resident Inspector  
Grand Gulf Nuclear Station  
Route 2, P.O. Box 399  
Port Gibson, MS 39150

U.S. Nuclear Regulatory Commission  
Attn: Mr. B. K. Vaidya  
MS O-7 D1  
Washington, DC 20555-0001

**ENCLOSURE**

**CNRO-2006-00051**

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING  
REQUEST FOR ALTERNATIVE GG-ISI-003  
GRAND GULF NUCLEAR STATION

- 1) Please confirm that should the proposed risk-informed inservice inspection (RI-ISI) program (requested in Request for Alternative GG-ISI-002 submitted via Entergy letter CNRO-2006-00043 dated September 22, 2006) not be found acceptable, all examinations as required by the current ISI program will be performed by the end of the inspection interval.

**Response:**

*If the RI-ISI program requested via GG-ISI-002 is not accepted by the staff, Entergy plans to submit a different request for alternative to establish an RI-ISI program at Grand Gulf Nuclear Station (GGNS) based on ASME Code Case N-578, which the staff has approved for several licensees. With such a submittal, Entergy would also seek additional extension of the second interval, if necessary. In the unlikely event that the staff does not approve an RI-ISI program based on either code case, Entergy would then perform the necessary Code-required examinations for the second interval.*

- 2) In order to better understand the time intervals, please provide dates (month/year) of when the second 10-year interval started and when will it end.

**Response:**

*The second 10-year ISI interval began June 1997 and ends May 2007. With the requested extension, the second interval would end following the completion of GGNS' sixteenth refueling outage (RF-16), which is currently scheduled for the fall 2008 (approximately four months beyond the Code-allowed one-year extension).*

- 3) Table IWB-2412-1 requires that a minimum of 50% of the required ASME Section XI examinations be completed by the end of the second period of an inspection interval.

- (a) What is the current inspection period GGNS is in?
- (b) Provide the number and/or percentage of inspections of Class 1 and 2 piping welds that have been completed so far as required under the existing ASME Section XI Inservice Inspection Program.

Example:

<u>Inspection</u>	<u>Category/ Percent Complete</u>	<u>Completed</u>
47	B-J welds 34%	23 of X

**Response:**

- (a) GGNS is currently in the third period of the second ISI interval.
  - (b) This information is contained in Section 5 of Entergy's Request for Alternative GG-ISI-002 as follows: "By the end of the last refueling outage (RF-14), 71% of the piping weld examinations required by ASME Section XI have been completed thus far in the second ISI interval for Examination Categories B-F, B-J, C-F-1, and C-F-2." Therefore, GGNS has met the minimum requirement specified in Table IWB-2412-1.
- 4) Clarify which edition and addenda are the code of record at GGNS for the current ISI interval.

**Response:**

GGNS' ISI code of record is ASME Section XI 1992 Edition with portions of the 1993 Addenda applicable to pressure testing [see the NRC's safety evaluation report dated December 12, 1996 (TAC No. M94454)].

- 5) As outlined in NRC Information Notice 98-44, "Ten-year Inservice (ISI) Inspection Program Update for Licensees that Intend to Implement Risk-Informed ISI of Piping," the licensee must provide adequate justification, along with a clear indication of the inspection that will continue before the implementation of the RI-ISI program. During the delay, licensees would be required to continue augmented inspection programs, such as inspections for intergranular stress corrosion cracking, inspections required for flaws dispositioned by analysis, system pressure tests, and inspection of components other than piping.
- (a) If the approval of the risk informed / safety-based inservice inspection (RIS\_B) program has not been approved during the fifteenth refueling outage (RF-15), what type of inspections will continue prior to refueling outage sixteen (RF-16), if any, to achieve acceptable levels of quality and safety while awaiting approval of the submitted RI-ISI program request?
  - (b) If the RI-ISI program is approved prior to RF-15, how will the RI-ISI program be implemented?

**Response:**

During the delay, Entergy plans to perform required augmented inspection programs as committed to the staff in various correspondence.

- (a) Augmented inspections pertaining to intergranular stress corrosion cracking (IGSCC) are scheduled to be performed during RF-15; no other piping weld inspections are currently planned prior to RF-16. If the RI-ISI program requested via GG-ISI-002 is not approved by RF-16, Entergy will perform required inspections as discussed in the response to Question #1.

- (b) *Because of scheduling requirements, Entergy cannot commit to implement a RIS\_B Program during RF-15 (currently scheduled to begin during the first quarter 2007) if approved prior to RF-15. As discussed in GG-ISI-002, Entergy intends to start implementing the RIS\_B Program at GGNS during the plant's third period of the second inspection interval (the current period and interval). By the end of the previous refueling outage (RF-14), 71% of the piping weld examinations required by ASME Section XI had been completed thus far in the second ISI interval for Examination Categories B-F, B-J, C F-1, and C-F-2. To ensure the performance of 100% of the required examinations during the current (second) ten-year ISI interval, 29% of the inspection locations selected for examination per the RIS\_B process will be examined in the third period of the interval. The third ISI interval will implement 100% of the inspection locations selected for examination per the RIS\_B Program. Examinations shall be performed such that the period percentage requirements of ASME Section XI are met.*