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GNRO-2011/00108

December 15, 2011

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
11555 Rockville Pike  
Rockville, MD 20852

SUBJECT: Request for Additional Information for the 60-Day Response  
to NRC Bulletin 2011-01, *Mitigating Strategies*  
Grand Gulf Nuclear Station, Unit 1  
Docket No. 50-416  
License NPF-29

- References:
1. NRC letter to Entergy, *Request for Additional Information Regarding 60-Day Response to NRC Bulletin 2011-01, Mitigating Strategies*, dated November 28, 2011 (GNRI-2011/00133)
  2. Entergy letter to NRC, *60-Day Response to NRC Bulletin 2011-01, Mitigating Strategies*, dated July 11, 2011 (GNRO-2011/0051)

Dear Sir or Madam:

By letter in Reference 1, the NRC issued a request for additional information (RAI) for the 60-Day Response to NRC Bulletin 2011-01 (Reference 2). Attachment 1 to this letter provides the RAI responses requested within 30 days.

There are no new commitments contained in this submittal. If you need any additional information, please contact Christina L. Perino at 601-437-6299.

I declare under penalty of perjury that the foregoing is true and correct. Executed on December 15, 2011.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Perito", with the text "for M. Perito" written in a smaller font to the right of the signature.

for M. Perito

MP/JAS

Attachment 1: Request for Additional Information for the 60-Day Response to NRC Bulletin 2011-01

cc: (see next page)

cc: Mr. Elmo Collins Jr.  
Regional Administrator, Region IV  
U. S. Nuclear Regulatory Commission  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011-4125

Mr. Richard Smith  
NRC Senior Resident Inspector  
Grand Gulf Nuclear Station  
Port Gibson, MS 39150

U. S. Nuclear Regulatory Commission  
ATTN: Mr. A. B. Wang, NRR/DORL  
Mail Stop OWFN/8 B1  
Washington, DC 20555-0001

**Attachment 1 to**

**GNRO-2011/00108**

**Request for Additional Information for the 60-Day  
Response to NRC Bulletin 2011-01**

## Requests for Additional Information (RAI)

### **1. Describe in detail the maintenance or testing of monitor nozzles, spray nozzles, or similar devices to ensure that they will be functional when needed.**

The bulletin requested that each licensee describe in detail the maintenance and testing on equipment procured to support the mitigating strategies to ensure that it will be functional when needed. In the context of the mitigating strategies, these devices are commonly used for firefighting, spent fuel pool spray strategies, and as a means to reduce the magnitude of fission product releases. The NRC staff could not determine if you performed activities to ensure that these devices will be functional when needed.

#### **Response:**

Maintenance or testing was not being performed on the monitor nozzles. Grand Gulf Nuclear Station (GGNS) performed a functional test of the nozzles on November 23, 2011 and have actions in place in our Corrective Action Program to have the monitor nozzles entered into a surveillance program to be tested on an annual basis.

### **2. Describe in detail the testing of communications equipment to ensure that it is functional when needed.**

The bulletin requested that each licensee describe in detail the testing of equipment supporting the mitigating strategies to ensure that it will be functional when needed. Communications equipment needed to support the mitigating strategies was described in the NRC Safety Evaluation (SE) documenting the NRC review of your response to Section B.5.b of the Interim Compensatory Measures (ICM) Order (EA-02-026), and typically includes radios, satellite phones, spare batteries, and chargers. The NRC staff could not determine if you performed activities to ensure that communications equipment will be functional when needed.

#### **Response:**

The B.5.b radios located in the Emergency Operations Facility (EOF), Firing Range, Operations Support Center (OSC) and Calibration Facility (in the commitment, the building was called the old training center) are inventoried and verified operational quarterly per emergency plan procedure. The operational check of the radios consists of a performance of a radio check to ensure the radio is functional.

Radios are issued as standard equipment to all building operators and available in the control room for licensed operator use. Spare batteries and chargers are located in operator work areas and in the control room. The spare batteries and chargers are considered consumable items and are not tested since they are replaced as issues occur. Additional batteries and radios are located in the control room for licensed operator use. Operations' radios are used for day to day activities and issues are corrected as they occur. Satellite phones are tested quarterly in accordance with emergency plan procedure by verifying there is a dial tone on the phone.

**3. Describe in detail how you ensure there is sufficient fuel for the pumping source when needed.**

The bulletin requested that each licensee describe in detail the maintenance of equipment supporting the mitigating strategies to ensure that it will be functional when needed. The NRC staff could not determine if you performed activities to ensure that sufficient fuel would be available for the pumping source so that it will be functional when needed.

**Response:**

Operations verifies the pumping source fuel tank is greater than  $\frac{3}{4}$  full during weekly log taking. The GGNS pumping source is limited to 700 gallons per minute (gpm) spray flow by procedure to conserve fuel. The pumping source fuel tank contains 50 gallons fuel.

Procedural compliance therefore ensures the pumping source has sufficient fuel to meet its mission time.

**4. Identify the minimum inventory frequency for equipment needed for the mitigating strategies not specifically identified in response to the bulletin. Alternatively, describe the inventory frequency for firefighter turnout gear needed to support the mitigating strategies.**

The bulletin requested that each licensee describe in detail the controls for assuring equipment supporting the mitigating strategies will be available when needed. Firefighter turnout gear, tools, and instruments are generally needed to implement the mitigating strategies. The staff found that tools and instruments are specifically listed in your response, but it is not clear if you inventory firefighter turnout gear.

**Response:**

GGNS Fire Brigade turnout gear inventory checks are performed weekly per procedure.

**5. Describe in detail the fire brigade training as it relates to all phases of the mitigating strategies.**

The bulletin requested that each licensee describe in detail how configuration and guidance management, including training, is assured so that the strategies remain feasible. The SE documenting the NRC review of your response to Section B.5.b of the ICM Order (EA-02-026) states that the expectation for fire brigade training (Phase 1, B.1.1) includes accelerant-fed fires and coordinated fire response. The SE states that the Grand Gulf fire brigade annual training includes accelerant-fed fires. Your response to the bulletin implies that fire brigade training is limited to triennial review of B.5.b procedures.

**Response:**

In addition to the triennial review of B.5.b procedures, GGNS fire brigade members undergo annual hands-on training at the Mississippi Fire Academy for training that includes combating accelerant-fed fires as well as biannual classroom training on large accelerant fed fires.