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GNRO-2014/00004

January 21, 2014

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

Kevin Mulligan
Vice President, Operations
Grand Gulf Nuclear Station
Tel. (601) 437-7500

SUBJECT: Request for Information Regarding Near-Term Task Force
Recommendation 2.3, Flooding - Review of Available Physical Margin
(APM) Assessments, dated December 23, 2013
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

- REFERENCES:**
1. NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident; dated March 12, 2012, (Accession No. ML12073A348).
 2. NRC Letter to Nuclear Energy Institute, Endorsement of Nuclear Energy Institute (NEI) 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," dated May 31, 2012, (Accession No. ML12144A142).
 3. Flooding Walkdown Report - Entergy's Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Flooding Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated November 26, 2012, (Accession No. ML12332A334).
 4. NRC Letter, Request for Additional Information Associated with Near-Term Task Force Recommendation 2.3, Flooding Walkdowns; dated December 23, 2013, (Accession No. ML13325A891).

Dear Sir or Madam:

On March 12, 2012, the NRC staff issued Reference 1 requesting information pursuant to Title 10 of the Code of Federal Regulations 50.54(f). Enclosure 4 of that letter contains specific Requested Information associated with Near-Term Task Force Recommendation 2.3 for Flooding. Per Reference 2, the NRC endorsed Nuclear Energy Institute (NEI) 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features," dated May 31, 2012. By Reference 3, Entergy Operations Inc. submitted the final report in response to the request for information.

One of the requirements of NEI 12-07 is to identify the available physical margin (APM) associated with each applicable flood protection feature, determine if the margin provided is small, and evaluate any small margins that have potentially significant consequences through the corrective action process. The results of this effort were to be maintained on site for future NRC audits.

Following the NRC staff's initial review of the walkdown reports, regulatory site audits were conducted at a sampling of plants. Based on the walkdown report reviews and site audits, the staff identified additional information necessary to allow them to complete its assessments. Accordingly, by Reference 4 the NRC staff has issued a request for addition information (RAI). The RAI questions and the [Licensee] responses are provided in the Attachment.

This letter contains no new Regulatory Commitments and no revision to existing Regulatory Commitments. If you have any questions or require additional information, please contact Jeffery A. Seiter at 601-437-2344.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 21st day of January, 2014.

Sincerely,

A handwritten signature in black ink, appearing to be 'KJM', with a long, sweeping underline that extends to the right and then loops back under the signature.

KJM/jas

Attachment: Response to Request for Additional Information

cc: U.S. Nuclear Regulatory Commission
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Attachment to

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Response to Request for Additional Information

The format for the Requests for Additional Information (RAI) responses below is as follows. The RAI is listed in its entirety as received from the Nuclear Regulatory Commission (NRC) with background, issue and request subparts. This is followed by the Grand Gulf Nuclear Station (GGNS) RAI response to the individual question.

RAI Number 1: Confirmation that the process for evaluating APM was reviewed.

Response: Entergy Operations Inc. has completed a review of the process used at Grand Gulf Nuclear Station, Unit 1 to evaluate Available Physical Margin (APM).

RAI Number 2: Confirmation that the APM process is now or was always consistent with the guidance in NEI 12-07 and discussed in this RAI.

Response: The original walkdown effort followed the guidance provided in NEI 12-07, including a definition for a small margin. The process is consistent with the guidance in NEI 12-07 and is consistent with the guidance in this RAI.

RAI Number 3. If changes are necessary, a general description of any process changes to establish this consistency.

Response: As stated above, the original walkdown effort followed the guidance provided in NEI 12-07, including a definition for a small margin. A specific APM was documented for the seals associated with flood protection in the original walkdown packages. These items were previously addressed in the original walkdown packages in accordance with NEI 12-07 and are consistent with the guidance in this RAI.

RAI Number 4: As a result of the audits and subsequent interactions with industry during public meetings, NRC staff recognized that evaluation of APM for seals (e.g., flood doors, penetrations, flood gates, etc.) was challenging for some licensees. Generally, licensees were expected to use either Approach A or Approach B (described below) to determine the APM for seals:

- a) *If seal pressure ratings were known, the seal ratings were used to determine APM (similar to example 2 in Section 3.13 of NEI 12-07). A numerical value for APM was documented. No further action was performed if the APM value was greater than the pre-established small-margin threshold value. If the APM value was small, an assessment of "significant consequences" was performed and the guidance in NEI 12-07 Section 5.8 was followed.*
- b) *If the seal pressure rating was not known, the APM for seals in a flood barrier is assumed to be greater than the pre-established small-margin threshold value if the following conditions were met: (1) the APM for the barrier in which the seal is located is greater than the small-margin threshold value and there is evidence that the seals were designed/procured, installed, and controlled as flooding seals in accordance with the flooding licensing basis. Note that in order to determine that the seal has been controlled as a flooding seal, it was only necessary to determine that the seal configuration has been governed by the plant's design control process since installation. In this case, the APM for the seal could have been documented as "not small".*

As part of the RAI response, state if either Approach A or Approach B was used as part of the initial walkdowns or as part of actions taken in response to this RAI. No additional actions are necessary if either Approach A or B was used.

If neither Approach A or B was used to determine the APM values for seals (either as part of the walkdowns or as part of actions taken in response to this RAI), then perform the following two actions:

- *Enter the condition into the CAP (note: it is acceptable to utilize a single CAP entry to capture this issue for multiple seals). CAP disposition of "undetermined" APM values for seals should consider the guidance provided in NEI 12-07, Section 5.8. The CAP disposition should confirm all seals can perform their intended safety function against floods up to the current licensing basis flood height. Disposition may occur as part of the Integrated Assessment. If an Integrated Assessment is not performed, determine whether there are significant consequences associated with exceeding the capacity of the seals and take interim action(s), if necessary, via the CAP processes. These actions do not need to be complete prior to the RAI response.*
- *Report the APM as "undetermined" and provide the CAP reference in the RAI response.*

Response: GGNS used Approach B, as described above, as part of the initial walkdowns to determine the APM values for seals. All seals were inspected as part of the original walkdowns for signs of degradation, and corrective actions were taken, if required. No additional actions are necessary because Approach B was used.