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GNRO-2015/00033

May 14, 2015

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

SUBJECT: Docketed Letters Regarding Fluence Calculation Methodology Concerning License Renewal Amendment Request for Additional Information Set 47, Question 4.2.1-2c in Entergy Letter GNRO-2013/00069 dated 9/23/13
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

- REFERENCES:**
1. U.S. Nuclear Regulatory Commission Letter, "Requests for Additional Information for the Review of the Grand Gulf Nuclear Station, License Renewal Application," dated August 28, 2013 (Accession No. ML13227A394)
 2. Grand Gulf Nuclear Station Letter, "Response to Requests for Additional Information (RAI) set 47," dated September 23, 2013 (Accession No. ML13266A368)
 3. U.S. Nuclear Regulatory Commission Regulatory Guide, Regulatory Guide 1.190, dated March 2001 (Accession No. ML010890301)
 4. Grand Gulf Nuclear Station Letter GNRO-2014/00080, "Application to Revise Grand Gulf Nuclear Station Unit 1's Current Fluence Methodology from 0 EFPY Through the End of Extended Operations to a Single Fluence Method," dated November 21, 2014.
 5. Grand Gulf Nuclear Station Letter GNRO-2015/00011, "Supplement to License Amendment Request to Revise Grand Gulf Nuclear Station Unit 1's Current Fluence Methodology from 0 EFPY Through the End of Extended Operations to a Single Fluence Method," dated February 18, 2015.
 6. Grand Gulf Nuclear Station Letter GNRO-2015/00021, "Follow-up Response to U.S. Nuclear Regulatory Commission Letter, Updated Fluence Methodology License Amendment Request Unacceptable with Opportunity to Supplement," dated March 30, 2015.
 7. Grand Gulf Nuclear Station Letter GNRO-2015/00031, "Response to Request for Additional Information Regarding Fluence License Amendment Request," dated May 8, 2015.

Dear Ms. Richardson:

In this letter, Entergy Operations, Inc. (Entergy) is submitting a description and timeline of the Grand Gulf Nuclear Station (GGNS) Neutron Fluence letters submitted to the Nuclear Regulatory Commission (NRC) which support our response to reference 2, License Renewal Amendment (LRA) RAI 4.2.1-2c.

The description was requested by your staff to clarify what information has been submitted to date in reference to LRA RAI Set 47, question 4.2.1-2c (reference 2). Reference 4 is the proposed amendment to revise GGNS' license basis to adopt a single neutron fluence calculation method. References 5-7 are RAI responses for the Fluence Calculation Method License Amendment Request (LAR).

GGNS LRA Request, section 4.2.1, addresses Reactor Vessel Fluence. RAI Set #47 dated 9/23/13 in letter GNRO-2013/00069, provided the following response to NRC question 4.2.1-2c (5) as follows:

"5) A supplemental response to this RAI is being developed and will be provided to the NRC within 7 to 9 months from the date of this letter. The supplemental response will provide the answers to the following questions:

a) Fluence values that have been determined from Beginning of Life to End of Life Extended in accordance with a single method.

i) If the method is NRC-approved insofar as it applies to vessel fluence calculations, provide the reference to the staff-accepted methodology.

ii) If the method is not NRC-approved, provide the plant-specific calculations and documentation, and include sufficient information to enable the NRC staff to determine whether the calculation adheres to NRC Regulatory Guide (RG) 1.190, "Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence," or other justification as required to establish that the fluence calculation is acceptable.

iii) Refer to Regulatory Position 3, "Reporting," for the specific documentation required to establish adherence to NRC RG 1.190.

b) Finally, confirm whether, and describe how, the remaining neutron fluence-related timelimited aging analyses are affected by this new fluence calculation."

In response to RAI 4.2.1-2c (5) (a) (ii), GGNS submitted a LAR to adopt the MPM Method of calculating reactor vessel neutron fluence values, per the requirements of NRC RG 1.190, in letter GNRO-2014/00080, dated November 21, 2014. On February 18, 2015, the NRC Staff submitted to GGNS a Denial Letter with Opportunity to Supplement. On the same date (2/18/15), GGNS submitted to the NRC Staff the Supplement in letter GNRO-2015/00011. In that Supplement (RAI responses), GGNS provided responses to the RAIs and agreed to submit the requested PCA Benchmark Report by March 31, 2015. The PCA Benchmark Report was submitted March 30, 2015 in letter GNRO-2015/00021. On April 6, 2015, the NRC Staff submitted electronically to GGNS RAI Set #2, questions 1-4 (RAI Set #1 being the Denial Letter

with Opportunity to Supplement). On March 8, 2015, GGNS submitted responses to RAI Set #2, questions 1-3, in letter GNRO-2015/00031.

Response to RAI Set #2, question 4, requests that GGNS make regulatory commitments to obtain scrapings in a future refueling outage in order to obtain dosimetry data needed to satisfy a section of RG 1.190 regarding benchmarking requirements. Contractual and budgetary details are currently being arranged and RAI Set #2, question 4 response will be provided by June 8, 2015.

Additionally, the most recent revisions of the MPM Neutron Transport Document #814779 and the MPM PCA Benchmark Document #614993 will be provided to your Staff the week of May 18, 2015 to assist with the LAR review.

Once the MPM method is approved, fluence values that have been determined from Beginning of Life to End of Life Extended in accordance with a single method will be provided as response to RAI 4.2.1-2c (5) (a) and response to (5) (b) will also be provided at that time.

This letter contains no new commitments. If you have any questions or require additional information, please contact Mr. James Nadeau at (601) 437-2103.

Sincerely,

A handwritten signature in cursive script, appearing to read "James Nadeau".

JJN/ras

cc: see next page

cc:

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