Entergy Operations, Inc.
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GNRO-2013/00066

September 5, 2013

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

SUBJECT: Criticality Safety Analysis License Amendment Request - Supplemental Information

Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

REFERENCE: Entergy Operations, Inc. letter to the NRC (GNRO-2011/00076), *License Amendment Request - Criticality Safety Analysis and Technical Specification 4.3.1,* Criticality, September 9, 2011 (ADAMS Accession No. ML1125321287)

Dear Sir or Madam:

In the referenced letter, Entergy Operations, Inc. (Entergy) submitted to the NRC a license amendment request (LAR), which proposes to: 1) revise the criticality safety analysis (CSA) for the spent fuel and new fuel storage racks; 2) impose additional requirements for the spent fuel and new fuel storage racks in Technical Specification (TS) 4.3.1, *Criticality;* and 3) delete the spent fuel pool loading criteria Operating License (OL) condition.

In a recent telephone call, the NRC discussed with Entergy the CSA LAR. As a result of that call, Entergy proposes the following limitation be included in the issued license amendment:

> "The licensee will maintain a minimum distance of 12 inches between any fuel stored in the Control Blade/Defective Fuel Storage Rack (Module H1) and in the surrounding high density spent fuel pool storage racks."

In addition to the above, Entergy is submitting an administrative change to the CSA LAR. In the referenced letter, Entergy provided in Attachment 2 a markup of the OL page that was current at the time of submittal. However, since that time, the NRC has issued TS amendments, which have revised that page. Therefore, Entergy is providing in Attachment 1 to this letter a markup of the current OL pages associated with the CSA LAR. Please replace Page 1 of 4 in Attachment 2 to the referenced letter with the marked-up pages provided in Attachment 1.

This letter contains one new commitment, which is identified in Attachment 2.

If you have any questions or require additional information, please contact Guy Davant at (601) 368-5756.

I declare under penalty of perjury that the foregoing is true and correct; executed on September 5, 2013.

Sincerely,

BSF/ghd

Attachments: 1. Marked-Up Operating License Pages

2. List of Regulatory Commitments

cc: Mr. Steven A. Reynolds
Regional Administrator (acting), Region IV
U. S. Nuclear Regulatory Commission
1600 East Lamar Blvd.
Arlington, TX 76011-4511

State Health Officer
Mississippi Department of Health
P. O. Box 1700
Jackson, MS 39215-1700

U. S. Nuclear Regulatory Commission
ATTN: Mr. A. B. Wang, NRR/DORL (w/2)
ATTN: ADDRESSEE ONLY
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Mail Stop OWFN/8 B1
11555 Rockville Pike
Rockville, MD 20852-2378

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

ATTACHMENT 1

GRAND GULF NUCLEAR STATION

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MARKED-UP OPERATING LICENSE PAGES

(b) The first performance of the periodic assessment of CRE habitability, Specification 5.5.13.c.(ii), shall be within 3 years, plus the 9-month allowance of SR 3.0.2, as measured from March 2005, the date of the most recent successful tracer gas test, as stated in the June 30, 2005 letter response to Generic Letter 2003-01, or within the next 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.

(c) The first performance of the periodic assessment of the CRE boundary, Specification 5.5.13.d, shall be within the next 18 months, plus the 136 days allowed by SR 3.0.2, as measured from the date of issuance of this amendment.

(44) Leak rate tests associated with Surveillance Requirements (SR) 3.6.1.1.1, 3.6.1.3.5, and 3.6.1.3.9, as required by TS 5.5.12 and in accordance with 10 CFR 50, Appendix J, Option B, and SRs 3.6.5.1.1and 3.6.5.1.2 are not required to be performed until their next scheduled performance dates. The tests will be performed at the EPU calculated peak containment pressure or within EPU drywell bypass leakage limits, as appropriate.

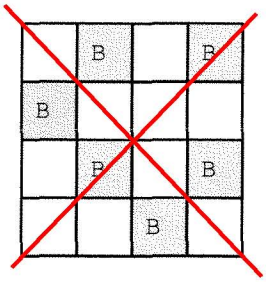
Deleted

(45) ~~Through Cycle 19 or until the revised criticality safety analysis has been approved, whichever comes first, the storage cells in the GGNS SFP racks shall be categorized as either Unrestricted or Restricted.~~

~~(a) Unrestricted cells (Region I) are cells with a minimum panel B10 areal density greater than 0.0179 gm/cm^2 and that have received an exposure less than 2.3E10 rads. Unrestricted cells may contain fuel assemblies up to the maximum k-infinity of 1.26 (cold core configuration).~~

~~(b) Restricted cells (Region II) are cells with either a minimum panel B10 areal density less than 0.0179 gm/cm^2 or that have received an exposure in excess of 2.3E10 rads. Storage in Restricted cells shall not credit any Boraflex. Storage shall be controlled in a 10 of 16 configuration (see below). In addition, only fuel assemblies with a k-infinity of less than 1.21 (cold core configuration) may be stored in a Region II cell.~~

~~Region II 4X4 Storage Configuration~~



~~Fuel Assembly Storage Location~~

~~B Location Physically Blocked to Prevent Storage~~

(46) This license condition provides for monitoring, evaluating, and taking prompt action in response to potential adverse flow effects as a result of power uprate operation on plant structures, systems, and components (including verifying the continued structural integrity of the steam dryer) for power ascension from the CLTP (3898 MWt) to the EPU level of 4408 MWt (or 113 percent of CLTP or 115 percent of OLTP).

(a) The following requirements are placed on operation of the facility before and during the power ascension to 3898 MWt:

1. GGNS shall provide a Power Ascension Test (PAT) Plan for the Steam Dryer testing. This plan shall include:

- Criteria for comparison and evaluation of projected strain and acceleration with on-dryer instrument data.
- Acceptance limits developed for each on-dryer strain gauge and accelerometer.
- Tables of predicted dryer stresses at CLTP, strain amplitudes and PSDs at strain gauge locations, acceleration amplitudes and PSDs at accelerometer locations, and maximum stresses and locations.

The PAT plan shall provide correlations between measured accelerations and strains and the corresponding maximum stresses. The PAT plan shall be submitted to the NRC Project Manager no later than 10 days before start-up.

2. GGNS shall monitor the main steam line (MSL) strain gages and on-dryer instrumentation at a minimum of three power levels up to 3898 MWt. Based on a comparison of projected and measured strains and accelerations, GGNS will assess whether the dryer acoustic and structural models have adequately captured the response significant to peak stress projections.

ATTACHMENT 2

GRAND GULF NUCLEAR STATION

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LIST OF REGULATORY COMMITMENTS

LIST OF REGULATORY COMMITMENTS

This table identifies actions discussed in this letter for which Entergy commits to perform. Any other actions discussed in this submittal are described for the NRC's information and are **not** regulatory commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE (If Required)
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
Entergy will maintain a minimum distance of 12 inches between any fuel stored in the Control Blade/Defective Fuel Storage Rack (Module H1) and in the surrounding high density spent fuel pool storage racks.		✓	Upon implementation of the approved license amendment