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GNRO-2012/00148

December 6, 2012

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

SUBJECT: Report of Changes and Errors to 10CFR50.46
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

REFERENCES:
1. Letter GNRO-2011/00102, "Report of Changes and Errors to 10CFR50.46," dated November 29, 2011.
2. Letter GNRI-2012/00153, "Grand Gulf Nuclear Station, Unit 1 – Issuance Of Amendment Re: Extended Power Uprate (TAC NO. ME4879)," dated July 18, 2012.

Dear Sir or Madam:

In accordance with 10CFR50.46 (a)(3)(ii) Grand Gulf Nuclear Station, Unit 1 (GGNS) is required to report to the Commission, at least annually, the estimated effect on the limiting Emergency Core Cooling System (ECCS) analysis caused by changes to or errors discovered in the acceptable ECCS evaluation model for information.

Since the last 10CFR50.46 report dated November 29, 2011 [see reference 1], there has been one change to the current GGNS ECCS evaluation model (SAFER/GESTR-LOCA). The change implements the NRC-approved PRIME fuel rod thermal-mechanical methodology to address inaccuracies in fuel pellet thermal conductivity as a function of exposure. The table below summarizes the effects of all changes or errors to the current GGNS ECCS analysis performed by General Electric-Hitachi Nuclear Energy (GEH) for the current reporting period.

Evaluation Model: SAFER/GESTR-LOCA

Notification	Nature of Change	Estimated PCT Effect (ΔPCT)	
		GE14	GNF2
2012-01	PRIME Fuel Properties Implementation for Fuel Rod T/M Performance, replacing GESTR Fuel Properties	+45°F	+45°F
Cumulative sum of absolute magnitude of errors during this period.		+45°F	+45°F

Since the last 10CFR50.46 report [see reference 1], GGNS implemented an Extended Power Uprate and discharged the remaining ATRIUM-10 fuel [see reference 2]. The GGNS core is now comprised of GE14 and GNF2 fuel types. The overall impact on the licensing basis PCT as a result of the change listed above is an increase of 45°F. As such, the licensing basis PCT of the limiting GNF2 fuel type increased from less than 1725 degrees Fahrenheit (including the impact of changes and errors reported during previous reporting periods) to less than 1770 degrees Fahrenheit, which remains well below the 2200 degrees Fahrenheit acceptance criterion of 10CFR50.46.

This letter does not contain any commitments. Should you have any questions or require additional information, please contact Jeffery A. Seiter at 601-437-2344.

Sincerely,

JAS/sw

cc: (see next page)

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