



Entergy Operations, Inc.
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The Attachment contains PROPRIETARY information.

GNRO-2011/00110

December 1, 2011

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

SUBJECT: Supplemental Information Pertaining to License Amendment Request
for Power Range Neutron Monitoring System (TAC No. ME2531) –
V&V Summary Test Report

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

- REFERENCES:**
1. Entergy Operations, Inc. letter to the NRC (GNRO-2009/00054), *License Amendment Request – Power Range Neutron Monitoring System Upgrade*, November 3, 2009 (ADAMS Accession No. ML093140463)
 2. Entergy Operations, Inc. letter to the NRC (GNRO-2011/00057), *Response to NRC Requests for Additional Information Pertaining to License Amendment Request for Power Range Neutron Monitoring System (TAC No. ME2531)*, July 22, 2011 (ADAMS Accession No. ML112061524)
 3. Entergy Operations, Inc. letter to the NRC (GNRO-2011/00090), *Supplemental Information Pertaining to License Amendment Request for Power Range Neutron Monitoring System (TAC No. ME2531) – Software Evaluation Report*, October 26, 2011 (ADAMS Accession No. ML113081234)
 4. Entergy Operations, Inc. letter to the NRC (GNRO-2011/00091), *Supplemental Information Pertaining to License Amendment Request for Power Range Neutron Monitoring System (TAC No. ME2531) – V&V Summary Test Report*, November 8, 2011 (ADAMS Accession No. ML113130070)

Dear Sir or Madam:

In Reference 1, Entergy Operations, Inc. (Entergy) submitted to the NRC a license amendment request (LAR), which proposes to revise the Grand Gulf Nuclear Station (GGNS) Technical Specifications (TS) to reflect the installation of the digital General Electric-Hitachi

**When the Attachment is removed from this letter, the entire document is
NON-PROPRIETARY.**

(GEH) Nuclear Measurement Analysis and Control (NUMAC) Power Range Neutron Monitoring System (PRNMS).

In Reference 2, Entergy submitted to the NRC staff a response to a Request for Additional Information (RAI) pertaining to verification and validation (V&V) of software used in PRNMS. In Reference 2, Entergy committed to provide to the NRC: (1) a software evaluation report; and (2) a V&V summary test report. The software evaluation report was submitted via Reference 3 as NEDC-33688P, *Grand Gulf Nuclear Station Power Range Neutron Monitor Previously Developed Software Analysis and Report*. NEDC-33688P documents the evaluation and analysis of previously developed software used in PRNMS since the NRC's approval of GEH Licensing Topical Report NEDC-32510P-A, *Nuclear Measurement Analysis and Control Power Range Neutron Monitor (NUMAC PRNM) Retrofit Plus Option III Stability Trip Function*, October 1995. It also documents the extent of independent module and integration testing required.

In Reference 4, Entergy submitted the companion V&V summary test report as GEH Report NEDC-33692P, *Grand Gulf Nuclear Station Power Range Neutron Monitor V&V Test Summary Report*. NEDC-33692P provides a summary of the V&V test program applied to PRNMS software used in the GGNS system. The results of the independent module and integration testing as determined in NEDC-33688P (the software evaluation report) are summarized in NEDC-33692P.

However, as discussed in various sections of NEDC-33692P, testing of the PRNMS 2-Out-Of-4 Logic Module's Programmable Logic Device (PLD) had not been completed at the time NEDC-33692P was submitted; therefore, it was not included in the report. This testing has since been completed and NEDC-33692P has been revised to reflect it. NEDC-33692P, Rev. 1 is provided in the attachment to this letter.

GEH considers NEDC-33692P, Rev. 1 to be proprietary in its entirety and, therefore, requests it be withheld from public disclosure in accordance with 10 CFR 2.390. The associated affidavit is also provided in the attachment. Because the entire report is proprietary, a non-proprietary, redacted version is not provided, as allowed by NRC Information Notice 2009-07, "Withholding of Proprietary Information from Public Disclosure."

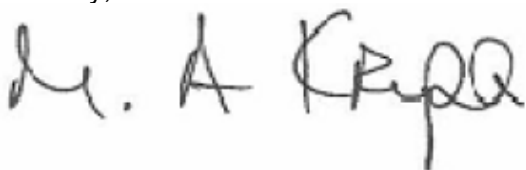
The No Significance Hazards Determination and the Environmental Consideration provided in Reference 1 are not impacted by this submittal.

This letter contains no new commitments.

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

I declare under penalty of perjury that the foregoing is true and correct; executed on December 1, 2011.

Sincerely,

A handwritten signature in black ink, appearing to read "M. A. Krupa". The signature is written in a cursive, somewhat stylized font.

MAK/ghd

Attachment: GEH Report NEDC-33692P, *Grand Gulf Nuclear Station Power Range Neutron Monitor V&V Test Summary Report* (GEH Proprietary Information)

cc: Mr. Elmo E. Collins, Jr.
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