



Entergy Operations, Inc.  
1340 Echelon Parkway  
Jackson, MS 39213

Paul D. Hinnenkamp  
Vice President  
Business Development

CNRO-2008-00008

February 27, 2008

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

DOCKET: NRC Project No. 744

SUBJECT: Application for Combined License for Grand Gulf Unit 3

- REFERENCE:
1. Entergy Operations, Inc. (EOI) letter to USNRC, Security Plan for Grand Gulf Unit 3 Combined License Application (CNRO-2008-00009), dated February 27, 2008.
  2. USNRC letter to SERI, Issuance of Early Site Permit (ESP) for System Energy Resources, Inc. - Grand Gulf ESP Site (ESP-002), CNRI-2007-00005, dated April 5, 2007.
  3. Dominion letter to USNRC, Virginia Electric and Power Company and Old Dominion Electric Cooperative Combined License Application North Anna Power Station Unit 3, dated November 26, 2007.
  4. General Electric letter to USNRC, General Electric Company Application for Final Design Approval and Design Certification of ESBWR Standard Plant Design, dated August 24, 2005
  5. GE-Hitachi letter to USNRC, GE-Hitachi Nuclear Energy – ESBWR Standard Plant Design – Revision 4 to Design Control Document – Tier 1 and Tier 2, dated September 28, 2007; Docket No. 52-010

Dear Sir or Madam:

Pursuant to Sections 103 and 185(b) of the Atomic Energy Act, and 10 CFR 52, Subpart C, Entergy Operations, Inc. (EOI), on behalf of itself and Entergy Mississippi, Inc., Entergy Louisiana, LLC, Entergy Gulf States Louisiana, LLC, and System Energy Resources, Inc., hereby applies to the U.S. Nuclear Regulatory Commission for a combined license (COL) to construct and operate an ESBWR at the Grand Gulf Nuclear Station (GGNS) site. The applicants are also applying for such other licenses as would be required to possess and use source, special nuclear and byproduct material in connection the operation of the ESBWR. The applicants are subsidiaries of Entergy Corporation. This facility will be designated and hereinafter referred to as GGNS Unit 3.

DESCRIPTION OF APPLICATION:

As permitted by 10 CFR 52.55(c), this application incorporates by reference the design certification application for the ESBWR and the associated Design Control Document (DCD) for the ESBWR (see Reference 4 and 5). The NRC's ESBWR design certification review is continuing and further revision(s) to the DCD are expected; the revisions will incorporate responses to NRC requests for additional information,

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correct errors and/or discrepancies, and reflect other developing changes. As the ESBWR DCD is revised, this COL application will also be revised to incorporate by reference the revised DCD. Additionally, after the NRC issues the Part 52 design certification rule for the ESBWR, this COL application will be revised to incorporate by reference that rule.

As permitted by 10 CFR 52.73(a), the GGNS COLA incorporates by reference the Grand Gulf Early Site Permit (Reference 2).

The North Anna COL application has been designated the reference plant COL application (R-COLA) by the ESBWR design-centered working group (DCWG); see Reference 3. This application for GGNS Unit 3 is an S-COLA (Subsequent Combined License Application) which contains standard content from the reference plant COLA. As such, this application will be amended, as appropriate, in a timely manner if changes are made to the standard content during the NRC review of the R-COLA.

This application was developed by NuStart Energy Development, LLC (NuStart), an industry consortium participating in the U.S. Department of Energy's Nuclear Power 2010 initiative to demonstrate the viability of the licensing process defined in 10 CFR 52, associated regulations, and Nuclear Regulatory Commission (NRC) guidance. By agreement between the applicants and NuStart, NuStart will continue to support this application through combined license issuance. In accordance with this agreement, invoices for COLA reviews should be addressed to NuStart per instructions below.

The GGNS Unit 3 COLA is organized as follows:

- Part 1: General and Administrative Information
- Part 2: Final Safety Analysis Report (FSAR)
- Part 3: Environmental Report (ER)
- Part 4: Technical Specifications (TS)
- Part 5: Emergency Plan (E-Plan)
- Part 6: LWA/Site Redress Plan (Not Used)
- Part 7: Departures Report (includes information on departures, variances, and exemptions)
- Part 8: Safeguards/Security Plans (provided by separate submittal – see Reference 1)
- Part 9: Withheld Information (Proprietary, Sensitive, and SUNSI)
- Part 10: ITAAC
- Part 11: Enclosures

The GGNS Unit 3 COLA contains two exemption requests; see COLA Part 7. Departures from the ESBWR DCD, Revision 4 (Reference 5) and variances from the Grand Gulf ESP (Reference 2) are identified in Part 7 of the COLA.

Concurrent with this letter, a separate transmittal, Reference 1, is being submitted to the NRC containing the GGNS Unit 3 Security Plan (Part 8 of the GGNS Unit 3 COL application). Reference 1 contains Safeguards Information and should be withheld from public disclosure.

Part 9 of this application contains the information from other COLA parts that is either proprietary or Sensitive Unclassified Non-Safeguards Information (SUNSI); the applicants request that it be withheld from public disclosure in accordance with 10 CFR 2.390. Entergy Corporation is the owner of the proprietary information; the associated affidavit required for withholding proprietary information is included as Enclosure 3 to this letter.

Consistent with common licensing practice, most of the FSAR text in the application is written in the present tense, active voice, including discussions of facilities and programs not yet built or developed. Exceptions to this approach are the discussions of operating experience and completed studies and evaluations, which are written in the past tense. It should be understood, however, that statements regarding facilities (e.g., structures, systems and components) and pre-construction, pre-operational, and operational activities (e.g., procedures and programs) typically address activities that have not yet been performed and will not be performed until it is reasonable and appropriate to do so. The application's ER is written consistent with practices relevant to environmental reviews, providing a current accounting of the status of reviews and consultations. The ER, by its nature, also describes intended likely practices and processes to be used to avoid, minimize, and/or mitigate environmental impacts.

#### DESCRIPTION OF DISCS:

A complete set of application documents is provided in electronic file format on the two enclosed discs (Enclosures 1 & 2). For convenience, both discs contain various documents referenced and/or incorporated by reference in the application.

Enclosure 1 contains a version of the COLA and various related documents that may be made available to the public. Specifically, this disc includes:

- Grand Gulf Nuclear Station Unit 3 Combined License Application, Revision 0, February 2008, without Part 8, Safeguards/Security Plans and without Part 9, Withheld Information
- ESBWR DCD Revision 4, public version
- NUREG-1817, Environmental Impact Statement for an Early Site Permit (ESP) at the Grand Gulf ESP Site, April 2006
- NUREG-1840, Safety Evaluation Report for an Early Site Permit (ESP) at the Grand Gulf Site, April 2006
- Grand Gulf Early Site Permit Application, Revision 3, March 8, 2006
- Grand Gulf ESP Site Early Site Permit, ESP-002, April 5, 2007
- DVD Packing Slip as required by NRC for electronic submittals

Enclosure 2 contains the non-public version of the COL application and related documents, including:

- Grand Gulf Nuclear Station Unit 3 Combined License Application, Revision 0, February 2008, without Part 8, Safeguards/Security Plans
- ESBWR DCD Revision 4, sensitive version
- NUREG-1817, Environmental Impact Statement for an Early Site Permit (ESP) at the Grand Gulf ESP Site, April 2006
- NUREG-1840, Safety Evaluation Report for an Early Site Permit (ESP) at the Grand Gulf Site, April 2006
- Grand Gulf Early Site Permit Application, Revision 3, March 8, 2006
- Grand Gulf ESP Site Early Site Permit, ESP-002, April 5, 2007
- DVD Packing Slip as required by NRC for electronic submittals

Appropriate pre-submission checks have been successfully performed on the files for both discs to ensure compliance with the guidelines provided on the NRC web site and they have been found acceptable for electronic submittal.

ADMINISTRATIVE INFORMATION:

Please address matters related to your review of this application through the following Point-of-Contact:

CONTACT:

Name	Thomas L. Williamson
Title	Manager, GGNS COLA Project
Mailing Address	Entergy Nuclear 1340 Echelon Parkway Jackson, MS 39213
E-Mail Address	twilli2@entergy.com
Phone Number	(601) 368-5786

Service upon the applicants of hearing requests, intervention petitions, or other pleadings related to this application should be made to counsel for the applicants as follows:

Name	Terence A. Burke
Title	Associate General Counsel - Nuclear
Mailing Address	Entergy Nuclear 1340 Echelon Parkway Jackson, MS 39213
E-Mail Address	tburke@entergy.com
Phone Number	(601) 368-5680

AND

Name	Steven P. Frantz
Mailing Address	Morgan, Lewis & Bockius LLP 1111 Pennsylvania Ave., NW Washington, D.C. 20004
E-Mail Address	sfrantz@morganlewis.com
Phone Number	(202) 739-5460
FAX Number	(202) 739-3001

Invoices should be addressed to:

Name	Michael Cazaubon
Title	NuStart Project Manager
Mailing Address	NuStart Energy Development LLC c/o Exelon Generation Company, LLC 200 Exelon Way M/S KSA 3-N Kennett Square, PA 19348
E-Mail Address	michael.cazaubon@exeloncorp.com
Phone Number	(610) 765-5925

WITH COPY TO

Name	Thomas L. Williamson
Title	Manager, GGNS COLA Project
Mailing Address	Entergy Nuclear 1340 Echelon Parkway Jackson, MS 39213
E-Mail Address	twilli2@entergy.com
Phone Number	(601) 368-5786

Based on the projected company needs and schedules, the applicants request that NRC establish a review schedule to support a Commission decision on the application by June 2011. This COL application includes commitments; these commitments will be tracked and managed by EOI.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 25, 2008.

Sincerely,



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- Enclosure:
1. GGNS Unit 3 COLA DVD; Public Version
  2. GGNS Unit 3 COLA DVD; Non-Public Version
  3. Affidavit for Withholding Proprietary Information from Public Disclosure

cc: [All distribution is without enclosures unless otherwise indicated]

Mr. W. R. Brian (GGNS)  
Mr. T. A. Burke (ECH)  
Mr. E. E. Collins (USNRC/R-IV)  
Ms. E. R. Conley (ELL)  
Mr. S. P. Frantz (Morgan, Lewis & Bockius)  
Mr. B. R. Johnson (GE-Hitachi)  
Mr. M. R. Kansler (ECH)  
Ms. M. Kray (NuStart)  
Mr. J. R. McGaha (ECH)  
Mr. E. R. Oesterle (USNRC/NRO/DNRL/DDLO/NG) [w/39 copies Enclosure 2]  
Mr. L. R. Plisco (USNRC/R-II)  
Ms. C. C. Shanks (EMI)  
Mr. L. J. Smith (Wise Carter)

Resident Inspectors' Office: GGNS

**Enclosure 1**

One DVD labeled "Entergy Grand Gulf Unit 3,  
Combined License Application, NRC ADAMS Edition,  
February 2008; Submission 2  
(Part 9 Sensitive Information Withheld)"

**Enclosure 2**

One DVD labeled "Entergy Grand Gulf Unit 3,  
Combined License Application,  
February 2008; Submission 1  
{Contains Sensitive Information – Withhold Under 10CFR2.390}  
(Part 9 Sensitive Information Included)"

**Enclosure 3**

**Affidavit for Withholding Proprietary Information  
from Public Disclosure**

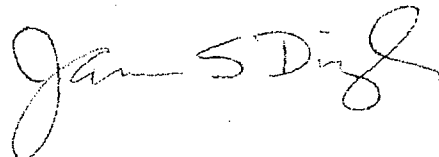
**The proprietary information being withheld from public disclosure  
is contained in Part 9 [Withheld Information (Proprietary, Sensitive, and SUNSI)]  
of the COLA and was extracted from the Environmental Report  
Sections 8.2, 8.3, and 8.4 (Part 3 of the COLA)**



**AFFIDAVIT**

I, James S. Dingle, Manager, Regulatory Affairs, Entergy Services, Inc. (Entergy) do hereby affirm and state:

1. Entergy is providing information in support of the proposed combined license application (COLA) for Grand Gulf Nuclear Station, Unit 3 (GG-3). The information, being provided in COLA Part 3, Environmental Report Sections 8.2, 8.3, and 8.4, contain confidential information related to power demand, power supply, and assessment of need for power associated with GG-3. This information constitutes proprietary commercial information that should be held in confidence by the NRC pursuant to 10 CFR 9.17(a)(4) and the policy reflected in 10 CFR 2.390, because:
  - i. This information is and has been held in confidence by Entergy.
  - ii. This information is of a type that is held in confidence by Entergy and there is a rational basis for doing so because the information contains sensitive commercial information concerning Entergy's projected power needs.
  - iii. This information is being transmitted to the NRC in confidence.
  - iv. This information is not available in public sources and could not be gathered readily from other publicly available information.
  - v. Public disclosure of this information would create substantial harm to the competitive position of Entergy by disclosing internal power projections.
2. Accordingly, Entergy requests that the designated information be withheld from public disclosure pursuant to 10 CFR 2.390(a)(4) and 10 CFR 9.17(a)(4).



James S. Dingle

State of Louisiana <sup>Orleans</sup> )  
Parish of East-Baton Rouge )

Then personally appeared before me, James S. Dingle, who being duly sworn, did state he is Manager, Regulatory Affairs, Entergy Services, Inc., that he is duly authorized to execute and file this affidavit in the name and on behalf of Entergy Corporation and that the statements are true to the best of his knowledge and belief.

My commission expires: At death  
Date

La. Bm. #19616  
Kaen H. Freese

Kaen H. Freese  
Notary Public