

December 10, 2008

Mr. Thomas L. Williamson  
Manager, GGNS COLA Project  
Entergy Nuclear  
1340 Echelon Parkway  
Jackson, MS 39213

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 28 RELATED TO  
SRP SECTION 1.0 FOR THE GRAND GULF COMBINED LICENSE  
APPLICATION

Dear Mr. Williamson:

By letter dated February 27, 2008, Entergy Operations Incorporated (EOI) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, you are requested to respond within 30 days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, I can be reached at 301-415-2890 or by e-mail at [Andrea.Johnson@nrc.gov](mailto:Andrea.Johnson@nrc.gov).

Sincerely,

**/RA/**

Andrea M. Johnson, Project Manager  
ESBWR/ABWR Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 052-0024

Enclosure:  
Request for Additional Information

December 10, 2008

Mr. Thomas L. Williamson  
Manager, GGNS COLA Project  
Entergy Nuclear  
1340 Echelon Parkway  
Jackson, MS 39213

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SRP SECTION 1.0 FOR THE GRAND GULF COMBINED LICENSE  
APPLICATION

Dear Mr. Williamson:

By letter dated February 27, 2008, Entergy Operations Incorporated (EOI) submitted for approval a combined license application pursuant to 10 CFR Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

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Sincerely,  
**/RA/**

Andrea M. Johnson, Project Manager  
ESBWR/ABWR Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

Docket No. 052-0024  
Enclosure:  
Request for Additional Information  
Distribution:  
PUBLIC  
BAbeywickrama, NRO  
AJohnson, NRO  
JWilson, NRO  
DReddy, NRO

SCampbell, NRO  
SBrock, OGC  
MCarpentier, OGC  
NRO\_DNRL\_NGE1

ADAMS Accession No. ML083450355

NRO-002

OFFICE	SPBP/TR	SPBP/BC	NGE1/PM	OGC	NGE1/L-PM
NAME	JWilson	SCampbell	AJohnson	MCarpentier	AJohnson
DATE	11/14/08	11/17/08	11/18/08	11/24/08	12/08/08

\*Approval captured electronically in the electronic RAI system.

OFFICIAL RECORD COPY

Grand Gulf, Unit 3 COLA  
Entergy Operations, Inc.  
Docket No. 52-024  
SRP Section: 01 - Introduction and Interfaces  
Application Section: 9.2.3

QUESTIONS for Balance of Plant Branch 2 (ESBWR/ABWR) (SBPB)

01-6

RG 1.206 Section C.III.1.8 provides guidance regarding the replacement of conceptual design with design information (see pgs. C.III.1-8 thru 9).

In FSAR Section 9.2.3.2, "System Description," the applicant addressed its makeup water system (MWS) and replaced the conceptual design information (CDI) of the demineralization water subsystem with a site-specific design. The applicant's proposed system design is identical to the MWS described in Section 9.2.3.2, "System Description," of the ESBWR DCD, Revision 5; except that the applicant replaced the CDI of the demineralization subsystem with a site-specific design. Specifically, the GGNS MWS utilizes a vendor-supplied mobile water treatment system to process the clarified water prior to transfer to the demineralized water storage tank. However, the applicant did not provide any description of the site-specific demineralization subsystem and how it processes the clarified water. Therefore, the staff requests that the applicant provide a description of the demineralization portion of the GGNS MWS.

Further, the applicant stated that the makeup water transfer pumps and demineralization subsystem are sized to meet all plant operating conditions except for shutdown/refueling. However, Section 9.2.3.2 of the DCD states that during the shutdown/refueling/startup modes, the increases in plant water consumption may require use of a temporary demineralization subsystem and temporary makeup water transfer pumps to be used as a supplemental water source. No information on such a temporary subsystem is presented in the GGNS COLA. Therefore, the staff requests that the applicant address how the requirements for demineralized water during shutdown/refueling will be provided.