

September 24, 2007

MEMORANDUM TO: Brent Clayton, Chief
Environmental Technical Support Branch
Division of Site and Environmental Reviews
Office of New Reactors

William Burton, Chief
Environmental Projects Branch A
Division of Site and Environmental Reviews
Office of New Reactors

Richard Raione, Chief
Environmental Projects Branch B
Division of Site and Environmental Reviews
Office of New Reactors

FROM: Andrew J. Kugler, Senior Project Manager */RA/*
Environmental Projects Branch B
Division of Site and Environmental Reviews
Office of New Reactors

SUBJECT: TRIP REPORT - MAY 3, 2007, READINESS ASSESSMENT (T-1) VISIT
FOR A COMBINED LICENSE APPLICATION AT THE GRAND GULF
SITE

This report summarizes the staff's May 3, 2007, pre-application visit related to the environmental portion of a future combined license (COL) application for the Grand Gulf site. The staff issued an early site permit (ESP) for the site on April 5, 2007. System Energy Resources, Inc. (SERI) has indicated its intent to submit a COL application referencing the ESP late in 2007.

The purpose of this visit was to allow the staff to begin gathering information regarding the applicant's plans for the COL application. Because the staff is already familiar with the site (from the ESP environmental review), the visit did not take place at the site and was abbreviated compared to similar activities planned for sites without an ESP. The visit took place at the offices of the General Electric Company in downtown Washington, DC. Enclosure 1 provides a list of attendees. Enclosure 2 is the agenda used during the visit. Enclosure 3 is a summary of the more significant issues that were discussed. However, this was not a formal or comprehensive staff review and additional issues could be identified during the staff's formal review after the application is submitted.

CONTACT: Andrew Kugler, NRO/DSER/RAP2
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B. Clayton

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The next pre-application activity will be a document assessment visit, scheduled for the week of August 20, 2007.

Project No. 744

Enclosures: As stated

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DATE	08/17/07	09/24/07

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**Grand Gulf Combined License
Pre-Application Visit on May 3, 2007**

List of Attendees

NAME	AFFILIATION
Brent Clayton	NRC
Andrew Kugler	NRC
Nebiyu Tiruneh	NRC
Daniel Mussatti	NRC
Al Schneider	Enercon
Guy Cesare	NuStart
Derek Richard	Enercon
Tom Williamson	Entergy
Steve Franz	Morgan Lewis
Kenneth Hughey	Entergy
Geoff Quinn	Bechtel
Tony Banks	Dominion
Lori Evans ¹	Enercon
Marvin Morris ¹	Enercon
Ed Fuller ¹	NRC
Bob Palla ¹	NRC
Rick Rogers ¹	Enercon
Eric Praser ¹	Enercon
Jackie Wright ¹	Enercon
Mike Goin ¹	Entergy
Phong Nguyen ¹	Entergy

Note 1: Participated by teleconference.

Agenda
Grand Gulf NRC Environmental Staff Site Visit
Location: G.E. Warner Building, 9th Floor
Washington, D.C.
May 03, 2007
9 am – 4 pm

9:00 – 9:10 am:

Introductions and Safety Message

9:10 – 9:30 am:

Early Site Permit – Terms and Conditions, Variances

9:30 – 9:40 am:

Discussion of the footprint of the plant, intake structure, switchyard, and discharge locations

9:40 – 10:45 am:

Discussion of ESP PPE, demonstration of ‘falls within’, and content of COLA ER Chapter 3

10:45 – 11:00 am: Break

11:00 – 12:00 pm:

Continued Discussion of New and Significant Process

12:00 – 1:00 pm: Lunch

1:00 – 1:30 pm:

Transmission Line Impacts

1:30 – 2:15 pm:

Severe Accident Mitigation Alternatives (SAMA)

2:15 – 3:00 pm:

Chapter 8 - Need for Power, Planned Approach

3:00 – 3:15 pm:

Update/Status: Site Characterization Work

3:15 – 3:30 pm:

Status of Consultation with Federal, State, and Local Agencies

3:30 – 4:00 pm:

Planning for follow-up Grand Gulf site visit

**Additional Information Summarizing the
Grand Gulf NRC Environmental Staff T-1 Visit
Location: General Electric Offices, Washington, DC
May 3, 2007**

The staff met with the applicant and its contractors to begin gaining familiarity with the applicant's plans for a combined license (COL) application later this year. The COL will reference the early site permit (ESP) for the Grand Gulf site that the staff issued on April 5, 2007. The applicant has chosen General Electric's "economic simplified boiling water reactor," or ESBWR, as the plant design. The most significant topics from the discussion are summarized below.

Variations - The applicant understands how variations are applied to terms and conditions of the ESP for safety issues. How, or if, variations would be applied to environmental terms and conditions is not as clear. This is a generic issue that the staff will need to address.

Identified Significant Changes - The applicant identified some areas in which the expected project will differ significantly from that evaluated in the environmental impact statement (EIS) for the ESP. Specifically:

- The application will be for one unit, rather than two.
- The cooling towers will be located south of the power block (i.e., further from the meteorological tower).
- The application will be based on a thermal power level of 4500 megawatts-thermal as opposed to the 4300 megawatts-thermal in the ESP.
- The new plant will require at least one, and possibly two new 500 kilovolt transmission lines.

The first two differences will tend to reduce some impacts, while the latter two differences will increase some impacts.

Process to Identify New and Significant Information - Because the COL application will reference the ESP, the applicant will have to identify in its environmental report (ER) any new and significant information it finds regarding issues that were resolved in the ESP EIS. The applicant discussed how it plans to (1) identify the pertinent information in the ESP EIS, (2) search for and identify related new information, and (3) determine whether any new information is significant. Based on the discussion, the staff did not identify any significant concerns with the process.

Demonstrating that COL Parameters are Bounded by ESP Parameters - The applicant will have to demonstrate that the design of the facility falls within the site characteristics and design parameters specified in the early site permit. The staff expressed a concern that in at least some cases it appeared that the applicant planned to simply state a value for a characteristic or parameter without providing any basis for that value. It is not clear to the staff that such an assertion meets the requirement to "demonstrate". This issue will require further discussion.

Level of Detail to be Provided for the Actual Design - The applicant indicated that it will supply the level of detail for the design that it determines is necessary to support required

analyses, unresolved issues, and new and significant information. It isn't clear to the staff that this approach will be adequate in two regards. First, it isn't clear that this approach will satisfy the requirement in 10 CFR 51.45 to describe the proposed action. Second, it isn't clear that this level of detail will support the evaluations that the staff must perform. For example, the staff will require sufficient design details to support the development of a biological assessment for a consultation under the Endangered Species Act. This issue will require further discussion.

Severe Accidents - The applicant and the staff briefly discussed a generic concern with the approach to addressing procedures and training as part of severe accident mitigation alternatives (SAMAs). The application for a design certification for the ESBWR did not include procedures or training in its evaluation of SAMAs.

Need for Power - The applicant did not address the need for power in its ESP application, as allowed by the regulations, and will have to address it in the COL application. There are two potential concerns related to the need for power analysis. First, some of the information that the staff may need for an independent evaluation is business sensitive. Information of this nature is typically withheld from the public as proprietary, and the staff would expect to treat this information in the same way. Second, the applicant will, at some point, receive from the State a "Certificate of Need", i.e., the State's determination that the power from the proposed plant is needed. If the State reaches this conclusion through a reasonable process, the staff is not required to perform a separate, independent review of the need for power. However, it does not appear that the State's decision would come in time to support the issuance of the staff's EIS. This issue will require further discussion.

Conclusion - The staff did not identify any issue during this visit that would indicate that the applicant would not be able to meet the schedule it provided for the COL application. The current schedule is for submittal of the COL application towards the end of 2007.