



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

February 6, 2012

Ms. Carolyn Michon  
Assistant Data Manager  
Louisiana Natural Heritage Program  
Department of Wildlife and Fisheries  
P.O. Box 98000  
Baton Rouge, LA 70898-9000

SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1, LICENSE RENEWAL  
APPLICATION REVIEW

Dear Ms. Michon:

The U.S. Nuclear Regulatory Commission (NRC or the staff) is reviewing an application to renew the operating license for Grand Gulf Nuclear Station, Unit 1 (GGNS). The application for renewal was submitted to the NRC by Entergy Operations, Inc. (Entergy) in a letter dated October 28, 2011, pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54).

The purpose of this letter is threefold: (1) to inform you of the NRC's National Environmental Policy Act (NEPA) process for the GGNS license renewal review; (2) to request your comments pertaining to the Fish and Wildlife Coordination Act; and (3) to request your concurrence with the NRC's list of Federally endangered and threatened species that may be affected by the proposed GGNS license renewal.

The NRC's Federal action is the decision whether to renew GGNS's operating license for an additional 20 years. GGNS is a single unit boiling-water reactor plant using a closed-cycle cooling water system that withdraws make-up water from the Mississippi River Alluvium groundwater aquifer through Ranney wells. The proposed action includes the use and continued maintenance of existing plant facilities and transmission lines. Entergy states that it has no plans for refurbishment or replacement activities to support renewal of the operating license.

GGNS is located approximately 25 miles south of Vicksburg in Claiborne County, Mississippi. The 2,100 acre GGNS site consists primarily of woodlands and former farms as well as two lakes (see Figure 1 of Enclosure 1). The land in the vicinity of the GGNS site is mostly rural. Entergy constructed three 500-kV transmission lines to connect GGNS to the power grid (see Figure 2 of Enclosure 1). The Baxter-Wilson line runs north for 22 miles from GGNS to the Baxter-Wilson substation just south of Vicksburg in Warren County. This line traverses rural, sparsely populated areas used for agriculture and forestry. The Franklin line runs southeast for 43.6 miles to the Franklin substation near McCall Creek in northeastern Franklin County. This line traverses the Bayou Pierre and Homochitto Rivers and Homochitto National Forest. Both

transmission lines have a 200-foot-wide right-of-way. The third line is 300 feet long and is contained within the developed portion of the GGNS site. This line runs from the GGNS Unit 1 Turbine Building to the GGNS switchyard.

#### NRC's NEPA Process

The NRC has established that, as part of the staff's review of any nuclear power plant license renewal action, a site-specific supplemental environmental impact statement (SEIS) to its "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," NUREG-1437, will be prepared under the provisions of 10 CFR Part 51, the NRC's regulations that implement NEPA. The SEIS includes an analysis of pertinent environmental issues, including endangered or threatened species and impacts to fish and wildlife.

#### Fish and Wildlife Coordination Act

To support the SEIS preparation process, please provide any information you consider appropriate under the provisions of the Fish and Wildlife Coordination Act of 1934, as amended.

#### Endangered Species Act

To ensure compliance with the Endangered Species Act of 1973, as amended, the NRC staff will consider effects of the proposed license renewal on Federally listed species. The NRC has prepared the enclosed table (Enclosure 3) of Federally listed species that may occur in the vicinity of GGNS for your concurrence per 50 CFR 402(b)(2)(c).

Prior to submitting their application to the NRC, Entergy corresponded with your office regarding Federally listed species by letter dated February 4, 2011. You replied by letter dated February 18, 2011, that no Federally listed species or their habitats are likely to be affected by the proposed license renewal or routine maintenance operations of GGNS. Both the February 4, 2011, letter from Entergy and your February 18, 2011, response letter are enclosed for your reference (Enclosures 1 and 2).

To ensure that your reply to this letter contributes to our review process in a timely manner, please respond no later than March 15, 2012.

C. Michon

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The GGNS license renewal application is available on the internet at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/gg1.html>. If you have any questions or require additional information, please contact David Drucker, License Renewal Project Manager, by phone at 301-415-6223 or by e-mail at [David.Drucker@nrc.gov](mailto:David.Drucker@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "David J. Wrona", with a stylized flourish at the end.

David J. Wrona, Chief  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures:  
As stated

cc w/encls: Listserv



February 4, 2011

Ms. Carolyn Michon  
Assistant Data Manager  
Louisiana Natural Heritage Program  
Department of Wildlife and Fisheries  
Post Office Box 98000  
Baton Rouge, LA 70898-9000

SUBJECT: Grand Gulf Nuclear Station  
License Renewal Application

Dear Ms. Michon,

In 2011, Entergy plans to apply to the Nuclear Regulatory Commission (NRC) for renewal of the operating license for the Grand Gulf Nuclear Station (GGNS), which is located in Claiborne County, Mississippi on the east bank of the Mississippi River at River Mile 406, approximately 25 miles south of Vicksburg, Mississippi and 37 miles north-northeast of Natchez, Mississippi. The existing license for GGNS was issued for a 40-year term that expires in 2024. If the NRC approves the application, Entergy will then have the option to continue operating GGNS until 2044. In conjunction with this effort, Enercon is gathering information on Entergy's behalf relative to this license renewal project.

The NRC requires that the license renewal application for GGNS include an environmental report assessing potential environmental impacts from operation during the license renewal term. One of these potential environmental impacts would be the effect of license renewal on threatened or endangered species located on the GGNS site, its immediate environs (6-mile radius), and transmission line corridors routed to connect the plant to the existing transmission system. Accordingly, the NRC requires that the environmental report for each license renewal application assess such a potential effect (10 CFR 51.53). Later, during its review of the license renewal environmental report pursuant to the National Environmental Policy Act (NEPA), the NRC may request information from your office to ensure compliance with Section 7 of the Endangered Species Act.

Enercon is contacting you now in order to obtain input regarding issues that may need to be addressed in the GGNS license renewal environmental report, and to assist Entergy in identifying any information your staff believes would be helpful to expedite NRC's review.

The 2,100 acre GGNS site consists primarily of woodlands and former farms as well as two lakes, Hamilton Lake and Gin Lake (see Figure 1). The land in the vicinity of the

Ms. Carolyn Michon  
Assistant Data Manager  
Louisiana Natural Heritage Program  
Department of Wildlife and Fisheries  
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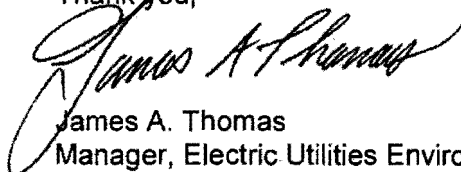
GGNS site is mostly rural. There are two transmission corridors containing a single-circuit 500-kV transmission lines that connect the GGNS site to the regional electricity grid (see Figure 2). These transmission corridors are considered by the NRC to be within the scope of its environmental reviews for the GGNS license renewal. Entergy's Transmission group owns and operates these two lines. The total length of the two corridors is approximately 66 miles, and cross Claiborne, Warren, Jefferson and Franklin Counties in Mississippi.

Based on a review of information available and previous consultations, Enercon has included Table 1 which lists federally- or state-listed threatened or endangered species within the vicinity of GGNS and the transmission corridors. However, Entergy does not expect GGNS operations during the license renewal term (an additional 20 years) to adversely affect threatened or endangered species at the station site, the immediate environs, or the transmission line corridors because license renewal will not alter existing operations. There are no plans to alter current operations during the 20-year license renewal period, and any maintenance activities necessary to support continued operation of GGNS will be limited to currently developed areas of the site. Although administrative procedural controls are in place to comply with applicable state and federal laws to preserve biological resources when facility expansion or land disturbance activities occur, no expansion is planned or needed in support of license renewal. In addition, Entergy's Transmission group has established maintenance procedures for transmission lines that involve minimal disturbance of land, wetlands, and streams and are protective of threatened or endangered species.

After your review of the information provided in this letter, I would appreciate you sending a letter detailing any concerns you have about potential impacts to threatened or endangered species or critical habitat in the area of GGNS or along the associated transmission corridors, or alternatively, confirming our conclusion that threatened or endangered species will not be adversely affected as a result of renewing the GGNS operating license for an additional 20 years. Entergy will include copies of this letter and your response in the environmental report submitted to the NRC as part of the GGNS license renewal application.

If you have any questions, please contact me at (918) 665-7693 or through my email address, [jthomas@enercon.com](mailto:jthomas@enercon.com). Thank you in advance for your assistance.

Thank you,



James A. Thomas  
Manager, Electric Utilities Environmental Services

Attachment – 6-Mile Map

cc: Rick Buckley (Entergy)

**Table 1**  
**Federal and State-Listed Species**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal Status</u>	<u>MS Status</u>	<u>LA Status</u>	<u>On-Site</u>	<u>Vicinity (6-mile)</u>	<u>Transmission ROW</u>
<b><u>Mammals</u></b>							
<i>Puma concolor coryi</i>	Florida Panther	E	E	E	No	No	No
<i>Ursus americanus luteolus</i>	Louisiana Black Bear	T	E	T	Yes	Yes	Yes
<i>Ursus americanus</i>	American Black Bear	T	E	-	Yes	Yes	Yes
<b><u>Birds</u></b>							
<i>Haliaeetus leucocephalus</i>	Bald Eagle	-	E	E	Yes	Yes	Yes
<i>Mycteria americana</i>	Wood Stork	E	E	-	Yes	Yes	Yes
<i>Sterna antillarum athalassos</i>	Interior Least Tern	E*	E*	E	No	Yes	Yes
<i>Picoides borealis</i>	Red-Cockaded Woodpecker	E	E	-	No	No	Yes
<i>Eudocimus albus</i>	White Ibis	-	S2, S3	-	Yes	Yes	Yes
<b><u>Reptiles</u></b>							
<i>Alligator mississippiensis</i>	American Alligator	T (S/A)	-	-	Yes	Yes	Yes
<b><u>Fish</u></b>							
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	E	E	E	Yes	Yes	No
<i>Etheostoma rubrum</i>	Bayou Darter	T	E	-	No	Yes	No
<i>Crystallaria asprella</i>	Crystal Darter	-	E	-	Yes	Yes	No
<i>Macrhybopsis meeki</i>	Sicklefin Chub	-	S1	-	Yes	Yes	-
<b><u>Macroinvertebrates</u></b>							
<i>Potamilus capax</i>	Fat Pocketbook Mussel	E	E	-	No	No	Yes
<i>Quadrula cylindrica</i>	Rabbitsfoot Mussel	CS	-	-	No	Yes	Yes

Table 1 (Continued)  
Federal and State-Listed Species

<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal Status</u>	<u>MS Status</u>	<u>LA Status</u>	<u>On-Site</u>	<u>Vicinity (6-mile)</u>	<u>Transmission ROW</u>
<b><u>Insects</u></b>							
<i>Epitheca spinosa</i>	Robust Baskettail	-	S1	-	Yes	Yes	-
<b><u>Plants</u></b>							
<i>Lindera melissifolia</i>	Pondberry	E	E	-	No	No	Yes

T = Threatened

E = Endangered

CS = Candidate Species

S1 = Critically Imperiled in Mississippi

S2 = Imperiled in Mississippi

S3 = Rare or uncommon in Mississippi

T (S/A) = Threatened by similarity of appearance.

\* Interior least terns belong to a subspecies of least terns and are protected Federally, and by the state of Mississippi under the species name.

*Sterna antillarum athalassos* is the subspecies endemic to the project region and is therefore specified above.

**Figure 1**  
**Location of GGNS, 6-Mile Radius Map**

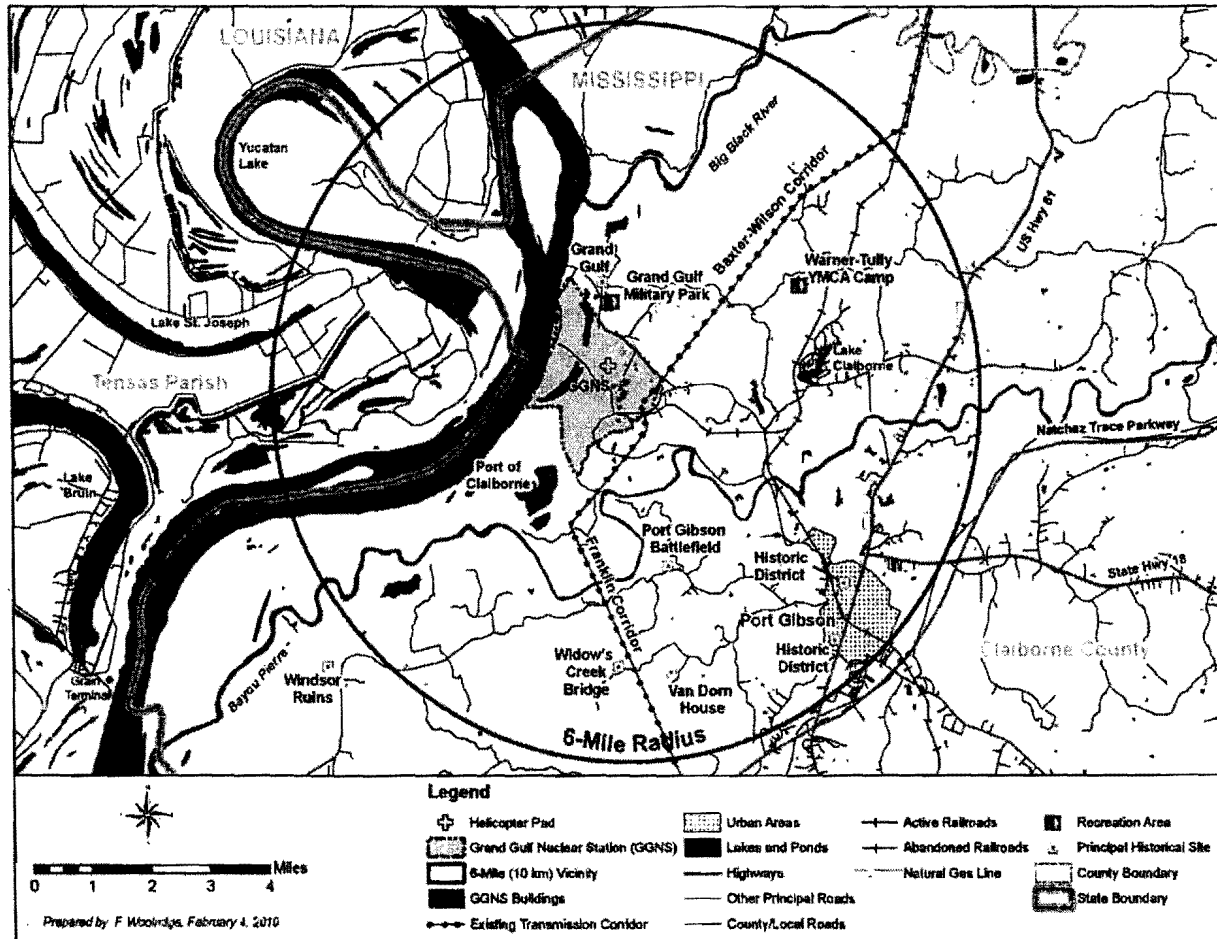
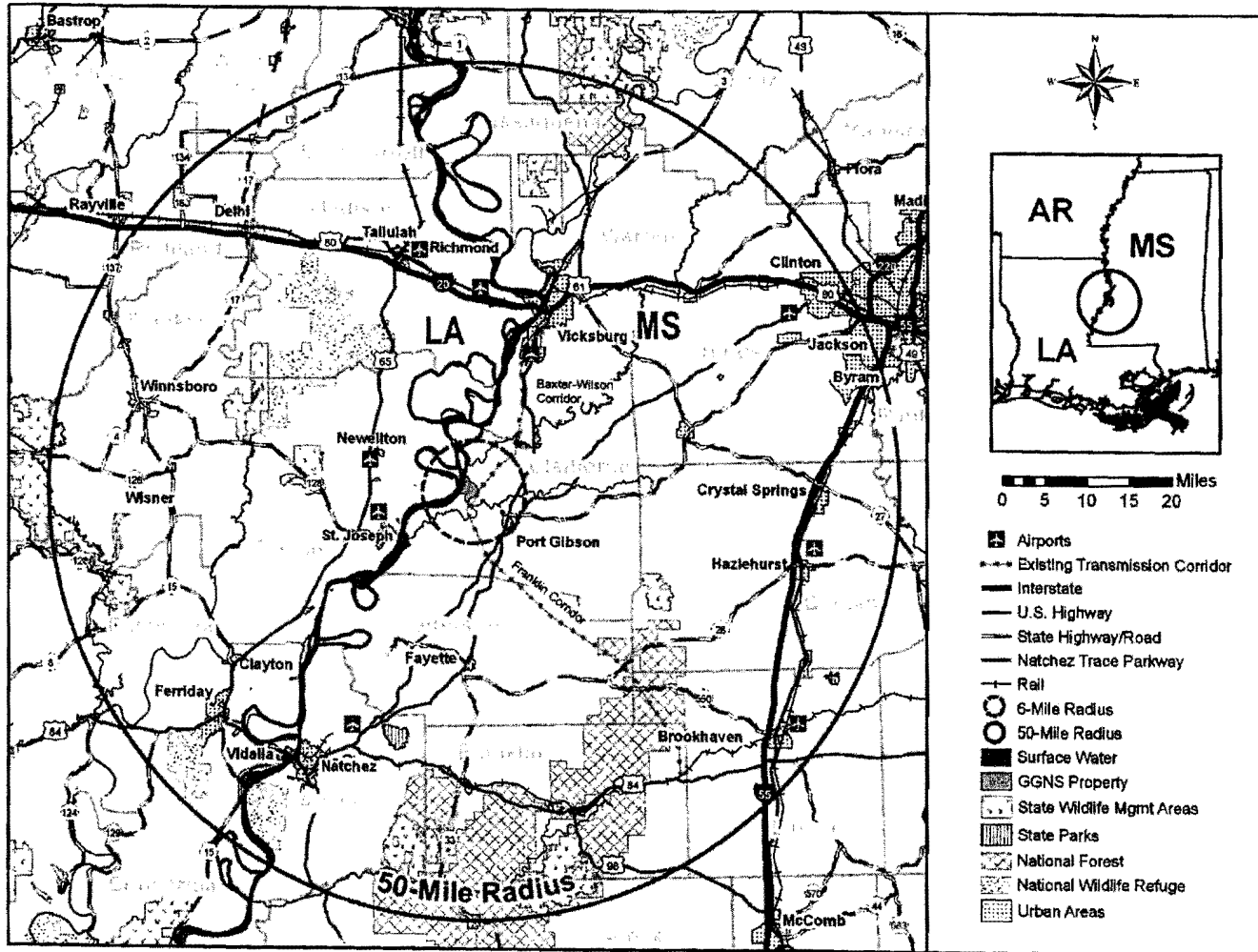




Figure 2

Location of GGNS, 50-Mile Radius Map





BOBBY JINDAL  
GOVERNOR

State of Louisiana  
DEPARTMENT OF WILDLIFE AND FISHERIES  
OFFICE OF WILDLIFE

ROBERT J. BARHAM  
SECRETARY  
JIMMY L. ANTHONY  
ASSISTANT SECRETARY

**Date** February 18, 2011

**Name** James A. Thomas

**Company** ENERCON

**Street Address** 5100 East Skelly Driv, Suite 450

**City, State, Zip** Tulsa, OK 74135

**Project** Grand Gulf Nuclear Station  
License Renewal Application

**Project ID** 572011

**Invoice Number** 11021805

Personnel of the Habitat Section of the Coastal & Non-Game Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

*Carrea Micha*  
for Amity Bass, Coordinator  
Natural Heritage Program

**Table of Federally Listed Species in the Vicinity of Grand Gulf Nuclear Station  
and its Associated Transmission Lines**

Scientific	Name	Status <sup>(a)</sup>	County(ies) of Occurrence <sup>(b)</sup>			
			Claiborne	Franklin	Jefferson	Warren
<b>Birds</b>						
<i>Picoides borealis</i>	red-cockaded woodpecker	E		x	x	
<i>Sterna antillarum</i>	least tern (interior pop.)	E	x		x	x
<b>Clams</b>						
<i>Potamilus capax</i>	fat pocketbook	E	x		x	x
<i>Quadrula cylindrica cylindrica</i>	rabbitsfoot	C	x			x
<b>Fish</b>						
<i>Etheostoma rubrum</i>	bayou darter	T	x			
<i>Scaphirhynchus albus</i>	pallid sturgeon	E	x		x	x
<b>Mammals</b>						
<i>Ursus americanus luteolus</i>	Louisiana black bear	T	x	x	x	x

<sup>(a)</sup> C = candidate; E = endangered; T = threatened

<sup>(b)</sup> Grand Gulf Nuclear Station (GGNS) is located in Claiborne County, Mississippi. The transmission lines associated with GGNS traverse Claiborne, Franklin, Jefferson, and Warren Counties.

Data source: [FWS] U.S. Fish and Wildlife Service. 2011. Find Endangered Species Database. Available at <<http://www.fws.gov/endangered/>> (accessed 13 December 2011).

C. Michon

- 3 -

The GGNS license renewal application is available on the internet at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications/gg1.html>. If you have any questions or require additional information, please contact David Drucker, License Renewal Project Manager, by phone at 301-415-6223 or by e-mail at [David.Drucker@nrc.gov](mailto:David.Drucker@nrc.gov).

Sincerely,

*/RA/*

David J. Wrona, Chief  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-416

Enclosures:  
As stated

cc w/encls: Listserv

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See next page

ADAMS Accession Nos.: ML12023A183 (Pkg); ML12005A163 (Ltr); ML11308A234 (Encls 1 and 2 found in Attachment A); ML11356A185 (Encl 3)

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NAME	IKing	DDrucker	BBalsam (DDrucker for)	Almboden	DWrona
DATE	1/20/12	1/23/12	1/26/12	1/26/12	2/06/12

OFFICIAL RECORD COPY

Letter to C. Michon from D. Wrona, dated February 6, 2012

**SUBJECT: GRAND GULF NUCLEAR STATION, UNIT 1, LICENSE RENEWAL  
APPLICATION REVIEW**

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D. Drucker

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