



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

January 19, 2012

Mr. Russell Watson  
U.S. Fish & Wildlife Service  
Louisiana Field Office  
646 Cajundome Blvd., Suite 400  
Lafayette, LA 70506

**SUBJECT: REQUEST FOR LIST OF PROTECTED SPECIES WITHIN THE AREA UNDER  
EVALUATION FOR THE GRAND GULF NUCLEAR STATION, UNIT 1,  
LICENSE RENEWAL APPLICATION REVIEW**

Dear Mr. Watson:

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) scoping process and associated public meetings 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 Scoping Process and Public Meetings

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.

The NRC plans to hold two public license renewal overview and environmental scoping meetings on January 31, 2012. The first session will be held in the afternoon, and an identical session will be held later that evening. Both sessions will be held at the Port Gibson City Hall, 1005 College Street, Port Gibson, MS 39150. The afternoon session will be from 2:00 PM to 3:30 PM, and the evening session will be from 7:00 PM to 8:30 PM. In addition, the NRC plans to hold a one hour open house prior to each meeting to answer public questions. You and your staff are invited to attend the public meetings and open houses.

#### 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 March 4, 2011. Both the February 4, 2011, letter from Entergy and your March 4, 2011, response letter are enclosed for your reference (Enclosures 1 and 2). The NRC staff will also consider potential adverse impacts to State-listed species as part of its review. The NRC Staff requests any information your office may have on the concurrence of Federally or State-listed species on or in the vicinity of GGNS to aid the staff's review process.

R. Watson

- 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,

A handwritten signature in black ink, appearing to read 'D. J. Wrona', with a long horizontal stroke extending to the right.

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

Mr. Russell C. Watson  
Supervisor  
U.S. Fish and Wildlife Service  
Louisiana Field Office  
646 Cajundome Blvd., Suite 400  
Lafayette, LA 70506

RE: Entergy Operations, Inc. (EOI)  
Grand Gulf Nuclear Station

Dear Mr. Watson,

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 specifically constructed to connect the plant to the existing regional transmission grid. 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.

Mr. Russell C. Watson  
Supervisor  
U.S. Fish and Wildlife Service  
Louisiana Field Office  
Page 2 of 5

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 GGNS site is mostly rural. There are two transmission corridors containing a single-circuit 500-kV transmission line that were constructed to connect GGNS 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 crosses 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.

Mr. Russell C. Watson  
Supervisor  
U.S. Fish and Wildlife Service  
Louisiana Field Office  
Page 3 of 5

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  
50-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>Epithea 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

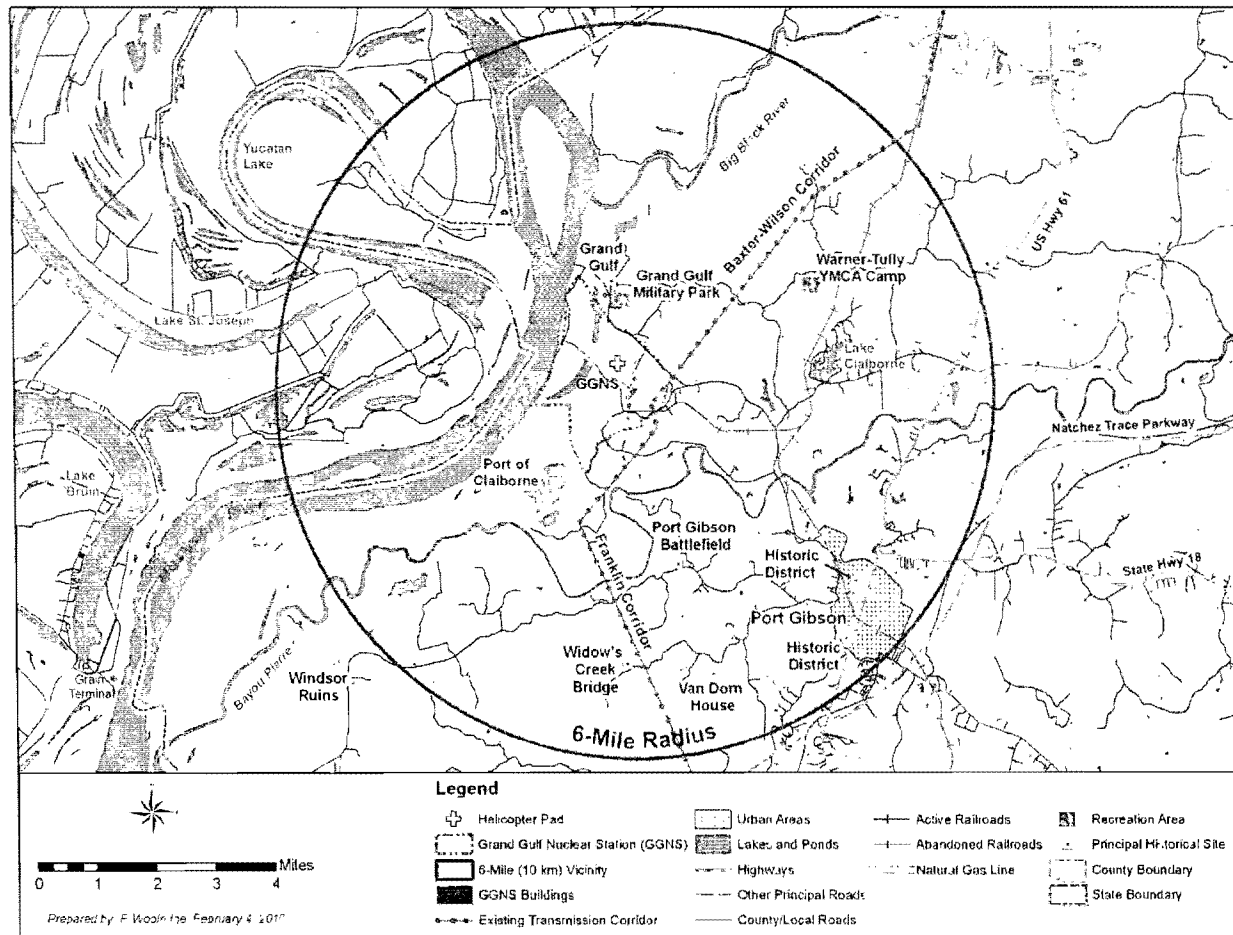
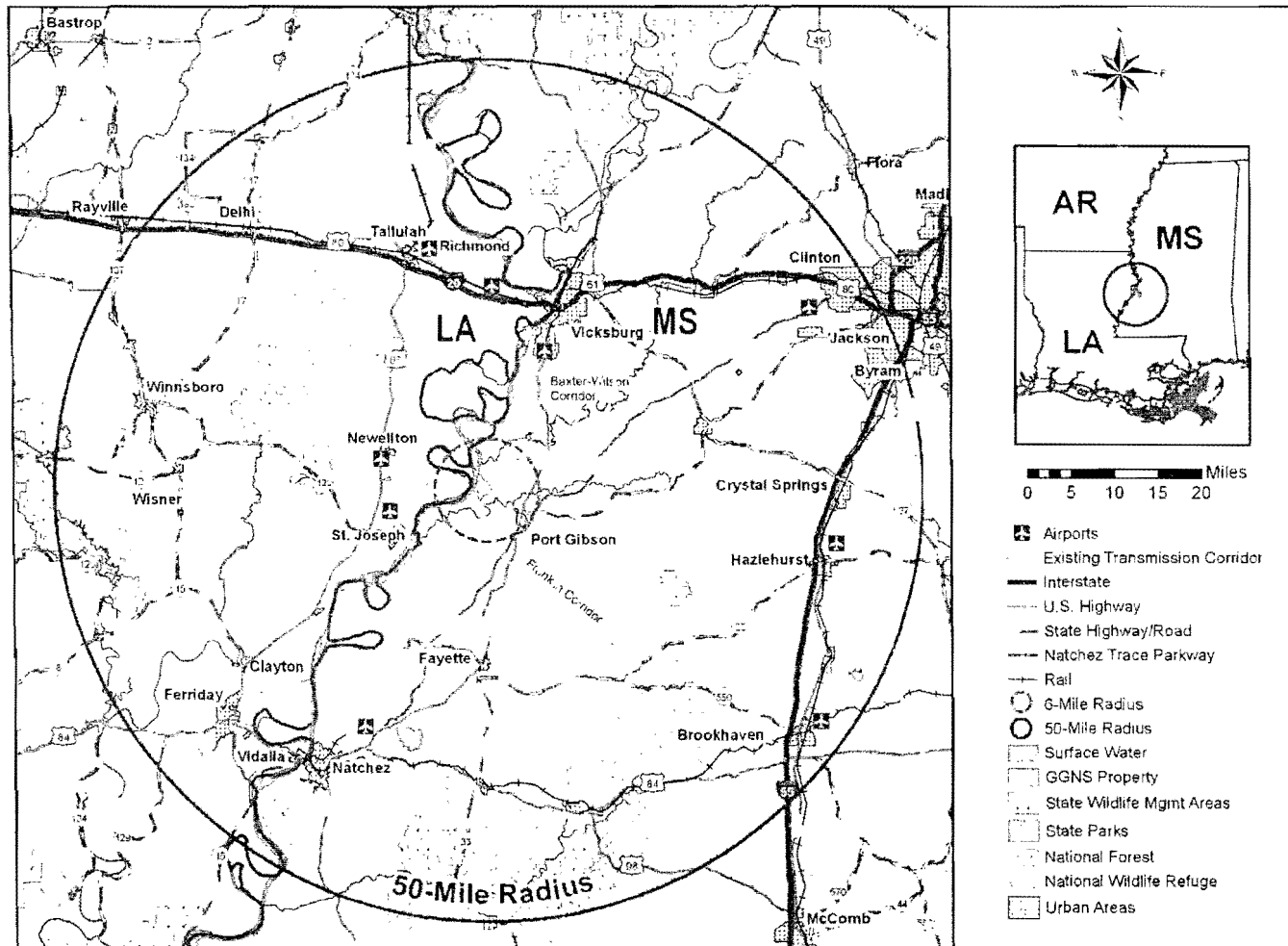
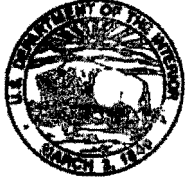


Figure 2

Location of GGNS, 50-Mile Radius Map





## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
646 Cajundome Blvd.  
Suite 400  
Lafayette, Louisiana 70506



March 4, 2011

Mr. James A. Thomas  
Enercon  
5100 East Skelly Drive, Suite 450  
Tulsa, OK 74135

Dear Mr. Thomas:

Please reference your February 4, 2011, letter, regarding the renewal of an operating license for the Grand Gulf Nuclear Station (GGNS), which is located in Claiborne County, Mississippi. That letter requested our concurrence with your determination that the proposed project is not likely to adversely affect any federally threatened or endangered species. The U.S. Fish and Wildlife Service (Service) has reviewed the information you provided, and offers the following comments on the Louisiana portion in accordance with the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). These comments only pertain to those species that fall under the purview of the Louisiana Ecological Services Office (ESO).

The proposed project is located on the east bank of the Mississippi River at River Mile 406. The federally listed species that fall within a 50-mile radius of the GGNS (in Louisiana) include the Louisiana black bear (*Ursus americanus luteolus*), interior least tern (*Sterna antillarum*), pallid sturgeon (*Scaphirhynchus albus*), and fat pocketbook pearly mussel (*Potamilus capax*). According to your letter, there are no expected changes to the operation of the GGNS that would occur during the license renewal term (an additional 20 years). There are also no proposed construction activities. Based on this information, the Service concurs with your determination that the proposed project is not likely to adversely affect the above listed species. Therefore, no further ESA consultation will be necessary with our office for this project.

We appreciate the opportunity to provide these comments. If you need further assistance, please contact Seth Bordelon (337/291-3138) of this office.

Sincerely,

Brad S. Rieck  
Deputy Field Supervisor  
Louisiana Ecological Services Office

cc: LDWF, Natural Heritage Program, Baton Rouge, LA



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

|                                       |                            |                       | County(ies) of Occurrence <sup>(b)</sup> |          |           |        |
|---------------------------------------|----------------------------|-----------------------|--|----------|-----------|--------|
| Scientific                            | Name                       | Status <sup>(a)</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).

R. Watson

- 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

DISTRIBUTION:  
See next page

ADAM Accession Nos.: ML11356A186(Pkg) ML11349A001(Ltr) ML12005A115(Encl1)  
ML12005A119(Enc 2) ML11356A185(Encl 3)

|        |             |             |             |             |             |
|--------|-------------|-------------|-------------|-------------|-------------|
| OFFICE | LA:RPB2:DLR | PM:RPB2:DLR | GS:RERB:DLR | BC:RERB:DLR | BC:RPB2:DLR |
| NAME   | IKing       | DDrucker    | BBalsalm    | Almboden    | DWrona      |
| DATE   | 12/29/11    | 1/4/12      | 1/5/12      | 1/13/12     | 1/19/12     |

OFFICIAL RECORD COPY

Letter to R. Watson from D. Wrona, dated January 19, 2012

SUBJECT: REQUEST FOR LIST OF FEDERAL PROTECTED SPECIES WITHIN THE  
AREA UNDER EVALUATION FOR THE GRAND GULF NUCLEAR STATION,  
UNIT 1, LICENSE RENEWAL APPLICATION REVIEW

DISTRIBUTION:

**E-MAIL:**

PUBLIC

RidsNrrDlr Resource

RidsNrrDlrRpb1 Resource

RidsNrrDlrRpb2 Resource

RidsNrrDlrRerb Resource

RidsNrrDlrRarb Resource

RidsNrrDlrRasb Resource

DLR\_RPOB Resource

RidsOpaMail

RidsOgcMailCenter

-----

NFerrer

BBalsam

AWang

BMizuno, OGC

ICouret, OPA

RSmith, RIV

BRice, RIV

VGaddy, RIV

GMiller, RIV

VDricks, RIV

BMaier, RIV