



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Asheville Field Office  
160 Zillicoa Street  
Asheville, North Carolina 28801

November 1, 2001

Ms. Cynthia A. Carpenter, Chief  
Risk Informed Initiatives, Environmental,  
Decommissioning, and Rulemaking Branch  
Division of Nuclear Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, DC 20555-0001

Dear Ms. Carpenter:

Subject: McGuire Nuclear Station, Units 1 and 2, License Renewal Project, Mecklenburg  
County, North Carolina (Docket Nos. 50-369 and 50-370)

We received your letter of October 15, 2001, requesting our comments relative to endangered and threatened species and the subject project. We are providing the following comments in accordance with the provisions of Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e); the Bald Eagle Protection Act of 1940 (16 U.S.C. 668-668d); and the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712).

According to your letter, the Nuclear Regulatory Commission (NRC) is evaluating an application for renewal of Duke Energy Corporation's license for operation of the McGuire Nuclear Station, Units 1 and 2. According to Duke Energy's application, Duke has not identified any major refurbishment activities; therefore, the license renewals would primarily involve an evaluation of the impacts of continued operation for another 20 years.

### **Endangered Species**

Species in the Project Areas. Enclosed is a list of federally endangered, threatened, and candidate species; designated critical habitat; and Federal species of concern known from Gaston, Lincoln, and Mecklenburg Counties. Federal species of concern are not legally protected under the Act and are not subject to any of its provisions, including Section 7, unless they are formally proposed or listed as endangered or threatened. Since the term of the proposed

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license renewals may span 20 years, we are including these species in our response to give you advance notification. We do not have records of any listed species from the footprint of the project as depicted on your map.

We do have records of Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered plant species, and Georgia aster (*Aster georgianus*), a plant species that is currently a candidate for listing as endangered. Both of these plants occur in areas that are likely to be affected, directly and indirectly, by this project. *Helianthus schweinitzii* occurs in relatively open habitats--road/power line rights-of-way, early successional fields, forest ecotonal margins, forest clearings, etc. *Aster georgianus* is a perennial that occurs in dry open woods along roadsides, woodland borders, old fields, and pastures

We also have records of the threatened American bald eagle (*Haliaeetus leucocephalus*) from the Catawba River area, with nests at Lake Wylie (downstream of the project) and Lake James (upstream of the project). Additionally, foraging and migratory eagles are observed during many times of the year at Lake Norman, near the McGuire units.

Conservation Measures. Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. "Conservation recommendations" are discretionary agency activities to minimize or avoid the adverse effects of a proposed action to a listed species or critical habitat, to help implement recovery plans, or to develop information that will help better understand the species.

We request that the following conservation recommendations be considered for inclusion by NRC as part of the license renewals:

- (1) Duke Power should develop and maintain a detailed map and description of listed species within its project boundaries and rights-of-way.
- (2) Duke Power should develop a comprehensive management plan for listed species within its rights-of-way and on their land within the area of this project. Issues that should be addressed include protection, monitoring, and management. A complete map of all known locations of listed species on Duke Power's property should be provided. A regular monitoring plan should be developed and implemented. Appropriate management prescriptions should be developed with the assistance of species experts.

### **Other Concerns**

Migratory Birds. We are concerned about the potential effects of this project on raptors; therefore, we recommend transmission line designs that prevent arcing and flight hazards to raptors. If the transmission lines and other facilities are not already outfitted to reduce potential

impacts to raptors, three-phase lines should be "raptor-proofed" with one of the following design modifications:

- (1) Separation of phases - This can be accomplished by either lowering the cross arm, using a longer cross arm, or raising the center phase on a pole-top extension. The objective is to separate the phases by at least 60 inches to prevent raptors from making skin-to-skin contact with any two phases.
- (2) Insulation - An alternative to vertical separation of phases is to install conductor insulation (commonly, pvc tubing), extending a minimum of 36 inches on either side of the pole-top insulator. This alternative should also include the replacement of metal cross arm braces with wooden or other nonconductive braces.

River and other wetland crossings should be avoided whenever possible. Where unavoidable, lines crossing wetlands should be constructed to maximize visibility of the line to raptors by one of the following design modifications: (1) remove the static line, (2) enlarge the static line to improve visibility to raptors, or (3) mount aviation balls or similar markers on the static line.

What measures can NRC and the licensee incorporate in the project to enhance the project area for waterfowl, raptors, and other migratory birds? Does the licensee have other land that it could set aside for the purposes of enhancing the project area for migratory birds and to mitigate for continued impacts (direct, indirect, and cumulative) to migratory birds and other wildlife?

Aquatic Impacts. What are the impacts of the water intakes on fish entrainment and impingement? What measures can the licensee incorporate into the project to minimize, or mitigate for, these impacts? What measures can the licensee incorporate to minimize, or mitigate for, the impacts of the reservoir and thermal discharges to native aquatic assemblages?

Please keep Mr. Mark Cantrell of our staff apprised of the progress on this project (telephone 828/258-3939, Ext. 227). In any future correspondence pertaining to this matter, please reference our Log Number 4-2-00-120.

Sincerely,



Brian P. Cole  
State Supervisor

Enclosure

cc:

Mr. Terence N. Martin, Team Leader, Natural Resources Management, Office of Environmental Policy and Compliance, U.S. Department of the Interior, Office of the Secretary, Washington, DC 20240

Mr. William M. Miller, Duke Power, Environment, Health & Safety, 522 South Church Street, P.O. Box 1006, Charlotte, NC 28201-1006

Mr. Chris Goudreau, Hydropower Relicensing Coordinator, North Carolina Wildlife Resources Commission, 645 Fish Hatchery Road, Marion, NC 28752-9229

**ENDANGERED, THREATENED, AND CANDIDATE SPECIES AND FEDERAL SPECIES OF CONCERN, GASTON, LINCOLN AND MECKLENBURG COUNTIES, NORTH CAROLINA**

This list was adapted from the North Carolina Natural Heritage Program's County Species List. It is a listing, for Gaston, Lincoln, and Mecklenburg Counties of North Carolina's federally listed and proposed endangered, threatened, and candidate species and Federal species of concern (for a complete list of rare species in the state, please contact the North Carolina Natural Heritage Program). The information in this list is compiled from a variety of sources, including field surveys, museums and herbariums, literature, and personal communications. The North Carolina Natural Heritage Program's database is dynamic, with new records being added and old records being revised as new information is received. Please note that this list cannot be considered a definitive record of listed species and Federal species of concern, and it should not be considered a substitute for field surveys.

**Critical habitat:** ~~Critical habitat~~ is noted, with a description, for the counties where it is designated or proposed.

**Aquatic species:** Fishes and aquatic invertebrates are noted for counties where they are known to occur. However, projects may have effects on downstream aquatic systems in adjacent counties.

COMMON NAME	SCIENTIFIC NAME	STATUS
<b>GASTON COUNTY</b>		
<b>Vertebrates</b>		
Bog turtle	<i>Clemmys muhlenbergii</i>	T(S/A) <sup>1</sup>
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened (proposed for delisting)
<b>Vascular Plants</b>		
Georgia aster	<i>Aster georgianus</i>	C1
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	Endangered
<b>LINCOLN COUNTY</b>		
<b>Vascular Plants</b>		
Dwarf-flowered heartleaf	<i>Hexastylis naniflora</i>	Threatened
Michaux's sumac	<i>Rhus michauxii</i>	Endangered*
<b>MECKLENBURG COUNTY</b>		
<b>Vertebrates</b>		
Carolina darter	<i>Etheostoma collis collis</i>	FSC
Bald eagle	<i>Haliaeetus leucocephalus</i>	Threatened (proposed for delisting)
<b>Invertebrates</b>		
Carolina heelsplitter	<i>Lasmigona decorata</i>	Endangered
Carolina creekshell	<i>Villosa vaughaniana</i>	FSC
<b>Vascular Plants</b>		

COMMON NAME	SCIENTIFIC NAME	STATUS
Georgia aster	<i>Aster georgianus</i>	C1
Tall larkspur	<i>Delphinium exaltatum</i>	FSC*
Smooth coneflower	<i>Echinacea laevigata</i>	Endangered*
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	Endangered
Virginia quillwort	<i>Isoetes virginica</i>	FSC
Heller's trefoil	<i>Lotus helleri</i>	FSC
Michaux's sumac	<i>Rhus michauxii</i>	Endangered*

**KEY:**

Status	Definition
Endangered	A taxon "in danger of extinction throughout all or a significant portion of its range."
Threatened	<del>A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."</del>
C1	A taxon under consideration for official listing for which there is sufficient information to support listing.
FSC	A Federal species of concern--a species that may or may not be listed in the future (formerly C2 candidate species or species under consideration for listing for which there is insufficient information to support listing).
T(S/A)	Threatened due to similarity of appearance (e.g., American alligator)--a species that is threatened due to similarity of appearance with other rare species and is listed for its protection. These species are not biologically endangered or threatened and are not subject to Section 7 consultation.

Species with 1, 2, 3, or 4 asterisks behind them indicate historic, obscure, or incidental records.

\*Historic record - the species was last observed in the county more than 50 years ago.

\*\*Obscure record - the date and/or location of observation is uncertain.

\*\*\*Incidental/migrant record - the species was observed outside of its normal range or habitat.

\*\*\*\*Historic record - obscure and incidental record.

<sup>1</sup>In the November 4, 1997, *Federal Register* (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land-management activities by private landowners in North Carolina, part of the southern population of the species. In addition to its official status as T(S/A), the U.S. Fish and Wildlife Service considers the southern population of the bog turtle as a Federal species of concern due to habitat loss.