



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southeast Regional Office  
9721 Executive Center Drive N.  
St. Petersburg, Florida 33702  
(727) 570-5317, FAX 570-5300

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Letter No. 7

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copy submitted

Ms. Lisa K. Hollingsworth  
National Environmental Policy Act Document Manager  
U.S. Department of Energy, Federal Energy Technology Center  
3610 Collins Ferry Road  
Morgantown, West Virginia 26507-0880

Dear Ms. Hollingsworth:

The National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Statement (DEIS) for the JEA (formerly the Jacksonville Electric Authority) Circulating Fluidized Bed Combustor Project, in Jacksonville, Florida. The proposed project involves the Department of Energy providing cost-shared funding for the demonstration of circulating fluidized bed combustion technology at JEA's existing Northside Generating Station in Jacksonville, Florida.

Information contained in the DEIS indicates that the project area includes estuarine emergent wetlands. However, the NMFS cannot determine from the information contained in the DEIS regarding project construction and related mitigation whether there will be a net overall adverse affect to wetlands that support fishery resources of concern to the NMFS. Accordingly, we believe this is an opportune time to advise you of consultation requirements resulting from new legislation. In 1996, to further the conservation of marine fishery resources, Congress amended the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). The amendment requires establishment of guidelines for the identification of Essential Fish Habitat (EFH) and the inclusion of EFH descriptions in fishery management plans. The Magnuson-Stevens Act also requires all Federal agencies to consult with the NMFS on measures to protect EFH when an agency proposes to authorize, fund, or undertake an activity which would adversely affect designated habitats.

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The estuarine emergent wetlands in the project area have been identified as EFH. Accordingly, consultation is required pursuant to interagency coordination procedures specified by the NMFS in the 1997 Interim Final Rules to implement the EFH provisions of the Magnuson-Stevens Act (50 CFR Sections 600.805 - 600.930) if the Federal action agency determines that their activity may adversely affect EFH. The DEIS would be an appropriate place to document the results of this determination and any subsequent consultation, if required.



The amendments to the South Atlantic and Mid-Atlantic Fishery Management Plans, which identify EFH within the project area, have been approved by the Secretary of Commerce. With those approvals, the Department of Energy, and many other Federal agencies, became subject to the consultation requirements of the Magnuson-Stevens Act. To familiarize you and your staff with your consultation responsibilities, we are enclosing a document, prepared by the Southeast Region of the NMFS, entitled: *Essential Fish Habitat: New Marine Fish Habitat Conservation Mandate for Federal Agencies*. It provides background information, outlines consultation procedures, identifies EFH and managed fisheries, and references other data sources.

If you wish to discuss the attached document or have questions on consultation requirements or procedures, please call Mr. Rickey Ruebsamen of my staff at 727/570-5317.

Sincerely,



Andreas Mager, Jr.  
Assistant Regional Administrator  
Habitat Conservation Division

Enclosure

# **Essential Fish Habitat:**

## **New Marine Fish Habitat Conservation Mandate for Federal Agencies**



*National Marine Fisheries Service  
Habitat Conservation Division  
Southeast Regional Office  
9721 Executive Center Drive North  
St. Petersburg, FL 33702  
727/570-5317*

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## *Executive Summary*

The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) set forth a new mandate for the National Marine Fisheries Service (NMFS), regional fishery management councils (FMC), and other Federal agencies to identify and protect important marine and anadromous fish habitat. The EFH provisions of the MSFCMA support one of the Nation's overall marine resource management goals - maintaining sustainable fisheries. Essential to achieving this goal is the maintenance of suitable marine fishery habitat quality and quantity. The FMCs, with assistance from NMFS, have delineated "essential fish habitat" (EFH) for managed species. As new FMPs are developed, EFH for newly managed species will be defined as well. Federal action agencies which fund, permit, or carry out activities that may adversely impact EFH are required to consult with NMFS regarding the potential effects of their actions on EFH, and respond in writing to NMFS or FMC recommendations. In addition, NMFS and the FMCs may comment on and make recommendations to any state agency on their activities which may effect EFH.

On December 19, 1997, interim final rules were published in the Federal Register (Vol. 62, No. 244) which specify procedures for implementation of the EFH provisions of the MSFCMA. These rules address, in detail, the coordination, consultation, and recommendation requirements of the MSFCMA. Measures recommended by NMFS or an FMC to protect EFH are advisory, not proscriptive.

Within the area encompassed by the NMFS Southeast Region, EFH has been identified for hundreds of marine species covered by 20 fishery management plans (FMPs), under the auspices of the Gulf of Mexico, South Atlantic, or Caribbean FMC or the NMFS. Generic FMP amendments delineating EFH for species managed by the three FMCs were completed in early 1999.

Wherever possible, NMFS intends to use existing interagency coordination processes to fulfill EFH consultations for Federal agency actions that may adversely affect EFH. Provided certain specifications are met, EFH consultations will be incorporated into interagency procedures established under the National Environmental Policy Act, Endangered Species Act, Clean Water Act, Fish and Wildlife Coordination Act, or other applicable statutes. If existing processes cannot adequately address EFH consultation requirements, appropriate new procedures should be developed in cooperation with the NMFS. Programmatic consultations may be implemented or General Concurrences may be developed when program or project impacts are individually and cumulatively minimal in nature. Moreover, NMFS will work closely with Federal agencies on programs requiring either expanded or abbreviated individual project consultations. An effective, interagency EFH consultation process is vital to ensuring that Federal actions are consistent with the MSFCMA resource management goals.

## **Essential Fish Habitat: New Marine Fish Habitat Conservation Mandate for Federal Agencies**

### **Introduction**

This document has been prepared by the Southeast Regional Office of the National Marine Fisheries Service (NMFS) to provide an overview of the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) and implementing rules. This primer provides a brief legislative and regulatory background, introduces the concept of EFH, and describes consultation requirements. Consistent with elements of the NMFS's National Habitat Plan, Strategic Plan, and Habitat Conservation Policy, this document is intended to: provide a mechanism for information exchange; foster interagency discussion and problem-solving; and enhance communication and coordination among the NMFS, regional fishery management councils (FMC), and affected state and Federal agencies. Ultimately, improved interagency coordination and consultation will enhance the ability of the agencies to sustain healthy and productive marine fishery habitats.

### **Legislative and Regulatory Background**

The 1996 amendments to the MSFCMA (excerpted at Appendix 1) set forth a new mandate to identify and protect important marine and anadromous fisheries habitat. The FMCs, with assistance from NMFS, are required to delineate EFH in fishery management plans (FMP) or FMP amendments for all Federally managed fisheries. Federal action agencies which fund, permit, or carry out activities that may adversely impact EFH are required to consult with NMFS regarding potential adverse effects of their actions on EFH, and respond in writing to NMFS and FMC recommendations. In addition, NMFS is directed to comment on any state agency activities that would impact EFH.

The purpose of addressing habitat in this act is to further one of the Nation's important marine resource management goals - maintaining sustainable fisheries. Achieving this goal requires the long-term maintenance of suitable marine fishery habitat quality and quantity. Measures recommended to protect EFH by NMFS or a FMC are advisory, not proscriptive. An effective EFH consultation process is vital to ensuring that Federal actions are consistent with the MSFCMA resource management goals.

Guidance and procedures for implementation of the 1996 amendments of the MSFCMA were provided through interim final rules established by the NMFS in 1997 (50 CFR Sections 600.805 - 600.930). These rules specify that FMP amendments be prepared to describe and identify EFH and identify appropriate actions to conserve and enhance those habitats. In addition, the rules establish procedures to promote the protection of EFH through interagency coordination and consultation on proposed Federal and state actions.

### **EFH Designation**

The MSFCMA requires that EFH be identified for all fisheries which are Federally managed. This includes species managed by the FMCs under Federal FMPs, as well as those managed by the NMFS under FMPs developed by the Secretary of Commerce. Applicable FMP authorities, along with some of the species covered by those FMPs, are listed in Appendices 2 - 5 for the major ecoregions of the NMFS Southeast Region. Species listed are those for which data were adequate to define and map EFH. The listed species under each FMC's authorities collectively occur throughout the areas managed by the respective FMCs, therefore, inclusion of species for which life history data are limited would not encompass a greater geographic area. Note that Appendix 3 lists species managed by the South Atlantic FMC, as well as some species managed by the Mid Atlantic FMC for which EFH has been identified to extend into the South Atlantic area.

EFH is defined in the MSFCMA as "...those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The rules promulgated by the NMFS in 1997 further clarify EFH with the following definitions: **waters** - aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; **substrate** - sediment, hard bottom, structures underlying the waters, and associated biological communities; **necessary** - the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and **spawning, breeding, feeding, or growth to maturity** - stages representing a species' full life cycle. EFH may be a subset of all areas occupied by a species. Acknowledging that the amount of information available for EFH determinations will vary for each species, the rules direct the FMCs to use the best information available, and to be increasingly specific and narrow in their delineations as more refined information becomes available.

The areas designated as EFH by the Gulf of Mexico, South Atlantic, and Caribbean FMCs are generalized in Appendix 6. Additional sources of information, useful for preparing EFH assessments, and to further one's understanding of EFH designations and Federally managed fishery resources are available through the NMFS and FMCs. Appendix 8 provides citations for published Fishery Management Plan amendments and identifies web sites containing information on the MSFCMA, the NMFS interim final rules for the implementation of EFH designation and consultation provisions, and data on specific managed fisheries and associated habitats. NMFS and FMC points of contact are identified in Appendix 9.

The rules also direct FMCs to consider a second, more limited habitat designation for each species in addition to EFH. Habitat Areas of Particular Concern (HAPCs) are described in the rules as subsets of EFH which are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. In general, HAPC include high value intertidal and estuarine habitats, offshore areas of high habitat value or vertical relief, and habitats used for migration, spawning, and rearing of fish and shellfish. Areas identified by each of the three southeastern Fishery Management Councils as HAPC are presented in Appendix 7. For a complete description of designated HAPCs the reader should reference the appropriate FMP amendment. HAPCs are not afforded any additional regulatory protection under the MSFCMA; however, Federal actions with potential adverse impacts to HAPCs will be more carefully scrutinized during the consultation process and will be subject to more stringent EFH conservation recommendations.

Designating the boundaries of EFH has taken careful and deliberate consideration by the FMCs. The effort to identify and delineate EFH in the various fishery management plans was a rigorous process that involved numerous state and Federal agencies and the public at large. The Gulf of Mexico, South Atlantic, and Caribbean FMCs have produced a generic management plan amendment to designate EFH for all fisheries managed by each FMC. For general planning purposes, Figures 1 - 3 depict boundaries as a consolidation of all identified EFH within the Southeast Region of the NMFS. Reference should be made to each of the FMP amendments for a species-specific descriptions of EFH.

Besides delineating EFH, the FMP amendments produced by each of the three councils identify and describe potential threats to EFH, which includes threats from development, fishing, or any other sources. Also identified are recommend EFH conservation and enhancement measures. FMCs are required to implement management measures to minimize, to the extent practicable, any adverse impacts to EFH caused by fishing gears. Guidelines used in the development of EFH amendment sections for each of these issues are included in the EFH rules.

#### **EFH Consultations**

In the regulatory context, the most important provisions of the MSFCMA for conserving fish habitat are those which require Federal agencies to consult with NMFS when any activity proposed to be permitted, funded, or undertaken by a Federal agency may have adverse impacts on designated EFH. The consultation requirements in the MSFCMA direct Federal agencies to consult with NMFS when any of their activities may have an adverse effect on EFH. The EFH rules define an adverse effect as "any impact which reduces quality and/or quantity of EFH...[and] may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat wide impacts, including individual, cumulative, or synergistic consequences of actions."

The consultation provisions have raised some concern among Federal action agencies regarding potential increases in workload and the regulatory burden on the public. NMFS has addressed these concerns in the EFH rules by emphasizing the use of existing environmental review processes and time frames. Provided the specifications outlined in the rules are met, EFH consultations will be incorporated into interagency procedures previously established under the National Environmental Policy Act, Endangered Species Act, Clean Water Act, Fish and Wildlife Coordination Act, or other applicable statutes.

To incorporate EFH consultations into coordination, consultation and/or environmental review procedures required by other statutes, three criteria must be met:

- (1) The existing process must provide NMFS with timely notification of the action;
- (2) Notification of the action must include an "EFH Assessment" of the impacts of the proposed action as outlined in the EFH rules;
- (3) NMFS must have completed a written finding that the existing process satisfies the requirements of the MSFCMA.

An "EFH Assessment" is a review of the proposed project and its potential impacts to EFH. As set forth in the rules, EFH Assessments must include: (1) a description of the proposed action; (2) an analysis of the effects, including cumulative effects, of the action on EFH, the managed species, and associated species by life history stage; (3) the Federal agency's views regarding the effects of the action on EFH; and (4) proposed mitigation, if applicable. If appropriate, the assessment should also include the results of an on-site inspection, the views of recognized experts on the habitat or species effects, a literature review, an analysis of alternatives to the proposed action, and any other relevant information.

Once NMFS learns of a Federal or state activity that may have an adverse effect on EFH, NMFS is required to develop EFH conservation recommendations for the activity. These recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH and are to be provided to the action agency in a timely manner. The MSFCMA also authorizes FMCs to comment on Federal and state projects, and directs FMCs to comment on any project which may substantially impact EFH. Federal agencies are required to respond to EFH conservation recommendations of the NMFS and FMCs in writing and within 30 days.

Consultations may be conducted through programmatic, general concurrence, or project specific mechanisms. Evaluation at a programmatic level may be appropriate when sufficient information is available to develop EFH conservation recommendations and address all reasonably foreseeable adverse impacts under a particular program area. General Concurrences can be utilized for categories of similar activities having minimal individual and cumulative impacts. Programmatic and General Concurrence consultations minimize the need for individual project consultation in most cases because NMFS has determined that the actions will likely result in no more than minimal adverse effects, and conservation measures would be implemented. For example, NMFS might grant a General Concurrence for the construction of docks or piers which, with incorporation of design or siting constraints, would minimally affect Federally managed fishery resources or their habitats.

Consultations at a project-specific level are required when critical decisions are made at the project implementation stage, or when sufficiently detailed information for development of EFH conservation recommendations does not exist at the programmatic level. Project specific consultations must follow either the abbreviated or expanded procedures. Abbreviated consultations allow NMFS to quickly determine whether, and to what degree, a Federal action may adversely impact EFH, and should be used when impacts to EFH are expected to be minor. For example, the abbreviated consultation procedure would be used when the adverse effect of an action or proposed action could be alleviated through minor design or operational modifications, or the inclusion of measures to offset unavoidable adverse impacts.

Expanded consultations allow NMFS and a Federal action agency the maximum opportunity to work together in the review of an activity's impact on EFH and the development of EFH conservation recommendations. Expanded

consultation procedures must be used for Federal actions that would result in substantial adverse effects to EFH. Federal action agencies are encouraged to contact NMFS at the earliest opportunity to discuss whether the adverse effect of a proposed action makes expanded consultation appropriate. Expanded consultation procedures provide additional time for the development of conservation recommendations, and may be appropriate for actions such as the construction of large marinas or port facilities.

The MSFCMA mandates that a Federal action agency must respond in writing to EFH conservation recommendations from NMFS and FMCs within 30 days of receiving those recommendations. The rules require that such a response be provided at least 10 days prior to final approval of the action, if a decision by the Federal agency is required in fewer than 30 days. The response must include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with NMFS conservation recommendations, the agency must explain its reasons for not following the recommendations, including the scientific rationale for any disagreements with NMFS over the anticipated effects of the proposed action and the measures needed to offset such effects. When an agency decision is inconsistent with NMFS conservation recommendations, the NMFS Assistant Administrator may request a meeting with the head of the agency to further discuss the project.

#### **Conclusion**

The EFH mandates of the MSFCMA represent a new effort to integrate fishery management and habitat management by stressing the dependency of healthy, productive fisheries on the maintenance of viable and diverse estuarine and marine ecosystems. The EFH consultation process will ensure that Federal agencies explicitly consider the effects of their actions on important habitats, with the goal of supporting the sustainable management of marine fisheries. The NMFS is committed to working with Federal and state agencies to implement these mandates effectively and efficiently, with the ultimate goal of sustaining of the Nation's fishery resources.

Comments, questions, and suggested revisions may be directed to Rickey Ruebsamen (EFH Coordinator), 9721 Executive Center Drive, N. St. Petersburg, FL 33702; phone: 727/570-5317; email: ric.ruebsamen@noaa.gov.

**Appendix 1. Selected Text from the Magnuson-Stevens Fishery Conservation and Management Act  
(As Amended Through October 11, 1996)**

16 U.S.C. 1854 note, 1855  
M-S Act §§ 304 note, § 305

SEC. 305. OTHER REQUIREMENTS AND AUTHORITY  
104-297

16 U.S.C. 1855

**(b) FISH HABITAT.**

(1) (A) The Secretary shall, within 6 months of the date of enactment of the Sustainable Fisheries Act, establish by regulation guidelines to assist the Councils in the description and identification of essential fish habitat in fishery management plans (including adverse impacts on such habitat) and in the consideration of actions to ensure the conservation and enhancement of such habitat. The Secretary shall set forth a schedule for the amendment of fishery management plans to include the identification of essential fish habitat and for the review and updating of such identifications based on new scientific evidence or other relevant information.

(B) The Secretary, in consultation with participants in the fishery, shall provide each Council with recommendations and information regarding each fishery under that Council's authority to assist it in the identification of essential fish habitat, the adverse impacts on that habitat, and the actions that should be considered to ensure the conservation and enhancement of that habitat.

(C) The Secretary shall review programs administered by the Department of Commerce and ensure that any relevant programs further the conservation and enhancement of essential fish habitat.

(D) The Secretary shall coordinate with and provide information to other Federal agencies to further the conservation and enhancement of essential fish habitat.

(2) Each Federal agency shall consult with the Secretary with respect to any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any essential fish habitat identified under this Act.

(3) Each Council--

(A) may comment on and make recommendations to the Secretary and any Federal or State agency concerning any activity authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by any Federal or State agency that, in the view of the Council, may affect the habitat, including essential fish habitat, of a fishery resource under its authority; and

(B) shall comment on and make recommendations to the Secretary and any Federal or State agency concerning any such activity that, in the view of the Council, is likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority.

(4) (A) If the Secretary receives information from a Council or Federal or State agency or determines from other sources that an action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by any State or Federal agency would adversely affect any essential fish habitat identified under this Act, the Secretary shall recommend to such agency measures that can be taken by such agency to conserve such habitat.

(B) Within 30 days after receiving a recommendation under subparagraph (A), a Federal agency shall provide a detailed response in writing to any Council commenting under paragraph (3) and the Secretary regarding the matter. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on such habitat. In the case of a response that is inconsistent with the recommendations of the Secretary, the Federal agency shall explain its reasons for not following the recommendations.

## Appendix 2. Fishery Management Plans and Managed Species for the Gulf of Mexico.

GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

## Shrimp Fishery Management Plan

brown shrimp - *Penaeus aztecus*  
 pink shrimp - *P. duorarum*  
 royal red shrimp - *Pleoticus robustus*  
 white shrimp - *Penaeus setiferus*

## Red Drum Fishery Management Plan

red drum - *Sciaenops ocellatus*

## Reef Fish Fishery Management Plan

black grouper - *Mycteroperca bonaci*  
 gag grouper - *M. microlepis*  
 gray snapper - *Lutjanus griseus*  
 gray triggerfish - *Balistes capricus*  
 greater amberjack - *Seriola dumerili*  
 lane snapper - *L. synagris*  
 lesser amberjack - *S. fasciata*  
 red grouper - *Epinephelus morio*  
 red snapper - *L. campechanus*  
 scamp grouper - *M. phenax*  
 tilefish - *Lopholatilus chamaeleonticeps*  
 yellowtail snapper - *Ocyurus chrysurus*  
 vermilion snapper - *Rhomboplites aurorubens*

## Stone Crab Fishery Management Plan

stone crab - *Menippe spp.*

## Spiny Lobster Fishery Management Plan

spiny lobster - *Panulirus argus*

## Coral and Coral Reef Fishery Management Plan

varied coral species and coral reef communities comprised of several hundred species

## Coastal Migratory Pelagic Fishery Management Plan

bluefish - *Pomatomus saltatrix*  
 dolphin - *Coryphaena hippurus*  
 cobia - *Rachycentron canadum*  
 king mackerel - *Scomberomorus cavalla*  
 little tunny - *Euthynnus alleteratus*  
 Spanish mackerel - *S. maculatus*

Appendix 3. Fishery Management Plans and Managed Species for the South Atlantic Region.

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

**Shrimp Fishery Management Plan**  
 brown shrimp - *Penaeus aztecus*  
 pink shrimp - *P. duorarum*  
 rock shrimp - *Sicyonia brevirostris*  
 royal red shrimp - *Pleoticus robustus*  
 white shrimp - *Penaeus setiferus*

**Red Drum Fishery Management Plan**  
 red drum - *Sciaenops ocellatus*

**Snapper Grouper Fishery Management Plan**  
 blackfin snapper - *Lutjanus buccanella*  
 blueline tilefish - *Caulolatilus microps*  
 gray snapper - *L. griseus*  
 greater amberjack - *Seriola dumerili*  
 jewfish - *Epinephelus itajara*  
 mutton snapper - *L. analis*  
 red porgy - *Pagrus pagrus*  
 red snapper - *L. campechanus*  
 scamp - *Mycteroperca phenax*  
 silk snapper - *L. vivanus*  
 snowy grouper - *E. niveatus*  
 speckled hind - *E. drummondhayi*  
 vermilion snapper - *Rhomboplites aurorubens*  
 yellowedge grouper - *E. flavolimbatus*  
 warsaw grouper - *E. nigritus*  
 white grunt - *Haemulon plumieri*  
 wreckfish - *Polyprion americanus*

**Coastal Migratory Pelagics Fishery Management Plan**  
 dolphin - *Coryphaena hippurus*  
 cobia - *Rachycentron canadum*  
 king mackerel - *Scomberomorus cavalla*  
 Spanish mackerel - *S. maculatus*

**Golden Crab Fishery Management Plan**  
 golden crab - *Chaceon feneri*

**Spiny Lobster Fishery Management Plan**  
 spiny lobster - *Panulirus argus*

**Coral and Coral Reef Fishery Management Plan**  
 varied coral species and coral reef communities comprised of several hundred species

**Calico Scallop Fishery Management Plan**  
 calico scallop - *Argopecten gibbus*

**Sargassum Habitat Fishery Management Plan**  
*Sargassum* (and associated fauna) where it occurs in the EEZ and state waters

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

**Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan**  
 Black sea bass - *Centropristus striata*  
 Scup - *Stenotomus chrysops*  
 Summer flounder - *Paralichthys dentatus*

**Bluefish Fishery Management Plan**  
 Bluefish - *Pomatomus saltatrix*

**Atlantic Surfclam and Ocean Quahog Fishery Management Plan**  
 Ocean quahog - *Artica islandica*  
 Surfclam - *Spisula solidissima*

**Atlantic Mackerel, Squid, and Butterfish Fishery Management Plan**  
 Atlantic butterfish - *Peprilus triacanthus*  
 Atlantic mackerel - *Scomber scombrus*  
 Long finned squid - *Loligo peales*  
 Short finned squid - *Illex illecebrosus*

**Dogfish Fishery Management Plan**  
 Spiny dogfish - *Squalus acanthias*

**Appendix 4. Fishery Management Plans and Managed Species for the Caribbean Region.**

**CARIBBEAN FISHERY MANAGEMENT COUNCIL**

**Reef Fish Fishery Management Plan**

banded butterflyfish - *Chaetodon striatus*  
coney - *Epinephelus fulvus*  
gray snapper - *Lutjanus griseus*  
queen triggerfish - *Balistes vetula*  
mutton snapper - *L. analis*  
nassau grouper - *E. striatus*  
red hind - *E. guttatus*  
redtail parrotfish - *Sparisoma chrysopterygum*  
schoolmaster - *L. apodus*  
silk snapper - *L. vivanus*  
squirrelfish - *Holocentrus ascensionis*  
sand tile fish - *Malacanthus plumieri*  
trunkfish - *Lactophrys quadricornis*  
yellowtail snapper - *Ocyurus chrysurus*  
white grunt - *Haemulon plumieri*

**Spiny Lobster Fishery Management Plan**

spiny lobster - *Panulirus argus*

**Queen Conch Fishery Management Plan**

queen conch - *Strombus gigas*

**Coral Fishery Management Plan**

varied coral species and coral reef  
communities comprised of several hundred  
species

Appendix 5. Species Managed under the Federally-Implemented Fishery Management Plans.

NATIONAL MARINE FISHERIES SERVICE

Billfish

blue marlin - *Makaira nigricans*  
 longbill spearfish - *Tetrapturus pfluegeri*  
 sailfish - *Istiophorus platypterus*  
 white marlin - *T. albidus*

Swordfish

swordfish - *Xiphias gladius*

Tuna

albacore - *Thunnus alalunga*  
 Atlantic bigeye - *T. obesus*  
 Atlantic yellowfin - *T. albacares*  
 skipjack - *Katsuwonus pelamis*  
 western Atlantic bluefin - *T. thynnus*

Sharks

Atlantic angel shark - *Squatina dumerili*  
 Atlantic sharpnose shark - *Rhizoprionodon terraenovae*  
 basking shark - *Cetorhinus maximus*  
 bigeye sand tiger - *Odontaspis noronhai*  
 bigeye sixgill shark - *Hexanchus vitulus*  
 bigeye thresher shark - *Alopias superciliosus*  
 bignose shark - *Carcharhinus altimus*  
 blacknose shark - *C. acronotus*  
 blacktip shark - *C. limbatus*  
 blue shark - *Prionace glauca*  
 bonnethead - *Sphyrna tiburo*  
 bull shark - *C. leucas*

Caribbean reef shark - *C. perezii*  
 Caribbean sharpnose shark - *R. porosus*  
 common thresher shark - *A. vulpinus*  
 dusky shark - *C. obscurus*  
 finetooth shark - *C. isodon*  
 Galapagos shark - *C. galapagensis*  
 great hammerhead - *S. mokarran*  
 lemon shark - *Negaprion brevirostris*  
 longfin mako shark - *Isurus paucus*  
 narrowtooth shark - *C. brachyurus*  
 night shark - *C. signatus*  
 nurse shark - *Ginglymostoma cirratum*  
 oceanic whitetip shark - *C. longimanus*  
 porbeagle shark - *Lamna nasus*  
 sandbar shark - *C. plumbeus*  
 sand tiger shark - *O. taurus*  
 scalloped hammerhead - *S. lewini*  
 sharpnose sevengill shark - *Heptranchias perlo*  
 shortfin mako shark - *I. oxyrinchus*  
 silky shark - *C. falciformis*  
 sixgill shark - *H. griseus*  
 smalltail shark - *C. porosus*  
 smooth hammerhead - *S. zygaena*  
 spinner shark - *C. brevipinna*  
 Tiger shark - *Galeocerdo cuvieri*  
 whale shark - *Rhinocodon typus*  
 white shark - *Carcharodon carcharias*

**Appendix 6. Essential Fish Habitat Identified in Fishery Management Plan Amendments of the Gulf of Mexico, South Atlantic and Caribbean Fishery Management Councils. (EFH for species managed under the NMFS Billfish and Highly Migratory Species plans falls within the marine areas designated by three councils)**

<u>Gulf of Mexico FMC</u>	<u>South Atlantic FMC</u>	<u>Caribbean FMC</u>
Estuarine areas	Estuarine areas	Estuarine areas
Estuarine emergent wetlands	Estuarine emergent wetlands	Salt marshes
Mangrove wetlands	Estuarine scrub/shrub mangroves	Mangrove wetlands
Seagrass	Seagrass	Intertidal flats/salt ponds
Algal flats	Oyster reefs & shell banks	Soft bottom lagoons
Mud, sand, shell, and rock substrates	Intertidal flats	Mud flats
Estuarine water column	Palustrine emergent & forested wetlands	Sandy beaches
Marine areas	Aquatic beds	Rocky shores
Water column	Estuarine water column	Marine areas
Vegetated bottoms	Marine areas	Water column
Non-vegetated bottoms	Live/Hard bottoms	Seagrass
Live bottoms	Coral & coral reefs	Non-vegetated bottoms
Coral reefs	Artificial/manmade reefs	Coral reefs
Artificial reefs	Sargassum	Algal plains
Geologic features	Water column	Geologic features
Continental Shelf features		Live bottoms
West Florida Shelf		
Mississippi/Alabama Shelf		
Louisiana/Texas Shelf		
South Texas Shelf		

**Appendix 7. Geographically Defined Habitat Areas of Particular Concern Identified in Fishery Management Plan Amendments of the Gulf of Mexico, South Atlantic and Caribbean Fishery Management Councils.**

<u>Gulf of Mexico FMC</u>	<u>South Atlantic FMC</u>	<u>SAFMC (cont)</u>	<u>Caribbean FMC</u>
<u>Florida</u>	<u>Area-wide</u>	<u>Georgia</u>	<u>Area-wide</u>
Apalachicola National Estuarine Research Reserve	Council-designated artificial reef special management zones	Gray's Reef National Marine Sanctuary	Estuaries
Dry Tortugas (Fort Jefferson National Monument)	Hermatypic coral habitat and reefs	<u>Florida</u>	Nearshore reefs and other hard bottoms
Florida Keys National Marine Sanctuary	Hard bottoms	Blake Plateau (manganese outcroppings)	<u>U.S. Virgin Islands</u> Hind Bank
Florida Middle Grounds	Hoyt Hills	Biscayne Bay	
Rookery Bay National Estuarine Research Reserve	<i>Sargassum</i> habitat	Biscayne National Park	
	State-designated areas of importance to managed species	Card Sound	
<u>Alabama</u>	Submerged aquatic vegetation	Florida Bay	
Weeks Bay National Estuarine Research Reserve		Florida Keys National Marine Sanctuary	
<u>Texas/Louisiana</u>	<u>North Carolina</u>	Jupiter Inlet Point	
Flower Garden Banks National Marine Sanctuary	Big Rock	Mangrove habitat	
<u>Mississippi</u>	Bogue Sound	Marathon Hump	
Grand Bay	Capes Hatteras, Fear and Lookout (sandy shoals)	Oculina Bank	
	New River	<i>Phragmatopoma</i> (worm) reefs	
	The Ten Fathom Ledge	The Wall (Florida Keys)	
	The Point		
	<u>South Carolina</u>		
	Broad River		
	Charleston Bump		
	Hurl Rocks		

## Appendix 8. Sources of EFH and Related Resource Information.

### Fishery Management Plan Amendments

- Caribbean Fishery Management Council. 1998. Essential Fish Habitat (EFH) generic amendment to the Fishery Management Plans (FMPs) of the U.S. Caribbean including a draft environmental assessment. Caribbean Fishery Management Council. San Juan, Puerto Rico. 2 vols.
- Gulf of Mexico Fishery Management Council. 1998. Public hearing draft generic amendment for addressing Essential Fish Habitat requirements in the following fishery management plans of the Gulf of Mexico: Shrimp Fishery of the Gulf of Mexico, United States Waters; Red Drum Fishery of the Gulf of Mexico; Reef Fish Fishery of the Gulf of Mexico; Coastal Migratory Pelagic Resources (Mackerels) in the Gulf of Mexico and South Atlantic; Stone Crab Fishery of the Gulf of Mexico; Spiny Lobster in the Gulf of Mexico and South Atlantic; Coral and Coral Reefs of the Gulf of Mexico (includes environmental assessment). Gulf of Mexico Fishery Management Council. Tampa, FL.
- Mid-Atlantic Fishery Management Council. 1998. Amendment 1 to the bluefish fishery management plan. Mid-Atlantic Fishery Management Council. Dover, DE. 2 vols.
- Mid-Atlantic Fishery Management Council. 1998. Amendment 8 to the Atlantic mackerel, squid, and butterfish fishery management plan. Mid-Atlantic Fishery Management Council. Dover, DE.
- Mid-Atlantic Fishery Management Council. 1998. Amendment 12 to the Atlantic surfclam and ocean quahog fishery management plan. Mid-Atlantic Fishery Management Council. Dover, DE.
- Mid-Atlantic Fishery Management Council. 1998. Amendment 12 to the summer flounder, scup, and black sea bass fishery management plan. Mid-Atlantic Fishery Management Council. Dover, DE.
- National Marine Fisheries Service. 1998. Billfish essential fish habitat (EFH) pre-draft materials for the billfish fishery management plan amendment. National Marine Fisheries Service. Silver Spring, MD.
- National Marine Fisheries Service. 1998. Highly migratory species essential fish habitat (EFH) pre-draft materials for the highly migratory species fishery management plan amendment. National Marine Fisheries Service. Silver Spring, MD.
- South Atlantic Fishery Management Council. 1998. Final habitat plan for the South Atlantic region: Essential Fish Habitat requirements for Fishery Management Plans of the South Atlantic fishery Management Council: The Shrimp Fishery Management Plan, The Red Drum Fishery Management Plan, The Snapper Grouper Fishery Management Plan, The Coastal Migratory Pelagics Fishery Management Plan, The Golden Crab Fishery Management Plan, The Spiny Lobster Fishery Management Plan, The Coral, Coral Reefs, and Live/Hard Bottom Habitat Fishery Management Plan, and The Calico Scallop Fishery Management Plan. South Atlantic Fishery Management Council. Charleston, SC.

### EFH Related Web Sites

South Atlantic EFH	<a href="http://www.safmc.noaa.gov">http://www.safmc.noaa.gov</a>
Gulf of Mexico FMC	<a href="http://www.gulfcouncil.org">http://www.gulfcouncil.org</a>
Gulf of Mexico EFH	<a href="http://galveston.ssp.nmfs.gov/cfl/">http://galveston.ssp.nmfs.gov/cfl/</a>
Caribbean EFH Resources	<a href="http://christensenmac.nos.noaa.gov/briefing.html">http://christensenmac.nos.noaa.gov/briefing.html</a>
EFH Rules	<a href="http://www.nmfs.gov/habitat/efh">http://www.nmfs.gov/habitat/efh</a>
NMFS Southeast Region	<a href="http://caldera.sero.nmfs.gov">http://caldera.sero.nmfs.gov</a>
Highly migratory pelagic and billfish resource EFH	<a href="http://www.nmfs.gov/sfa/lms/Final.html">http://www.nmfs.gov/sfa/lms/Final.html</a>

**Appendix 9. Points of Contact for Essential Fish Habitat Activities within the Southeast Region of the National Marine Fisheries Service.**

National Marine Fisheries Service  
Southeast Region

Andreas Mager, Jr. (Southeast Region)  
National Marine Fisheries Service  
9721 Executive Center Drive, N.  
St. Petersburg, FL 33702  
727/570-5317 [andy.mager@noaa.gov](mailto:andy.mager@noaa.gov)

Rickey Ruebsamen (EFH Coordinator)  
National Marine Fisheries Service  
9721 Executive Center Drive, N.  
St. Petersburg, FL 33702  
727/570-5317 [ric.ruebsamen@noaa.gov](mailto:ric.ruebsamen@noaa.gov)

Local Offices

Russell Swafford (Texas)  
National Marine Fisheries Service  
4700 Avenue U  
Galveston, TX 77551  
409/766-3699 [rusty.swafford@noaa.gov](mailto:rusty.swafford@noaa.gov)

Richard Hartman (Louisiana)  
National Marine Fisheries Service  
c/o Louisiana State University  
Baton Rouge, LA 70803  
225/389-0508 [richard.hartman@noaa.gov](mailto:richard.hartman@noaa.gov)

Mark Thompson (Florida, Alabama, Mississippi,  
Puerto Rico, U.S. Virgin Islands)  
National Marine Fisheries Service  
3500 Delwood Beach Rd.  
Panama City, FL 32408-7499  
850/234-5061 [mark.thompson@noaa.gov](mailto:mark.thompson@noaa.gov)

David Rackley (South Carolina, Georgia)  
National Marine Fisheries Service  
Charleston Laboratory  
219 Fort Johnson Road  
Charleston, SC 29412-9110  
(843) 762-8574 [david.rackley@noaa.gov](mailto:david.rackley@noaa.gov)

Larry Hardy (North Carolina)  
National Marine Fisheries Service  
101 Pivers Island Road  
Beaufort, NC 28516-9722  
252/728-5090 [larry.hardy@noaa.gov](mailto:larry.hardy@noaa.gov)

Gulf of Mexico Fishery Management Council

Executive Director  
Gulf of Mexico Fishery Management Council  
The Commons at Rivergate  
3018 U.S. Highway 301 N., Suite 1000  
Tampa, FL 33619-2266  
813/228-2815 [gulf.council@noaa.gov](mailto:gulf.council@noaa.gov)

EFH Point of Contact

Jeff Rester  
(Gulf States Marine Fisheries Commission)  
228/875-5912 [jrester@gsnmc.org](mailto:jrester@gsnmc.org)

South Atlantic Fishery Management Council

Executive Director  
South Atlantic Fishery Management Council  
1 Southpark Circle  
Southpark Building, Suite 306  
Charleston, SC 29407-4699  
843/571-4366 [safmc@noaa.gov](mailto:safmc@noaa.gov)

EFH Point of Contact

Roger Pugliese  
843/571-4366 [roger.pugliese@noaa.gov](mailto:roger.pugliese@noaa.gov)

Caribbean Fishery Management Council

Executive Director  
Caribbean Fishery Management Council  
268 Avenue Rivera Avenue, Suite 1108  
San Juan, Puerto Rico 00918-2577  
787/766-5926 [caribefish@upr1.upr.clu.edu](mailto:caribefish@upr1.upr.clu.edu)

EFH Point of Contact

Graciela Garcia-Moliner  
787/766-5926 [caribefish@upr1.upr.clu.edu](mailto:caribefish@upr1.upr.clu.edu)

Mid-Atlantic Fishery Management Council

Executive Director  
Mid-Atlantic Fishery Management Council  
Room 2115, Federal Building  
Dover, Delaware 19901

EFH Point of Contact

Thomas B. Hoff  
302/674-2331 x15 [tom.hoff@noaa.gov](mailto:tom.hoff@noaa.gov)

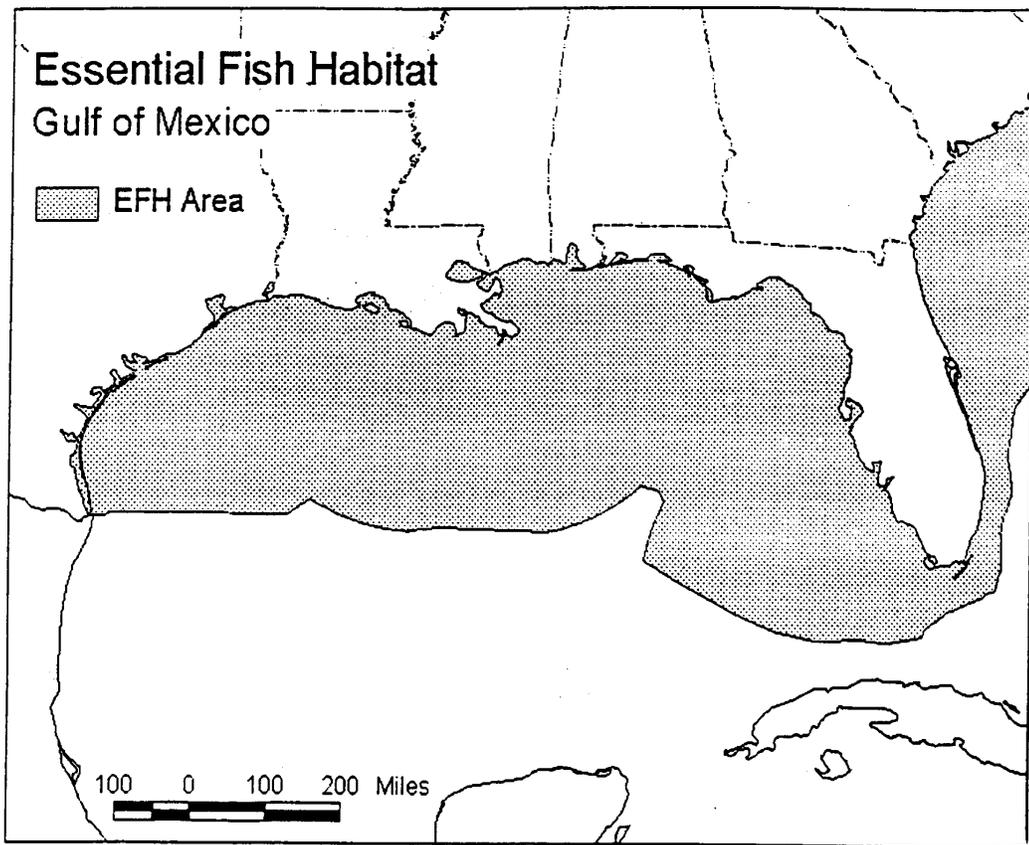


Figure 1. Map depicting the extent of Essential Fish Habitat in the Gulf of Mexico.

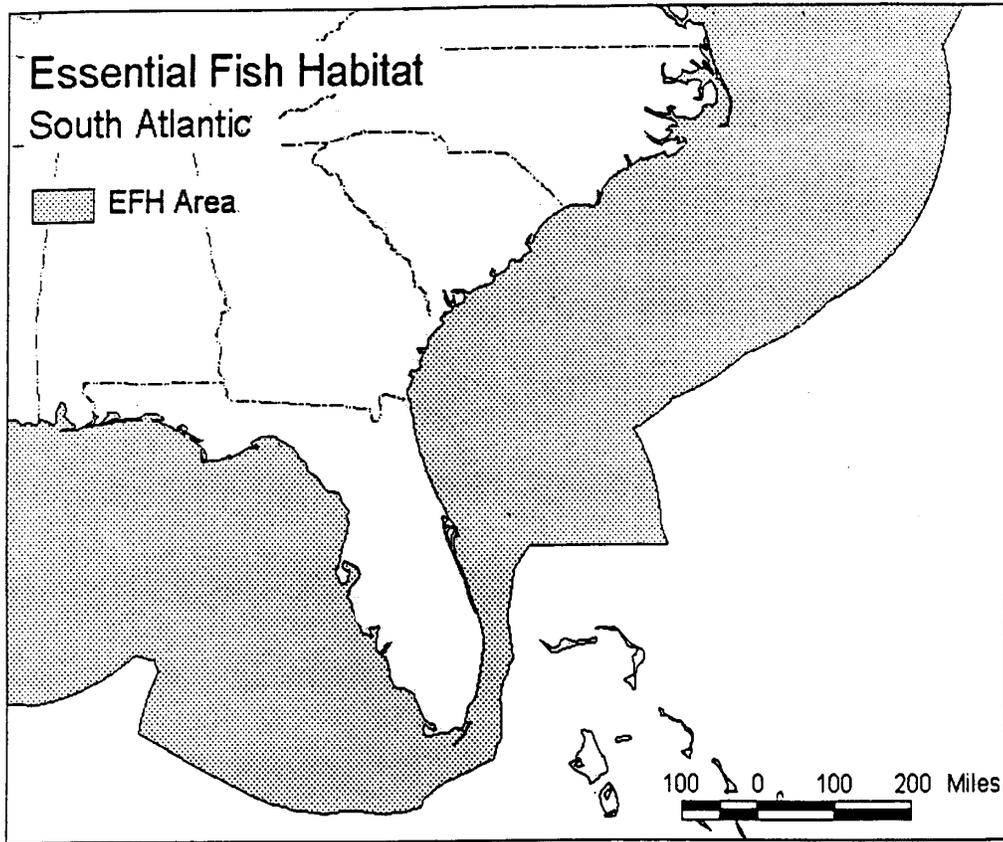
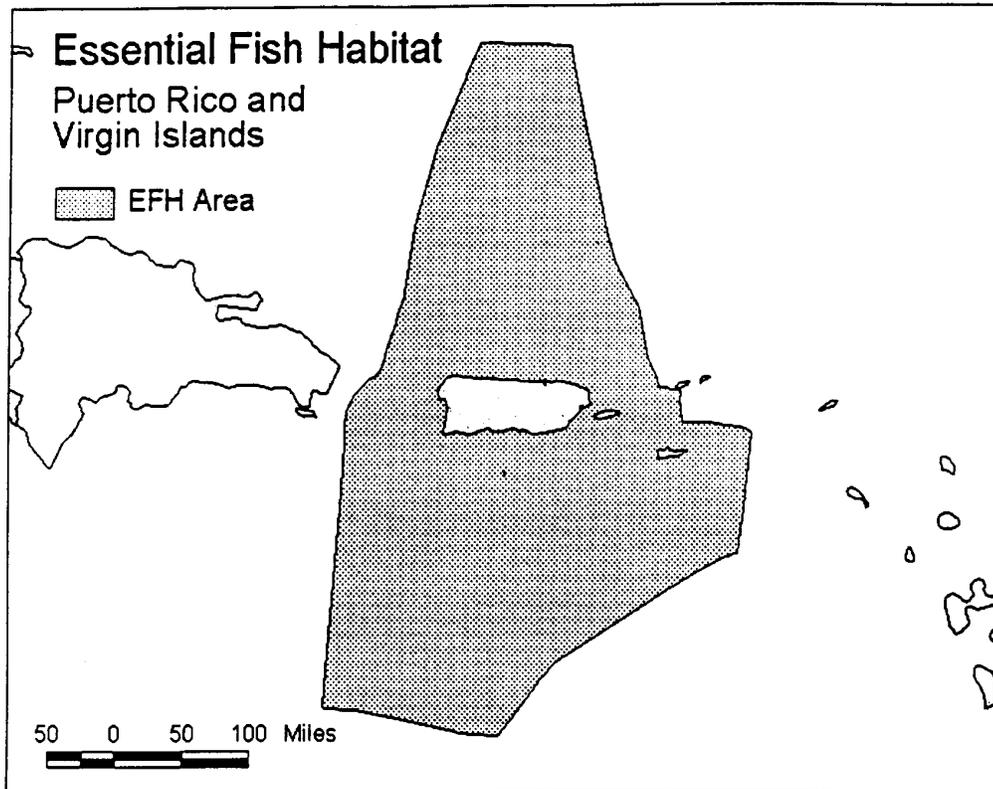


Figure 2. Map depicting Essential Fish Habitat in the south Atlantic region.



**Figure 3. Map depicting Essential Fish Habitat in Puerto Rico and the U.S. Virgin Islands.**

**Letter No. 7**

Andreas Mager, Jr., Assistant Regional Administrator, Habitat Conservation Division, United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, 9721 Executive Center Drive N., St. Petersburg, Florida 33702

**Comment 7-1:**

“Information contained in the DEIS indicates that the project area includes estuarine emergent wetlands. However, the NMFS cannot determine from the information contained in the DEIS regarding project construction and related mitigation whether there will be a net overall adverse affect [sic] to wetlands that support fishery resources of concern to the NMFS. Accordingly, we believe this is an opportune time to advise you of consultation requirements resulting from new legislation. In 1996, to further the conservation of marine fishery resources, Congress amended the Magnuson–Stevens Fishery Conservation and Management Act (Magnuson–Stevens Act). The amendment requires establishment of guidelines for the identification of Essential Fish Habitat (EFH) and the inclusion of EFH descriptions in fishery management plans. The Magnuson–Stevens Act also requires all Federal agencies to consult with the NMFS on measures to protect EFH when an agency proposes to authorize, fund, or undertake an activity which would adversely affect designated habitats.

The estuarine emergent wetlands in the project area have been identified as EFH. Accordingly, consultation is required pursuant to interagency coordination procedures specified by the NMFS in the 1997 Interim Final Rules to implement the EFH provisions of the Magnuson–Stevens Act (50 CFR Sections 600.805 - 600.930) if the Federal action agency determines that their activity may adversely affect EFH. The DEIS would be an appropriate place to document the results of this determination and any subsequent consultation, if required.”

**Response:**

DOE has consulted with the National Marine Fisheries Service on measures to protect Essential Fish Habitat. As part of the consultation, DOE prepared an Essential Fish Habitat Assessment dated January 24, 2000 (Appendix F), in which DOE determined that there would be no substantial adverse effect on Essential Fish Habitat in the project area as a consequence of the proposed project. After reviewing the Essential Fish Habitat Assessment, the National Marine Fisheries Service requested additional clarifying information regarding the wetlands in a letter dated February 23, 2000 (Appendix F). After receiving the additional information from DOE, the National Marine Fisheries Service sent a letter to DOE dated March 27, 2000 (Appendix F), in

which they stated that they concur with DOE's determination that the project would not adversely affect Essential Fish Habitat and that they have no further objection to the project.



# United States Department of the Interior

OFFICE OF THE SECRETARY  
OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE  
Richard B. Russell Federal Building  
75 Spring Street, S.W.  
Atlanta, Georgia 30303

Letter No. 8

October 8, 1999

Reproduced from  
copy submitted

ER-99/760

Ms. Lisa K. Hollingsworth,  
NEPA Document Manager  
U. S. Department of Energy  
Federal Energy Technology Center  
3610 Collins Ferry Road  
P. O. Box 880  
Morgantown, WV 26507-0880

Dear Ms. Hollingsworth:

The Department of the Interior has reviewed the draft EIS for the JEA Circulating Fluidized Bed Combustor Project, Duval County, FL, as requested.

The NGS is located adjacent to Timucuan Ecological and Historic Preserve, a unit of the National Park Service.

The proposed unit would significantly reduce the emissions of sulfur dioxide, oxides of nitrogen and particulate matter. For these reductions, we highly commend the JEA. However, a review of the DEIS indicates a significant emission of heavy metals including mercury, vanadium and nickel. On page 3-12, the consideration of heavy metal impacts is treated in just a few paragraphs. These paragraphs indicate that heavy metal concentrations are or have exceeded water quality standards. The statement that metal levels exceeded state standards, but no longer do, is unclear. Did standards for heavy metals change or was a different sampling method used? This brief consideration of heavy metal concentrations is inadequate to fully consider the potential impacts to the marshes, flora and fauna of the Timucuan Preserve.

8-1

Timucuan Preserve was established by Congress "to protect the natural ecology of such lands and waters" within the boundaries of the Preserve. Emission of heavy metals will settle within a few miles of the stacks and will directly impact the Preserve. Since coal is a primary fuel, emission of mercury is a major concern. The ash from the combustion process will contain vanadium and nickel as well as other heavy metals.

The emissions of heavy metals and their impact on the resources of Timucuan Preserve are not adequately addressed in the DEIS. Recent research has shown the presence of heavy metals already present in the sediments from locations with 10 kilometers to the east of the NGS (USGS-BRD in preparation). We feel the final EIS must more fully address the impacts of heavy metals on the flora

8-2

and fauna. The final EIS must also analyze the impacts of the addition of up to one-quarter ton of mercury per year, as well as other heavy metals, into an area already showing signs of heavy metal concentrations in excess of state water quality standards.

While we agree that with appropriate precautions the proposed project is not likely to adversely affect the Florida manatee (*Trichechus manatus latirostris*), some of the factual statements in the draft EIS regarding manatees are inaccurate or incorrect. We recommend that the final EIS be revised to reflect the following information. The headings below correspond to the headings in the draft EIS.

8-3

### 3.6.3 Threatened and Endangered Species

P. 3-41. The first sentence on this page references the "U. S. Marine Mammal Protection Act of 1992." The correct citation is the U.S. Marine Mammal Protection Act of 1972, as amended.

#### 4.1.6.3 Threatened and Endangered Species

Pp. 4-45, 46. This section of the draft EIS states that manatees probably would not frequent the dock area because no submerged vegetation is available in the vicinity. Such statements are erroneous. Manatees are attracted to the southern shore of Blount Island (and the vicinity of the project site) by emergent cordgrasses (*Spartina sp.*) (see Baugh, *et al.* 1989), and also use the shoreline area as a travel corridor.

8-4

When discussing the project's potential to "take" manatees, the draft EIS cites Brody (1993), who stated that "the major threats to manatees in the St. Johns River appear to be wounds inflicted by boat propellers, which are rarely fatal, and collisions with boats, which are more frequently fatal." While watercraft collisions are a major threat to manatees in this area, boat propellers are more than rarely fatal. The State of Florida, through its examination of manatee carcasses, has found that the number of manatees killed by watercraft are evenly divided between the number of animals killed by impacts versus propellers, and a small number of animals are killed by a combination of the two factors (Ackerman, *et al.*, 1995). Furthermore, while it is true that locally adopted speed restrictions will help reduce the probability of watercraft collisions with fast-moving boats, a small number of manatees are killed by large commercial vessels in the Jacksonville port area. These vessels rarely operate at high speeds and presumably kill these animals by "drawing" them into their props or by crushing them between the hull and river bottom. Local speed restrictions will minimally affect vessel operations and their effects on manatees in the dock area.

8-5

In the discussion concerning the project's heated discharge, concerns about the manatees using the discharge and being subjected to "cold shock" in the event of a shut down are unfounded. Unless the proposed project alters the existing discharge in such a way as to attract manatees, data suggests that the current discharge does not attract manatees and, as such, shut downs should have no effect on manatees.

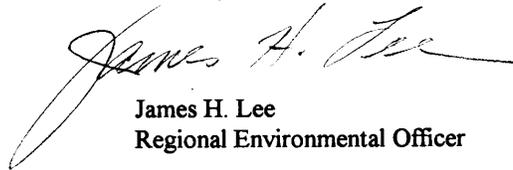
8-6

Given appropriate safeguards, the Fish and Wildlife (Service) believes that impacts to manatees from the proposed project will be negligible. In particular, precautions should be taken during any waterborne construction activities; vessel operators using the site should be educated about manatees and steps that should be taken to avoid collisions; and no changes should be made to the existing outfall that would attract manatees to the site.

8-7

Thank you for the opportunity to review and comment on the draft EIS. If there are questions regarding fish and wildlife resources, please contact Bruce Bell at 404/679-7089.

Sincerely,



James H. Lee  
Regional Environmental Officer

**Letter No. 8**

James H. Lee, Regional Environmental Officer, United States Department of the Interior, Office of the Secretary, Office of Environmental Policy and Compliance, Richard B. Russell Federal Building, 75 Spring Street, S.W., Atlanta, Georgia 30303

**Comment 8-1:**

“On page 3-12, the consideration of heavy metal impacts is treated in just a few paragraphs. These paragraphs indicate that heavy metal concentrations are or have exceeded water quality standards. The statement that metal levels exceeded state standards, but no longer do, is unclear. Did standards for heavy metals change or was a different sampling method used? This brief consideration of heavy metal concentrations is inadequate to fully consider the potential impacts to the marshes, flora and fauna of the Timucuan Preserve.”

**Response:**

The state water quality standards have not changed, with the exception of the standard for silver. Sampling and analysis of heavy metals by the FDEP and JEA for the purpose of evaluating ambient water quality have been conducted in accordance with FDEP-approved methods and Standard Operating Procedures for laboratories with approved Comprehensive Quality Assurance Plans. The results indicate improvements in the actual water quality rather than a change in standards or the use of a different sampling or analytical technique.

Section 3.3.2.1 of the EIS provides results of tests that demonstrated that contaminants in effluent discharges from the St. Johns River Power Park/Northside Generating Station facilities are not toxic to aquatic biota. Studies conducted on oysters held in cages for several months near the Northside dock area showed no appreciable uptake and bioaccumulation of metals.

Section 4.1.6.2 discusses the finding that the concentration levels of pollutants mobilized from sediments during dredging operations for expansion of the Northside dock (Option 2) would not be great enough to cause concern relative to their biotoxicity on resident biota. A report by Seal, Calder, and Sloane (1994) indicated that heavy metal concentrations in the sediments of the back channel of the St. Johns River near the mouth of San Carlos Creek were at or near background levels. Also see response to Comment 8-2.

**Comment 8-2:**

“Timucuan Preserve was established by Congress ‘to protect the natural ecology of such lands and waters’ within the boundaries of the Preserve. Emission of heavy metals will settle within a few miles of the stacks and will directly impact the Preserve. Since coal is a primary fuel,

emission of mercury is a major concern. The ash from the combustion process will contain vanadium and nickel as well as other heavy metals.

The emissions of heavy metals and their impact on the resources of Timucuan Preserve are not adequately addressed in the DEIS. Recent research has shown the presence of heavy metals already present in the sediments from locations with [sic] 10 kilometers to the east of the NGS (USGS-BRD in preparation). We feel the final EIS must more fully address the impacts of heavy metals on the flora and fauna. The final EIS must also analyze the impacts of the addition of up to one-quarter ton of mercury per year, as well as other heavy metals, into an area already showing signs of heavy metal concentrations in excess of state water quality standards.”

**Response:**

Although the report cited in the comment is not yet available, several agencies previously have surveyed heavy metal concentrations in the sediments of the St. Johns River near Blount Island and the Timucuan Ecological and Historic Preserve. Seal, Calder, and Sloane (1994) have collated and summarized this information, including heavy metal data from two sites along the southern and western boundaries of the preserve. As shown in Table G.1, levels of

**Table G.1. Levels of heavy metals (mg/kg) measured in the sediments at two sites (SJR 34 and SJR 35) near the Timucuan Ecological and Historic Preserve compared to their no observable effects levels.**

Pollutant	SJR 34	SJR 35	NOEL <sup>a</sup>
Lead	8.8	7.7	21
Mercury	BD <sup>b</sup>	BD <sup>b</sup>	0.1
Chromium	12.5	4.3	33
Copper	5.2	2.05	28
Cadmium	0.195	0.057	1
Arsenic	4.7	BD <sup>b</sup>	8

<sup>a</sup>No observable effects level.

<sup>b</sup>Below detection limits of analytical instrument.

lead, mercury, chromium, copper, cadmium, and arsenic measured at these two sites were well below their no observable effects levels (Keller and Schell 1993; MacDonald 1993). Mercury was not detected at either site. Although the detection limits of analytical instruments used to measure mercury can vary between laboratories, the detection limits are typically well below the no observable effects level of 0.1 mg/kg for mercury (T.L. Seal, FDEP, personal communication

to S.M. Adams, ORNL, December 1, 1999). The heavy metal data reported from these two sites are considered to be at natural or background levels for areas characterized by sediments with relatively low clay and aluminum content (Schropp and Windom 1988; FDEP 1994). Therefore, if the levels of heavy metals measured in the sediments along the preserve boundaries represent those concentrations within the preserve, then the observed levels of these metals should pose no ecotoxicological risk to organisms of the preserve because all of the metal concentrations are well below their no observable effects levels.

With regard to the proposed project, the repowered Unit 2 would emit approximately 0.10 tons per year of mercury from burning entirely coal or 0.02 tons per year from burning entirely petroleum coke (Table 4.1.5 of the EIS). The repowered Unit 1 would also emit these quantities. A blend of these two fuels during operation of the units would result in mercury emissions between this range. The permitted limit for mercury emissions from each unit would be 0.03 lb/hour for a 6-hour average. In the unlikely event that measured emissions were higher than expected, the combustion process would be fine-tuned to ensure that the permitted limit would not be exceeded. The emissions of other heavy metals are given in Table D.1.

Much uncertainty exists regarding the spatial distribution of mercury deposition downwind of emissions sources. Likewise, source identification and attribution based on measurements of mercury deposition (i.e., working in the reverse direction to identify sources of measured deposition) have proven difficult. Moreover, not all emissions are produced by human activity, and lack of reliable data about the speciation of mercury in source emissions further contributes to assessment difficulties (Hanisch 1998). Controversy exists regarding the magnitude of the local impact from sources such as power plants. Few data are available about mercury concentrations in the vicinity of emissions point sources (Hanisch 1998). Global and regional models suggest that about 50% of manmade mercury emissions are transported globally, while the remaining 50% deposit on a local or regional scale (EPRI 1994; Bullock, Brehme, and Mapp 1998). Another study has indicated that mercury is more of a global or regional problem than one of local concern because computer modeling has shown that most mercury emissions from power plants are transported over 60 miles away (Constantinou, Wu, and Seigneur 1995). However, some field measurements of oxidized, inorganic mercury appear to contradict this finding. This species normally represents only about 3% of total gaseous mercury, but is expected to account for a major portion of mercury dry deposition. On the basis of measurements near the ground in close vicinity to power plants, a study concluded that cutting a local emissions source of oxidized, inorganic mercury could result in some local reduction of deposition (Lindberg and Stratton 1998). Similar uncertainty exists for other heavy metals.

While demonstration of the proposed project is not expected to evaluate specifically the impact of the project on the resources of the Timucuan Ecological and Historic Preserve, data obtained during the demonstration would characterize and quantify emissions of heavy metals. Heavy metals that would be measured in the flue gas from the firing of coal and petroleum coke during the demonstration include mercury, lead, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, manganese, nickel, selenium, and vanadium. In addition to allowing prospective customers to assess the potential of CFB technology for commercial application, the data would be available for use in studies conducted by other agencies and organizations.

Section 4.1.2.2 of the EIS text has been modified to incorporate the above information.

**Comment 8–3:**

“While we agree that with appropriate precautions the proposed project is not likely to adversely affect the Florida manatee (*Trichechus manatus latirostris*), some of the factual statements in the draft EIS regarding manatees are inaccurate or incorrect. We recommend that the final EIS be revised to reflect the following information. The headings below correspond to the headings in the draft EIS.

**3.6.3 Threatened and Endangered Species**

P. 3-41. The first sentence on this page references the ‘U.S. Marine Mammal Protection Act of 1992.’ The correct citation is the U.S. Marine Mammal Protection Act of 1972, as amended.”

**Response:**

Section 3.6.3 of the EIS text has been modified to indicate the correct citation.

**Comment 8–4:**

“Pp. 4-45, 46. This section of the draft EIS states that manatees probably would not frequent the dock area because no submerged vegetation is available in the vicinity. Such statements are erroneous. Manatees are attracted to the southern shore of Blount Island (and the vicinity of the project site) by emergent cordgrasses (*Spartina sp.*) (see Baugh, *et al.* 1989), and also use the shoreline area as a travel corridor.”

**Response:**

Section 4.1.6.3 of the EIS text has been revised to incorporate the information in the comment.

**Comment 8-5:**

“When discussing the project’s potential to ‘take’ manatees, the draft EIS cites Brody (1993), who stated that ‘the major threats to manatees in the St. Johns River appear to be wounds inflicted by boat propellers, which are rarely fatal, and collisions with boats, which are more frequently fatal.’ While watercraft collisions are a major threat to manatees in this area, boat propellers are more than rarely fatal. The State of Florida, through its examination of manatee carcasses, has found that the number of manatees killed by watercraft are evenly divided between the number of animals killed by impacts versus propellers, and a small number of animals are killed by a combination of the two factors (Ackerman, *et al.*, 1995). Furthermore, while it is true that locally adopted speed restrictions will help reduce the probability of watercraft collisions with fast-moving boats, a small number of manatees are killed by large commercial vessels in the Jacksonville port area. These vessels rarely operate at high speeds and presumably kill these animals by ‘drawing’ them into their props or by crushing them between the hull and river bottom. Local speed restrictions will minimally affect vessel operations and their effects on manatees in the dock area.”

**Response:**

Section 4.1.6.3 of the EIS text has been revised to incorporate the information in the comment.

**Comment 8-6:**

“In the discussion concerning the project’s heated discharge, concerns about the manatees using the discharge and being subjected to ‘cold shock’ in the event of a shut down are unfounded. Unless the proposed project alters the existing discharge in such a way as to attract manatees, data suggests that the current discharge does not attract manatees and, as such, shut downs should have no effect on manatees.”

**Response:**

Section 4.1.6.3 of the EIS text has been revised to incorporate the information in the comment.

**Comment 8-7:**

“Given appropriate safeguards, the Fish and Wildlife (Service) believes that impacts to manatees from the proposed project will be negligible. In particular, precautions should be taken during any water borne construction activities; vessel operators using the site should be educated about manatees and steps that should be taken to avoid collisions; and no changes should be made to the existing outfall that would attract manatees to the site.”

**Response:**

In accordance with the conditions contained in the Submerged Lands & Environmental Resource Permit (SLERP) issued by the FDEP and the Section 404 Permit for Dredged or Fill Material issued by the COE, the following manatee precautions would be taken during all waterborne construction activities, including dredging and construction of the new dock (Option 2) and materials handling system:

- During all in-water construction activities, at least one experienced observer would be designated to watch for manatees. The observer would wear polarized sunglasses to aid in observation. The observer would advise personnel to stop work immediately if manatees were sighted within 50 ft of any in-water construction activity.
- In-water construction work and movement of vessels associated with the project (e.g., work barges) would not occur between sunset and sunrise, when it would be more difficult to spot manatees. The vessels would always operate at “idle speed/no wake” while in the construction area and while in waters where the vessel bottoms would be less than 4 ft from the bottom of the water body. All vessels would travel in deep water whenever possible.
- The construction contractor would instruct all personnel of the potential presence of manatees and the need to avoid collisions with manatees. Construction personnel would be advised of the civil and criminal penalties for harming, harassing, or killing manatees as outlined in the U.S. Marine Mammal Protection Act of 1972, as amended, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. Construction personnel would implement appropriate precautions to protect manatees.
- Prior to commencement of construction, the contractor would display at least two temporary signs concerning manatees.
- Siltation barriers would be properly secured so that manatees would not become entangled, and the barriers would be inspected at least once daily to avoid manatee entrapment. Barriers would not block manatee entry to or exit from essential habitat.
- The contractor would maintain a log during the contract period that documents any sightings, collisions, or injuries to manatees. Any collisions with and/or injuries to manatees would be reported immediately to the Florida Marine Patrol and the FDEP Office of Protected Species Management.

In addition, prior to using the new dock, a fender/bumper system would be installed at or above the mean high water level to minimize the risk of crushing manatees during vessel docking and mooring. Permanent signs would be installed to alert boaters using docking facilities of the potential presence of manatees, and two “Caution: Manatees” signs would be installed at the pier. No changes that would attract manatees would be made to the existing outfall.

The information in this response has been included in Section 4.1.6.3 of the EIS.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

October 13, 1999

4EAD-OEA

Letter No. 9

Reproduced from  
copy submitted

Ms. Lisa K. Hollingsworth  
NEPA Document Manager  
U.S. Department of Energy  
Federal Energy Technology Center  
3610 Collins Ferry Road  
P.O. Box 880  
Morgantown, WV 26507-0880

**RE: EPA Review and Comments on  
Draft Environmental Impact Statement (DEIS)  
JEA Circulating Fluidized Bed Combustor Project  
CEQ No. 990300**

Dear Ms. Hollingsworth:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject Draft Environmental Impact Statement (DEIS). The document provides information to educate the public regarding general and project-specific environmental impacts and analysis procedures. We appreciate your consistency with the public review and disclosure aspects of the NEPA process. We also note that the Department of Energy held a public meeting concerning this project on September 16, 1999.

DOE's proposed action is to provide cost-shared funding to implement circulating fluidized bed (CFB) combustion technology under the Clean Coal Technology (CCT) Program. This demonstration project would take place in Duval County, Florida, and would involve constructing and operating an electric, coal and petroleum coke-fired circulating fluidized bed combustor and boiler to repower an existing steam turbine at JEA's Northside Generating Station in Jacksonville.

Based on our review, we rate the DEIS "EC-2", that is, we have environmental concerns about the project, and more information is needed to fully assess the impacts. In particular, the issues of noise impact mitigation, air quality, and health-based criteria warrant further discussion in the Final EIS. Our detailed comments are attached.

Internet Address (URL) • <http://www.epa.gov>

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Thank you for the opportunity to comment on this project. If you have any questions or require technical assistance you may contact Ramona McConney of my staff at (404)562-9615.

Sincerely,

A handwritten signature in cursive script that reads "Heinz Mueller".

Heinz J. Mueller, Chief  
Office of Environmental Assessment

Attachment

**Comments on  
Draft Environmental Impact Statement (DEIS), May 1999  
for JEA Circulating Fluidized Bed Combustor Project  
CEQ No. 990300**

**NOISE:**

Ambient Noise - We note that two noise surveys were conducted to determine ambient levels near the existing plant, and specifically that the supplemental survey detected plant effects and included monitoring stations proximal to residences near the plant. Page 3-56 indicates that ambient levels ranged approximately 41-46 dBA at night and 55-60 dBA during the day. It is unclear, however, if these ambient measurements are in the Leq, L10, L50 or L90 metrics listed as being used (page 3-54). We assume that the Leq descriptor was used for the background noise surveys; however, the FEIS should clarify. We note that the Jacksonville city noise ordinance limits nighttime noise levels at residences to 60 dBA. | 9-1

If the Leq metric was used, it is an average level over a given period of time. It should be noted that certain project-related single-event noise levels that are much greater than average levels also occur under ambient conditions such as steam blowout noises and some of the train whistles due to the operation of the existing plant. | 9-2

Construction Noise - We appreciate that examples of noisy construction equipment were listed in the DEIS (such as pile drivers) and predictions of their noise attenuations over distance (pages 4-58 and 4-59). The FEIS should clarify if the documented noise attenuation levels were determined by calculation (based on distance from source), by model, or by another method. | 9-3

The expected length of the time of construction should be included in the FEIS in order to gain a perspective of the magnitude of the construction noise. | 9-4

Operational Noise - Residents would be affected by intrusive noise levels resulting from steam blowouts and other operations. The FEIS should document the number of such residents affected within the prescribed 0.5 mile radius (what is the basis for selection of a 0.5-mi radius?). | 9-5

Since trains, trucks and barges would be used to haul in coal and limestone, the FEIS should estimate the number of residences affected along such routes within a 5-mile radius of the plant. The noise levels at the nearest residences should also be disclosed. It should also be noted that while barges may have less noise effects than other modes, there could be greater effects for other forms of pollution, such as wetland impacts (unloading dock construction or expansion) and water quality pollution (spills). These impact tradeoffs should be considered and discussed in the FEIS. | 9-6  
| 9-7

Noise Mitigation - We note that some mitigative measures are apparently proposed. These are listed on page 4-59 as 1) installing baffle silencers for fans, 2) enclosing coal and limestone crushers, and 3) installing sound insulation in buildings. This mitigation is intended for compliance with the city ordinance. JEA should commit to such mitigation in the FEIS and verify its effectiveness after prospective project construction. 9-8

Page 4-59 states that the mitigation measures would "...ensure that noise would not exceed 85 dB(A) at a distance of 3 ft from equipment." We assume, however, that steam blowouts would exceed such a level (but that steam piping is apparently not included here as "equipment"). However, JEA should consider some "source reduction" or "at-source" noise mitigation of such intrusive noise emissions. Could JEA perhaps devise some enclosure technology to attenuate steam blowout noise? 9-9

If steam blowouts and other intrusive noise events cannot be mitigated at the source or otherwise, we agree that at a minimum, proposed public notification of such events should be provided to nearby residents (page 4-58). The FEIS should indicate what form(s) of notification will be provided (e.g., newspapers, fliers, phone calls, etc.) and the expected frequency of such blowouts should be estimated in the FEIS and be included in the notifications. Finally, a noise complaint line should be established by JEA, with JEA responses to reasonable complaints being provided in a timely fashion. Procedural/mitigative modifications should be considered based on these complaints. 9-10

Page 4-60 indicates that mitigative measures are predicted to attenuate operational noises to 48, 50, 59 and 57 dBA in the four directions of the proposed project. We assume that these levels are daytime average levels; the FEIS should clarify. We also note that these levels are quite similar to or even *less than* the ambient levels noted above for the daytime background (55-60 dBA). As such, the attenuated levels (or ambient levels) are somewhat questionable and should be verified in the FEIS. Also, as indicated above, JEA should verify whatever final predictions are made (for mitigated noise levels incorporated in the FEIS) after prospective project construction and use adaptive management to further minimize noise as needed. 9-11

#### **Air Quality:**

We note the mention of traffic congestion (pg. 4-56) during construction of the facility. To what extent is this expected to affect local air quality? 9-12

#### **Electromagnetic Fields:**

Page 4-61 states that "[t]he majority of customers receiving electricity from the proposed facility would not experience any change in exposure levels due to electromagnetic fields because the fields would be confined to areas along the transmission lines." The FEIS should verify that the widths of the rights-of-way are in compliance with state of Florida law relative to the line voltage transmitted and the breadth of the associated magnetic fields. Will expansion of the ROWs be required after project construction and operation in order to maintain/achieve compliance? 9-13

**Health-based Criteria:**

Health-based criteria for carcinogens, commonly referred to as virtually safe dose, may be used as the action level of a carcinogenic chemical constituent. A virtually safe daily dose of a carcinogenic chemical over a lifetime will result in an incidence of cancer equal to a specified risk level. This corresponds to environmental concentrations that, under case specific intake assumptions, yield a specified excess lifetime cancer risk (e.g.,  $10^{-6}$  for Class A and B carcinogens). Based on the information provided on page 4-20 under the dioxin and furans sections, it appears as though the cancer risk associated with dioxin, furans and other carcinogenic substances was calculated on a “per year basis.” The risk calculations should be reported as the excess carcinogenic risk instead. This should increase the calculated cancer risk documented in this DEIS.

9-14

Furthermore, please provide additional information regarding the underlying health-based criteria and any risk levels associated with Florida’s Ambient Air Reference Concentrations (FAARCs).

9-15

**Letter No. 9**

Heinz J. Mueller, Chief, Office of Environmental Assessment, U.S. Environmental Protection Agency, Region 4, Atlanta Federal Center, 61 Forsyth Street, S.W., Atlanta, Georgia 30303-8960

**Comment 9-1:**

“Page 3-56 indicates that ambient levels ranged approximately 41-46 dBA at night and 55-60 dBA during the day. It is unclear, however, if these ambient measurements are in the Leq, L10, L50 or L90 metrics listed as being used (page 3-54). We assume that the Leq descriptor was used for the background noise surveys; however, the FEIS should clarify. We note that the Jacksonville city noise ordinance limits nighttime noise levels at residences to 60 dBA.”

**Response:**

The ambient levels are expressed as Leq. Section 3.9.2 of the EIS text has been modified to reflect this metric.

**Comment 9-2:**

“If the Leq metric was used, it is an average level over a given period of time. It should be noted that certain project-related single-event noise levels that are much greater than average levels also occur under ambient conditions such as steam blowout noises and some of the train whistles due to the operation of the existing plant.”

**Response:**

The information in the comment has been included in Section 3.9.2 of the EIS text.

**Comment 9-3:**

“Construction Noise - We appreciate that examples of noisy construction equipment were listed in the DEIS (such as pile drivers) and predictions of their noise attenuations over distance (pages 4-58 and 4-59). The FEIS should clarify if the documented noise attenuation levels were determined by calculation (based on distance from source), by model, or by another method.”

**Response:**

The documented noise attenuation levels were determined by calculation (based on distance from source) from initial noise levels of construction equipment at 50 ft (EPA 1971).

**Comment 9-4:**

“The expected length of the time of construction should be included in the FEIS in order to gain a perspective of the magnitude of the construction noise.”

**Response:**

Section 4.1.10.2 of the EIS, which discusses the potential impacts of construction noise, notes that the peak construction period would occur for about 3 months in late 2000 and early 2001. Section 2.1.4 indicates that JEA has begun initial construction activities at their own risk (without DOE funding). Construction would take approximately two years and, consistent with the original JEA schedule, would be completed in December 2001. Section 2.1.4 also notes that construction crews would probably work five 8-hour days with the option for four 10-hours days, and that construction deliveries would normally be made by truck between 9 a.m. and 3 p.m.

**Comment 9-5:**

“Operational Noise - Residents would be affected by intrusive noise levels resulting from steam blowouts and other operations. The FEIS should document the number of such residents affected within the prescribed 0.5 mile radius (what is the basis for selection of a 0.5-mi radius?).”

**Response:**

Because noise attenuates as it propagates from its source, residents within a 0.5-mile radius would be most affected by intrusive noise levels resulting from steam blowouts and other operations. The number of residents affected within the 0.5-mile radius would be less than 100. The general public, including residents affected outside the prescribed 0.5-mile radius, would be targeted in the public awareness program through newspaper and radio announcements.

**Comment 9-6:**

“Since trains, trucks and barges would be used to haul in coal and limestone, the FEIS should estimate the number of residences affected along such routes within a 5-mile radius of the plant. The noise levels at the nearest residences should also be disclosed.”

**Response:**

The issue of noise impacts resulting from rail traffic was raised at the public scoping meeting. Impacts associated with truck and barge traffic are expected to be measurably less. The distance from the location where the CSX rail line crosses 44th Street (about a mile and a quarter south of the Trout River) to the St. Johns River Power Park is slightly more than 10 miles. Along this route, the planned land use in the vicinity of the rail line is about one-half industrial, one-third

residential, and one-eighth commercial, with a very small amount of land devoted to public facilities. Of the industrial land—the largest single usage—about three-fifths is dedicated to light industry and the remainder to heavy industry. Nearly all of the residential land is zoned for low-density occupation. As mentioned in Section 3.9.1.2 of the EIS, the rail line runs through the residential communities of Panama Park and North Shore and passes along the northern edge of San Mateo.

Section 3.9.1.2 indicates that a total of about 115 one-way trips per week are currently made on the CSX line paralleling U.S. 17 and that there are about 78 one-way trips per week on the spur line that runs from U.S. 17 to the St. Johns River Power Park and Blount Island. Section 4.1.10.1 states that, in the event that all coal for the proposed project would be transported by rail, three additional trains per week (six new one-way trips) would be required. This would increase total movement on the CSX line paralleling U.S. 17 by about 5% and would increase the spur line traffic by about 8%. However, the decibel-level of the noise would remain the same. As discussed in Section 1.6, a speaker at the public scoping meeting noted that the train passages are routinely punctuated by high-decibel train whistles [which the speaker said he had measured at 108 dB(A) at his property line] and loud rattling of the cars themselves [up to 85 dB(A)]. In the more likely event that barges and ships would be the primary means of coal transport, no more than one additional train per week would be required and the relatively small percentage increases in train traffic described above would be substantially reduced.

**Comment 9–7:**

“It should also be noted that while barges may have less noise effects than other modes, there could be greater effects for other forms of pollution, such as wetland impacts (unloading dock construction or expansion) and water quality pollution (spills). These impact tradeoffs should be considered and discussed in the FEIS.”

**Response:**

The EIS discusses potential impacts associated with waterborne delivery of solid fuel and limestone. Section 4.1.5.3 states that disturbance of salt marsh habitats would be negligible during construction of the system for unloading and handling waterborne deliveries. Wetlands associated with the upper salt marsh communities would not be measurably affected because nearly all of the conveyor system for delivery associated with either unloading option would span these habitats using existing structures and would involve no clearing or earthmoving activities. Although some pilings may need to be installed at the upper fringes of the salt marsh and in San Carlos Creek, any impacts resulting from piling installation would be very localized and

temporary and would not measurably affect the normal structural and functional dynamics of the salt marsh and nearby estuarine ecosystems.

As discussed in Section 4.1.3.2, accidental spills from the proposed facility would be cleaned up in a timely manner in accordance with a spill prevention, control, and countermeasure plan and the best management practices plan for the facility. The rapid cleanup of an accidental overland spill of solid fuel or limestone would minimize runoff into San Carlos Creek or the back channel of the St. Johns River. Two spills have occurred at Northside Generating Station during the unloading of fuel oil shipments. Corrective action was taken to prevent or mitigate further spills. Spills of solid fuel or limestone would be easier to handle and remediate than liquid spills. The transport of fuel or limestone to Northside Generating Station would be the responsibility of the supplier until the vessels dock to unload their cargo. In accordance with the conditions contained in the SLERP issued by the FDEP, JEA would maintain a fuel spill and response plan for fuel unloading activities. In addition, best management practices would be implemented during all fuel unloading operations, including booms for temporary containment around the unloading area and a vacuum/collection system to remove any material inadvertently deposited on the dock. Transfer stations along the conveyor would be equipped with washdown or wet suppression collection and containment systems. The wastewater in these containment systems would be routinely emptied and transported for treatment at the chemical waste treatment facility.

**Comment 9-8:**

“Noise Mitigation - We note that some mitigative measures are apparently proposed. These are listed on page 4-59 as 1) installing baffle silencers for fans, 2) enclosing coal and limestone crushers, and 3) installing sound insulation in buildings. This mitigation is intended for compliance with the city ordinance. JEA should commit to such mitigation in the FEIS and verify its effectiveness after prospective project construction.”

**Response:**

JEA would implement mitigation measures as required to comply with the city of Jacksonville noise ordinance level of 60 dB(A) at any residence. Should concerns be raised by nearby residents who question JEA’s compliance with the Noise Pollution Control ordinance limits, JEA would verify the effectiveness of the mitigation measures.

**Comment 9-9:**

“Page 4-59 states that the mitigation measures would ‘...ensure that noise would not exceed 85 dB(A) at a distance of 3 ft from equipment.’ We assume, however, that steam blowouts would

exceed such a level (but that steam piping is apparently not included here as 'equipment'). However, JEA should consider some 'source reduction' or 'at-source' noise mitigation of such intrusive noise emissions. Could JEA perhaps devise some enclosure technology to attenuate steam blowout noise?"

**Response:**

JEA likely would perform continuous, low-pressure, high-velocity steam blowouts. Although this activity would be conducted around the clock, noise levels at the nearest residences should be below levels of concern with this type of blowout that uses low-pressure steam rather than high-pressure steam. However, because JEA's steam blowout plan has not been finalized, JEA has committed to installing mufflers if high-pressure steam blowouts are conducted or, if mufflers are not installed, has committed to measuring the noise levels at the nearest residences to ensure that the levels would conform to the Noise Pollution Control ordinance limits (J. A. Leduc, JEA, personal communication to R. L. Miller, ORNL, February 10, 2000). Section 4.1.10.2 of the EIS has been modified to incorporate this information.

**Comment 9-10:**

"If steam blowouts and other intrusive noise events cannot be mitigated at the source or otherwise, we agree that at a minimum, proposed public notification of such events should be provided to nearby residents (page 4-58). The FEIS should indicate what form(s) of notification will be provided (e.g., newspapers, fliers, phone calls, etc.) and the expected frequency of such blowouts should be estimated in the FEIS and be included in the notifications. Finally, a noise complaint line should be established by JEA, with JEA responses to reasonable complaints being provided in a timely fashion. Procedural/mitigative modifications should be considered based on these complaints."

**Response:**

See response to Comment 9-9, which discusses JEA's options for steam blowouts. If necessary, the awareness program for high-pressure steam blowouts would include public notification through newspaper and radio announcements and phone calls to appropriate emergency response, regulatory, and other governmental agencies. If JEA conducts high-pressure steam blowouts, they would be conducted for up to 10 days for each of the repowered units before start-up, and then would occur for up to several days only once every 5 to 10 years during major plant maintenance outages. A typical sequence would be to conduct several steam blowouts per day for several days during the period; the duration of each steam blowout would be about 3 min and the interval between blowouts would be no less than 30 min. Section 4.1.10.2 of the EIS has been

modified to include this information. To register a complaint regarding noise levels, residents should contact JEA Customer Service at (904) 632-5200 or toll free at (800) 683-5542.

**Comment 9–11:**

“Page 4-60 indicates that mitigative measures are predicted to attenuate operational noises to 48, 50, 59 and 57 dBA in the four directions of the proposed project. We assume that these levels are daytime average levels; the FEIS should clarify. We also note that these levels are quite similar to or even *less than* the ambient levels noted above for the daytime background (55-60 dBA). As such, the attenuated levels (or ambient levels) are somewhat questionable and should be verified in the FEIS. Also, as indicated above, JEA should verify whatever final predictions are made (for mitigated noise levels incorporated in the FEIS) after prospective project construction and use adaptive management to further minimize noise as needed.”

**Response:**

Because the proposed facility would be used during commercial operation as a baseload unit operating 24 hours per day at the 297.5-MW level for 90% of the time during the year, noise levels attributable to operation of the facility would be independent of time of day. The estimated levels are similar to and perhaps less than ambient levels because ambient levels are often dominated by other sources of noise, particularly from vehicles. This information has been added to Section 4.1.10.2 of the EIS. See response to Comment 9-8 for a discussion of noise verification by JEA.

**Comment 9–12:**

“We note the mention of traffic congestion (pg. 4-56) during construction of the facility. To what extent is this expected to affect local air quality?”

**Response:**

As discussed in Section 4.1.2.1, exhaust emissions from workers’ vehicles during facility construction, including during periods of traffic congestion, would be very small compared to regulatory thresholds typically used to determine whether further air quality impact analysis is necessary. For example, as discussed in Section 4.1.2.2, although a conformity determination is not required because the precursors of O<sub>3</sub> (VOCs and NO<sub>x</sub>) are evaluated in the PSD permit application, the exhaust emissions from workers’ vehicles would be much less than the levels that trigger a conformity determination (i.e., 100 tons per year for VOCs and NO<sub>x</sub> in maintenance areas outside an O<sub>3</sub> transport region). Duval County is a maintenance area for O<sub>3</sub>. Similarly, CO and particulate emissions from workers’ vehicles would not be expected to contribute to

exceedances in ambient air quality standards because current CO and particulate levels are less than 50% and 70% of the standards, respectively (Table 3.2.1).

**Comment 9–13:**

“Page 4-61 states that ‘[t]he majority of customers receiving electricity from the proposed facility would not experience any change in exposure levels due to electromagnetic fields because the fields would be confined to areas along the transmission lines.’ The FEIS should verify that the widths of the rights-of-way are in compliance with state of Florida law relative to the line voltage transmitted and the breadth of the associated magnetic fields. Will expansion of the ROWs be required after project construction and operation in order to maintain/achieve compliance?”

**Response:**

The widths of the existing rights-of-way are in compliance with state of Florida law and were designed in accordance with the applicable standards that applied at the time of construction of the lines. Expansion of the rights-of-way exiting the plant would not be required because the voltage on the lines would not change and any increases in magnetic fields would not exceed maximum values that the lines were originally designed to handle.

**Comment 9–14**

“Based on the information provided on page 4-20 under the dioxin and furans sections, it appears as though the cancer risk associated with dioxin, furans and other carcinogenic substances was calculated on a ‘per year basis.’ The risk calculations should be reported as the excess carcinogenic risk instead. This should increase the calculated cancer risk documented in this DEIS.”

**Response:**

Cancer risk is consistently discussed in the EIS on a “per year” basis. Because the facility would be designed for a lifetime of 30 years, the risk from a 30-year period of exposure during the lifetime of the facility can be approximated by multiplying each corresponding annual risk by 30. This statement has been added to Section 4.1.2.2 of the EIS.

**Comment 9–15**

“Furthermore, please provide additional information regarding the underlying health-based criteria and any risk levels associated with Florida’s Ambient Air Reference Concentrations (FAARCs).”

**Response:**

The FAARCs for each pollutant are derived to minimize health risk to the general population. However, some individuals who are hypersensitive due to a combination of genetic factors, previous exposures, personal habits (e.g., smoking), age, medication, or other factors, may experience effects at concentrations at or below the FAARCs. The health-based criteria for deriving reference concentrations are obtained from professional literature by professional hygienists. For example, for the two elements (beryllium and mercury) considered in detail in the EIS, the 24-hour FAARCs are derived from guideline values developed by the American Conference of Governmental Industrial Hygienists (ACGIH) that are adjusted to apply to the general public, as discussed in Section 4.1.2.2 of the EIS. The following reports provide more detailed information about mercury:

EPA (U.S. Environmental Protection Agency) 1997. *Mercury Study Report to Congress, Volume V, Health Effects of Mercury and Mercury Compounds*, EPA-452/R-97-007.

EPA (U.S. Environmental Protection Agency) 1996. *Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units--Interim Final Report*, EPA-453/R-96-013a-c (3 volumes).

The following report provides more detailed information about beryllium:

EPA (U.S. Environmental Protection Agency) 1987. *Health Assessment Document for Beryllium*, EPA/600/8-84/026F.

**NORTHSIDE CIVIC ASSOCIATION, INC.**

Post Office Box 26234  
Jacksonville, Florida 32226

**FAX**  
**COVER SHEET**

**DATE:** 15 October 99  
**TO:** Lisa K. Hollingsworth  
**FAX NUMBER:** (304) 285 - 4403  
**FROM:** Val Bostwick, President  
Northside Civic Association, Inc.  
**# OF PAGES TRANSMITTED:** 2

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**SUBJECT:** COMMENTS / PUBLIC HEARING  
September 30, 1999  
JEA Circulating Fluidized Bed Combustor Project

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The attached letter raises concerns over the possibility of increased rail traffic. Please review and address the issue raised. Thank you.

Telephone (904) 246 - 1658

Fax (904) 270 - 0021

**NORTHSIDE CIVIC ASSOCIATION, INC.**

**Post Office Box 26234  
Jacksonville, Florida 32226**

Letter No. 10

Reproduced from  
copy submitted

**October 15, 1999**

**Ms. Lisa K. Hollingsworth  
Federal Energy Technology Center  
P.O. Box 880  
Morgantown, WV 26505**

**VIA - FAX**

**Re: Public Comments/Concerns  
Proposed JEA Circulating Fluidized Bed Combustor Project**

**Dear Ms. Hollingsworth:**

In connection with the recent Public Hearing on the Proposed JEA Circulating Fluidized Bed Combustor Project on September 30, 1999, NCA would like to raise the following concern based on a statement made in the "Summary of Expected Environmental Impacts" Transportation Section.

The statement reads "Should economic conditions change, rail traffic could increase by up to 3 additional train deliveries per week, exacerbating some existing community concerns with noise, vibrations, and blocked roads." The last, 'Blocked Roads', is of great concern because existing rail traffic already cuts off neighborhoods from essential services such as Fire & Rescue when coal deliveries are made to the St. Johns River Power Park and the U.S. Generating/Cedar Bay Facility.

10-1

Any possible increase in rail traffic should be carefully examined. JEA has here-to-now, indicated coal deliveries would be made by water. Because of only having one way in, the estimated increase of three (3) trips would equate to six (6) trains because every trip in requires a trip out.

NCA requests your careful review of this issue. We are available to meet with you and can provide you with documentation as may be necessary.

Sincerely,

  
Val Bostwick  
President

cc: Susan Hughes / JEA

**Letter No. 10**

Val Bostwick, President, Northside Civic Association, Inc., P. O. Box 26234, Jacksonville,  
Florida 32226

**Comment 10-1:**

“The statement reads ‘Should economic conditions change, rail traffic could increase by up to 3 additional train deliveries per week, exacerbating some existing community concerns with noise, vibrations, and blocked roads.’ The last, ‘Blocked Roads’, is of great concern because existing rail traffic already cuts off neighborhoods from essential services such as Fire & Rescue when coal deliveries are made to the St. Johns River Power Park and the U.S. Generating/Cedar Bay Facility.

Any possible increase in rail traffic should be carefully examined. JEA has here-to-now, indicated coal deliveries would be made by water. Because of only having one way in, the estimated increase of three (3) trips would equate to six (6) trains because every trip in requires a trip out.”

**Response:**

Current community concern with blocked roads and other effects of rail traffic is described in Section 1.6, and the phenomenon of road blockage is described in Sections 3.9.1.1 and 4.1.10.1. An explanation that three additional train deliveries would mean an increase of six one-way trips is provided in Section 4.1.10.1. These six additional trips would represent an increase of about 5% in total movement on the CSX rail line paralleling U.S. 17 and an increase of 8% on the spur line that runs from U.S. 17 to the St. Johns River Power Park and Blount Island.



**ACAA**  
**INTERNATIONAL**

**American Coal Ash Association**

6940 South Kings Highway ♦ Suite 207

Alexandria, Virginia ♦ 22310-3344 ♦ USA

Phone: 703-317-2400 ♦ Fax: 703-317-2409

Internet: <http://www.ACAA-USA.org>

October 15, 1999

**Letter No. 11**

Reproduced from  
copy submitted

Ms. Lisa K. Hollingsworth  
NEPA Document Manager  
U.S. Department of Energy  
Federal Energy Technology Center  
3610 Collins Ferry Road  
P.O. Box 880  
Morgantown, WV 26507-0880

RE: U.S. Department of Energy (DOE) *Draft Environmental Impact Statement (EIS) for the JEA Circulating Fluidized Bed Combustor Project, Jacksonville, Florida* [DOE/EIS-0289, August 1999]

Dear Ms. Hollingsworth:

The American Coal Ash Association (ACAA) appreciates the opportunity to review the above referenced document, *Draft Environmental Impact Statement (EIS) for the JEA Circulating Fluidized Bed Combustor Project, Jacksonville, Florida* [U.S. Department of Energy (DOE), DOE/EIS-0289, August 1999], and is pleased to offer comments.

The EIS indicates that the circulating fluidized bed (CFB) combustion technology to be demonstrated under DOE's Clean Coal Technology Program at Northside Generating Station, a site owned by JEA (former Jacksonville Electric Authority) about nine miles northeast of the downtown area of Jacksonville, Florida. The fuels to be used would be both coal and petroleum coke for generation of 300 megawatts of electricity; and the combustion residues would be some 57,000 tons per year of coal fly ash and 106,000 tons of bottom ash, if coal were used alone for an entire year; and alternatively, if petroleum coke were used alone for an entire year, 109,000 tons of fly ash and 170,000 tons of bottom ash annually.

ACAA's comments focus on managing the combustion residues in ways that are technically sound and environmentally safe, thereby maximizing their potential for use. The positive record for the use of coal combustion products (CCPs), covering more than 30 years, provides positive guidance for developing such uses. Similarly, this record of experience raises cautions against potentially inappropriate uses of such materials.

Lisa K. Hollingsworth  
 NEPA Document Manager  
 RE: DOE/EIS-0289  
 October 15, 1999

Page 2 of 6

ACAA's comments are presented in the following paragraphs with reference to numbered sections within the subject EIS document.

2.1.7.3 - Solid Waste - Both coal and petroleum coke are to be used during the course of a year. The document states that combustion residues (fly ash and bottom ash) from each fuel source will be collected in silos and subsequently commingled for potential use.

We ask if there is a distinction to be made between the residues from coal and those from the coke, and for varying fuel combinations in between 100% of either fuel, based on the physical and chemical characteristics of the residues? | 11-1

Also, if excess material is disposed, either on-site or off-site, will the combustion residues from each fuel be placed in separate areas to allow for the potentially different management practices that may be needed for each of these materials? Such management practices could significantly enhance the marketability of the combustion residues. | 11-2

Furthermore, if unforeseen circumstance develop with respect to the performance of the disposal site, such as occurrences of runoff or movement of leachate, can the contribution of each combustion residue be distinguished? | 11-3

4.1.7.2 Operation - Combustion Ash Management - As an alternative to the stated plan, the storage cells (I and II) for uncovered ash could be developed concurrently with separate areas for the combustion residues from each of the two fuel sources (and perhaps an area for fuel mixes between the two). The added cost of operating the two sites might be more than offset by revenues from additional marketing opportunities that could be developed. | 11-4

By capitalizing on the tendency of these CFB combustion residues to self-harden due to hydration reactions, it may be feasible to manufacture certain products such as roadbase material and synthetic aggregates. These products might be stockpiled in the cells and used at later dates, as needed, with the seasonal fluctuations in demand for highway construction and commercial building markets. | 11-5

Lisa K. Hollingsworth  
NEPA Document Manager  
RE: DOE/EIS-0289  
October 15, 1999

7. - Regulatory Compliance and Permit Requirements - Opportunities to utilize the CFB combustion residues, in lieu of disposal, should be developed and pursued simultaneously with the review of regulatory compliance and permit requirements. This early action, in harmony with all federal, state and local requirements, will dramatically improve the likelihood of developing successful marketing programs.

11-6

The federal government has promoted CCP reuse through a variety of initiatives. In 1983, EPA promulgated the first federal procurement guideline that required agencies using federal funds to implement a preference program favoring the purchase of cement and concrete containing fly ash. 40 C.F.R. Part 249. The EPA endorses the use of pozzolans, such as coal ash, as the preferred method for stabilizing certain metal bearing wastes. *52 Federal Register* 29992.

EPA also has published a summary of information pertaining to CCP use in an "environmental fact sheet," *Guideline for Purchasing Cement and Concrete Containing Fly Ash* [EPA/530-SW-91-086, January 1992]; however, the CFB combustion residues from the JEA project would almost certainly not meet the requirements of this specification.

Similarly, cautions should be raised against the use of the CFB materials in any engineering or manufacturing application where volume stability, either expansion or shrinkage, would be a factor in their successful performance.

11-7

Additionally, Executive Order 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*, signed on September 14, 1998, directs federal agencies to develop affirmative procurement programs for environmentally preferable products and requires EPA to issue guidance on the principles agencies should use in making determinations for the preference and purchase of environmentally preferable products. Executive Order 13101 supercedes Executive Order 12873 of October 20, 1993.

EPA originally had proposed a Comprehensive Procurement Guideline (CPG), in response to Executive Order 12873, designating items that can be made with recovered materials, including fly ash. *59 Federal Register* 18852 (April 20, 1994). The scope of recovered materials encompassed by the CPG has continued to grow in subsequent years. As applications for the CFB

Lisa K. Hollingsworth  
NEPA Document Manager  
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Page 4 of 6

combustion residues from the JEA project are developed, they too could be submitted to U.S. EPA for evaluation and possible inclusion in the CPG.

The proximity of the project site to the Jacksonville metropolitan area, and its access to the port facilities of the St. Johns River, would be very positive factors in the development of a marketing plan for the CFB combustion residues. There could be substantial local demand for the materials, depending on the actual applications for which they are found to be suitable; and, the distances over which cost-effective shipments of the combustion residues, or products made from them, could be significantly increased.

8. - Irreversible or Irrecoverable Commitments of Resources - The fuel and sorbent reduced to unrecoverable forms of waste can be minimized by developing an early plan for their management and use in accordance with the comments presented above.

9. - Relationship Between Short-Term Uses of the Environmental and Long-Term Productivity - As stated, the long-term benefit of the proposed project is to demonstrate an environmentally sound and innovative technology for the utilization of coal. The CFB technology is expected to remove up to 98% of SO<sub>2</sub> emissions, reduce NO<sub>x</sub> formation by approximately 60% compared with conventional coal-fired technologies, and remove more than 99% of particulate emissions. The similar long-term benefit of the project should be to demonstrate environmentally sound and innovative uses for the combustion residues.

11-8

In recent comments to U.S. EPA, in response to the *Request for Information Concerning Transfrontier Movements of Wastes Destined for Recovery Operations Within the OECD Area* [Federal Register, August 17, 1999], ACAA noted that the overall goal of the Basel Convention is to protect human health and the environment against the adverse effects from the generation and management of hazardous wastes and "other wastes."<sup>1</sup>

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<sup>1</sup> American Coal Ash Association, Comments to U.S. EPA *Request for Information Concerning Transfrontier Movements of Wastes Destined for Recovery Operations Within the OECD Area*, September 30, 1999, 48 pages, EPA Docket Number F-1999-TMWA-FFFFF.

Lisa K. Hollingsworth  
NEPA Document Manager  
RE: DOE/EIS-0289  
October 15, 1999

Page 5 of 6

As one of the "other wastes", coal combustion residues that are used in lieu of portland cement, not only in concrete but also in other cementing applications, provide significant environmental benefits that frequently are overlooked. In applications where portland cement can be partially replaced, and in some cases totally replaced, by fly ash, the resulting decrease in CO<sub>2</sub> emissions from the avoided manufacture of cement is substantial.

Opportunities for using fly ash to achieve this important environmental benefit were addressed initially by ACAA in a paper published in 1995<sup>2</sup>, and in a subsequent paper and report<sup>3</sup>, where the topic was extensively developed.

The cementing applications of fly ash that replace portland cement and avoid CO<sub>2</sub> emissions are not limited to fly ash in concrete. Specifically, with respect to EPA's RTC, the use of fly ash in many mining applications, particularly where flowable fill requiring low strengths are required, can eliminate most of all of the cement that would have been used.

10. - References - ACAA is pleased that one of its publications<sup>4</sup> was found to be useful in the development of the EIS document for the JEA project. The ACAA document is a collection of five papers that were presented at a regional workshop sponsored by ACAA in Minneapolis/St. Paul in July 1997.

---

<sup>2</sup> "Climate Change and New Opportunities for Coal Combustion Byproducts", Published in Proceedings of the 11<sup>th</sup> International Symposium on Management and Use of Coal Combustion Byproducts, American Coal Ash Association, January 1995, 15 pages.

<sup>3</sup> Increased Fly Ash Use Under the Climate Challenge Program: A Summary of Participation Accords Between the Electric Utilities and the U.S. Department of Energy, American Coal Ash Association, Prepared by: Daniel E. Klein, Twenty-First Strategies, L.L.C., March 1996, 52 pages (including appendices).

<sup>4</sup> Workshop on Management and Use of Coal Combustion Products, American Coal Ash Association, Minneapolis/St. Paul, July 15, 1997 (Collection of five papers presented at the workshop).

Lisa K. Hollingsworth  
NEPA Document Manager  
RE: DOE/EIS-0289  
October 15, 1999

Page 6 of 6

The method used in citing the ACAA reference in section 4.1.7.2 Operation - Combustion Ash Management of the EIS document may give the impression that the nationwide survey of CFB ash and its variety of applications was conducted by ACAA; however, that survey was conducted by the Council of Industrial Boiler Owners (CIBO), a cosponsor of the July 1997 workshop. The survey of CFB ash was described in a paper <sup>5</sup> that was presented at the ACAA workshop and that paper subsequently was included in the ACAA publication <sup>4</sup> that was cited in the EIS document.

11-9

Similarly, the EIS document appears to attribute the following statement to ACAA: "Data obtained nationwide with regard to leachability and toxicity of CFB ash indicates that none of more than 450 sample analyses exceeded regulatory thresholds." This information also came from the paper <sup>5</sup> presented at ACAA's July 1997 workshop, which subsequently was published by ACAA <sup>4</sup>.

Respectfully submitted,



Samuel S. Tyson, P.E.  
Executive Director

---

<sup>5</sup> Svendsen and Bessette, *The Council of Industrial Boiler Owners Special Project on Non-Utility Fossil Fuel Ash Classification*, 13 pages, Proceedings: Workshop on Management and Use of Coal Combustion Products (CCPs), Minneapolis/St. Paul, American Coal Ash Association, July 15, 1999.

**Letter No. 11**

Samuel S. Tyson, P.E., Executive Director, American Coal Ash Association, 6940 South Kings Highway, Suite 207, Alexandria, Virginia 22310-3344

**Comment 11-1:**

“We ask if there is a distinction to be made between the residues from coal and those from the coke, and for varying fuel combinations in between 100% of either fuel, based on the physical and chemical characteristics of the residues?”

**Response:**

No distinction would be made between residues from coal and those from petroleum coke. Ash from coal and petroleum coke would be commingled in the ash storage area, in accordance with the fill sequence established in the Class I landfill permit currently under review by the state of Florida. Characteristics of the commingled ash would be considered during its marketing.

**Comment 11-2:**

“Also, if excess material is disposed, either on-site or off-site, will the combustion residues from each fuel be placed in separate areas to allow for the potentially different management practices that may be needed for each of these materials? Such management practices could significantly enhance the marketability of the combustion residues.”

**Response:**

Residues generated from the combustion of coal and petroleum coke would be commingled and stored initially in cell I of the ash storage area. Ash would require EPA-approved certification that it is nonhazardous before it would be accepted for disposal. JEA would consider segregating the ash should it become necessary for its marketing and sale.

**Comment 11-3:**

“Furthermore, if unforeseen circumstance [sic] develop with respect to the performance of the disposal site, such as occurrences of runoff or movement of leachate, can the contribution of each combustion residue be distinguished?”

**Response:**

The ash storage area is being permitted based on the requirements for Class I landfills in the state of Florida. The runoff and leachate collection system is designed to accommodate the 25-year,

24-hour storm event. Runoff and leachate collected in this system would be discharged to the onsite chemical waste treatment system and commingled with other wastewater streams generated on the site. Therefore, the contribution of each combustion residue would not be distinguishable. However, groundwater and surface water monitoring would be implemented to ensure continued proper operation of the permitted systems.

**Comment 11-4:**

“4.1.7.2 Operation - Combustion Ash Management - As an alternative to the stated plan, the storage cells (I and II) for uncovered ash could be developed concurrently with separate areas for the combustion residues from each of the two fuel sources (and perhaps an area for fuel mixes between the two). The added cost of operating the two sites might be more than offset by revenues from additional marketing opportunities that could be developed.”

**Response:**

It is JEA’s intention to develop cell I alone for ash storage. By implementing an aggressive marketing program for this commingled residue, JEA intends to be able to prevent development of cell II. Cell II would only be developed if additional storage space is required or if marketing dictates that the ash should be stored separately.

**Comment 11-5:**

“By capitalizing on the tendency of these CFB combustion residues to self-harden due to hydration reactions, it may be feasible to manufacture certain products such as roadbase material and synthetic aggregates. These products might be stockpiled in the cells and used at later dates, as needed, with the seasonal fluctuations in demand for highway construction and commercial building markets.”

**Response:**

Opportunities including those described are being considered by JEA.

**Comment 11-6:**

“7.- Regulatory Compliance and Permit Requirements - Opportunities to utilize the CFB combustion residues, in lieu of disposal, should be developed and pursued simultaneously with the review of regulatory compliance and permit requirements. This early action, in harmony with all federal, state and local requirements, will dramatically improve the likelihood of developing successful marketing programs.”

**Response:**

Opportunities to utilize the ash, in lieu of disposal, are being developed by JEA concurrently with the state of Florida's review of the Class I landfill permit for the ash storage area. JEA intends to pursue these opportunities upon selection of the contractor to manage the ash storage area and market the ash.

**Comment 11-7:**

“Similarly, cautions should be raised against the use of the CFB materials in any engineering or manufacturing application where volume stability, either expansion or shrinkage, would be a factor in their successful performance.”

**Response:**

JEA intends to consider these concerns during research conducted by the selected marketing firm to determine suitable applications for the ash.

**Comment 11-8:**

“The similar long-term benefit of the project should be to demonstrate environmentally sound and innovative uses for the combustion residues.”

**Response:**

DOE agrees that a long-term benefit of the proposed project is to demonstrate environmentally sound and innovative uses for the combustion ash. Section 9 of the EIS states that, unlike with many conventional technologies, the combustion ash from the proposed project is suitable for beneficial uses such as road construction material, agricultural fertilizer, and reclaiming surface mining areas.

**Comment 11-9:**

“The method used in citing the ACAA reference in section 4.1.7.2 Operation - Combustion Ash Management of the EIS document may give the impression that the nationwide survey of CFB ash and its variety of applications was conducted by ACAA; however, that survey was conducted by the Council of Industrial Boiler Owners (CIBO), a cosponsor of the July 1997 workshop. The survey of CFB ash was described in a paper<sup>5</sup> that was presented at the ACAA workshop and that paper subsequently was included in the ACAA publication<sup>4</sup> that was cited in the EIS document.

Similarly, the EIS document appears to attribute the following statement to ACAA: ‘Data obtained nationwide with regard to leachability and toxicity of CFB ash indicates that none of more than 450 sample analyses exceeded regulatory thresholds.’ This information also came from the paper<sup>5</sup> presented at ACAA’s July 1997 workshop, which subsequently was published by ACAA<sup>4</sup>.”

**Response:**

In both cases, Section 4.1.7.2 of the EIS text has been modified to indicate the correct citation.



Letter No. 12

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STATE OF FLORIDA  
**DEPARTMENT OF COMMUNITY AFFAIRS**

*"Helping Floridians create safe, vibrant, sustainable communities"*

JEB BUSH  
Governor

STEVEN M. SEIBERT  
Secretary

November 15, 1999

Mr. Lloyd Lorenzi  
U.S. Department of Energy  
Federal Energy Technology Center  
3610 Collins Ferry Road  
Morgantown, West Virginia 26507-0880

RE: U.S. Department of Energy - Draft Environmental Impact  
Statement (EIS) for JEA (formerly Jacksonville Electric  
Authority) Circulating Fluidized Bed Combustor Project  
- Jacksonville, Duval County, Florida  
SAI: FL9710020730CR

Dear Mr. Lorenzi:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the above-referenced project.

The Department of Environmental Protection (DEP) indicates that permits will be required prior to the start of construction. Early coordination with DEP may help to eliminate problems in the permitting process. Please refer to the enclosed DEP comments.

The Department of Transportation (DOT) notes that the proposed project may directly impact the State Transportation system. The applicant should submit all site plans and access plans to the DOT's Jacksonville Urban Office in order to secure the proper permits. A re-evaluation of the project will be conducted during the environmental documentation or permitting stage. Please refer to the enclosed DOT comments.

The Department of State (DOS) notes that the proposed project will have a cultural resource survey performed. Provided

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FLORIDA 32399-2100  
Phone: (850) 488-8466/Suncom 278-8466 FAX: (850) 921-0781/Suncom 291-0781  
Internet address: <http://www.state.fl.us/comaff/>

FLORIDA KEYS  
Area of Critical State Concern Field Office  
2796 Overseas Highway, Suite 212  
Marathon, Florida 33050-2227

GREEN SWAMP  
Area of Critical State Concern Field Office  
205 East Main Street, Suite 104  
Bartow, Florida 33830-4641

Mr. Lloyd Lorenzi  
November 15, 1999  
Page Two

that the applicant completes the survey and appropriately avoids, minimizes, or mitigates impacts to any significant archaeological or historic sites identified in the survey, the above project will have no adverse effect. Please refer to the enclosed DOS comments.

Based on the information contained in the draft environmental impact statement and the applicant's satisfactory compliance with all conditions stipulated by the DOS, as enclosed, the state has determined that the above-referenced project is consistent with the Florida Coastal Management Program. Enclosed are all comments received to date from our reviewing agencies. Comments subsequently received by the State Clearinghouse will be forwarded for your review and consideration.

Thank you for the opportunity to review the environmental impact statement. If you have any questions regarding this letter, please contact Ms. Cherie Trainor, Clearinghouse Coordinator, at (850) 414-5495.

Sincerely,



Ralph Cantral, Executive Director  
Florida Coastal Management Program

RC/cc

Enclosures

cc: April Williford, Department of Environmental Protection  
P. Ward Swisher, Department of Transportation  
Janet Snyder Matthews, Department of State

**JEA EIS**

COUNTY: Duval

DATE: 08/26/1999

COMMENTS DUE-2 WKS: 09/09/1999

Message:

CLEARANCE DUE DATE: 10/11/1999

SAI#: FL9710020730CR

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
<p>X Agriculture Community Affairs Environmental Protection Fish &amp; Wildlife Conserv. Comm State Transportation</p>	<p>St. Johns River WMD</p>	<p>Environmental Policy/C &amp; ED</p>

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

**Project Description:**

U.S. Department of Energy - Draft Environmental Impact Statement (EIS) for JEA (formerly Jacksonville Electric Authority) Circulating Fluidized Bed Combustor Project - Jacksonville, Duval County, Florida. Available on the internet: <http://tis.eh.doe.gov/nepe>

To: Florida State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100  
(850) 922-5438 (SC 292-5438)  
(850) 414-0479 (FAX)

EO. 12372/NEPA

Federal Consistency

- No Comment
- Comments Attached
- Not Applicable

- No Comment/Consistent
- Consistent/Comments Attached
- Inconsistent/Comments Attached
- Not Applicable

Division of Forestry  
Forest Resource Planning  
& Support Services Bureau  
3125 Conner Blvd., Mail Stop C23  
Tallahassee, FL 32399-1650

From:

Division/Bureau: \_\_\_\_\_

Reviewer: \_\_\_\_\_

Date: 8-9-99



Jeb Bush  
Governor

## Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

October 1, 1999

Cherie Trainor  
State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

RE: DOE/Draft EIS for the JEA Circulating Fluidized Bed Combustor Project in Jacksonville,  
Duval County  
SAI: FL9710020730CR

Dear Ms. Trainor:

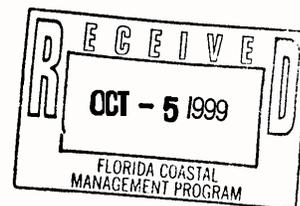
The Department of Environmental Protection has reviewed the above-referenced Draft Environmental Impact Statement for the JEA Circulating Fluidized Bed Combustor Project. Based on the information provided, the Department finds the proposed project to be consistent with its statutory authorities in the Florida Coastal Management Program, provided all necessary permits are obtained prior to construction activities.

12-1

We appreciate the opportunity to provide comments on the proposed project. If you have any questions or require additional information, please contact me at (850) 487-2231 or SunCom 277-2231.

Sincerely,

April D. Williford  
Office of Intergovernmental Programs



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Office of International Relations  
Division of Elections  
Division of Corporations  
Division of Cultural Affairs  
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Division of Licensing  
Division of Administrative Services



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FLORIDA DEPARTMENT OF STATE  
Katherine Harris  
Secretary of State  
DIVISION OF HISTORICAL RESOURCES

Ms. Cherie Trainor  
State Clearinghouse  
Department of Community Affairs  
2555 Shumard Oak Boulevard  
Tallahassee, Florida 32399-2100

November 3, 1999

RE: DHR Project File No. 997940  
SAI# FL9710020730CR  
Draft Environmental Impact Statement (DEIS) for the  
JEA Circulating Fluidized Bed Combustor Project  
Jacksonville, Duval County, Florida

Dear Ms. Trainor:

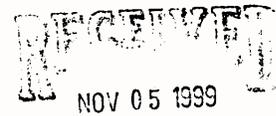
In accordance with the provisions of Florida's Coastal Zone Management Act and Chapter 267, *Florida Statutes*, as well as the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), we have reviewed the referenced project for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historic or architectural value.

We have reviewed the referenced draft environmental impact statement. We specifically reviewed sections 3.7 and 4.1.8, both dealing with Cultural Resources. We note that the project will have a cultural resource survey performed. The resultant survey report shall conform to the specifications set forth in Chapter 1A-46, Florida Administrative Code, and will need to be forwarded to this agency in order to complete the process of reviewing the impact of this proposed project on historic properties. Therefore, conditioned upon the JEA undertaking a cultural resource survey, and appropriately avoiding, minimizing, or mitigating project impacts to any identified significant archaeological or historic sites, the proposed project will have no effect on historic properties listed, or eligible for listing, in the National Register, or otherwise of historical or architectural value.

12-2

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservation Planner, at 850-487-2333 or 800-847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,  
*Janet A. Matthews*  
for Janet Synder Matthews, Ph.D.  
State Historic Preservation Officer



JSM/Ese

State of Florida Clearinghouse

xc: Jasmin Raffington, FCMP-DCA

R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250 • <http://www.flheritage.com>  
 Director's Office (850) 488-1480 • FAX: 488-3355  
 Archaeological Research (850) 487-2299 • FAX: 414-2207  
 Historic Preservation (850) 487-2333 • FAX: 922-0496  
 Historical Museums (850) 488-1484 • FAX: 921-2503  
 Historic Pensacola Preservation Board (850) 595-5985 • FAX: 595-5989  
 Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476  
 St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044  
 Tampa Regional Office (813) 272-3843 • FAX: 272-2340



Florida Department of Transportation

1-800-748-2967

JEB BUSH  
GOVERNOR

THOMAS F. BARRY, JR.  
SECRETARY

P.O. Box 1089  
Lake City, FL 32056-1089  
September 2, 1999

Ms. Cherie Trainor  
Florida State Clearinghouse  
Department of Community Affairs  
2255 Shumard Oak Blvd.  
Tallahassee, FL 32399-2100

RECEIVED  
SEP 08 1999  
State of Florida Clearinghouse

Subject: SAI NO. FL9710020730CR  
JEA

Dear Ms. Trainor:

Based on the information provided, we find that the subject project may have a direct impact on the State Transportation System. It is requested that the applicant submit all site plans and access plans to Mrs. Carol Wright, Jacksonville Permit Engineer, Jacksonville Urban Office, Post Office Box 6669, Jacksonville, Florida 32236-6669 Telephone (904) 360-5433 in order to secure proper permits. The project has been reviewed under Presidential Executive Order 12372 and the Florida Coastal Zone Management Program for consistency for the following:

12-3

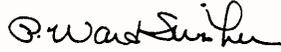
- \* Florida Transportation Plan, modal systems and work program plans directly related to this project.
- \* Level of Service Standards
- \* Access Management Standards
- \* Right-of-way costs and advanced acquisition
- \* Intergovernmental coordination
- \* Chapters 334 and 339, Laws of Florida

A re-evaluation of this project will be conducted during the environmental documentation or permitting stage, as required. Future consistency of this project will be dependent upon the proper consideration of our comments offered in this and subsequent reviews.

[www.dot.state.fl.us](http://www.dot.state.fl.us)

If you have any questions regarding this response, please contact me at SC 881-3678.

Sincerely,



P. Ward Swisher  
Asst. Transportation Statistics Administrator

cc: Aage Schroder  
Sandra Whitmire  
Carol Wright  
Tom Dyal

99-069.WS

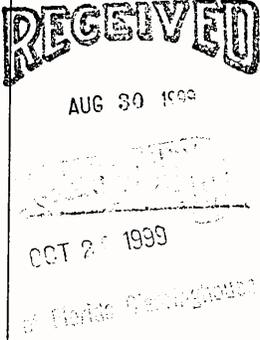


**JEA EIS**

COUNTY: Duval

DATE: 08/26/1999  
 COMMENTS DUE - 2 WKS: 09/09/1999  
 CLEARANCE DUE DATE: 10/11/1999  
 SAI#: FL9710020730CR

Message:

STATE AGENCIES	WATER MANAGEMENT DISTRICTS	OPB POLICY UNITS
Agriculture Community Affairs Environmental Protection Fish & Wildlife Conserv. Comm State Transportation	St. Johns River WMD	X Environmental Policy/C & ED  

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

- Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.
- X Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.
- Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.
- Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.

**Project Description:**

U.S. Department of Energy - Draft Environmental Impact Statement (EIS) for JEA (formerly Jacksonville Electric Authority) Circulating Fluidized Bed Combustor Project - Jacksonville, Duval County, Florida. Available on the internet: <http://tis.eh.doe.gov/nepa>

To: **Florida State Clearinghouse**  
 Department of Community Affairs  
 2555 Shumard Oak Boulevard  
 Tallahassee, FL 32399-2100  
 (850) 922-5438 (SC 292-5438)  
 (850) 414-0479 (FAX)

EO. 12372/NEPA

Federal Consistency

- No Comment
- Comments Attached
- Not Applicable

- No Comment/Consistent
- Consistent/Comments Attached
- Inconsistent/Comments Attached
- Not Applicable

From:

Division/Bureau: EOG/SPBENV  
 Reviewer: Tale LAL  
 Date: Oct 1, 1999

**Letter No. 12**

Ralph Cantral, Executive Director, Florida Coastal Management Program, State of Florida  
Department of Community Affairs, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100

**Comment 12-1:**

“Based on the information provided, the Department finds the proposed project to be consistent with its statutory authorities in the Florida Coastal Management Program, provided all necessary permits are obtained prior to construction activities.”

**Response:**

All necessary permits for the proposed project would be obtained as required by the permitting agencies.

**Comment 12-2:**

“We note that the project will have a cultural resource survey performed. The resultant survey report shall conform to the specifications set forth in Chapter 1A-46, Florida Administrative Code, and will need to be forwarded to this agency in order to complete the process of reviewing the impact of this proposed project on historic properties.”

**Response:**

See response to Comment 6-1.

**Comment 12-3:**

“Based on the information provided, we find that the subject project may have a direct impact on the State Transportation System. It is requested that the applicant submit all site plans and access plans to Mrs. Carol Wright, Jacksonville Permit Engineer, Jacksonville Urban Office, Post Office Box 6669, Jacksonville, Florida 32236-6669 Telephone (904) 360-5433 in order to secure proper permits.”

**Response:**

This comment was based on the assumption that there would be construction associated with the proposed project on Heckscher Drive, which is a state road. JEA has contacted Carol Wright to discuss this concern and both parties agree that, because project-related construction would not occur along Heckscher Drive and because the only access for construction personnel would be located at the New Berlin Road entrance to the facility, JEA is not required to submit site plans

and access plans for the proposed project to the Florida Department of Transportation (C. A. Wright, Florida Department of Transportation, personal communication to J. A. Leduc, JEA, January 7, 2000).