

**Carolina Power & Light Company
Brunswick Steam Electric Plant
P.O. Box 10429
Southport, NC 28461-0429**

Fax

To: Karen Cotton **From:** Mark Turkal

Fax: 301 415 2102 **Pages:** 10

Phone: 301 415 1438 **Date:** September 9, 1999

Re: BSEP Biological Opinion **CC:**

Urgent For Review Please Comment Please Reply Please Recycle

• **Comments:**

Karen,

Here ^{are} the pages from the Issued Biological Opinion which contain the "Conservation Recommendations" and our response to the Draft Biological Opinion. The Draft Biological Opinion did not contain Conservation Recommendation #4: BSEP should conduct tissue sampling for the genetic identity of turtles interacting with the plant's cooling water intake structure.

Thanks,
Mark Turkal
910 457 3066

B/14

basis will also look for signs of sea turtles inside the canal, on the diversion structure, or outside the diversion structure on the river side, while completing their duties. Plant security will report any signs of sea turtles in the canal noticed while on patrol.

5. Once a turtle is sighted, plant environmental personnel will attempt to capture the turtle following the procedures outlined in the biological assessment. Live turtles will be photographed, tagged, and released in the surf at Yaupon Beach, North Carolina or other area beach as determined through consultation with the North Carolina Sea Turtle Coordinator. Injured sea turtles will be given appropriate medical treatment or if severely injured the North Carolina Sea Turtle Coordinator will be consulted to determine the appropriate action. Dead turtles will be removed from the canal, photographed, and a necropsy, or other action determined appropriate by the North Carolina Sea Turtle Coordinator, will be performed.
6. If any listed species are apparently injured or killed in the intake canal, or the diversion structure or the trash racks, a report, summarizing the incident, must be provided within 14 days to the NMFS Southeast Regional Office's Chief Protect Resources.
7. All sea turtle takings will be recorded by species, size and time of year taken. These records will be made available to NMFS no later than 30 days after the first of the year or upon request.

NMFS believes that no more than 50 loggerhead sea turtles (6 lethal), 5 green sea turtles (2 lethal), 8 Kemp's ridley sea turtles (2 lethal), and 1 (lethal or live) leatherback or hawksbill sea turtle could be incidentally taken biennially (= every two years: each year's records must be between January 1 - December 31), as a result of this proposed action. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The NRC must immediately provide an explanation of the causes of the taking and review with NMFS the need for possible modification of the reasonable and prudent measures.

IX. Conservation Recommendations

Section 7(a)(1) of the Act, directs Federal agencies to utilize

their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The following conservation recommendations are made to assist the NRC in reducing/eliminating impacts to listed and proposed species and promoting their conservation and recovery.

1. BSEP should conduct inspections of the diversion structure, to ensure the structure's integrity, to include subsurface inspections at least twice during the time between late April through August and one time outside that time period.
2. BSEP should monitor the trash racks, canal and diversion structure for signs of shortnose sturgeon.
3. BSEP should contact the Fisheries Department of the University of North Carolina-Wilmington on at least a yearly basis to determine if shortnose sturgeon have been tracked near the area of the intake canal.
4. BSEP should conduct tissue sampling for the genetic identity of turtles interacting with the plant's cooling water intake system.

In order for NMFS to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, NMFS requests notification of the implementation of any conservation recommendations.

X. Reinitiation of Consultation

This concludes formal consultation on the action outlined in your March 9, 1998 request for formal consultation. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if (1) the amount or extent of taking specified in the incidental take statement is exceeded, (2) new information reveals effects of the action that may affect listed species or critical habitat (when designated) in a manner or to an extent not previously considered, (3) the identified action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the biological opinion, or (4) a new species is listed or critical habitat designated that may be affected by the identified action. In instances where the amount or extent of incidental take is exceeded, the NRC must immediately request reinitiation of formal consultation.

CP&L

Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

FEB 19 1999

SERIAL: BSEP 99-0023

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
COMMENTS ON DRAFT BIOLOGICAL OPINION REGARDING IMPACT TO SEA
TURTLES AT THE BRUNSWICK STEAM ELECTRIC PLANT (TAC NO. 99318)

Gentlemen:

By letter dated January 26, 1998, Carolina Power and Light (CP&L) Company provided to the U.S. Nuclear Regulatory Commission (NRC) a Biological Assessment (BA) of the impact on endangered sea turtles of operation of the Brunswick Steam Electric Plant. By letter dated March 9, 1998, the NRC provided the BA and their recommendations to the National Marine Fisheries Service (NMFS). The NRC received from the NMFS a draft Biological Opinion and on February 10, 1999, forwarded a copy to CP&L for review and comment. CP&L's comments on the draft Biological Opinion are enclosed.

Please refer any questions regarding this submittal to Mr. Warren J. Dorman, Supervisor - Licensing, at (910) 457-2068.

Sincerely,



Keith R. Jury
Manager - Regulatory Affairs
Brunswick Steam Electric Plant

GMT/

Enclosure:

Comments On Draft Biological Opinion Regarding Impact To Sea Turtles At
The Brunswick Steam Electric Plant

Document Control Desk
BSEP 99-0023 / Page 2

cc (with enclosure):

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ENCLOSURE

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
COMMENTS ON DRAFT BIOLOGICAL OPINION REGARDING IMPACT
TO SEA TURTLES AT THE BRUNSWICK STEAM ELECTRIC PLANTComments:

- 1) Page 1, Second paragraph: The discussion of the Brunswick Steam Electric Plant's (BSEP) diversion structure here and in Carolina Power and Light Company's (CP&L) Biological Assessment identifies 37 panels of screens. For clarification, the diversion structure consists of 37 bays, with a total of 134 screen panels about 4 x 10 feet. The construction of the screen panel is such that a screen release (i.e., blowout) typically creates an opening approximately 2 x 4 to 3 x 4 feet.
- 2) Page 1, Second paragraph: The last sentence states that the diversion structure is inspected and maintained "daily." As a generalization this is true, but as stated in CP&L's Biological Assessment, Measures to Reduce Sea Turtle Impact section (page 10), there are days when inspection and maintenance are not performed. CP&L recommends the sentence be modified to read: The structure is generally inspected and maintained (cleaned) daily; blowouts are repaired during these inspections.
- 3) Page 2, First paragraph: Discussion of turtle capture nets indicates the nets span the intake shoreline to shoreline. The nets are used from boats in both locations. Also, the 300 foot net may be used at both locations.
- 4) Page 15, Fourth paragraph: ***"If a shortnose sturgeon is incidentally taken by BSEP, NMFS, Southeast Regional Office must be notified immediately, and the action which took the sturgeon stopped until a method is developed, and approved by National Marine Fisheries Service (NMFS), to insure shortnose sturgeon are not taken."***

The conditions in the incidental take statement should be limited to the reasonable and prudent measures needed to minimize the impact on species authorized to be taken (i.e., turtles). Including a condition that is unrelated to an authorized taking exceeds the agency's authority under section 7(b)(4) of the Endangered Species Act (16 U.S.C. 1536(b)(4)). Since the incidental take statement does not authorize any taking of the shortnosed sturgeon, any taking of that species is prohibited and there is no basis for further conditions. Therefore, this proposed condition should be deleted.

Stopping the action which took the sturgeon is not appropriate until the situation can be properly assessed. The immediate notification of NMFS would result in their involvement in assessing the actions being taken by CP&L to address the direct cause of the shortnose

sturgeon take. CP&L is willing to voluntarily commit to immediate notification of the NMFS, Southeast Regional Office, and prompt consultation in the unlikely event that a shortnosed sturgeon is incidentally taken, but believes that a decision on plant shutdown or other extraordinary measures should be based on consideration of the facts during the consultation process that would be initiated in this very unlikely event.

Based on the historical data for Atlantic sturgeon impinged at the BSEP and available life history information on shortnose sturgeon, there is a low risk that a shortnose sturgeon mortality will occur as a result of operation of the BSEP. Adult shortnose sturgeon remain in the deeper channel areas of the Cape Fear River at the tidal freshwater/salt wedge interface except for upstream migrations in the spring for spawning purposes. The location of the BSEP intake canal is well below the normal range for the shortnose sturgeon in the Cape Fear River. In fact, salinity levels greater than 7 ppt may be harmful to shortnose sturgeon (Smith et al. 1992). Salinity levels in the vicinity of the intake canal remain well above this during most of the year, except for late winter/early spring when shortnose sturgeon are moving upriver from foraging areas for spawning (i.e., in a direction away from the intake canal). In addition, the intake canal withdraws water from the upper layers of the ship's channel while shortnose sturgeon remain near the bottom. No shortnose sturgeon have ever been collected at the BSEP during 25 years of biological monitoring. A few Atlantic sturgeon have been impinged. An average of 42 Atlantic sturgeon were impinged per year from 1975 through 1982. Since the diversion structure was completed in 1982, no Atlantic sturgeon have been collected during impingement sampling. Should a sturgeon enter the intake canal via a damaged diversion screen, a continuously operating fish return system is designed to return impinged organisms alive back to the Cape Fear River. CP&L agrees that in the event of an incidental take of a shortnose sturgeon, immediate notification, followed by a request for formal consultation to address the take, is appropriate.

- 5) Page 16, First paragraph: Is the statement "... and 1 (lethal or live) leatherback or hawksbill sea turtle..." intended to mean a total of one take (i.e., lethal or live) or a total of one for each species? CP&L recommends that this statement be clarified.

CP&L noted that the proposed takes for green and Kemp's ridley sea turtles are below the levels of takes in previous years. In 1995, six live green sea turtles were taken compared to the proposed limit of five. In 1997, three lethal takes of Kemp's ridley sea turtles were documented compared to a proposed limit of two. Since 1993 the general trend has been an increase in the numbers sea turtles, including green and Kemp's ridley taken in the intake canal. CP&L questions whether these lower numbers in the proposed incidental take statement are necessary to protect the species.

- 6) Page 16, Section VII, item 1. first sentence: *"BSEP shall conduct daily sea turtle patrols to inspect intake trash racks as near to low tide as possible during the period from late April through August."*

CP&L's Biological Assessment used the term daily in describing the frequency of this patrol with modifiers to generalize the term daily as exceptions are required to support tidal, weather, and weekend personnel schedules. CP&L recommends the statement changed to replace "shall conduct daily" with "shall generally be conducted daily" or other modifier to support a more accurate representation of CP&L's actions.

- 7) Page 16, Section VII, item 2: *"Plant personnel will inspect the diversion structure each spring to ensure its integrity. The inspection will include a subsurface check by divers."*

CP&L recommends "each spring" be changed to "each year prior to the turtle season," as the start of spring is in the month just prior to the turtle season.

- 8) Page 16, Section VII, item 4: CP&L's general concern with this requirement paragraph is that these actions are currently implemented to support North Carolina (NC) issued Endangered Species Permit requirements or as requested by the NC Sea Turtle Coordinator. There are also actions required of third parties for which CP&L may have limited control.

a) *"Once a turtle is sighted, plant environmental personnel will attempt to capture the turtle. Live turtles will be photographed, tagged, and released in the surf at Yaupon Beach, NC."*

While currently turtles are released at Yaupon Beach, CP&L recommends this requirement be modified to add at the end of the statement "or other surrounding area beaches as determined through consultation with the NC Sea Turtle Coordinator."

b) *"Injured sea turtles will be taken to a veterinarian or, if severely injured they are to be taken to the NC Sea Turtle Coordinator."*

CP&L currently uses an available veterinarian when it is felt such attention is warranted and the veterinarian is available. CP&L would like this statement modified to, "CP&L will make appropriate efforts to obtain medical treatment, including veterinarian services as warranted, for turtle injuries. If severely injured, the NC Sea Turtle Coordinator will be consulted for determining appropriate action."

c) *"Dead turtles will be removed from the canal, photographed, and a necropsy will be performed."*

CP&L recommends the statement "necropsy will be performed" be modified to "necropsy or other action be performed as determined by the NC Sea Turtle Coordinator."

- 9) Page 16, Section VII, item 5: *"If any listed species are apparently injured or killed in the intake canal, or the diversion structure or the track racks, a report, summarizing the incident, must be provided to the NMFS Southeast Regional Office by the following business day."*

The immediate notification for shortnose sturgeon incidental takes is addressed in the last paragraph on Page 15 and in CP&L's comment number four. CP&L recognizes the need for prompt involvement with NMFS, but not for turtles within the proposed incidental take limits. As a condition of CP&L's State of North Carolina issued Endangered Species Permit, CP&L must contact the North Carolina Wildlife Resources Commission's Sea Turtle Stranding Coordinator, or Coastal Nongame Project Leader, within twenty-four hours of each stranding event. Also, CP&L is to provide the North Carolina Wildlife Resources Commission's a Sea Turtle Stranding And Salvage Network - Standing Report, which is forwarded to the NMFS - Miami lab. This notification for takes within the incidental take limits should be adequate without any additional report to the NMFS Southeast Regional Office. CP&L recommends deleting this reporting requirement, and particularly the statement "by the following business day."

- 10) Page 16, Section VIII, Conservation Recommendations

It is CP&L's understanding that the implementation of these recommendations is not a requirement of the Incidental Take Statement. CP&L has carefully reviewed these recommendations and provides the following comments:

- a) *"1. BSEP should conduct inspections of the diversion structure, to ensure the structure's integrity, to include subsurface inspections at least twice during the time between late April through August and one time outside that time period."*

Plant personnel will inspect the diversion structure each year prior to the turtle season to ensure its integrity. The inspection will include a subsurface check by divers. The design of the diversion structure is such that limited value is provided by additional inspections below the water. The majority of the critical components are movable screen panels which can be completely removed from the water during routine inspection and cleaning activities. Significant portions of the fixed panels can be inspected at low tide to determine their integrity. With the ability to perform panel inspections from above, the annual underwater inspection is considered adequate.

- b) *"2. BSEP should monitor the trash racks, canal and diversion structure for signs of shortnose sturgeon."*

BSEP's environmental personnel are aware of the need to monitor for shortnose sturgeon on their tours of the intake canal structures. This along with the impingement studies of the intake canal is considered adequate monitoring for shortnose sturgeon.

c) "3. BSEP should contact the Fisheries Department of the University of North Carolina - Wilmington on at least a yearly basis to determine if shortnose sturgeon have been tracked near the area of the intake canal."

Discussion with University of North Carolina - Wilmington (UNCW) indicated a limited future program which will focus on the areas of the upstream river near Wilmington, NC. CP&L does contact available outside experts as part of an annual self assessment of endangered species in the area. UNCW is recognized as an appropriate contact in this area.