



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

OCT 04 1999

SERIAL: BSEP 99-0114

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  
SUPPLEMENT TO BIOLOGICAL ASSESSMENT OF IMPACT TO SEA TURTLES AT  
CAROLINA POWER & LIGHT COMPANY'S BRUNSWICK STEAM ELECTRIC PLANT

Gentlemen:

On September 14, 1999, a meeting was held at the Brunswick Steam Electric Plant, with the NRC, National Marine Fisheries Service (NMFS), the North Carolina Sea Turtle Coordinator, and CP&L to discuss the operation of the intake canal. In Enclosure 1, in accordance with your request, CP&L is supplementing the biological assessment provided by CP&L's letter dated January 26, 1998, to provide updated data for 1998 and 1999. For purposes of clarity, the table includes data from 1994 to the present. Also included are other comments noting significant differences between the draft biological opinion provided to CP&L during the consultation process and the information reflected in the April 30, 1999, NMFS biological opinion. Enclosure 2 provides pictures of the intake canal at the diversion structure during high tide conditions when dead sea turtles (i.e., whose death was not caused by canal operations) have washed into the canal.

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

NRC Enclosure 1

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GMT

Enclosures:

1. Supplemental Data and Comments
2. Intake Canal Pictures

cc (with enclosures):

U. S. Nuclear Regulatory Commission, Region II  
ATTN: Mr. Luis A. Reyes, Regional Administrator  
Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, GA 30303-3415

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Theodore A. Easlick, NRC Senior Resident Inspector  
8470 River Road  
Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Allen G. Hansen (Mail Stop OWFN 8G9)  
11555 Rockville Pike  
Rockville, MD 20852-2738

Ms. Jo A. Sanford  
Chair - North Carolina Utilities Commission  
P.O. Box 29510  
Raleigh, NC 27626-0510

Mr. Mel Fry  
Director - Division of Radiation Protection  
North Carolina Department of Environment and Natural Resources  
3825 Barrett Drive  
Raleigh, NC 27609-7221

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-325 AND 50-324

LICENSE NOS. DPR-71 AND DPR-62

SUPPLEMENT TO BIOLOGICAL ASSESSMENT OF IMPACT TO SEA TURTLES AT  
CAROLINA POWER & LIGHT COMPANY'S BRUNSWICK STEAM ELECTRIC PLANT

Supplemental Data And Comments

Update of Sea Turtle Incidental Take Data

The following table summarizes data related to turtle species, for the period from January 1, 1994, through September 22, 1999. The table updates the data provided in the January 26, 1998, biological assessment and the relationship of such data to biennial take numbers included in the April 30, 1999, National Marine Fisheries Service (NMFS) biological opinion.

History of Limiting Turtle Species Takes						
	1994	1995	1996	1997	1998	1999 (To 9/22/99)
<b>Biological Opinion/Incidental Take Statement Biennial Take Level Met or Exceeded</b>  (Species and Applicable Take t = # total, d = # dead)	<b>Yes</b> (Greens 8t)		<b>Yes</b> (Kemp 3d/10t)		<b>Yes*</b> (Kemp 2d)	
		<b>Yes</b> (Greens 2d/10t, Loggerhead 56t)		<b>Yes</b> (Kemp 3d/10t)		<b>Yes*</b> (Kemp 2d)
<b>Species (Biennial Level)</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999 (To 9/22/99)</b>
Greens (Dead 2)	0	1	1	0	0	0
Greens (Total 5)	1	7	3	0	2	0
Kemp (Dead 2)	0	0	0	3	0	2
Kemp (Total 8)	0	1	4	6	4	3
Leatherback/Hawksbill (Total 1)	0	0	0	0	0	0
Loggerhead (Dead 6)	0	2	2	1	1	2
Loggerhead (Total 50)	4	14	42	7	7	7

\* Biennial level already reached for dead Kemp's ridley turtles.

The incidental take numbers in the table above include both causal takes (i.e., takes attributable to intake canal operations) and non-causal takes (i.e., takes that are not a result of intake canal operations). During high tide conditions, live sea turtles have been able to enter the intake canal over the marshes adjacent to the diversion structure and dead sea turtles (i.e., whose death was not caused by intake canal operations) have washed over the marshes adjacent to the diversion structure and into the intake canal. Enclosure 2 provides pictures of the intake canal at the diversion structure during high tide conditions. In addition, some sea turtles, both live and dead, enter the intake canal through diversion screen blowouts. Non-causal determinations are made by CP&L and the North Carolina Sea Turtle Coordinator based on the condition of the turtle (e.g., severely decayed, wound conditions, etc.) and the location where the turtle has been found. CP&L believes the Incidental Take Statement and the biological opinion should reflect a categorization for non-causal takes. However, the subcategorization for non-causal takes should not reduce the take numbers in the Incidental Take Statement and the biological opinion. In fact, as demonstrated by the information in the table above, the overall number of takes should be increased.

Comment 1:

Section VIII, "Incidental Take Statement," Item 6 in the April 30, 1999, biological opinion states:

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 of Protected Resources.

CP&L's comments regarding the draft biological opinion, submitted by letter dated February 10, 1999 (Serial No. BSEP 99-0023), discussed CP&L's concerns regarding the need for prompt involvement of NMFS for turtle takes within the incidental take limits. While Section VIII, Item 6 of the April 30, 1999, biological opinion has been changed from notification "by the following business day" to "within 14 days," the stipulation still does not fully address CP&L's prior comment. Specifically, as a condition of the Endangered Species Permit issued to CP&L by the State of North Carolina, CP&L is required to contact the North Carolina Wildlife Resources Commission's Sea Turtle Stranding Coordinator, or Coastal Nongame Project Leader, within 24 hours of each stranding event. Also, CP&L is required to provide a Sea Turtle Stranding and Salvage Network Stranding Report to the North Carolina Wildlife Resources Commission. A copy of this report is forwarded by the North Carolina Wildlife Resources Commission to the Miami laboratory of NMFS. CP&L reiterates its position that this notification process is adequate and that an additional report to the NMFS Southeast Regional Office is unnecessary. CP&L requests that this stipulation be removed from the biological opinion.

Comment 2:

In the April 30, 1999, biological opinion, Section VIII, "Incidental Take Statement," Item 7 stipulates a new annual report consisting of the records of all sea turtle takings, recorded by species, size, and time of the year taken. This stipulation was not included in the Section VII of the February 10, 1999, draft biological opinion. As noted in Comment 1 above, CP&L believes the individual reports of incidental takes should be sufficient and that an annual report of

incidental take information is duplicative and unnecessary. CP&L requests that this stipulation be removed from the biological opinion.

Comment 3:

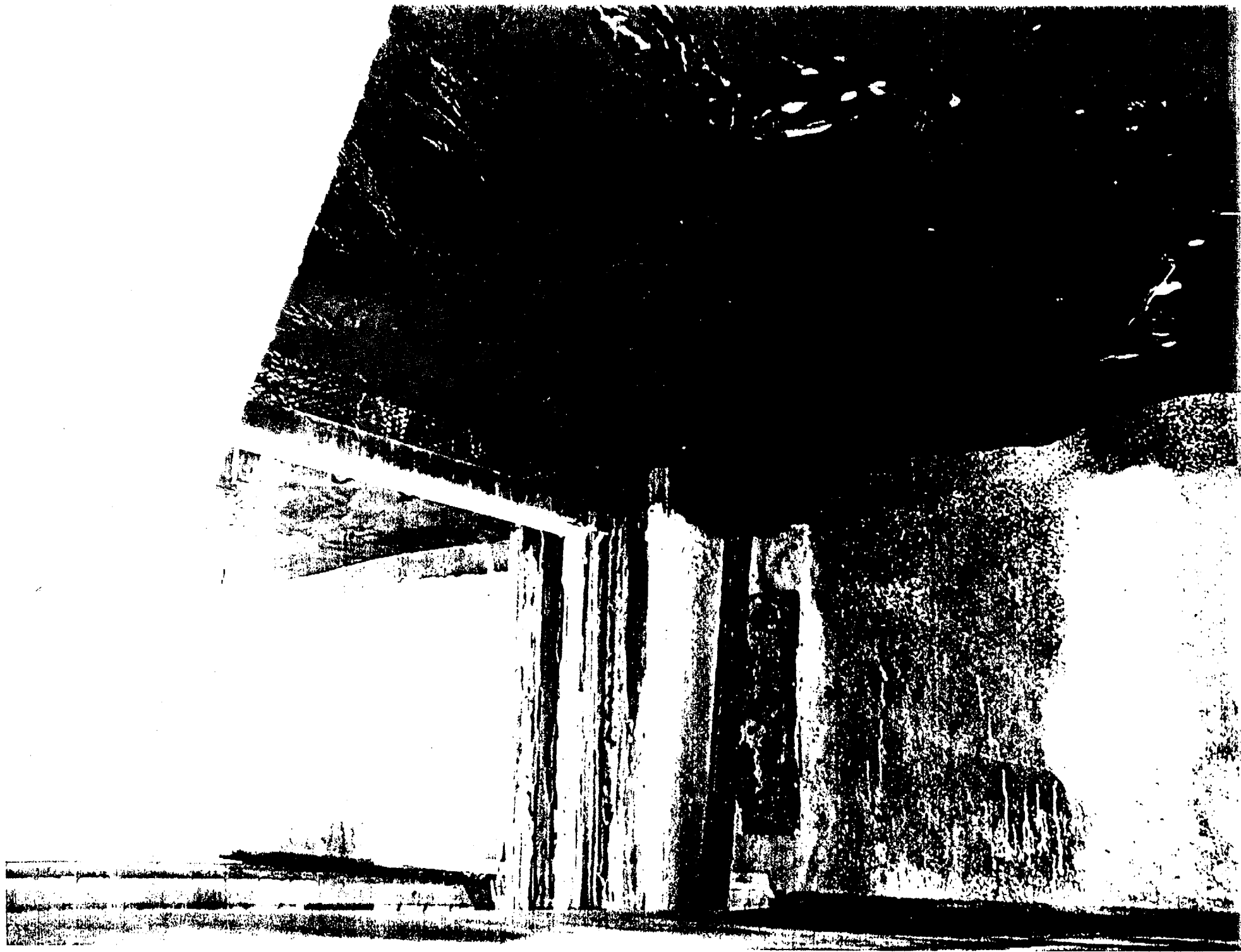
In the April 30, 1999, biological opinion, Section IX, "Conservation Recommendations" includes a new conservation recommendation not included in the Section VIII of the February 10, 1999, draft biological opinion. The new recommendation states that "BSEP should conduct tissue sampling for the genetic identity of turtles interacting with the plant's cooling water intake system." We believe this requirement is an unwarranted request and request its deletion from the biological opinion.

ENCLOSURE 2

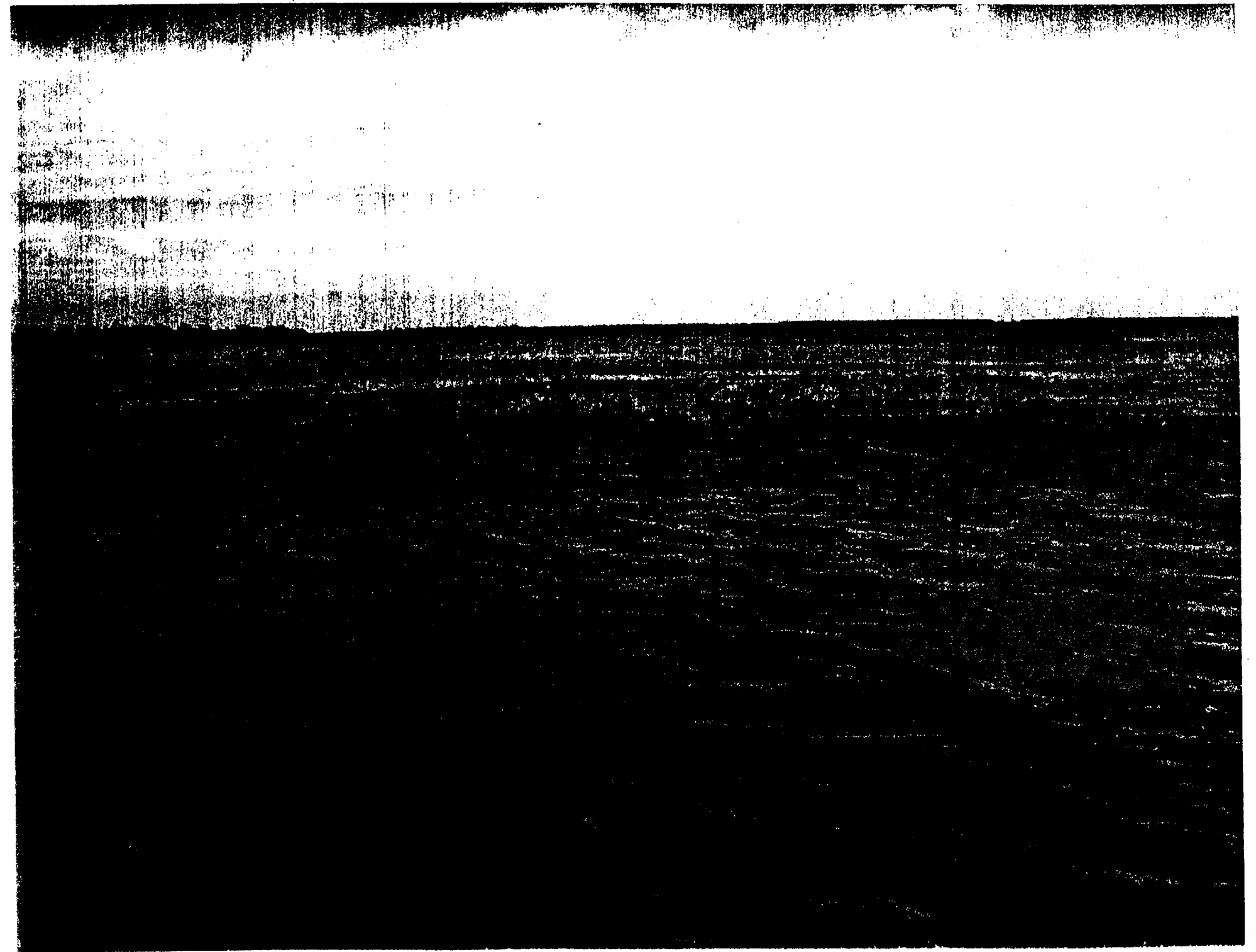
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Intake Canal Pictures  
(Four Pictures of Intake Canal  
at the Diversion Structure)











NRC COMMENTS ON THE CP&L SUPPLEMENTAL INFORMATION  
TO THE BIOLOGICAL OPINION ON THE IMPACTS OF SEA TURTLES AT THE  
BRUNSWICK STEAM ELECTRIC PLANT

**CP&L Comment on Incidental Take Numbers:** "CP&L believes the Incidental Take Statement and the biological opinion should reflect a categorization for non-causal takes. However, the subcategorization for non-causal takes should not reduce the take numbers in the Incidental Take Statement and biological opinion. In fact, as demonstrated by the information in the above table, the overall number of takes should be increased." (Page E1-2 of Enclosure 1, first paragraph)

**NRC Response:** The NRC staff agrees with the idea of a categorization for non-causal takes and that the categorization of the non-causal takes should not reduce the take numbers in the Incidental Take Statement. Non-causal takes, by definition, imply fatalities due to activities outside of plant operation (*i.e.*, no fault by the Brunswick Steam Electric Plant). The plant has no control over activities outside the diversion structure (*i.e.*, sea turtles may be affected by human activities throughout their migratory range [Biological Opinion, dated April 30, 1999, page 17, fourth paragraph]) and, effectively, has no means to minimize the non-causal mortalities outside the diversion structure. Because CP&L has no practicable means to control the amount of non-causal mortalities, the staff feels that CP&L should be required to report only the number of non-causal mortalities and *not* be limited to a set number of non-causal takes. Nevertheless, the NRC recognizes the NMFS view articulated at the September 14, 1999, meeting, that the non-causal take limit cannot be unbounded. Perhaps it would be prudent to explore a potential relationship with the North Carolina Sea Turtle Program before finalizing any limit. NRC would be available to participate in a teleconference on this issue.

The NRC staff recommends that the historical plant data on the number of turtles captured be used as a basis for determining the new take numbers. The Brunswick plant has reached the limits of its current Incidental Take Statement and the staff cannot envision any additional reasonable and prudent measure CP&L could implement to further reduce the number of turtle mortalities at Brunswick. Therefore, the take numbers should be increased appropriately.

**CP&L Comment 1:** *Request to delete the requirement providing a summary report to NMFS within 14 days. (Page E1-2 of Enclosure 1, second paragraph)*

**NRC Response to Comment 1:** NRC does not foresee difficulty with adding the NMFS Southeast Regional address to the carbon copy list, as the plant is already required to provide a report to the North Carolina Wildlife Resources Commission. However, the NRC staff notes that the submittal of two separate reports, assuming the NMFS lab in Miami forwards the report from the North Carolina Wildlife Resource Commission to the Southeast Regional office in St. Petersburg, could lead to confusion with two reports being submitted for the same event and would be an unnecessary administrative burden.

**CP&L Comment 2:** *Request to delete the requirement to provide annual reports of incidental take information to NMFS. (Page E1-2 of Enclosure 1, third paragraph)*

**NRC Response to Comment 2:** The NRC staff concludes that submittal of individual reports to NMFS (in accordance with Section VIII, Item 6, and discussed in the above comment) is sufficient. If summary information is needed by the NMFS, the NMFS has the individual report information available to draw those summaries.

**CP&L Comment 3:** *Request to delete the requirement to conduct tissue sampling. (Page E1-3 of Enclosure 1, first full paragraph)*

**NRC Response to Comment 3:** The NRC understands from the September 14, 1999 meeting, that the plant personnel currently take tissue samples; therefore, the NRC staff does not see this requirement as unduly burdensome. It could prove beneficial by providing subspecies and population information. However, further clarification of procedures and protocol for tissue sampling should be provided before the requirement is imposed on the licensee.