

**AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL  
(TEMPORARY FORM)**

1909

CONTROL NO: \_\_\_\_\_

FILE: ENVIRON

**FROM:**  
Carolina Power & Light Company  
Raleigh, N.C. 27602  
J.A. Jones

**DATE OF DOC**  
  
3-6-74

**DATE REC'D**  
  
3-7-74

**LTR**  
  
x

**MEMO**

**RPT**

**OTHER**

**TO:**  
J.F. O'Leary

**ORIG**  
1 signed

**CC**  
**OTHER**

**SENT AEC PDR**      **XXX**  
**SENT LOCAL PDR**    **XXX**

**CLASS**    **UNCLASS**    **PROP INFO**  
              XXX

**INPUT**

**NO CYS REC'D**  
1

**DOCKET NO:**  
50-261

**DESCRIPTION:**  
Ltr adv of the schedule for info concern the  
Environ Report..... trans the following...

**ENCLOSURES:**  
EPA Ltr dtd 2-14-74.  
  
(1 cy encl rec'd)

**PLANT NAME:**      H.B. Robinson

**ACKNOWLEDGED  
DO NOT REMOVE**

FOR ACTION/INFORMATION

3-7-74

JB

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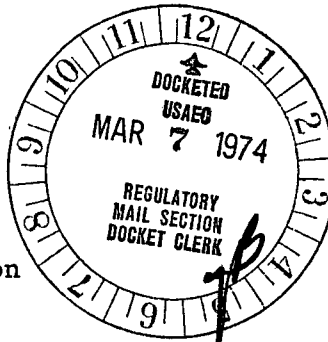
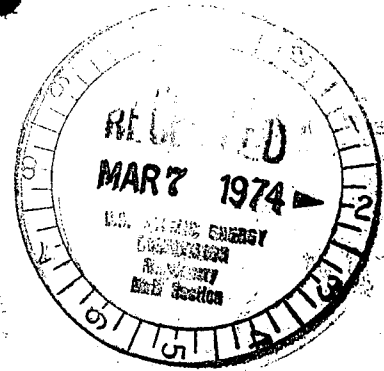
**EXTERNAL DISTRIBUTION**

✓ 1 - LOCAL PDR <u>Hartsville, S.C.</u> 1 - DTIE(ABERNATHY) 1 - NSIC(BUCHANAN) 1 - ASLB(YORE/SAYRE/ WOODARD/"H" ST. 16 - CYS ACRS HOLDING	(1)(2X10) NATIONAL LAB'S 1-ASLBP(E/W Bldg, Rm 529) 1-W. PENNINGTON, Rm E-201 GT 1-CONSULTANT'S NEWMARK/BLUME/AGBABIAN 1-GERALD ULRIKSON...ORNL	1-PDR-SAN/LA/NY 1-GERALD LELLOUCHE BROOKHAVEN NAT. LAB 1-AGMED(Ruth Gussman) RM-B-127, GT. 1-RD..MULLER..F-309 GT
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**CP&L**

Carolina Power &amp; Light Company

March 6, 1974



Mr. John F. O'Leary  
Directorate of Licensing  
Office of Regulation  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

RE: DOCKET NO. 50-261

Dear Mr. O'Leary:

On February 25, 1974, Mr. Wm. H. Regan, Jr., Chief, Environmental Projects, Branch 4, transmitted to CP&L a request for the CP&L schedule of evaluation of the Robinson once-through cooling system. Mr. Regan indicated that results of the evaluation are required by March 8, 1974 in order to issue the Final Environmental Statement in April of this year, and requested that a target date for completion of the studies be submitted if the March 8 date was not feasible.

Carolina Power & Light Company is proceeding with several different evaluations of the once-through cooling system and its compatibility with South Carolina Water Quality Standards. These evaluations pursue several diverse paths and, as such, completion of the evaluations may not occur simultaneously. Initial studies indicate that a "topping" mechanical draft cooling tower installation located on the discharge canal between the unit and the point of discharge into the impoundment might be the most feasible alternative, should supplementary cooling be necessary. We have discussed this matter with representatives of the Regional Office of the Environmental Protection Agency, which Office has suggested that application be made for a Section 316(a) exemption, as is discussed in the attached letter to us from the Regional Office dated February 14, 1974. Further, the State of South Carolina previously has certified as to the qualification of the impoundment for purposes of State stream temperature standards. It is expected that the use of the type of "topping" mechanical draft tower under consideration would permit utilization of the reservoir as an "impoundment" for cooling purposes and at the same time ensure compliance with applicable Federal and state standards below the point of discharge from the impoundment into

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Mr. John F. O'Leary

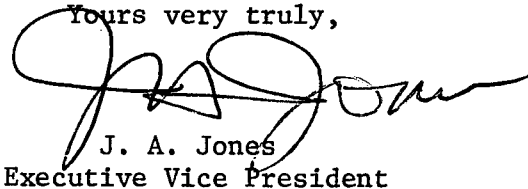
- 2 -

March 6, 1974

Black Creek. Based on the information available at this time, we anticipate that the conceptual plans, engineering feasibility studies, and preliminary cost estimates will be completed by April 15, 1974. Subsequent to the completion of this evaluation and filing with your office, it is planned to apply for the 316(a) exemption, a copy of which application will be transmitted to you.

We hope this schedule is amenable to the needs of your staff in preparing the Final Environmental Statement for H. B. Robinson Unit No. 2.

Yours very truly,

A handwritten signature in dark ink, appearing to read 'J. A. Jones', is written over the typed name and title.

J. A. Jones  
Executive Vice President

JAJ/clh  
Attachment



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

1421 PEACHTREE ST., N. E.  
ATLANTA, GEORGIA 30309

FEB 14 1974

CERTIFIED/RRR

Mr. E. E. Utley  
Manager, Generation & Systems Operation  
Carolina Power and Light Company  
Raleigh, North Carolina 27602

RE: H.B. Robinson Plant  
APP. NO.: SC 074 3BK 2 000426

Dear Mr. Utley:

In accordance with the Federal Water Pollution Control Act Amendments of 1972, we are nearing the final stages of processing your application for a permit to discharge wastes to navigable waters. To assure that the public notice and the NPDES permit contain current data, please review the above referenced application and, if necessary, update it to reflect current wastewater treatment conditions at the plant.

Our preliminary evaluation of thermal effects indicates that we have insufficient data to assure you that a possibility exists for this facility to qualify for a 316(a) waiver with regard to the thermal component of your discharge. However, if you intend to ask for a 316(a) waiver for this facility, please advise us in your reply. In order to support such a waiver and to develop effluent limitations, monitoring requirements and implementation schedules, the attached additional information and data are required in duplicate and should be mailed within 30 days of receipt of this notification. You may also submit any additional information you have available.

A cover letter signed by the Applicant's Authorized Agent for permit correspondence stating that to his best knowledge the information is accurate, must accompany this additional information.

If you have any questions, please contact me at 404/526-2328.

Sincerely,

Charles H. Kaplan  
Chief, Thermal Analysis Section  
Water Enforcement Branch

Enclosure

CC: S.C. Dept. of Health &  
Environmental Control  
U.S. Atomic Energy Commission

## SUPPLEMENTAL INFORMATION REQUEST

- A. Map of plant area showing in detail the individual points of intake, wastewater production, treatment, and discharge.
- B. Schematic flow diagrams of water use, treatment provided, recycle accomplished, and discharges indicating rates of flow for individual waste streams. Individual waste streams should include, but are not necessarily limited to, the following where applicable:
1. Boiler blowdown
  2. Floor drains
  3. Chemical cleaning of boiler, turbine and other plant equipment (indicate cleaning frequencies)
  4. Coal pile drainage
  5. Ash pond overflow
  6. Oil storage runoff
  7. Intake screen backwash (indicate method of screening disposal)
  8. Water treatment wastes
    - a. Lime-soda softening
    - b. Sedimentation
    - c. Filter backwash
    - d. Demineralizer (ion exchange) regeneration
    - e. Evaporator blowdown
  9. Effluents from air pollution control devices
  10. Sanitary wastes
  11. Cooling system blowdown (circulating, makeup and discharge flows, frequency of discharge, and concentration factor should be indicated)
- C. Provide the following information for your condenser cooling water intake and discharges (by individual units where practical)
1. Mechanism for condenser cleaning
  2. Maximum intake and discharge velocities in the intake pipe or canal, in front of the intake structure, and through the screens should be provided, as well as detailed intake drawings.
  3. Number, capacity and operational schedule of pumps as a function of season of year, plant output, etc.
  4. Retention time in minutes from start of water temperature rise to discharge of cooling water.
  5. Design temperature rise across the condenser and design flow.
  6. Water temperature frequency of occurrence. Indicate temperatures which are exceeded 10% of the year, 5% of the year, 1% of the year and not at all (maximum yearly temperature) for both intake and discharge water.

7. Indicate in the following format any fish or shellfish impinged on the intake screens or other devices.

	Approximate No./Day	Species Predominant Others
Fish, larger than 15 cm (6")		
Fish, smaller than 15 cm (6")		
Shellfish		

If any factors such as time of year, river flow and/or tidal stage, or any other conditions appear to increase or decrease the frequency or size of fish captured, please so indicate

- 8.. Receiving water temperature distribution for each month of the year for average and critical (10-year recurrence) meteorological and hydrological conditions. Isotherm plots, both plan and cross-sectional, and tabulation of acreages down to the 1°C excess temperature in no more than 2°C increments (at least three values should be provided) for maximum expected plant loading. Zones of passage should be identified. Measurement methods, modeling techniques, assumptions, and/or source of calculations should be provided.
- D. Analyses of ash pond discharge, specifically pH, suspended solids, total heavy metals (aluminum, chromium, copper, iron, lead, mercury, and zinc), and other expected pollutants. Analyses as necessary for other discharge(s) not covered in the Refuse Act Permit Program Application.
- E. Area, volume and expected detention period of the ash disposal area; size of tributary area (rainfall runoff), if any; and frequency of cleaning, date of last cleaning, disposition of removed materials.
- F. Listing of chemicals used including amounts and/or concentrations, frequency and purpose. Chemical composition of trade-name chemicals.
- G. Discussion of present and proposed procedures for treatment of equipment cleaning wastes.
- H. Listing of major/important fish and shellfish species in the receiving water body, if available. This list should be compiled from data gathered after Unit 2 came on-line.
- I. Area-Depth-Volume curve for Lake Robinson, if presently available.
- J. Any comparative biological studies of Robinson versus Prestwood Lake.

## THERMAL/BIOLOGICAL INFORMATION REQUEST

Section 316(a) of the Act specifies that any permittee may attempt to demonstrate to the permitting authority that any effluent limitation with respect to the thermal component of a discharge is more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in the receiving waters. Section 316(a) specifically requires an opportunity for a public hearing in order to modify a proposed thermal limit. Although a public hearing will be held upon the request of the applicant or upon a showing of significant public interest, a more expeditious approach is to incorporate biological reports and other information in the review step to determine if the "Best Practical Control Technology Currently Available" can be waived. Should a public hearing be held, the company will be required to present its documentation to substantiate the 316(a) modification.

Although our limited information indicates that this facility may qualify for an exemption, additional data is needed to support a waiver under 316(a).

Please submit any hard data or information available relative to thermally related aquatic affects, including any biological surveys or mathematical models. Additional types of information that may be beneficial could include, but are not necessarily limited to:

- (a) a letter from your resident manager stating whether to the best of his knowledge any fish kills have ever been caused by thermal discharges from your plant.
- (b) statements from State and/or local Government employees familiar with the diversity of the aquatic biota in the area of your discharge.
- (c) a theoretical assessment of effects by a recognized Aquatic Biologist.
- (d) Affidavits from persons familiar with the condition of the receiving water in the vicinity of your discharge prior to and subsequent to the commencement of the thermal component of your discharge, stating their observations of the fish species in the waterway.

Even though the information you obtain and submit may indicate that an exemption is warranted, it will still be necessary to issue a public notice of the proposed waiver and request concurrence from the State. This will be done in conjunction with the notification of proposed issuance of an NPDES Permit for your facility.