

SOUTH CAROLINA ELECTRIC & GAS COMPANY

POST OFFICE BOX 764

COLUMBIA, SOUTH CAROLINA 29218

E. H. CREWS, JR.
VICE-PRESIDENT AND GROUP EXECUTIVE
ENGINEERING AND CONSTRUCTION

August 17, 1979

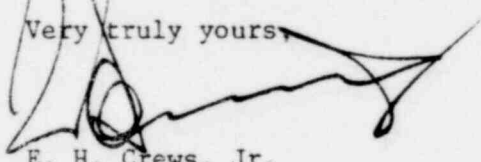
Mr. Don E. Sells, Acting Director
Environmental Project Branch No. 1
Division of Site, Safety & Environmental Analysis
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Virgil C. Summer Nuclear Station
Docket No. 50/395

Dear Mr. Sells:

Pursuant to 10CFR51, South Carolina Electric & Gas Company, acting for itself and as agent for the South Carolina Public Service Authority offers the enclosed comments related to the Draft Environmental Statement for the Virgil C. Summer Nuclear Station dated June 29, 1979.

Very truly yours,



E. H. Crews, Jr.

MBW:EHC:rh

cc: H. T. Babb
G. H. Fischer
W. C. Mescher
W. S. Murphy
W. A. Williams, Jr.
T. B. Conner, Jr.
NPCF/Dixon
File

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COMMENTS - DRAFT ENVIRONMENTAL STATEMENT

Reference:

Page 5-5, Section 5.2.5.1, and
Page G-5, Item I.B.1

The comment included on both of the above referenced pages recommends applicant consider using an alternative method for biomass determination not influenced by suspended solids.

Comment:

Applicant concurs with this recommendation.

Reference:

Page 5-6, Section 5.2.5.3; and
Page G-5, Item I.B.2

The comment included on both of the above referenced pages recommends that the applicant should take ichthyoplankton samples on a monthly basis for the months of October, November, December, and January.

Comment:

The applicant is presently sampling (sampling began for the agencies June, 1978) ichthyoplankton on a weekly basis during each of the months from February through June and bi-weekly during each of the months from July through September. No ichthyoplankton samples are presently being taken during the months of October through January. From the present sampling program, applicant has demonstrated that the current sampling schedule is sufficient for this particular aquatic ecosystem. Results from data collected during the early spring of 1979 showed that larval fish and eggs were first found in samples collected during the first week of April. Sampling was carried out during late February and all of March proceeding April 1979, and no larval fish or eggs were found from those samples. If ichthyoplankton sampling were to be conducted during the period October through January in addition to the present sampling schedule, the results would yield no useful data on spawning characteristics of fish in the study area.

Reference:

Page 5-6, Section 5.2.5.5; and
Page G-5, Item I.B.3

The comments included on both of the above referenced pages recommends that the applicant conduct fish sampling on a monthly basis.

Comment:

The applicant presently is sampling (sampling began for other agencies June, 1978) fish on a quarterly basis. The present sampling

schedule has demonstrated its sufficiency to answer the questions related to this particular program. By sampling quarterly, for fish, adequate representative numbers are collected from all the species on a seasonal basis. These fish are in a relatively closed aquatic system as opposed to a continuous flowing stream. It can be demonstrated that all of the species collected and the populations represented will be in this system and that the present sampling scheme, is adequately sampling these populations. Applicant feels that the data collected during the preoperational program will establish the baseline conditions for Monticello Reservoir. In fact, if sampling were to be conducted monthly there is the possibility that impacts could be created to the fish populations as a result of the sampling efforts.

Reference:

Page 5-12, Section 5.3.5.1; and
Page G-5, Item I.B.5

The comments included on both of the above referenced pages recommends that impingement monitoring be conducted on a weekly basis rather than bi-weekly.

Comment:

Applicant is of the opinion that bi-weekly sampling for impingement monitoring is adequate for this particular aquatic ecosystem. There are no threatened or endangered species of fish found in this area, nor are there any species of special interest, such as species that should move upstream to spawn. Impacts due to impingement are adequately assessed from samples taken every two weeks.

Reference:

Page 5-6, Section 5.2.5.5; and
Page G-5, Item I.B.6

The comments included on both of the above referenced pages recommends that any riverine rotenone be neutralized by the application of an appropriate oxidizing agent to avoid unintentional fish mortalities.

Comment:

Following the rotenone operation, Applicant utilizes an appropriate oxidizing agent, potassium permanganate. The collecting permit issued by the South Carolina Department of Wildlife and Marine Resources stipulates that this procedure be followed.

Reference:

Page G-5, Item II.A

The staff believes after reviewing the applicant's monitoring program that the thermal monitoring procedures as proposed may not

be adequate to consistently and reliably determine compliance with state temperature limits."

Comment:

The staff recommends a sophisticated physical mathematical approach for establishing a predictive means of determining compliance with the state temperature limits that is not acceptable.

Applicant is presently performing extensive thermal surveys of the Monticello Reservoir including continuous monitoring of the water temperature at Stations 17 and 12 to develop a history of temperature variations throughout the entire volume of the reservoir prior to operation of the Summer Station. This survey work is being performed anticipating the possibility of odd temperature distributions caused by the operation of the Fairfield Pumped Storage and influence of weather conditions. When the Summer Station begins operation, these tests will enable the Applicant and the State of South Carolina to objectively determine any changes required to the State's temperature monitoring requirements.

Reference:

Page 4-5, Section 4.4.1.2, 3rd Paragraph

"Judging from the information and assumptions given in Section 2.5.1.1, the impacts of proposed maintenance procedures on proposed endangered or threatened plant species (if present) are likely to be significant. Specifically, *Draba aprica* (proposed as endangered), *Helianthus schweinitzii*, *Rhus michauxii*, *Isoetes melanospora*, *Platanthera flava*, and *Echinacea laevigata* (proposed as threatened) occur in open fields as well as forest and therefore could occur in the rights of way.

Page 4-5, Section 4.4.1.2, 4th Paragraph

"However, plant species within the corridors were already virtually destroyed during clearing of the corridors, and maintenance clearing will not have a significant additional impact."

Page 4-5, Section 4.4.1.2, 3rd Paragraph

"Judging from the information and assumptions given in Section 2.5.1.1, the impacts of proposed maintenance procedures on proposed endangered or threatened plant species (if present) are likely to be significant. Specifically, *Draba aprica* (proposed as endangered), *Helianthus schweinitzii*, *Rhus michauxii*, *Isoetes melanospora*, *Platanthera flava*, and *echinacea laevigata* (proposed as threatened) occur in open fields as well as forest and therefore could occur in the rights of way.

Page 5-2, Section 5.2.4.2

"Considering the information in Sections 2.5.1.2 and 4.4.1.2, the staff requires that the applicant submit an in-depth terrestrial survey

of the area along the transmission corridors that will be subject to broadcast spraying of herbicides. This survey will determine the presence of the important plant species discussed in Sections 2.5.1.1 and 4.4.1.2."

Page 8-2, Section 8.2.5

"Terrestrial biotic impacts of maintaining the transmission lines associated with the Summer Station are expected to be minimal if broadcast spraying of herbicides is eliminated from the maintenance procedures (Section 4.4.1.2).

Comment:

The applicant contends (1) that the broad assumptions of the staff of existence of proposed endangered or threatened species is unjustified and, (2) that the requirement for the applicant to submit an in-depth terrestrial survey along the routes of the Summer Station transmission corridors is unjustified for the following reasons:

1. Dr. D. A. Rayner, Field Botanist for the South Carolina Wildlife Department Heritage Trust Program, confirmed the same fact stated in your report in Section 2.5.1.1 that there was only one plant species (*Trillium ersistens*) on the endangered list when your report was written. Dr. Rayner stated that only one more species (*Sagittaria fasciculata*) has been added since the writing of your report. Both species are found in the upper areas of the State and are not impacted by Applicants transmission corridors.
2. Dr. Rayner affirmed the fact that the six species listed in Section 4.4.1.2, paragraph four (4), are all proposed; but, are not listed. In regards to these six (6) listed species, the applicant has these comments:
 - A. *Draba aprica* (proposed as endangered) is only found in South Carolina in shallow soils around granite outcrops. The habitat given in Table 2.8 of Section 2.5.1.1 by small is incorrect. This species is found in clearings in Arkansas, Missouri, and Oklahoma. The fact that this species occurs in open clearings and woods in these three states, is not true for South Carolina and cannot be assumed.
 - B. *Rhus michauxii* (proposed as threatened) is not on any federal register list.
 - C. *Isoetes melanospora* (proposed as threatened) according to State authorities, has never been found in South Carolina.

- D. *Platanthera flava* (proposed as threatened) is so wide spread in South Carolina that it is considered by State authorities as not being rare.
- E. *Helianthus schweinitzii* and *Echinacea laevigata* (proposed as threatened) occur only in dry woods in the Uplands and Piedmont, respectively, in South Carolina. The applicant therefore, insists that four of the six species listed in Section 4.4.1.2 can be eliminated from possible concern (A through D above) and that there is only the remotest of changes that the remaining two species (E above) would ever be impacted.
3. According to the latest data output and county overlays from the South Carolina Wildlife and Marine Resources Heritage Trust Program, which identify locations of endangered plant and animal species in South Carolina, none of the listed species have ever been sited or documented as occurring in any areas affected by the transmission rights of way.
4. Applicant's aerial spraying of transmission rights of way is done under the supervision of a registered forester. Both the Supervisor and Pilot are South Carolina State registered applicators. The herbicide application is done by helicopter at close range and multiple passes with a micro-foil boom which gives an even 0.06 particle size. A consistent large particle size gives a very precise controlled pattern. It has been the Applicant's experience in applying herbicides that the short distance of application and controlled particle size reduces to a minimum any adverse affects of broadcast spraying on plant species outside the rights of way. In 1979 to date, Applicant has had claims on only 2 acres of timber damaged out of 3700 acres sprayed. It is stated in Section 4.4.1.2 that maintenance within the corridors will not have a significant additional impact due to the plant destruction during initial clearing. Applicant ascertains that due to its type of supervised helicopter maintenance, the concern over impact on species outside the specified corridor, which lands are not under the supervision, control or ownership, of the Applicant, are not justified.

Applicant feels that it is clear that the need for a plant species survey outlined in Sections 4.4.1.2 is unwarranted and unjustified, and should be eliminated from the Final Environmental Report, Section 2.5.1.1. Other related sections of the report should be corrected to reflect accurate information.

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