Assistant Secretary of Commerce
Washington, D.C. 20230
Sidney R. Galler

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TO:
Mr. Lester Rogers

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1		

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Ltr re our 12-13-71 ltr...trans the following:

ENCLOSURES:
Ltr & Memo's from DOC, Asst Secretary for Economic Affairs & NOAA furnishing comments on Draft Detailed Enviro Statement for Oconee Unit #1....

(3 cys encl rec'd)

REMARKS:

REFERRED TO	DATE	RECEIVED BY	DATE
J.G. Keppler w/2 cys for ACTION	1-20-72		
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THE ASSISTANT SECRETARY OF COMMERCE
Washington, D.C. 20230

50-269

January 14, 1972

Mr. Lester Rogers, Director
Division of Radiological and
Environmental Protection
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Rogers:

This is in response to your letter of December 13, 1971. We have reviewed the draft detailed statement on the environmental considerations for the Ocenee Nuclear Station, Unit #1 of the Duke Power Company.

In order to give you the full benefit of the Department's analysis, I am enclosing the review comments from the Bureau of Domestic Commerce, the Office of the Assistant Secretary for Economic Affairs and the National Oceanic and Atmospheric Administration.

We hope this information will be helpful.

Sincerely,

Sidney R. Galler

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

Enclosures (10 pages), 3 sets

320

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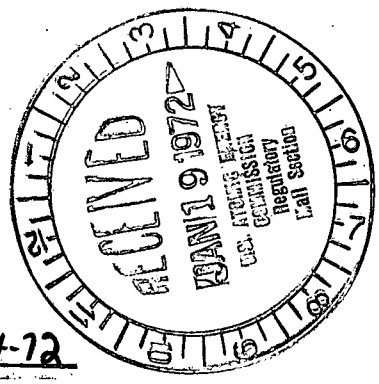
U.S. DEPARTMENT OF COMMERCE
Bureau of Domestic Commerce
Washington, D.C. 20230



December 29, 1971

MEMORANDUM FOR Sidney Galler

From: Edwin B. Shykind EBS

Received w/Ltr Dated 1-14-72

Subject: Comments on Draft Detailed Statement on Environmental Considerations for Oconee Nuclear Station, Unit #1 of Duke Power Company

The need for the electric power to be furnished to this area by the Oconee Plant is corroborated by FPC reports entered in previous statements (p. 45, detailed statement). The reserve power margins for the power pool of which the applicant is a member would be less than 9% in 1973 if the proposed units were not built and operated as planned.

Review of the economic data in this draft detailed statement indicates coverage of the major areas. The economic benefits accruing as a result of the nuclear plant are the electric energy itself with a market value in excess of $100 million, and an annual income benefit of approximately $3 million for the present site.

There appears to be a question with regard to the commodity value (benefit) of the energy available from peak power generation, item 32 of Table X-4. The applicant's supplement indicates (in Table 10) that the annual costs of peaking capacity and energy for the alternative closed-cycle pumped-storage is approximately $17 million. The Table X-4 figure is $26 million with an asterisk indicating that expansion capacity is included. This asterisk is also applied to the Keowee-Toxaway project (subsystem #1) where the approximately $26 million in both Tables X-4 and Table 10 is identical. Either the asterisk does not apply to the pumped storage hydro peaking (subsystem #1), or perhaps the $17 million figure applies for the pumped-storage-at-separate-location subsystem.

The $3 million annual income is composed of approximately $1.7 million for direct operating employee payroll and approximately $1.28 million of secondary income contributions due to tourist-industry generated local increases. The $1.7 million income is stated by the AEC draft detailed statement

(p. 116) to be for 210 operating employees while the figure stated in item 42, Table X-4 is 450 employees. This 450 employee figure appears to be estimated construction employees on the Keowee-Toxaway project in July of 1974 according to the applicants supplement, p. 33.

Table X-4 also contains some approximations for Federal, state and local tax benefits. These figures may or may not include amounts for the real property tax (the text indicates these amounts have not yet been reported). If available, the amounts for these taxes should be included. Environmental effects have been quantified to a larger degree than has historically been true resulting in a better data base from which to form a balanced judgement during review.

There are at least two areas which may deserve future consideration. The areas of concern are those of gaseous radioactive waste treatment and thermal effects (on both fish life and heat capacity) of the facility. The problems relative to gaseous radioactive waste treatment and release can best be resolved by the AEC and EPA. The uncertainties associated with the thermal effects on aquatic biota (especially fish life) and the future heat capacity losses of the water resources possibly could be given some additional consideration as further information becomesavailable from the applicant.

In general, the benefits stated by the applicant appear to considerably outweigh the undesirable environmental aspects for this particular nuclear station. The areas cited above would not be considered particularly major in their impact and conceivably should be adequately resolved without extended effort.

Washington, D.C. 20230

January 11, 1972

Received w/Ltr Dated 1-14-72

MEMORANDUM TO Dr. Sidney R. Galler
Deputy Assistant Secretary for Environmental Affairs

FROM: Robert T. Miki, Senior Economist RM
Office of the Assistant Secretary for Economic Affairs

SUBJECT: Duke Power Company: Oconee Nuclear Station, Unit 1

I have reviewed the environmental report relating to the proposed issuance of an operating license to the Duke Power Company for the Oconee Nuclear Station, Unit 1, and focused particularly on the cost-benefit analysis contained in the report. I have no major substantive comments on the analysis that was made. It is inappropriate in Table X-4, column 4 to include "$30,000 to University Southern California for archeological study" as a benefit.

National Oceanic and Atmospheric Administration
Rockville, Md. 20852

Date : January 12, 1972

To : Dr. S. R. Galler

From : Dr. William Aron

Received 1-14-72

Subject: Comments on Draft Detailed Environmental Statement
Oconee Nuclear Station

NOAA is pleased to transmit the attached comments from the National Weather Service, the Environmental Research Laboratories and the National Marine Fisheries Service.

In summary:

1. Increased incidence of steam fog arising from plant operation should be limited to areas within a few miles of the reservoir receiving the heat load.

2. Our computation of average annual relative concentration of radionuclides at the site boundary is a factor of 2 higher than that of the applicant (we were obliged to consult the Final Safety Analysis Report in order to make this comparison).

3. The use of an average annual diffusion rate for computing site boundary doses is inappropriate, since the waste gas decay tanks and other storage tanks are only intermittently, not continuously purged.

4. In order to round out the radiological monitoring program, we recommend that benthic specimens such as insect larvae and fish eggs be included.

Enclosure

Rec'd 1/12/72
Env. Affairs

1-0 972

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service
Silver Spring, Maryland 20910

Date:

Reply to Attn of: W112x2

Subject: Oconee Nuclear Station Environmental Statement

To: Dr. William Aron, EE

The National Weather Service has reviewed the AEC environmental statement on the Oconee Nuclear Station.

The only environmental impact from a meteorological point of view is the potential increase in steam fog which would result from the warmer reservoir and river waters created by the plant's water discharge from its heat dissipation system. However, we concur with the AEC opinion that this inadvertent impact will be limited to areas within a few miles of the reservoirs.

Perhaps as more nuclear plants are established along and near this watershed, a more thorough evaluation should be made on the cumulative effect this warming could have along the entire river.

George P. Cressman

George P. Cressman
Director, National Weather Service

National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Silver Spring, Maryland 20910

Comments on

Draft Detailed Statement on the Environmental Considerations
for the Oconee Nuclear Station, Unit 1, Duke Power Company
by U.S. Atomic Energy Commission
Dated December 13, 1971

Prepared by

Air Resources Environmental Laboratory
National Oceanic and Atmospheric Administration
December 23, 1971

Although some onsite meteorological data are presented in the latest Draft Statement, no details are given on where (what levels above the ground), for how long, and how the data are categorized. Furthermore, no explanation is given on how these data were used to compute the radiological doses presented in Tables V-3 and VI-2. Apparently, it is assumed that the Final Safety Analysis Report (FSAR) with its various amendments and supplements are available to reviewers. Fortuitously, the Oconee FSAR was available to this NOAA Laboratory as part of its review responsibilities for the AEC, Division of Reactor Licensing. Comments on the FSAR were sent to the AEC on July 29, 1970 and a copy transmitted to the Deputy Ass't. Sec'y. for Environmental Affairs, Dept. of Commerce on March 2, 1971 in response to the first AEC Detailed Statement dated February 3, 1971. Our conclusion in these comments on the FSAR was that sufficiently detailed and appropriate meteorological data had been developed and presented by the applicant that enabled us to compute relative atmospheric diffusion rates for various release periods including a year. Our computation of the average annual relative concentration at the site boundary was a factor of two higher than that of the applicant. However, we reiterate our comments dated 10/29/71 on the first Detailed Statement, namely, that if the radioactive releases are intermittent (like once a month) and at preferred times of day, the use of an annual average diffusion rate is inappropriate. It is stated in Revision No. 1 to the Supplemental Environmental Report for Oconee that "the Reactor Building purge is an intermittent release as is the release of the waste gas decay tanks." The latest Draft Detailed Statement states on page 57 that "the reactor containment is periodically purged . . . and vented to the atmosphere", and that the waste gases from the reactor coolant liquids "are continually collected, compressed, and stored in tanks for radioactive decay."

At this point, we are not confident that an annual average diffusion rate is appropriate in this case.

We have confined our comments to the meteorological aspects of atmospheric transport and diffusion and have not treated other areas of NOAA expertise such as hydrology, seismology, and weather modification effects.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Washington, D.C. 20235

F34

EE - Dr. William Aron, Director
Office of Ecology and Environmental Conservation

Robert F. Hutton
Robert F. Hutton
Associate Director for Resource Management

Received w/Ltr Dated 1-14-72

Oconee Nuclear Station, Unit: Review of Draft Environmental Impact Statement by the National Marine Fisheries Service

The Atomic Energy Commission's draft environmental impact statement on the Oconee Nuclear Power Plant has been reviewed by National Marine Fisheries Service as requested in your memo of December 17, 1971. We offer the following comments for your consideration:

(1) NMFS commented on the previous draft EIS (comments forwarded December 10, 1971).

(2) The Oconee plant is located far inland; therefore, the operation of the power plant probably will not adversely affect marine, estuarine, or anadromous organisms or their habitat, or existing or potential commercial fisheries.

(3) The radiological monitoring program appears to be adequate except for the omission of benthic animals, which should be sampled to insure that the entire ecosystem is monitored adequately.

Attachment

1871 A Century of Fish Conservation 1971

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

National Marine Fisheries Service
144 First Avenue South
St. Petersburg, Florida 33701

te: November 23, 1971

ln reply refer to:
ol: FSE21

ject: AEC Environmental Impact Statements - Oconee Nuclear Station project

Received w/Ltr Dated 1-14-72

To: Acting Associate Director for Resource Management F34
NMFS
Washington, D. C.

As requested in your memorandum dated November 15, 1971, we have reviewed subject Environmental Impact Statement.

It appears that the applicant has given adequate consideration to protection and even enhancement of the environment. However, we do have reservations regarding the monitoring programs. There is no specific mention that the recommendations for a minimum radiological monitoring program, drawn up by the NMFS Atlantic Coastal Fisheries Center (see attachment), will be adhered to. This assurance should be provided by the applicant.

We also share the concern expressed by BSF&W in their October 26, 1971 comments, namely, (1) the applicant provide adequate assurance that facilities to cool the project effluent and otherwise mitigate its pollutional effects to levels that will not cause significant damage to fish and other aquatic life in Keowee Reservoir, the Keowee River, and Hartwell Reservoir can and will be incorporated in the project if demonstrable need occurs; (2) facilities to prevent significant loss of fish and other aquatic organisms by entrapment or entrainment in the cooling water system can and will be incorporated in the project if the need is demonstrated; and (3) the location, design, construction methods, and impact of transmission lines on aquatic resources be identified, and means provided to correct any resultant damage.

There is another problem which may arise during project operation that should be considered and corrective measures provided for. Should an emergency shutdown of plant operations occur during winter months, what will be the effects on aquatic (including benthic) organisms that have been conditioned to unseasonably warmer temperatures? Extensive damage could result with abrupt disruption of an artifically warm environment.

R. T. WHITELEATHER
Regional Director

Attachment

Date: October 12, 1971

Mid-Atlantic Coastal Fisheries Research Center
Beaufort, North Carolina 28516

Reply to Attn of: F15

Subject: Environmental Impact - 19 Nuclear Power Plants

To: Division of River Basin Studies
Bureau of Sport Fisheries and Wildlife
U.S. Department of the Interior
Washington, DC 20240
Attn: Paul Berg

Received w/Ltr Dated 1-14-72

This confirms the information related to you in our phone conversation of October 12, 1971.

The following recommendations for a minimum radiological environmental monitoring program applies to all nuclear power plants and fuel re-processing plants.

I. Frequency of surveys
   A. Pre-operational-- at least one
   B. Post start-up-- one every six months during operation

II. Sampling stations (minimum- 3)
   A. Within 500 feet of effluent discharge point
   B. Down-current, within 1 mile from discharge point
   C. Up-current from discharge point (control)

III. Type of samples, each station
   A. Water
   B. Sediment
   C. Benthic animals (examples: ~~clams, oysters, scallops, crayfish, lobsters, crabs, copepods~~, insect larvae, fish eggs)
   D. Plants (~~examples: kelp, rockweed, marsh-grasses~~)
   E. Fish, including herbivores and carnivores
   F. Waterfowl, if applicable
   G. Other animals feeding upon aquatic life, as deemed necessary

IV. Type of analyses
   A. Gross beta
   B. Gross gamma
   C. Identify nuclides when either of above is significant
   D. Gamma scan
   E. Report results as radioactivity per gram wet weight

John Baptist

JOHN F. BAPTIST
Fishery Biologist

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