

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 5735

FILE: **ENVIRO**

FROM: Duke Power Company Charlotte, N.C. 28201 A.C. Thies			DATE OF DOC 5-23-75	DATE REC'D 5-27-75	LTR XX	TWX	RPT	OTHER
TO: Mr. A. Giambusso			ORIG 3 signed	CC 37	OTHER	SENT AEC PDR <u>XX</u> SENT LOCAL PDR <u>XX</u>		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 40	DOCKET NO: 60-2697270/287			

DESCRIPTION: Ltr notarized 5-23-75 trans the following info re App. B Tech Specs... ENCLOSURES: Replacement Pages for changes to Oconee App. B Tech Specs

(40 cys encl rec'd)

ACKNOWLEDGED

PLANT NAME: Oconee Units 1-2-3

FOR ACTION/INFORMATION

DHL ~~152/295~~ REMOVE

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies
CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	SPETS W/ Copies
KNIEL (L) W/ Copies	PURPLE (L) W/ Copies	YOUNGBLOOD (E) W/ Copies	LICENSING PROJECT MANAGER W/ Copies

INTERNAL DISTRIBUTION

REG FILE (3) NRC PDR (3) OGC, ROOM P-506A GOSSICK/STAFF CASE GIAMBUSO BOYD MOORE (L) DEYOUNG (L) SKOVHOLT (L) GOLLER (L) (Ltr) P. COLLINS DENISE REG ORR FILE & REGION (2) MPIC STEELE	TECH REVIEW SCHROEDER MACCARY KNIGHT PAWLICKI SHAO STELLO HOUSTON NOVAK ROSS IPPOLITO TEDESCO J. COLLINS LAINAS BENAROYA VOLLMER	✓ DENTON GRIMES GAMMILL ✓ KASTNER ✓ BALLARD SPANGLER ENVIRO ✓ MULLER DICKER KNIGHTON YOUNGBLOOD REGAN PROJECT LDR M.A.U. HARLESS	LIC ASST. R. DIGGS (L) H. GEARIN (L) E. GOULBOURNE (L) ✓ P. KREUTZER (E) J. LEE (L) M. MAIGRET (L) S. REED (E) M. SERVICE (L) ✓ S. SHEPPARD (L) M. SLATER (E) H. SMITH (L) S. TEETS (L) G. WILLIAMS (E) V. WILSON (L) R. INGRAM (L)	A/T IND. BRAITMAN SALTZMAN MELTZ PLANS MCDONALD CHAPMAN DUBE (Ltr) E. COUPE PETERSON HARTFIELD (2) KLECKER EISENHUT WIGGINTON
---	---	---	--	--

EXTERNAL DISTRIBUTION

✓ LOCAL PDR <u>Walhalla, S.C.</u>	✓ NATIONAL LABS ORNL	1 - PDR-SAN/LA/NY
✓ TIC (ABERNATHY) (1)(2)(10)	1 - W. PENNINGTON, Rm E-201 GT	1 - BROOKHAVEN NAT LAB
✓ NSIC (BUCHANAN)	1 - CONSULTANTS	1 - G. ULRIKSON, ORNL
1 - ASLB	NEWMARK/BLUME/AGBABIAN	1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
1 - Newton Anderson		1 - J. D. RUNKLES, Rm E-201 GT
✓ ACRS HOLDING/SENT		

DUKE POWER COMPANY

Regulatory Docket File

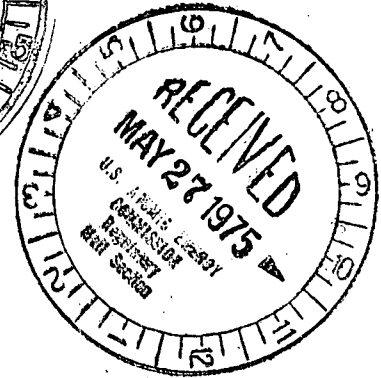
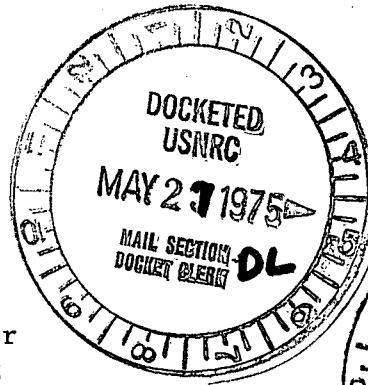
POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28201

A. C. THIES
SENIOR VICE PRESIDENT
PRODUCTION AND TRANSMISSION

P. O. Box 2178

May 23, 1975



Mr. Angelo Giambusso, Director
Division of Reactor Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Mr. Giambusso:

Pursuant to 10 CFR 50.90, changes to the Oconee Nuclear Station Appendix B Technical Specifications, as shown on the attached replacement pages, are hereby requested. A summary of the proposed changes, and a justification for each, is presented below:

1. It is requested that Specification 1.3.1.A, "Water Quality," be changed such that the temperature, dissolved oxygen and BOD sample depths are altered and are specified in meters rather than feet. This will provide data which is more compatible with investigations initiated by Duke and other research groups. In addition, the depths will be expressed in the presently accepted scientific units.
2. It is requested that the sampling locations in Specification 1.3.4, "Phytoplankton-Zooplankton Receiving Water Studies," be changed. Presently the geographical location of two points along the center-line of the Keowee River arm of Lake Keowee is determined each sampling period and represents the points at which the plume surface temperature is 0.9 and 0.5 of the temperature excess of the discharge over ambient surface temperature. It is extremely difficult to remain at the points where the 0.9 and 0.5 temperature excesses over ambient surface temperature are located. Fixed points will permit better comparison between thermally affected stations as well as facilitate sampling. Data supporting this request is presented in the Oconee Nuclear Station Semiannual Reports for the periods ending June 30 and December 31, 1973 and June 30 and December 31, 1974.

5735

Mr. Angelo Giambusso
Page 2
May 23, 1975

3. It is requested that Specification 1.3.5, "Benthos," be changed such that the Keowee River below the Keowee Dam be referred to as Lake Hartwell. Also, a change of sampling stations from 605 to 606 is requested as it is impossible to sample safely and effectively at 605 because of the very compact nature of the bottom material and the periodic swift currents. Data supporting this recommendation are presented in the Oconee Nuclear Station Semiannual Reports for the periods ending June 30 and December 31, 1973 and June 30 and December 31, 1974.
4. It is requested that Specification 1.6, "Plume Mapping for Temperature and Dissolved Oxygen" be changed to delete the requirement for sampling on a seasonal basis. The conditions during which a sample is required are specified and these studies will not be strictly on a seasonal basis. Therefore, the reference to a "seasonal basis" is unnecessary.

The data required by Appendix B, Technical Specifications are reported on a semiannual basis. It would be appropriate to make these changes at the beginning of the next reporting period. Therefore, it is requested that you review and approve these proposed changes by July 1, 1975.

Very truly yours,



A. C. Thies

ACT:vr

Attachment

Mr. Angelo Giambusso
Page 3
May 23, 1975

A. C. THIES, being duly sworn, states that he is Senior Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this request for amendment of the Oconee Nuclear Station Technical Specifications, Appendix B to Facility Operating Licenses DPR-38, DPR-47 and DPR-55; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

A. C. Thies

A. C. Thies, Senior Vice President

ATTEST.

John C. Goodman, Jr.

John C. Goodman, Jr.
Assistant Secretary

Subscribed and sworn to before me this 23rd day of May, 1975.

Edna B. Farmer

Edna B. Farmer
Notary Public

My Commission Expires:

October 24, 1977

1.3.1 WATER QUALITY

Specification:

- A. Synoptic water quality surveys at nine (9) sampling stations on Lake Keowee, four (4) stations on Lake Hartwell, and a station on the Keowee River between the lakes shall be conducted. Sampling locations are shown on Fig. 1.3-1 and Fig. 1.3-2, and required sampling parameters are listed in Table 1.0-1.

Temperature and dissolved oxygen measurements shall be made at 0.3, 1.5, 5.0, 6.5, 8.0, 10.0 meters and thereafter every 2.5 meters to one meter off the bottom for lake samples. BOD measurements on Lake Keowee shall be taken at 0.3 meters, 3.0 meters and bottom depths. BOD measurements on Lake Hartwell shall be made on samples which are a composite of water from 0.3 meters, mid-depth and bottom depths. All other specified parameters shall be measured at a minimum of three depths for each lake sampling station. At sampling station 605 (Figure 1.3-2), the Keowee River shall be sampled from 0.3 meters.

Dissolved oxygen will also be measured weekly from May through November at three locations: (1) the Oconee discharge, (2) the lake surface (0.3 meter depth) the Keowee intake structure, and (3) the Keowee tailrace during hydroelectric plant operation.

- B. Water temperature recording stations shall be established at stations 502, 503, and 504. Temperature shall be monitored in a multi-point vertical profile, accurate to 0.5° C. Sensors shall be placed at a depth of 0.3 meters below the surface, on the bottom, and at a minimum of six (6) intervals to describe the temperature profile.

A fourth temperature recording station shall be established to monitor the waters discharged from Lake Keowee through the Keowee Hydro Plant.

Bases:

Water quality measurements will be used to: (1) establish base line data, (2) determine effects from Oconee Nuclear Station on the water quality and, (3) provide supporting data for the benthos, plankton, periphyton, and fish sampling programs.

1.3.4 PHYTOPLANKTON - ZOOPLANKTON RECEIVING WATER STUDY

Objective: The species composition and numbers of organisms per unit volume obtained by sampling at stations affected by the discharge plume will be compared to similar data collected at control stations.

Specification: Bimonthly sampling (6 times/yr.) shall be done at Stations 500, 503, 505, 506, 509.5 (intake structure), 508 (discharge cove), and 508.5 (approximately midway between 508 and 504). The latter two stations shall be geographically fixed points used to examine for cooling water effects.

Both whole water samples and samples concentrated using a plankton net will be collected. The sampling at stations affected by the discharge shall consist of samples taken at water depths, both affected and not affected by the plume. At the control stations, samples will also be taken at these corresponding depths.

Basis: Stations 500 and 506 will serve as controls. Stations 503, 505, discharge stations as stated, and at the intake serve to detect plant operation effects. The discharge plume stations and depths sampled will be selected to determine (1) effects due to condenser passage on the species composition and concentration of organisms in the area affected by the plume, and (2) possible recovery and reincorporation effects at points along the discharge plume. Both determinations can be used to express the net system effects.

Sampling at depths affected by the plume and at depths below the plume is an attempt to detect any change in species composition or number of organisms at the greater depths that may result from the inability of condenser entrained organisms to maintain themselves in the plume. This selection of sampling depths in the plume and below the plume will be based on all, or any combination, of the following methods: temperature, dissolved oxygen, chlorophyll "a", irradiance, or transmissometry profiles.

1.3.5 BENTHOS

Specification

The benthic macroinvertebrate populations of Lakes Keowee and Hartwell shall be sampled four (4) times per year. Sampling stations shall be located on the lake side of the skimmer wall (502), in the vicinity of the discharge (discharge canal and 504), at control stations on Lake Keowee (501 and 506), and in Lake Hartwell below Keowee Dam (604 and 606). Quantitative samples shall be taken with a modified Peterson grab. Qualitative samples (e.g., sweep netting) shall be done along the shore nearest each of the stations listed above.

Benthic organisms collected shall be identified to the genus level where practicable. Diversity indices shall be calculated as well as data on the standing crop of benthic organisms, such as number per square meter and/or grams per square meter.

Bases

Benthic organisms are valuable as indicators of water quality near the bottom of a lake or river. Their relative immobility and several-month life spans are qualities which help make them "continuous monitors" whose survival may be limited by extreme conditions even when average conditions are favorable. They cannot avoid adverse conditions and are slow to repopulate an area, so that detrimental effects are not easily erased. Benthic organisms may also be an important source of food for fish.

Inasmuch as the distribution and abundance of benthic organisms are greatly dependent upon the bottom type available to them, the bottom type at each sampling station will be classified and reported.

The benthic samples taken by the techniques proposed above should be representative of both deep and shallow areas of Lake Keowee and of the several habitats presented by the Keowee River below the dam.

1.6 PLUME MAPPING FOR TEMPERATURE AND DISSOLVED OXYGEN

Objective: To provide temperature and dissolved oxygen data for defining the discharge plume and for checking the accuracy of predictions of plume characteristics.

Specification: At least four times per year, special sampling studies shall be made to identify and characterize the cooling water discharge plume with respect to dissolved oxygen and temperature. Data shall be collected from a minimum of 30 sampling points, following a sampling pattern designed to achieve coverage of the plume.

Three of the surveys shall be conducted during periods when the following conditions are expected:

- 1) Maximum condenser cooling water discharge temperature
- 2) Maximum acreage of discharge plume
- 3) Minimum condenser cooling water dissolved oxygen concentration.

Bases: The mapping program will define the temperature and dissolved oxygen gradients in the plume, especially in the region near the discharge where momentum and mixing are the prevalent processes influencing the plume's horizontal and vertical dimensions.

This mapping program will effectively complement the surveillance program defined in Section 1.3.