

MEMORANDUM FOR: Brian Grimes, Chief, Environmental Evaluation
Branch, DOR

FROM: L. G. Hulman, Chief, Hydrology-Meteorology Branch, DSE

SUBJECT: RESPONSE TO LICENSEE'S COMPUTATIONS OF OCONEE WASTE
DISCHARGE

PLANT NAME: Oconee Units 1, 2 and 3
DOCKET NUMBERS: 50-269, 50-270, 50-283
TAC NO.: 4250
DATE REQUESTED: January 7, 1977

The Hydrologic Engineering Section has reviewed the licensee's submittals concerning the dilution of chemical waste discharges at the Oconee site. We have been unable to complete our evaluation because the data required for an independent evaluation are missing, and the licensee's explanation of his own procedures is highly inadequate. The licensee must prepare a response to our comments before the review can proceed. This review was performed by R. Codell and is summarized in the enclosure.

L. G. Hulman, Chief
Hydrology-Meteorology Branch
Division of Site Safety and
Environmental Analysis

Enclosure:
As stated

cc w/o encl:
V. Stello
D. Eisenhut
P. Shuttleworth

cc w/encl:
W. Gammill
R. Ballard
E. Adensam
W. Paschiak
T. Johnson

DISTRIBUTION:
DOCKET FILE (50-269,270,283) ✓
NRR RDG
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W. Bivins
D. Schreiber
F. Miraglia
R. Codell
D. Neighbors

1/10/77
H

OFFICE →	DSE:ST:HMB	DSE:ST:HMB	DSE:ST:HMB	DSE:ST:HMB	
SURNAME →	RCodell:sl	DSchreiber	WBivins	LGulman	772210039
DATE →	1/7/77	1/7/77	1/8/77	1/10/77	

Comments on Waste Discharge
Dilution at Oconee

The Duke Power Company (licensee) proposed an amendment to the Nonradiological Environmental Technical Specifications (ETS) for Oconee Units 1, 2 and 3, which would allow the upper limit of pH of the effluent discharged to the tailrace of Keowee Dam to increase from 8.5 to 9.0. At the staff's request, the licensee provided some computations showing that the discharged chemical waste would be diluted to a low concentration in the ambient waters of the Keowee River within a short distance from the point of discharge.

We attempted to perform an independent confirmation of the licensee's results, but found the necessary data lacking; the licensee's presentation of his own method is so obscure that it is virtually worthless. So that we may be able to perform an independent analysis of chemical waste dilution, the licensee should satisfy the following requests:

1. Provide a useable drawing or engineering representation of the release configuration, including the tail race, discharge pipe, and any other physical structures affecting the dilution and dispersion of the waste;
2. Provide representative and extreme flowrates and ranges of the waste stream, the flow through the tail race, the flow in the Keowee River, and any other flows affecting the dilution and dispersion;
3. Provide representative and extreme concentrations of discharged chemical wastes.