

AUG 04 1976

Docket Nos. 50-269/270/287

A. Schwerner, Chief, Operating Reactors Branch No. 1, DOR

ACCEPTANCE REVIEW OF THE APPENDIX I INFORMATION FOR OCONEE NUCLEAR STATION,
UNIT NOS. 1, 2, AND 3

We have completed our acceptance review of the information provided by the licensee for Oconee Nuclear Station, Unit Nos. 1, 2, and 3, dated June 4, 1976, to meet the requirements of Section V.B of Appendix I to 10 CFR Part 50. The licensee has not provided all of the information needed to permit evaluation of Section II.B under the Annex to Appendix I of 10 CFR Part 50. Information is needed concerning gaseous effluent release points and the meteorological measurements program.

The Radiological Assessment Branch finds that the information provided is satisfactory for its evaluation. The Hydrology-Meteorology Branch and the Effluent Treatment Systems Branch require additional information to complete their detailed evaluation. The questions are enclosed.

ORIGINAL SIGNED BY

W. C. BURKE

for
 John T. Collins, Chief
 Effluent Treatment Systems Branch
 Division of Site Safety and
 Environmental Analysis

Enclosure:

Acceptance Review Questions

cc: K. Goller
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 NRR Review File
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John T. Collins

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OCONEE NUCLEAR STATION
DOCKET NO. 50-269/270/287
REQUEST FOR ADDITIONAL INFORMATION

1. Provide the description of the Turbine Building Exhaust System, including flow rate, velocity, height above grade, height above and relative location to adjacent structures, relative temperature difference between exhaust effluent and ambient air, and size and shape of the flow orifice.
2. Indicate if each effluent release point is equipped with diffusers or spreaders.
3. The onsite meteorological measurements program does not meet the recommendations of Regulatory Guide 1.23 with respect to elevations and exposure of sensors. Wind speed and direction are not measured at the 10 meter level "because of inadequate exposure near the ground" presumably caused by "20 meter trees near the tower base." The lower temperature sensor used for the measurement of vertical temperature gradient is located only 1.5 meters above the ground, which would bias the resultant atmospheric stability distribution towards extremely unstable and extremely stable conditions. The effect of this bias on estimates of atmospheric diffusion and deposition from partially elevated releases is not clear. The measurement of vertical temperature gradient would also be affected by "20 meter trees near the tower base." The present location of the meteorological tower may not provide representative data for an assessment of atmospheric transport and diffusion characteristics at and near the plant site.

To allow us to proceed with our Appendix I evaluation:

- a. Discuss the rationale for the present location of the onsite meteorological tower with respect to the representation of atmospheric transport and diffusion characteristics (wind speed, wind direction, and vertical temperature gradient) at and near the site.
- b. Assess the impact of using the 1.5 meter level for the lower sensor for measuring vertical temperature gradient on estimates of atmospheric diffusion and deposition, particularly from partially elevated releases. Also, identify the surface characteristics immediately below the 1.5 meter temperature sensor.
- c. Discuss the effect of "20 meter trees near the tower base" on the measurement of vertical temperature gradient.

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