UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

JAN 12 1981

4SA-EIS

Mr. William Kane, Project Manager
Office of Nuclear Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Kane:

In our previous reviews of environmental documents dealing with Light Water Reactors (LWR) EPA has consistently emphasized the need for a thorough evaluation of the environmental impacts from different LWR accident scenarios to include Class 9 accidents. The discussion of the environmental and societal impacts of a core melt down accident included in the Supplement to the Draft Environmental Impact Statement (DEIS) for the Virgil C. Summer Nuclear Plant Unit No. 1 is a step forward in this respect and as a result, EPA applauds NRC's decision to prepare this Supplement.

The assessment of environmental impacts for severe accidents at the Summer plant uses methodologies originally developed in the Reactor Safety Study (WASH-1460) and the Liquid Pathway Genenu Study (NUREG-0440). Because these two studies will be the cornerstones for similar assessments for other nuclear power plants environmental statements, we would refer NRC to EPA's original technical comments on these studies. These comments can be found in "Reactor Safety Study (WASH-1400): A Review of The Final Report" and my letter to NRC's Voss Moore dated February 8, 1977.

Our specific comments on the Supplemental DEIS on the Summer Plant are included in the attached technical comments.

Sincerely yours,

Rebecca W. Hanmer

Rebecca W. Hanmer
Regional Administrator

Enclosure
Technical comments

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TECHNICAL COMMENTS:

Section 6.1.4.3 and 6.1.4.4

Section 6.1.4.3 and 6.1.4.4 of the Supplement discuss radiation dose and health effects in terms of yearly probability distributions (risk) and are consistent with the discussions in the original DEIS. However, the discussion in the Supplement of the operational impacts of the facility is in terms of consequences. We believe that is desirable to maintain consistency between the original DEIS and the Supplement in this regard and therefore, would suggest impacts in both documents be presented in terms of consequences. We feel this approach will be more meaningful to the general public.

Table 6.1.4.4

This Table should correspond on a one-to-one basis with the release categories (PWR 1-9) in Table 6.1.4-3.

Section 6.1.4.5

In the discussion in this Section it is not clear whether the socio-economic cost of an accident involving groundwater contamination were considered in Sections 6.1.4.4, 6.1.4.6 and Section 9 (of the original DEIS, June 1979). If not, the cost of these impacts and mitigating measures should be included in the overall risk assessment and benefit-cost balance in Table 9.1 of the original DEIS.

Section 6.1.4.6

It is unclear what is the basis of the conclusion that "Estimates of risk reduction by evacuation of the public within the 10-mile emergency planning zone for accidents can be reduced by a factor of ten to twenty..." This statement seems inconsistent and premature considering the following:

1. The emergency preparedness plans and protective action measures for the Summer facility are not yet complete.

2. NRC and Federal Emergency Management Agency's (FEMA) review of State and local government emergency plans have not been accomplished.

3. The NRC's Safety Evaluation Report (SER) which reviews the applicant's on site plan is not yet available.

General Comment

To facilitate the understanding of impacts from the liquid pathway it would be helpful to provide a summary of the environmental consequence and risks

for the summer Plant and the risk and consequence developed in the Liquid Pathway Generic Study (NUREG-0440).

As the Three Mile Island-2 (TMI-2) accident pointed out, the cost of reactor building decommissioning and replacement power cost are sizable. These costs could significantly change the benefit-cost balance in Section 9 of the original DEIS. Future EIS's or Supplements to EIS's should evaluate these costs and include them in their benefit-cost analysis.

A figure should be included showing dose versus distance from the plant for severe accidents. This would allow the local population to judge individual risks.