



Department of Energy
Clinch River Breeder Reactor
Plant Project Office
P.O. Box U
Oak Ridge, Tennessee 37830
Docket No. 50-537

March 25, 1980

Mr. Domenic B. Vassallo
Acting Director
Division of Project Management
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

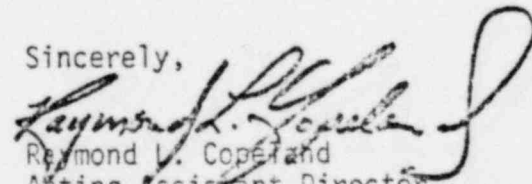
Dear Mr. Vassallo:

TOPICAL REPORT ON THERMAL MARGIN BEYOND THE DESIGN BASE (TMBDB)

Enclosed are seventy (70) copies of CRBRP-3, Vol. 2, "Assessment of Thermal Margin Beyond the Design Base," dated March 1980. This document supersedes and substantially updates the analyses on core melt accommodations provided in our earlier report, "Third Level Thermal Margins" (TLTM), dated April 1976. This volume provides technical assessments showing the longer term (greater than 1000 seconds) thermal loads which could result from an HCDA if one assumes loss of integrity of both the reactor and guard vessels. The features provided to mitigate thermal and radiological consequences resulting from such an event are described and analyzed. Evaluation of the plant capability shows that reactor containment integrity is maintained for at least 24 hours following the assumed event and the radiological consequences would be comparable to similar low probability events beyond the design base for light water reactors.

The responses to the NRC questions related to this topic will be submitted in a future amendment to the Preliminary Safety Analysis Report (PSAR).

Sincerely,


Raymond L. Copeland
Acting Assistant Director
for Public Safety

D001
SE
1/70

PS:80:092

Enclosure: Topical Report

cc: See page 2

8003310161

Mr. Domenic B. Vassallo

-2-

March 25, 1980

cc: Service List
Standard Distribution
Licensing Distribution