



Department of Energy
Washington, D.C. 20545

Docket No. 50-537
HQ:S:83:252

MAY 19 1983

Dr. J. Nelson Grace, Director
CRBR Program Office
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Dr. Grace:

REVISED CLINCH RIVER BREEDER REACTOR PLANT (CRBRP) PIPING SEISMIC MARGIN
REPORT

- References: (1) Letter, HQ:S:83:232, J. R. Longenecker to J. N. Grace,
"CRBRP Piping Seismic Margin," dated March 4, 1983
- (2) Letter, J. C. Ebersole to N. J. Palladino, "ACRS Report
on the Clinch River Breeder Reactor Plant," dated
April 19, 1983
- (3) Letter, HQ:S:83:247, J. R. Longenecker to J. N. Grace,
"Primary Heat Transport System Branch Line Evaluation,"
dated April 27, 1983

Reference (1) transmitted "CRBRP Heat Transport System Incontainment Piping Reserve Seismic Margins," providing evaluations of the ability of the large diameter heat transport piping to withstand seismic events more severe than those required in the Federal Regulations. The CRBRP piping has been previously shown to meet all regulatory requirements concerning earthquake events at the CRBRP site.

In reference (2), the Advisory Committee on Reactor Safeguards raised a concern relative to the seismic margins available in small diameter Primary Heat Transport System (PHTS) piping. The letter stressed the importance of assuring the integrity of the small diameter piping due to the fact that a common mode loss of piping integrity in all three heat transport system loops could disable the entire heat removal system.

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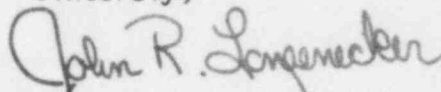
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As promised in reference (3), enclosure 1 to this letter is a revision to the reference (1) report reflecting the seismic margins that exist for the small diameter piping and instrument penetrations connected to the heat transport system. Appendix B of the report emphasizes that, in CRBRP, design, analysis, fabrication, and inspection requirements are comparable for the large and small diameter piping.

Enclosure 2 is a report that discusses the consequences of leaks from small diameter PHTS piping. The report shows that the guard vessel elevated piping approach used in CRBRP assures adequate primary coolant inventory for any postulated primary coolant boundary leak, including a leak from small diameter piping.

Any questions regarding the enclosed reports may be addressed to Mr. D. Hornstra (FTS 626-6110) or Mr. D. Robinson (FTS 626-6098) of the Oak Ridge Project Office staff.

Sincerely,



John R. Longenecker
Acting Director, Office of
Breeder Demonstration Projects
Office of Nuclear Energy

2 Enclosures

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