



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

OCTOBER 10 1978

TERA

Docket No. 50-296

Mr. N. B. Hughes  
Manager of Power  
Tennessee Valley Authority  
830 Power Building  
Chattanooga, Tennessee 37401

Dear Mr. Hughes:

Reference is made to your letter of August 3, 1978 (TVA-BFNP-TS-113) transmitting a reload analysis for cycle 2 operation of Browns Ferry Unit No. 3. To complete our review of the subject reload, we need the additional information identified in the enclosure. This request for additional information was informally transmitted to your staff by telecopier on September 22, 1978.

In view of projected startup date for Unit No. 3, we would appreciate partial responses to the enclosed questions as the information is developed. In any case, complete responses to all questions must be received within 30 days of the date of this letter to meet your proposed startup schedule.

Sincerely,

Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Enclosure:  
Request for Additional  
Information

cc w/enclosures:  
see next page

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Tennessee Valley Authority

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BROWNS FERRY UNIT NO. 3

REQUEST FOR ADDITIONAL INFORMATION

DOCKET NO. 50-296

1. The transient analyses summarized in NEDO-24128 have been performed with the REDY code. A new improved code, ODYN, which is based on first principles, has been presented by GE. The staff review of ODYN is expected to be completed within the next few months. In order to assure the staff that the proposed change to the operating limit MCPR will not hold any unexpected development when the ODYN review is completed, we request that the licensee supply an ODYN licensing basis reanalysis of the transients. This should include an analysis of the limiting pressure and power increase transient and the feedwater controller failure transient. Each of these transients with RFT should be analysed with the proposed licensing basis ODYN code (as applied in the letter from E. D. Fuller (GE) to D. F. Ross (NRC), Impact of ODYN Transient Model on Plant Operating Limits, dated June 26, 1978). Further, in order to verify the margin in the REDY and ODYN licensing bases, a best estimate ODYN analysis (as applied in the above referenced letter) of the Limiting Pressure and Power Increase Transient with RPT should be presented.
2. The trip inputs for the recirculation pump trip following the Pressure and Power Increase transients originate in the turbine building which is non-seismically qualified. Therefore, provide an analysis of the consequences of the Limiting Pressure and Power Increase transient without taking credit for recirculation pump trip from these inputs and including the effect of turbine overspeed on recirculation flow. (Alternatively, demonstrate the applicability of an analysis already on file.) Provide peak vessel pressure, MCPR, fraction of rods in boiling transition, peak cladding temperature, maximum fuel average temperature, and maximum radiological consequences. This event is categorized as an accident and should meet the guidelines of 10 CFR Part 100. Provide all assumptions for the radiological consequence analysis.
3. The proposed technical specifications only specify functional testing of the RPT initiating logic. Propose startup tests and surveillance requirements for verification of RPT delay times and flow coastdown calculational assumptions. There should be a maximum and minimum specification of the delay time and flow rate coastdown. Provide the results of the Limiting Power and Pressure Increase transient calculations with the minimum specification on delay time and the fast flow coastdown.