

Tennessee Valley Authority. Post Office Box 2000. Decatur, Alabama 35609.

November 7, 1995

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

Gentlemen:

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In the Matter of Tennessee Valley Authority Docket No. 50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 3 - SUPPLEMENTAL INFORMATION FOR REACTOR PRESSURE VESSEL (RPV) SHELL WELDS AUGMENTED EXAMINATION AND INSERVICE INSPECTION (ISI) RELIEF REQUEST 3-ISI-17 (TAC M93759)

The purpose of this letter is to submit information requested by the NRC project manager during a telephone call on November 3, 1995.

In a letter dated October 9, 1995, TVA submitted calculation MD-Q3001-920553, Vessel Flaw Evaluation for BFN Unit 3 and Drawing 729E762, Reactor Thermal Cycles. The calculation documented a structural flaw evaluation performed on the BFN Unit 3 vessel. In the telephone call, NRC requested TVA to provide clarification on the methodology for determining the limiting operating condition for the Unit 3 RVP welds in the calculation.

The enclosure provides the General Electric Nuclear Energy's report, An Evaluation To Determine The Limiting Operating Condition In The BFN III RPV Flaw Handbook. The report provides the clarification requested by the staff.

The report documents the analysis that indicates the hydrotest and boltup conditions were limiting operating conditions and, therefore, were the basis for determining the allowable flaw sizes reported in the flaw report. The report demonstrates that the operating conditions such as Level C and Level D service limits are not limiting. U.S. Nuclear Regulatory Commission Page 2 November 7, 1995

The approach utilized in the report was to determine a flaw that was allowed by the handbook based on the hydrotest condition. For the same flaw geometry, the applied stress intensity factor values from applied loadings, (K applied values) were calculated for the limiting Level C and Level D transients and compared with the allowable K values of these operating conditions. It was shown the applied K values were considerably less than the allowable flaw size based on Level C and Level D conditions. Based on this evaluation, it was concluded that the Level C and Level D conditions were not limiting for the allowable flaw evaluation and that the use of hydrotest and boltup conditions as limiting is appropriate.

There are no new commitments contained in this letter. If you have any questions, please contact me at (205) 729-2636.

Sincerell

Pedro Salas Manager of Site Licensing

Enclosure cc (Enclosure): Mr. Mark S. Lesser, Branch Chief U.S. Nuclear Regulatory Commission Region II 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323

> NRC Resident Inspector Browns Ferry Nuclear Plant 10833 Shaw Road Athens, Alabama 35611

Mr. J. F. Williams, Project Manager U.S. Nuclear Regulatory Commission One White Flint, North 11555 Rockville Pike Rockville, Maryland 20852

ENCLOSURE

TENNESSEE VALLEY AUTHORITY BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 3

SUPPLEMENTAL INFORMATION FOR REACTOR PRESSURE VESSEL (RPV) SHELL WELDS AUGMENTED EXAMINATION AND INSERVICE INSPECTION (ISI)RELIEF REQUEST 3-ISI-17

GENE-523-A120-1195

AN EVALUATION TO DETERMINE THE LIMITING OPERATING CONDITION IN THE BFN III RPV FLAW HANDBOOK

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