

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 8, 1995

Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT UNIT 3 - REACTOR VESSEL WELD FLAW

EVALUATION (TAC NO. M93759)

Dear M. . Kingsley:

On March 6, 1995, the Tennessee Valley Authority (TVA) submitted results of an augmented examination of welds in the Browns Ferry Nuclear Plant (BFN) Unit 3 reactor pressure vessel. This examination was performed pursuant to 10 CFR 50.55a(g)(6)(ii)(A) and 10 CFR 50.55a(g)(6)(ii)(A)(2). These regulations require inspection of more than 90% of the volume of each weld. Since TVA's examination was unable to fulfill this requirement, the submittal also discussed why TVA believes this examination provided an acceptable level of quality and safety.

During NRC staff review of the March 6, 1995 submittal, the staff noted that TVA's examination had identified flaws that exceeded the allowable standards of IWB-3500 of the American Society of Mechanical Engineers (ASME) Code Section XI. These flaws required additional analytical evaluations to demonstrate acceptable results. The staff requested TVA provide this evaluation, noting that the ASME Code Section XI IWB-3134 requires such evaluations be submitted to the appropriate regulatory authority. TVA provided this calculation on October 4, 1995. Examination of this submittal determined additional information would be required to complete staff review. TVA provided additional information on October 9, 1995, November 2, 1995, and November 7, 1995.

Based on the review of these documents, the staff concludes that TVA has demonstrated that the indications that exceed IWB-3500 are within the IWB-3600 acceptance criteria, and that BFN Unit 3 is acceptable for continued operation for at least 12 effective full power years (EFPY). Beyond 12 EFPY, TVA is required to submit an analysis to justify continued operation. Furthermore, in accordance with IWB-3132.4(b), TVA is required to reexamine the indications in the next three inspection periods in accordance with IWB-24 O(b). These conclusions are discussed in the enclosed safety evaluation

The NRC is continuing its review of TVA's justification for why the BFN Unit 3 augmented reactor vessel weld examination provides an acceptable level of quality and safety. This review is not a prerequisite for restart of BFN Unit 3.

Please call me at (301) 415-1470 if you have any questions regarding this topic.

Sincerely,

Original signed by

Joseph F. Williams, Project Manager Project Directorate II-3 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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Joseph F. Williams, Project Manager

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