

April 29, 2005

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Washington, D.C. 20555-0001

Gentlemen:

In the Matter of) Docket No. 50-260
Tennessee Valley Authority)

BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 2 - RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING TECHNICAL SPECIFICATION (TS) CHANGE TS 452 - REVISION TO LOW PRESSURE EMERGENCY CORE COOLING SYSTEM ALLOWED OUTAGE TIME

In Reference 1, TVA submitted a request for an emergency TS change (TS 452) to license DPR-52 for BFN Unit 2. The proposed change revises the current Unit 2 low pressure Emergency Core Cooling System (ECCS) injection/spray seven day allowed outage time (AOT) to 14 days. The purpose of increasing the AOT is to provide additional flexibility for preventive or corrective maintenance and repair of the Residual Heat Removal (RHR) or Low Pressure Core Spray subsystems. This letter provides a response to a verbal request for additional information.

The Probabilistic Safety Assessment for BFN Unit 2 assumes the unit is in Mode 1 (Power Operation). The TS Limiting Condition for Operation (LCO) being revised by the proposed TS change is applicable in Modes 1, 2 and 3. The PSA results that were calculated assuming the plant is in Mode 1 are bounding for Mode 2 (Refuel or Startup / Hot Standby) and Mode 3 (Hot Shutdown).

The primary differences between Mode 1 and Modes 2 and 3 are decay heat levels, primary system pressure, and core reactivity levels. The decay heat in Mode 2 or 3 would be lower than that in Mode 1. This would result in reduced equipment demands necessary to maintain reactor level, decay heat removal, pressure control, and reactivity control.

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The primary system pressure in Modes 2 and 3 is substantially below the pressure in Mode 1. The lower the pressure, the less resistance there is to pumping water into the vessel. Hence, the easier it is to maintain core cooling.

Finally, the control rod density will be less in Mode 1 than in Modes 2 and 3. This results in less core reactivity in Modes 2 and 3, which makes reactivity control more likely to be successful.

Therefore, the PSA results performed for BFN Unit 2 in Mode 1 are conservative and bound operation in Modes 2 and 3.

TVA has determined that the provided information does not affect the no significant hazards considerations associated with the proposed amendments and Technical Specification changes. The proposed amendments and Technical Specification changes still qualify for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9).

If you have any questions about this submittal, please contact me at (256) 729-2636.

Sincerely,

Original signed by:

T. E. Abney
Manager of Licensing
and Industry Affairs

References:

1. TVA letter, T.E. Abney to NRC, dated April 26, 2005, "Browns Ferry Nuclear Plant (BFN) Unit 2 - Technical Specification (TS) Change TS 452 - Revision to Low Pressure Emergency Core Cooling System Allowed Outage Time".

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Enclosure

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