

September 14, 2004

Mr. Karl W. Singer
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3 — REQUEST FOR
ADDITIONAL INFORMATION REGARDING ALTERNATIVE SOURCE TERM
(TAC NOS. MB5733, MB5734, AND MB5735)

Dear Mr. Singer:

By letter dated July 31, 2002, as supplemented in letters dated December 9, 2002, February 12, March 26, July 11 and 17, 2003, May 17, July 2, and August 24, 2004, Tennessee Valley Authority (TVA) submitted a request to revise the licensing and design basis to reflect the application of the alternative source term (AST) methodology for the Browns Ferry Units 1, 2, and 3. The submittal also requested changes to various technical specifications to reflect the adoption of AST.

Based on our review of your submittal, the Nuclear Regulatory Commission staff finds that a response to the enclosed request for additional information is needed before we can complete the review. This request was discussed with your staff on August 31, and September 1, 2004, and it was agreed that a response would be provided within 30 days of the issuance of this letter.

If you have any questions, please contact me at (301) 415-2315 or Kahtan Jabbour at (301) 415-1496.

Sincerely,

/RA/

Eva A. Brown, Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

Enclosure: As stated

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION
ALTERNATIVE SOURCE TERM (AST) IMPLEMENTATION
TENNESSEE VALLEY AUTHORITY(TVA)
BROWNS FERRY PLANT (BFN), UNITS 1, 2, AND 3
DOCKET NOS. 50-259, 50-260, AND 50-296

1. In a letter dated July 2, 2004, TVA submitted Facility Risk Consultants (FRC) report entitled, MSIV [Main Steam Isolation Value] Seismic Ruggedness Verification At Browns Ferry Nuclear Plant, May 2004. Page 5-2 of the FRC report states that “[s]upport components that may exhibit non-ductile behavior are accepted based (on) the following stress allowables:” Clarify whether “support components” are component supports or components for piping supports or something else. Provide justification for the provision that the allowable stress is greater than material yield stress for the non-ductile behavior support components.
2. Page 5-3 of the FRC report states that “[w]hen test data are available, acceptable loads on test data consider mean less one standard deviation capacity.” Provide technical justification for the above provision.
3. Page 5-3 of the FRC report states that “[p]ipe supports not meeting the above criteria may be accepted if adjacent supports and the resulting pipe span can resist dead loads with a factor of safety of 2.0.” Provide technical justification for the above provision.
4. TVA submitted a supplement for the amendment to Unit 1 AST dated August 24, 2004. Page 19 states that “[t]he NEDC-31858P-A survey of this type of industrial structure has, in general, confirmed that excellent past seismic performance exists. There are no known cases of structural collapse of either turbine buildings at power stations or structures of a similar construction. Based on the above design bases for the BFN Turbine Building, and the excellent seismic performance of similar types of industrial structures in past strong-motion earthquakes as documented in NEDC-31858P-A, it was determined that the BFN Turbine Building will remain structurally intact following a DBE [design basis earthquake].” Provide locations in the NEDC-31858P-A that support the statement that structures exhibit excellent past seismic performance. As the Nuclear Regulatory Commission staff has not endorsed using seismic experience data for qualifying structures subjected to earthquakes, provide additional technical justification that supports the contention that the BFN Turbine Building will remain structurally intact following a DBE.
5. Are the PVC cables identified in TVA’s letter dated May 17, 2004, performing any safety related function? If so, provide the environmental qualification, including the test report, which qualifies those cables for Harsh Environment service.

ENCLOSURE

Mr. Karl W. Singer
Tennessee Valley Authority

BROWNS FERRY NUCLEAR PLANT

cc:

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