



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

JUL 11 1991

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

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - NATURAL CIRCULATION
TESTING - COMPARISON TO DIABLO CANYON - SAFETY EVALUATION REPORT
CONFIRMATORY ISSUE 15 (TAC NUMBERS M79317 AND M79318)

This letter provides an assessment of the applicability of the Diablo Canyon Nuclear Plant natural circulation test to WBN. This issue was identified in the WBN Safety Evaluation Report (NUREG-0847) as Confirmatory Issue 15.

Branch Technical Position (BTP) RSB 5-1, "Design Requirements for Decay Heat Removal Systems," Revision 2, July 1981, requires that a natural circulation test with supporting analysis be conducted to demonstrate the ability to cool down, depressurize the plant, and to confirm that adequate mixing of borated water is achieved under these circumstances. BTP RSB 5-1 allowed an alternate method of compliance by permitting a comparison with the performance of a previously tested plant of similar design to be substituted for those tests, if justified.

WBN has chosen to demonstrate by qualitative systems and equipment comparison that the results of the Diablo Canyon natural circulation/boron mixing/cooldown are applicable to WBN. The comparison also shows through computer analysis simulation of the worst-case cold shutdown scenario that WBN can achieve cold shutdown conditions under the requirements established in BTP RSB 5-1. This information is enclosed in Westinghouse WCAP-12334. Therefore, based on this favorable comparison, natural circulation cooldown testing is not required at WBN.

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WCAP-12335, also enclosed, provides operational guidance. To address the operator training concern of NUREG-0737, Item I.G.1, for natural circulation testing, TVA has included scenarios as part of the operator training program. Therefore, justification is provided to remove startup test (SU)-3.9 from Chapter 14 of the Final Safety Analysis Report Report.

No commitments are identified in this letter. If you have any questions, please telephone M. C. Bryan at (615) 365-8819.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


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Enclosures

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