



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

Mark O. Medford
Vice President, Nuclear Assurance, Licensing and Fuels

September 1, 1992

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

Gentlemen:

In the Matter of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - GENERIC LETTER (GL) 88-20 -
INDIVIDUAL PLANT EXAMINATION (IPE) FOR SEVERE ACCIDENT VULNERABILITIES -
RESPONSE (TAC M74488)

This letter provides TVA's response to the subject GL for WBN. Enclosed is the IPE required by GL 88-20. The IPE contains both the Level 1 and Level 2 analyses and is formatted in accordance with NUREG-1335 as much as practical. The IPE models were developed using Unit 1 and common systems.

The Level 1 core damage frequency (CDF) for WBN has been calculated to be 3.3×10^{-4} per year. Since WBN is still in construction phase, generic operational data was utilized that could influence the CDF value. No vulnerabilities were identified from the Level 1 analysis. The ten dominant accident sequences are identified in Section 3.4 of the report.

The Level 2 results are summarized in Section 4.10. No unique Level 2 severe accident coping features or vulnerabilities were identified. Plant potential enhancements and insights are identified in Sections 6.3 and 6.4 of the report.

WBN IPE calculations were compared against Sequoyah Nuclear Plant (SQN) IPE results and against the SQN results in NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants." These differences have been evaluated and are presented in tabular form in Section 1.4. We will be available to discuss the results at a meeting in your offices at your convenience.

030063

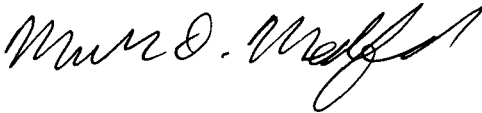
9209030222 920901
PDR ADOCK 05000390
A PDR

All
1/2 sets
Jols 1-4

U.S. Nuclear Regulatory Commission
Page 2
September 1, 1992

There are no commitments contained in this submittal. If you have any questions, please telephone G. L. Pannell at (615) 365-1550.

Sincerely,



Mark O. Medford

Sworn to and subscribed before me
this 1st day of Sept. 1992

Paulette H. White
Notary Public

My Commission Expires 11-4-92

Enclosures

cc (Enclosures):

NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

Mr. Peter S. Tam, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323