

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

500C Chestnut Street Tower

REGULATORY DOCKET FILE COPY

DEC 19 1978

Mr. Roger S. Boyd, Director
Division of Project Management
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Boyd:

In the Matter of the Application of the)	Docket Nos. 50-327
Tennessee Valley Authority)	50-328
		50-390
		50-391
		50-438
		50-439

Enclosed are 40 copies of TVA's responses to your request for additional information on the seismic design bases for the Sequoyah, Watts Bar, and Bellefonte Nuclear Plants dated October 4, 1978. We strongly believe that this information, together with our reports entitled "Justification of the Seismic Design Criteria Used for the Sequoyah, Watts Bar, and Bellefonte Nuclear Plants, Phase I and II," clearly demonstrate that the seismic design bases used at these facilities are conservative.

Briefly, our Phase I and II reports provided the following information to justify the seismic design bases at the subject plants.

1. Evaluation of the Giles County earthquake intensity to show that it is conservatively a MMVII-VIII instead of MMVIII.
2. The intensity rating for the Giles County earthquake is soil biased. Historical data of the Giles County earthquake and worldwide data show the intensity is two to three units less on rock than on soil. All subject plant sites are rock sites.
3. The Murphy-O'Brien (CSC) intensity-acceleration relationship is the more appropriate. This results in a maximum acceleration of 0.15g for a MMVIII.
4. Earthquake ground motion reduces with depth. No credit is taken for ground motion reduction with depth.
5. Development of site specific SSE response spectra from strong motion records of appropriate magnitude and distance. A range of magnitudes from 5.3 to 6.3 was used. We believe this magnitude range to be conservative since the Giles County earthquake is estimated to have been from 5.2 to 5.8. Forty percent of the

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Mr. Roger S. Boyd, Director

DEC 19 1978

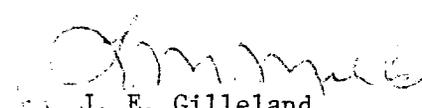
data used was for earthquakes with a magnitude greater than that estimated for the Giles County earthquake. Comparison of the site specific response spectra with the plants' design spectra justify the plants' seismic design.

6. Development of site specific SSE response spectra based on parameters other than intensity. This study was performed by our consultants, Weston Geophysical Corporation. It utilizes data available in the eastern United States along with western United States data. A top of rock acceleration of 0.08 was determined.

The information enclosed provides additional information on the sensitivity of the site specific SSE response spectra developed from strong motion records. Also, the probabilities of exceeding the plants' SSE design spectra compared to Phipps Bend Nuclear Plant and to the site specific response spectra developed using strong motion records are presented along with a probabilistic analysis to justify the OBE.

You indicated in your letter of January 13, 1978, that because of the actual procedures utilized for the subject plants, it might be possible to show that the plants, as designed, are adequate by taking into account specific site conditions, earthquake magnitude, and distance to the earthquake source. We believe that the additional information enclosed, along with our Phase I and II reports, addresses these considerations in detail and together do show that the plants, as designed, adequately ensure the health and safety of the public.

Very truly yours,



J. E. Gilleland

Assistant Manager of Power

Enclosure (40)

CA

DEC 6 1978

Docket No(s).:
50-438/439/259/260/
296/518/519/520/
521/553/554/327/
328/390/391/566
and 567

Tennessee Valley Authority
ATTN: Mr. H. N. Stroud, Jr.
Acting General
400 Commerce Avenue
Knoxville, Tennessee 37902

Gentlemen:

The purpose of this letter is to direct your attention to our continuing concern for the accuracy and completeness of information submitted to the NRC by licensees and applicants. Our statutory responsibilities require that information received as part of the regulatory process be accurate and complete. This includes information provided in license applications, responses to licensing questions, enforcement letter responses, event reports, and IE Bulletin responses.

As you know, 10 CFR 50.30 requires that an application for a license, or amendment thereto, be provided under oath or affirmation. While other information is not required to be provided under oath or affirmation, this in no way detracts from the necessity that all information submitted to the NRC be accurate. The information submitted should be substantiated by data, records, calculations and sound technical judgment. The required promptness of reply may, under certain circumstances, contribute to an inadvertent submittal of incomplete or inaccurate information. Under such circumstances, we expect your prompt detection and immediate NRC notification of any inaccuracies and incompleteness in the information supplied to the NRC.

You are no doubt aware that failure to meet the expected standards of accuracy and completeness has resulted in enforcement action. Enforcement action will continue to be considered for inaccurate or incomplete information amounting to material false statements. Such action is necessary, as inaccurate or incomplete information could lead to decisions which adversely affect the health and safety of the public.

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It is imperative that licensees and applicants meet their responsibility of positively assuring the accuracy and completeness of all information provided to the NRC. It is expected that each licensee and applicant will have an active program to assure an awareness at all levels in their organization that nothing less than complete and accurate information is acceptable.

Sincerely,

Original Signed by
H. R. Denton

Harold R. Denton
Director
Office of Nuclear
Reactor Regulation

Original Signed By
J. G. Davis

John G. Davis
Acting Director
Office of Inspection
and Enforcement

OFFICE	ROI: IE	ROI: IE	ROI: IE	AD: IE	D: NRR	
SURNAME	JRRiesland	GRKTingler	NCMoseley	JGDavis	HRDenton	
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