

8005140319 TIC

Telephone 617 366-9011

TWX

710-390-0739

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## YANKEE ATOMIC ELECTRIC COMPANY



20 Turnpike Road Westborough, Massachusetts 01581

May 7, 1980

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
United States Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Seismic Evaluation  
Yankee Atomic Electric Company, Rowe, MA

Dear Sir:

This is to set forth our position regarding the seismic evaluation of the Yankee Atomic Electric Company plant in Rowe, Massachusetts, under Systematic Evaluation Program topics III-6 (Seismic Design Considerations) and II-4A, B, C (Geology and Seismology).

In response to these topics, Yankee initiated in 1978 studies to define appropriate seismic design criteria for the Rowe plant. The results of these studies were submitted to NRC in the form of two technical reports. These reports were prepared by Weston Geophysical Corporation and Dr. Erik Vanmarcke of M.I.T.

Our first report, "Geology and Seismology - Yankee Rowe Nuclear Power Plant" by Weston Geophysical, was transmitted to you on February 23, 1979. This report is a well-documented assessment of the maximum earthquake potential for the Rowe site. It concludes that an intensity VI(mm) event is an appropriately conservative estimate for the Safe Shutdown Earthquake. Such an intensity would result in a ground acceleration of .06g to .07g.

Our second report, "Site Dependent Response Spectra - Yankee Rowe" by Weston Geophysical and Dr. Erik Vanmarcke, was transmitted to you on February 29, 1980. This report describes the methods and results of a program to develop site dependent response spectra. It was prepared partially in response to an NRC letter to us of January 15, 1979 stating the necessity for Yankee to assess the seismic design criteria for the Rowe site and suggesting the "evaluation of various site specific response spectra methodologies". Dr. Alan Cornell of M.I.T. was also involved in this study in an advisory and review capacity and he concurs with the conclusions set forth in the report.

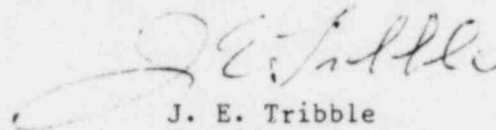
Despite the fact that the aforementioned studies indicate that a ground acceleration of 0.06g to 0.07g is sufficient for the Rowe site, it is our intention to proceed with seismic evaluation of the Yankee plant to demonstrate safe shutdown capability at a ground acceleration of 0.1g, using response spectra appropriate to the Rowe site as set forth in the aforementioned reports. This is consistent with the requirements of Appendix A of 10 CFR 100. Our schedule for completion of this work is attached.

We are also proceeding immediately with the installation of seismic supports for the steam generators, and with strengthening the anchor bolts and foundations at the base of the containment structure. These two modifications will greatly improve the ability of the plant to withstand a seismic event.

We believe that this approach is completely appropriate for a small plant in a remote, seismically stable location like Rowe. Moreover, as previously stated, it is consistent with the requirements of 10 CFR 100.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY



J. E. Tribble  
President

Attachment

cc: Mr. Darrell G. Eisenhut, Director  
Division of Licensing

Mr. Richard H. Vollmer, Director  
Division of Engineering

Mr. Dennis M. Crutchfield, Chief  
Division of Licensing  
Operating Reactors Branch #5

ATTACHMENT

<u>Proposed Yankee Rowe Seismic Milestones</u>	<u>Week or Date</u>
A. Action plan/criteria document complete	July 1, 1980
B. Analysis and evaluation of reactor building and RCPS complete	30
C. Analysis of other Cat. 1 buildings complete (floor spectra, response profiles)	34
D. Analysis and evaluation of safe shutdown systems complete (piping, anchorage of mechanical/electrical equipment)	60
E. Structural Evaluations of (C) above complete	60
F. Analysis and evaluation of ECCS/ES systems complete (piping, anchorage or mechanical/electrical equipment)	78
G. Evaluation of mechanical/electrical equipment complete (incl. operability)	94
H. Licensee submits final reports	102