NOV 0 4 1974

Docket No. 50-29

Yankee Atomic Electric Company
ATTN: Mr. Carl Andognini, Assistant
to the Vice President
20 Turnpike Road
Westboro, Massachusetts 01581

Gentlemen:

As a result of our generic review of the Westinghouse ECCS Evaluation Model, we have identified information which must be provided on a case-by-case basis to enable us to complete our review of individual plant compliance with the criteria set forth in paragraph 50.46(b), "Acceptance Criteria for Emergency Core Cooling System for Light-Water Cooled Nuclear Power Reactors," of 10 CFR Part 50. The information required is identified in the enclosure to this letter.

In order to maintain our review schedule for the Yankee Rowe plant, we need information requested by December 1, 1974.

Please contact us if you desire any discussion or clarification of the information required.

Sincerely,

Original signed by:
Robert A. Purple

Robert A. Purple, Chief
Operating Reactors Branch #1
Directorate of Licensing

Enclosure:
Request for Additional
Information

cc: See next page

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cc w/enclosure:
Mr. Donald G. Allen, President
Yankee Atomic Electric Company
20 Turnpike Road
Westboro, Massachusetts 01581

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ADDITIONAL INFORMATION REQUIRED
FROM ALL UTILITIES
UTILIZING WESTINGHOUSE NUCLEAR STEAM SUPPLY SYSTEMS

1. Provide justification for the following input parameters used in the ECCS evaluation model:

   a) Net Free Containment Volume - Justification should include the total gross internal containment volume and the internal structures and equipment and their volumes which are subtracted to obtain the net free containment volume. A discussion of the uncertainties should be provided.

   b) Passive Heat Sinks - Discuss the method of determining the passive containment heat sinks. Identify each heat sink by category (i.e., cable tray, equipment supports, floor grating, crane wall, etc.) and provide surface area, thickness, materials of construction, thermal conductivity and volumetric heat capacity, by component category used in the containment transient analysis code.

   c) Starting Time of Containment Cooling System(s) - Discuss the factors that show that the start time(s) assumed in the containment response analysis represent the earliest possible initiation of system(s) operation.

   d) Containment Initial Conditions - Compare the initial values of temperature, pressure and relative humidity in the containment with the range of values that will be permitted during plant operation.

e) Containment Spray Water Temperature - Show that the value of containment spray water temperature used in the containment response analysis is the lower bound temperature consistent with plant operating conditions.

2. For the most severe break provide the following information:

a) Fan-cooler heat removal rate as a function of containment atmosphere temperature. Show that minimum operational values of service water temperature have been used in determining the fan-cooler heat removal rate.

b) Mass and energy release rates to the containment as a function of time during the blowdown, refill and reflooding periods of the accident. Include any spilled ECCS water.