

September 27, 1985

Docket No. 50-271

Mr. R. W. Capstick  
Licensing Engineer  
Vermont Yankee Nuclear Power Corporation  
1671 Worcester Road  
Framingham, Massachusetts 01701

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Dear Mr. Capstick:

SUBJECT: APPROVAL OF USE OF FUEL PERFORMANCE CODE FROSSTEY

Re: Vermont Yankee Nuclear Power Station

By letters dated May 18, and July 27, 1981, you submitted for review reports describing the fuel thermal performance code, FROSSTEY. These reports are:

1. YAE-1249P, "Methods for the Analysis of Oxide Fuel Rod Steady State Thermal Effects (FROSSTEY): Code/Model Description Manual," April 1981 (proprietary)
2. YAE-1265P, "Methods for the Analysis of Oxide Fuel Rod Steady State Thermal Effects (FROSSTEY): Code Qualification and Application," June 1981 (proprietary).

We have completed our review of the above-mentioned proprietary reports and other material you have submitted in support of the use of the fuel performance code, FROSSTEY. You submitted nonproprietary versions of the above reports, identified as YAE-1249 and YAE-1265, by letter dated February 5, 1985. We have been assisted in our review by the Battelle Pacific Northwest Laboratory. We have concluded that you have demonstrated an acceptable method of determining a number of fuel thermal and design limits for the Vermont Yankee facility. Although our approval is limited to the analysis of non-loss-of-coolant accident (LOCA) conditions at low and moderate burnups, as described in the enclosed safety evaluation, we consider the restricted methodology equally applicable to other plants (i.e., Yankee Rowe, Maine Yankee, Seabrook) analyzed by Yankee Atomic Electric Corporation.

Sincerely,

Original signed by/

8509300483 850927  
PDR ADOCK 05000271  
P PDR

Domenic B. Vassallo, Chief  
Operating Reactors Branch #2  
Division of Licensing

Enclosure:  
Safety Evaluation

cc w/enclosure:  
See next page

DL:ORB#2  
SNorris:ajs  
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DL:ORB#2  
DVassallo  
09/27/85

Mr. R. W. Capstick  
Vermont Yankee Nuclear Power Corporation  
Vermont Yankee Nuclear Power Station

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