September 18, 1986

DCR
016

Docket No. 50-336

Mr. John F. Opeka, Senior Vice President
Nuclear Engineering and Operations
Northeast Nuclear Energy Company
P. O. Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Opeka:

We are in the process of reviewing your August 29, 1986 submittal regarding Loss-of-Coolant Accident calculations for Millstone Unit 2. In order that we may continue our review, we request that you respond to the enclosed questions within 30 days following receipt of this letter.

This request for additional information affects fewer than 10 respondents, therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

/S/

David H. Jaffe, Project Manager
PWR Project Directorate #8
Division of PWR Licensing-B

Enclosure:
Request for
Additional Information

cc w/enclosure:
See next page

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Mr. John F. Opeka
Northeast Nuclear Energy Company

Millstone Nuclear Power Station
Unit No. 2

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REQUEST FOR ADDITIONAL INFORMATION ON
MILLSTONE 2 LOCA EVALUATIONS

Small Break Analysis

1. Describe the basis for the core axial power distribution used in the analysis. Justify that this power shape is the worst axial shape allowed by the Technical Specifications.

2. It is stated that the small break spectrum analyses, documented in WCAP-10054, Addendum 1, is based upon the Millstone 2 plant. The Millstone 2 limiting break analysis resulted in a peak cladding temperature of 2135°F or approximately 160°F higher than the results in WCAP-10054, Addendum 1. Describe and justify the differences between the models used in these two analyses and discuss the relative effects of these differences on the temperature increase.

3. The staff is not convinced that the 4 inch cold leg pump discharge break is the worst case small break. It is noted that, prior to accumulator actuation, cladding temperature was continuously increasing. The brief accumulator actuation resulted in an approximate 2 foot level increase in the core mixture level which terminated the cladding temperature increase. It appears that the worst case break would be a slightly smaller break which does not rely upon accumulator injection to terminate the transient. Provide additional spectrum analyses to demonstrate that the worst case break has been identified.

Large Break LOCA Analysis

1. On June 2, 1986, Westinghouse notified the staff of errors in its 1981 ECCS evaluation model with respect to modeling of the control rod thimbles. Determine whether this model error is present in your analysis. If this error is present, assess its impact on your plant to demonstrate compliance with 10 CFR 50.46.

2. Describe whether the steam generator tube plugging was modeled symmetrically or assymmetrically and justify the approach used.