

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NEW YORK WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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December 27, 1979

Docket No. 50-336

Director of Nuclear Reactor Regulation
Attn: Mr. R. Reid, Chief
Operating Reactors Branch #4
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Reference: (1) D. K. Davis letter to A. E. Lundvall, forwarding Calvert Cliffs, Unit No. 1, Stretch Power Safety Evaluation Report, dated September 9, 1977.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Low Temperature Testing

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its operating license, DPR-65, for Millstone Unit No. 2 to authorize performance of tests at reduced reactor coolant system inlet temperatures, as described in Attachment 1.

Currently, Millstone Unit No. 2 operates with three of the four turbine control valves fully open and the fourth valve partially open. In an effort to quantify secondary plant performance losses, it is desired to fully open the fourth turbine control valve and thus, determine the throttling loss across this valve. Since this test will be performed at 100% power, the increase in steam flow will be offset by a reduction in steam enthalpy and hence, steam temperature. The reduction in secondary system temperature will result in a reduction in primary system temperature of approximately 10°F.

The reduction in core inlet temperature during the test will be such that the inlet temperature will be outside the range of temperatures used in the docketed safety analyses. NNECO has determined that this constitutes an unreviewed safety question pursuant to 10CFR50.59, and, therefore, has performed an engineering evaluation addressing the expected effects of this short duration test and the precautions that will be taken to ensure conservatism with respect to existing safety analyses. This evaluation is provided as Attachment 2.

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NNECO has determined that this test can be performed safely based on the following:

- (1) The duration of the test is not expected to exceed twenty four (24) hours, during which time the necessary data will be collected. Following the test, the plant will be returned to normal operating conditions.
- (2) Although the moderator temperature coefficient will change slightly due to temperature and boron concentration variations, it will not be outside the range of values used in the current safety analysis.
- (3) The conduct of the test and the administrative restrictions which will be in effect will assure that the results of transients or accidents initiated during the test will be less severe than indicated on the current safety analyses. Specifically, the following operating conditions will be adhered to:
 - o Minimum inlet temperature $\geq 537^{\circ}\text{F}$.
 - o Maximum linear heat rate $\leq 14.2 \text{ KW/Ft}$.
 - o Pressurizer level will not be varied with the reduced average temperature.

NNECO has determined from the review of the safety analyses that transients and accidents initiated from the lower temperature than previously analyzed will in fact be bounded by the results of the current safety analyses. In addition, the short duration of the test significantly reduces the probability of occurrence of any of these events during the test interval.

NNECO has determined that this action will constitute an unreviewed safety question; therefore, pursuant to 10CFR50.90, proposes a license condition included as Attachment 1. Administrative restrictions which will be in effect during the test will assure that operation will be bounded by analyses and results already approved by the NRC.

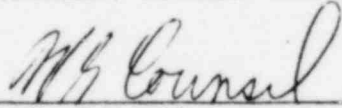
The Millstone Unit No. 2 Nuclear Review Board has reviewed and approved this proposed license condition and has concurred in the above determination.

NNECO has reviewed this request pursuant to 10CFR170 and has determined that the request constitutes a Class III amendment. Therefore, please find enclosed the applicable Class III fee in the amount of four thousand dollars (\$4,000.00).

We trust the above information is sufficient for you to concur with our conclusion that this test may be performed safely and with no adverse consequences.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



W. C. Council
Vice President

Attachment

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