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

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February 8, 1980

Docket No. 50-336

Darrell G. Eisenhut, Acting Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

References: (1) D. G. Eisenhut letter to All Operating Light Water Reactors dated November 9, 1979.
(2) D. G. Eisenhut letter to All Operating Light Water Reactors dated November 27, 1979.
(3) W. G. Counsil letter to D. G. Eisenhut dated December 27, 1979.
(4) Enclosure 1-P of CE Letter LD-78-069, A. E. Scherer to D. F. Ross dated September 18, 1978.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Fuel Cladding Strain and Fuel Assembly Flow Blockage Models

In References (1) and (2), the NRC Staff requested that Northeast Nuclear Energy Company (NNECO) review the vendor submittals on fuel cladding strain and fuel assembly flow blockage models, and to confirm that the representations made on NNECO's behalf were correct.

Reference (3) reported that preliminary investigations by the vendor indicated that Millstone Unit No. 2 remained in compliance with the acceptance criteria of 10CFR50.46, but that the present model used for Millstone Unit No. 2 was less conservative than the new NRC models. Reference (3) also indicated that an analysis was underway to assure that Millstone Unit No. 2 was in compliance with 10CFR50.46.

In order to respond to the NRC concern in a timely manner, Combustion Engineering, Incorporated (CE) performed an analysis for the operating plants with CE fuel. The attached analysis was performed for Millstone Unit No. 2, the plant most limited by the new NRC models for the previously determined limiting break size. The CE ECCS Evaluation of Reference (4) was used for this analysis, and the method for including the new NRC rupture strain and blockage models is described in detail in Section III of the attached report. Results of the analysis, summarized in Section IV of the report, demonstrate that the higher strain and blockage factors combined with other approved model changes, result in lower peak cladding temperatures than calculated for the reference cycle. The analysis documented

in the attached report demonstrates that the ECCS analyses performed for Millstone Unit No. 2 continue to be in compliance with the limits of 10CFR50.46, confirming the position presented in Reference (3).

We trust you find this information sufficient to resolve any remaining Staff concerns.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

W. G. Counsil
Vice President

By: W. F. Fee
W. F. Fee
Vice President

Attachment