

NORTHEAST UTILITIES



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

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C. FREDERICK SEARS
VICE PRESIDENT
ENVIRONMENTAL

January 27, 1993
D06112

Mr. Timothy Keeney, Commissioner
Department of Environmental Protection
State Office Building
165 Capitol Avenue
Hartford, CT 06115

- References:
1. Letter (D05211), C. F. Sears to T. Keeney, dated January 9, 1992.
 2. Letter (D05565), C. F. Sears to T. Keeney, dated May 29, 1992.
 3. Permit (C04876), NPDES Permit CT0003263, Northeast Nuclear Energy Company, dated December 14, 1992

Dear Commissioner Keeney:

Millstone Nuclear Power Station
Final Report
Feasibility Study of Cooling Water System Alternatives
To Reduce Winter Flounder Larval Entrainment at
Millstone Unit Nos. 1, 2, and 3

In discussions regarding the renewal of the Millstone Nuclear Power Station (MNPS) NPDES permit, the DEP staff indicated the need for a study to investigate cooling water system alternatives to reduce the entrainment of winter flounder larvae through the MNPS condenser cooling-water systems. Following the October 8, 1991 discussions between Northeast Utilities Service Company (NUSCO) and DEP, the DEP sent NUSCO the following concept for the study:

"The proposed study of the feasibility of reducing entrainment of winter flounder larvae at Millstone NPS should investigate several alternatives. The study should review intake structure alternatives including screening devices and physical barriers such as sills, baffles, and curtain walls. The study should also review cooling system design alternatives such as recirculating cooling towers and an offshore intake. Finally, the study should review operational alternatives such as reduced cooling water flow (higher Delta T and Maximum Delta T), reduced power generation, and the scheduling of maintenance shutdowns. Each alternative should be reviewed with regard to technological feasibility, effectiveness, and costs."

As a result, an engineering project was initiated for this feasibility study on December 1, 1991, and a description of the project was submitted to the DEP

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on January 9, 1992, Reference 1. As the project developed, a scope of work for the study was prepared and submitted to the DEP on May 29, 1992, Reference 2. NUSCO requested a submittal date of February 1, 1993, for the final report.

On December 14, 1992, Reference 3, the DEP, by way of Paragraph 8 of the Renewal NPDES Permit for MNPS, approved the May 29, 1992 scope of study and set January 31, 1993 as the submittal date for the final report. In approving the cooling water intake structures, pursuant to "Section 316(b) of the Federal Act," the DEP further requested "that additional evidence based upon actual operating experience of Millstone Nuclear Power Station, Units 1, 2, and 3 would be desirable in order to corroborate the Commissioner's findings. Such data will be generated by the studies to be conducted pursuant to paragraphs 5 and 8 of this permit."

NUSCO, on behalf of Northeast Nuclear Energy Company (NNECO), pursuant to Paragraph 8 of NPDES Permit CT0003263, Reference 3, hereby submits the report titled "Feasibility Study of Cooling Water System Alternatives to Reduce Winter Flounder Larval Entrainment at Millstone Units 1, 2, and 3." NUSCO believes that this report responds to the Commissioner's request for additional evidence based on actual operating experience of MNPS, as well as studies of other potential designs for entrainment mitigation.

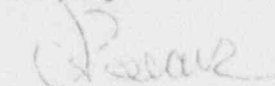
NUSCO believes there are presently no cooling water alternatives that would measurably increase the winter flounder population and, therefore, the high cost of implementation of any alternative is not warranted. The projected costs that would be borne by the ratepayers would be totally disproportionate to any ecological benefits gained.

We, therefore, corroborate the Commissioner's findings stated in Permit CT0003263 that "the location, design, construction and capacity of the cooling water intake structure represents the best available technology for minimizing adverse environmental impact from impingement and entrainment pursuant to Section 316(b) of the Federal Act."

Should you have any questions, please call Mr. Thomas P. Arcari, NUSCO Generation and Environmental Licensing, at (203) 665-3713.

Very truly yours,

NORTHEAST UTILITIES SERVICE COMPANY
As Agent for Northeast Nuclear Energy
Company



C. F. Sears
Vice President - Environmental

Enclosure
cc: See Page 3

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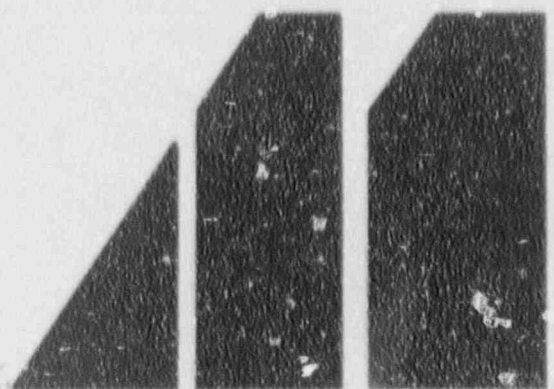
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FEASIBILITY STUDY
OF
COOLING WATER SYSTEM ALTERNATIVES
TO REDUCE WINTER FLOUNDER
LARVAL ENTRAINMENT
AT MILLSTONE UNITS 1, 2, AND 3



millstone
nuclear power station

JANUARY 1993

NORTHEAST UTILITIES SERVICE COMPANY
Berlin, Connecticut