**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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October 21, 1985

Docket No. 50-423
B11815

Director of Nuclear Reactor Regulation
Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference (1) J. F. Opeka letter to B. J. Youngblood "Response to SER Confirmatory Item 50," dated July 12, 1985.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Additional Information Concerning
Response to SER Confirmatory Item 58

In Reference (1), Northeast Nuclear Energy Company submitted a response to SER Confirmatory Item 58 concerning the emergency diesel generator fuel oil storage and transfer system. In a recent discussion, the Staff requested justification as to when operation of a spent fuel pool cooling pump and reactor plant component cooling water pump must be initiated following a loss of power with design bases accident conditions. Attachment I provides NNECO's response to the Staff's concern.

We trust the attached will resolve the Staff's concern. If there are any additional questions, please contact our licensing representative directly.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY
et.al.

BY NORTHEAST NUCLEAR ENERGY COMPANY
Their Agent

J. F. Opeka
Senior Vice President

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STATE OF CONNECTICUT )
) ss. Berlin
COUNTY OF HARTFORD )

Then personally appeared before me J. F. Opeka, who being duly sworn, did state that he is Senior Vice President of Northeast Nuclear Energy Company, an Applicant herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Applicants herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

Lorraine J. D'Amico
Notary Public

My Commission Expires March 31, 1988

ATTACHMENT I

SER Confirmatory Item 58

Emergency Diesel Engine Fuel Oil
Storage and Transfer System

In a recent discussion, the staff requested clarification of NNECO's July 12, 1985 submittal regarding the emergency diesel generator load-shedding/fuel capacity analysis. Specifically, justification was requested as to when operation of a spent fuel pool cooling pump and reactor plant component cooling water pump must be initiated following a loss of power with DBA conditions.

In FSAR Section 9.1.3.3, a time estimate of 12.5 hours is stated, following a loss of all fuel pool cooling, before 200°F is reached in the spent fuel pool. This value is derived using the design basis heat load for the normal refueling case, 132 hours following reactor shutdown.

For the diesel generator load shedding scenario, an elapsed time of 20 hours is required before 200°F is reached. This is based on the same fuel loading configuration in the spent fuel pool, but 25 days following reactor shutdown. the 25 day criteria is a conservative time for return to power following a shutdown for refueling. With the fuel pool loading configuration as discussed, the heat load is $2.48 \times 10^7$ BTU/hr. The pool temperature, under these conditions and assuming a maximum CCP temperature, would be 118.9°F. The rate of temperature rise in the fuel pool, following a loss of cooling, would be 3.95°F/hr. At this rate, the fuel pool temperature would reach 200°F after 20.5 hrs. Once 200°F has been reached a reactor plant component cooling water and spent fuel pool cooling pump will be started. Assuming the same fuel heat load and a 200°F initial temperature, the average rate of temperature reduction, following a resumption in cooling and assuming CCP temperature is maximum, would be 5.2°F/hr.