August 26, 1985

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

Dear Mr. Opeka:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON SPENT FUEL STORAGE CAPACITY EXPANSION FOR MILLSTONE UNIT 2

We are continuing our review of your request dated July 24, 1985 to modify your Technical Specification concerning the spent fuel storage capacity at Millstone Unit 2.

Before a Safety Evaluation can be prepared, we need responses to the questions on the enclosure. We request that you provide this information within 15 days of your receipt of this letter. Additional informational requests from other review branches are anticipated.

The information requested in this letter affects fewer than 10 respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

/S/

Edward J. Butcher, Acting Chief
Operating Reactors Branch No. 3
Division of Licensing

Enclosure:
As stated

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

cc:

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AUXILIARY SYSTEMS BRANCH

REQUEST FOR ADDITIONAL INFORMATION
MILLSTONE UNIT 2

SPENT FUEL POOL CAPACITY EXPANSION

1. The submittal refers to using the two spent fuel pool cooling systems in addition to using one shutdown cooling system to remove the decay heat associated with a core off-load and the remaining capacity filled with normal refuelings. The FSAR does not discuss the potential for using the shutdown cooling system to cool spent fuel. FSAR Figure 9.5-1 does show a "temporary" connection to "shutdown heat exchanger". Verify that this is the connection to the shutdown cooling system and that this temporary connection is still available. Provide a discussion of this temporary connection in terms of the existence of a spool piece, manual or remote manual valving, and operating procedures.

2. The heat load calculations provided in the submittal indicate that the total normal heat load would be in excess of the combined capacity of both spent fuel pool cooling trains. In conformance with the Standard Review Plan (NUREG-0800), provide a discussion of the method of maintaining the spent fuel pool water temperature less than 140 degrees F with the normal heat load and the single failure of one spent fuel pool cooling system train. If the shutdown cooling system is relied upon, provide a commitment to have the reactor in cold shutdown prior to aligning the shutdown cooling system to cool the spent fuel pool and to maintain the reactor in the cold shutdown condition until the shutdown cooling system can be realigned to the reactor system.

3. Provide the heat exchanger heat rate transfer coefficients in BTU/Hr-ft^2-^oF for the spent fuel pool cooling system heat exchangers and the reactor building component cooling water system (RBCCWS) heat exchangers. Provide the total normal heat loads (in MBTU/Hr) on the RBCCWS heat exchangers excluding the spent fuel decay heat load. Provide the maximum water temperatures for the RBCCWS and the service water system which will not result in insufficient cooling to the serviced components. Provide the design flow rates in GPM for the RBCCWS water through the spent fuel pool cooling system heat exchangers and for the service water through the RBCCWS heat exchangers.

4. Provide the results of analyses of dropping an existing rack and each type of the new racks from the maximum height that it will be lifted onto the spent fuel pool floor. Provide the results of an analysis of the failure of one wire rope and one lifting lug when the rack is lifted sufficiently high above the pool floor that the rack can rotate. These analyses should include the damage to the pool liner, adjacent racks, fuel damage, and loss of pool water (both due to splashing from the dropped racks and leakage through liner damage). When considering the damage to the pool liner, the feet of the rack should be considered as hitting the weakest part of the

liner, which is usually at the leakage detection system for the liner welds. Provide a discussion of the procedure which will be used to physically verify that no damage has occurred and to recover the dropped load, should a load drop accident occur. Provide drawings which show the load paths to be followed, the order in which the racks will be replaced and the location of the spent fuel during the load handling operations.