

June 20, 1989

Docket No. 50-423

Mr. Edward J. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Mroczka:

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SUBJECT: MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3 - TRANSMITTAL OF
ENVIRONMENTAL ASSESSMENT (TAC 71942)

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" for your information. This assessment relates to your application dated January 24, 1989, to revise the Technical Specifications to permit use of high enrichment fuel (up to 5.0 weight-percent U-235) at Millstone Nuclear Power Station Unit No. 3.

The assessment has been sent to the Office of the Federal Register to publication.

Sincerely,

/s/

David H. Jaffe, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
See next page

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Mr. E. J. Mrocza
Northeast Nuclear Energy Company

Millstone Nuclear Power Station
Unit No. 3

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NORTHEAST NUCLEAR ENERGY COMPANY
MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3
DOCKET NO. 50-423
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (NRC or the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-49 to Northeast Nuclear Energy Company (the licensee), for Millstone Unit 3 located in the Town of Waterford, Connecticut.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed amendment would revise the provisions in the Technical Specifications (TS) relating to fuel enrichment.

The proposed action is in accordance with the licensee's application dated January 24, 1989.

The Need for the Proposed Action:

The proposed changes are needed so that the licensee can use higher enrichment fuel, and provide the flexibility of extending the fuel irradiation and permitting operation of longer fuel cycles.

Environmental Impacts of the Proposed Action:

The staff has completed its evaluation of the proposed revisions to the Technical Specifications. The proposed revision would permit use of fuel enriched with Uranium 235 up to 5.0 nominal weight percent. The expected Cycle 3 burnup is 17000 MWD/MTU. The safety considerations associated with reactor operation with higher enrichment and extended irradiation have been evaluated by the NRC staff. The staff, has

concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse effect on the probability of any accident. The increased burnup may slightly change the mix of fission products that might be released in the event of a serious accident but such small changes would not significantly affect the consequences of serious accidents. No changes are being made in the types or amounts of any radiological effluents that may be released offsite during normal operation. There is also no significant increase in the allowable individual or cumulative occupational radiation exposure.

With regard to potential nonradiological impacts of reactor operation with higher enrichment and extended irradiation, the proposed changes to the TS involve systems located within the restricted area as defined in 10 CFR Part 20. They do not affect nonradiological plant effluents and have no other environmental impact.

The environmental impacts of transportation resulting from the use of higher enrichment fuel and extended irradiation have been discussed in the staff assessment entitled, "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation," dated July 7, 1988 (53 FR 30355). As indicated therein, the environmental cost contribution of the proposed increase in the fuel enrichment and irradiation limits are either unchanged or may in fact be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c).

Therefore, the staff concludes that there are no significant radiological or nonradiological environmental impacts associated with the proposed amendment.

Alternative to the Proposed Action:

Since the staff concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would result in reduced operational flexibility.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the "Final Environmental Statement related to the operation of Millstone Nuclear Power Station Unit No. 3" dated December 1984.

Agencies and Persons Consulted:

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

The staff has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, the staff concluded that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated January 24, 1989, which is available for public inspection at

the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. and at the Waterford Public Library, 49 Rope Ferry Road, Waterford, Connecticut 06385.

Date at Rockville, Maryland, this 20th day of June 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Alexander W. Dromerick".

Alexander W. Dromerick, Acting Director
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation