

April 9, 2001

Mr. R. G. Lizotte
Master Process Owner-Assessment
c/o Mr. David A. Smith
Northeast Nuclear Energy Company
P. O. Box 128
Waterford, CT 06385-0128

SUBJECT: ISSUANCE OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO
SIGNIFICANT IMPACT REGARDING TECHNICAL SPECIFICATION CHANGE
RELATED TO FUEL HANDLING AND CASK DROP ACCIDENTS, MILLSTONE
NUCLEAR POWER STATION, UNIT NO. 3 (TAC NO. MA9364)

Dear Mr. Lizotte:

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" related to your application for amendment dated June 29, 2000, as supplemented by letters dated October 16, 2000, and January 25, 2001. The proposed amendment would modify Technical Specification (TS) Sections 3.3.2, "Instrumentation - Engineered Safety Features Actuation System Instrumentation;" 3.7.7, "Plant Systems - Control Room Emergency Ventilation System;" 3.7.8, "Plant Systems - Control Room Envelope Pressurization System;" 3.7.9, "Plant Systems - Auxiliary Building Filter System;" 3.9.1.1, "Refueling Operations - Boron Concentration;" 3.9.1.2, "Refueling Operations - Boron Concentration;" 3.9.2, "Refueling Operations - Instrumentation;" 3.9.4, "Refueling Operations - Containment Building Penetrations;" 3.9.9, "Refueling Operations - Containment Purge and Exhaust Isolation System;" 3.9.10, "Refueling Operations - Water Level - Reactor Vessel;" and 3.9.12, "Refueling Operations - Fuel Building Exhaust Filter System." The proposed changes are associated with the revised fuel handling accident analyses, and integrity of the Control Room and the Fuel Building boundaries. Several administrative changes are also proposed to reflect Millstone Unit 3 terminology, removal of unnecessary information and to eliminate confusion by providing consistency between limiting conditions for operations, action requirements, and Surveillance Requirements. The proposed Technical Specifications changes are associated with the revised containment fuel handling accident analysis which results in an increase in the consequences of a containment fuel handling accident since the current analysis of a containment fuel handling accident does not assume the release of any radioactive material from containment. The revised analysis assumes a release of radioactive material because it assumes both personnel access hatch doors are open and at least one hatch door is closed within 10 minutes of a fuel handling accident inside containment.

R. Lizotte

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The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

/RA/

Victor Nerses, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosure: Environmental Assessment

cc w/encl: See next page

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

/RA/

Victor Nerses, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosure: Environmental Assessment

cc w/encl: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

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

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would revise Technical Specification (TS) Sections: 3.3.2.1, "Instrumentation - Engineered Safety Feature Actuation System Instrumentation;" 3.3.3.1, "Instrumentation - Monitoring Instrumentation - Radiation Monitoring;" 3.7.6.1, "Plant Systems - Control Room Emergency Ventilation System;" 3.9.3.1, "Refueling Operations - Decay Time;" 3.9.4, "Refueling Operations - Containment Penetrations;" 3.9.9, "Refueling Operations - Containment Radiation Monitoring;" 3.9.10, "Refueling Operations - Containment Purge Valve Isolation System;" 3.9.13, "Refueling Operations - Storage Pool Radiation Monitoring;" 3.9.14, "Refueling Operations - Storage Pool Area Ventilation System - Fuel Movement;" 3.9.15, "Refueling Operations - Storage Pool Area Ventilation System - Fuel Storage;" 3.9.16.1, "Refueling Operations - Shielded Cask;" 3.9.16.2, "Refueling Operations - Shielded Cask;" 3.9.17, "Refueling Operations - Movement of Fuel in Spent Fuel Pool;" and 3.9.19.2, "Refueling

Operations - Spent Fuel Pool - Storage Pattern,” and add new TS 3.3.4, “Containment Purge Valve Isolation Signal.” The requested changes would make the TSs and the Final Safety Analysis Report (FSAR) consistent with new analyses of the fuel handling and cask drop accidents. The Index pages and the Bases for these TSs would be modified to reflect these changes.

The proposed action is in accordance with the licensee's amendment request dated June 29, 2000, as supplemented by letters dated October 16, 2000, and January 25, 2001.

The Need for the Proposed Action:

The proposed action is needed for the licensee to move new and spent fuel while the containment is open during refueling operations. NNECO has determined that the current analysis of a fuel handling accident inside containment needs to be revised since the current analysis is not conservative with respect to the amount of fuel damage that will occur. As a result, Millstone Unit No. 3 was required to keep containment isolated during fuel movement inside containment until a revised analysis was approved by the NRC. With the containment isolated, high temperature and humidity conditions create an adverse environment for individuals working inside containment. This type of environment is a personnel safety concern and can increase the potential for human errors. The revised analysis, which was submitted for approval by NNECO in an application dated June 29, 2000, includes a provision to maintain the personnel air lock doors open under administrative control. This will greatly simplify normal entry and egress. This provision will also decrease the time necessary to evacuate containment in the event of a fuel handling accident, thereby decreasing personnel exposure.

Environmental Impacts of the Proposed Action:

The NRC has completed its assessment of the potential environmental impacts associated with the changes. These TS changes are supported by a revised fuel handling analyses and cask drop accident analyses. The impact of the above proposed TS changes has

been evaluated by the NRC in consideration for approval of the changes and supporting analyses. The TS change will not significantly increase the probability of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. The consequences of the postulated design basis accidents related to fuel handling and cask drop accidents will be greater than previously evaluated. However, the NRC considers NNECO's approach taken to calculate the dose analysis was conservative and conformed to the NRC Regulatory Guide 1.25. Furthermore, the consequences remain well within 10 CFR Part 100 doses (25 percent of 10 CFR Section 100.11(a)(1)) for offsite releases. Therefore, the TS changes will not significantly increase the consequences of any fuel handling or cask drop accidents.

With regard to potential non-radiological impacts, the proposed action does not involve any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed amendment.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no significant change in current environmental impacts. Such action would not enhance the protection of the environment and would result in unjustified hardship to the licensee. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Millstone Nuclear Power Station, Unit No. 3.

Agencies and Persons Consulted:

In accordance with its stated policy, on January 25, 2001, the staff consulted with the Connecticut State official, Michael Firsick of the Division of Radiation, Department of Environmental Protection, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated June 29, 2000, as supplemented by letters dated October 16, 2000, and January 25, 2001. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Electronic Reading Room).

Dated at Rockville, Maryland, this 9th day of April 2001.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Victor Nerses, Sr. Project Manager, Section 2
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Division of Licensing Project Management
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Millstone Nuclear Power Station
Unit 3

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