

November 3, 1986

DMB 016

Docket No. 50-336

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

Dear Mr. Opeka:

The Commission has forwarded the enclosed "Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing" to the Office of the Federal Register for publication.

The notice relates to your applications for license amendments dated October 20, October 24 and October 27, 1986.

Sincerely,

Original signed by:
Ashok Thadani

Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

Enclosure:
Notice

cc w/enclosure:
See next page

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October 29, 1986

DOCKET NO. 50-336

MEMORANDUM FOR: Rules and Procedures Branch
Division of Rules and Records
Office of Administration

FROM: Office of Nuclear Reactor Regulation

SUBJECT: Northeast Nuclear Energy Company, et al., Millstone 2

One signed original of the *Federal Register* Notice identified below is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (6) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s); Time for Submission of Views on Antitrust Matters.
- Notice of Consideration of Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Order.
- Exemption.
- Notice of Granting Exemption.
- Environmental Assessment.
- Notice of Preparation of Environmental Assessment.
- Other:

Please call Pat Kreutzer, x-28075, and inform her of date to be filled in on page 6.

Office of Nuclear Reactor Regulation

Enclosure:
As stated

Contact: Pat Kreutzer
Phone: x-28075

OFFICE	DL-B: PDB-8					
SURNAME	PKreutzer					
	10/29/86					

Mr. John F. Opeka
Northeast Nuclear Energy Company

Millstone Nuclear Power Station
Unit No. 2

cc:
Gerald Garfield, Esq.
Day, Berry & Howard
Counselors at Law
City Place
Hartford, Connecticut 06103-3499

Mr. Wayne D. Romberg
Superintendent
Millstone Nuclear Power Station
P. O. Box 128
Waterford, Connecticut 06385

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
Office of Executive Director for
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631 Park Avenue
King of Prussia, Pennsylvania 19406

Mr. Edward J. Mroczka
Vice President, Nuclear Operations
Northeast Nuclear Energy Company
P. O. Box 270
Hartford, Connecticut 06141-0270

Mr. Charles Brinkman, Manager
Washington Nuclear Operations
C-E Power Systems
Combustion Engineering, Inc.
7910 Woodmont Avenue
Bethesda, Maryland 20814

Mr. Lawrence Bettencourt, First Selectman
Town of Waterford
Hall of Records - 200 Boston Post Road
Waterford, Connecticut 06385

Northeast Utilities Service Company
ATTN: Mr. Richard R. Laudenat, Manager
Generation Facilities Licensing
Post Office Box 270
Hartford, Connecticut 06141-0270

Kevin McCarthy, Director
Radiation Control Unit
Department of Environmental
Protection
State Office Building
Hartford, Connecticut 06106

Mr. Theodore Rebelowski
U.S. NRC
P. O. Box 615
Waterford, Connecticut 06385-0615

Office of Policy & Management
ATTN: Under Secretary Energy
Division
80 Washington Street
Hartford, Connecticut 06106

UNITED STATES NUCLEAR REGULATORY COMMISSIONNORTHEAST NUCLEAR ENERGY COMPANY, ET AL.DOCKET NO. 50-336NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-65, issued to Northeast Nuclear Energy Company (the licensee), for operation of the Millstone Nuclear Power Station, Unit No. 2, located in New London County, Connecticut.

By applications for license amendments dated October 20, October 24 and October 27, 1986, the licensee requested changes to the Technical Specifications (TS) for Millstone Unit No. 2. The proposed changes to the TS provide for: (1) revised temperature pressure limits in TS 3/4.4.9, "Pressure/Temperature Limits" and TS Figure 3.4-2, "Reactor Coolant System Pressure Temperature Limitations for 12 Full Power Years," (2) a change to the surveillance frequency for determining reactor coolant system (RCS) flow rate in TS 4.2.6, "DNB Margin," and (3) changes to several TS associated with RCS flow and reactor power peaking limits.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in

accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The October 20, 1986 application for license amendment proposes revised temperature/pressure limitations for the reactor pressure vessel that would be applicable to 12 effective full power years (EFPY). The existing limitations in the TS are only applicable up to 7 EFPY which will be reached early during Cycle 8 operation. The reactor is presently in a refueling outage in preparation for Cycle 8 operation.

Operation of the reactor vessel is restricted to safe pressures for a given temperature. Since exposure to radiation embrittles the vessel, the operating restrictions are modified over time. To maintain a constant safety margin, either the maximum allowable pressure for a given temperature is reduced or the maximum allowable rate of temperature change is modified. The goal is to reduce the vessel stresses in recognition of the vessel's reduced resistance to brittle fracture. In the case of the proposed TS, safety margin is maintained through a combination of proposed reduced heat-up and cooldown rates (maximum allowable rate of temperature change) in TS 3/4.4.9 and reduction in the maximum allowable pressure for a given temperature as shown in proposed TS Figure 3.4-2.

The proposed changes to TS 3/4.4.9 and TS Figure 3/4-2 do not involve a significant increase in the probability or consequences of accidents previously evaluated. The requirements of TS 3/4.4.9 and TS Figure 3.4-2 are associated with preventing brittle fracture of the vessel and not with any

previously analyzed accident. The proposed changes to the TS will not create the possibility of a new or different type of accident since the proposed limitations conservatively account for progressive vessel embrittlement to 12 EFPY; thus, operation within the limits of the proposed TS will prevent a brittle fracture of the reactor pressure vessel. Finally, the proposed change to the TS will not involve a reduction in a safety margin. As indicated previously, the proposed TS maintain the safety margin for reactor vessel failure by increasing the restrictions on reactor vessel temperature change rates and on minimum temperature at given pressures. Accordingly, the Commission proposes to determine that the proposed changes to TS 3/4.4.9 and TS Figure 3.4-2 involve no significant hazards considerations.

The October 24, 1986 application for license amendment proposes a change to the RCS flow surveillance requirements of TS 4.2.5.2. At the present time, RCS flow must be determined every 12 hours. The licensee proposes that the surveillance interval be increased to require RCS flow measurement every 31 days.

The measurement of RCS flow, together with other measurements, is important to assure that the core thermal margins are sufficient. In this regard, the departure from nucleate boiling (DNB) ratio is an important indicator of the reactor core thermal margin. Significant changes in DNB ratio due to RCS flow changes could result from two sources. The first, type of flow-related DNB change could result from the loss of one or more reactor coolant pumps. This change would be dramatic and would result in the automatic shutdown of the reactor by the reactor protection system (RPS). The second type of flow-related DNB change could result from the deposition

of corrosion products (crud) in the core. Experience has shown that crud buildup, should it occur, is a long term problem that is manifested over several months and thus would be observed over several of the proposed surveillance intervals.

Based upon the above, the proposed change to TS 4.2.5.2 does not involve a significant increase in the probability or consequences of accidents previously evaluated. Accidents involving sudden RCS flow decreases are mitigated by the RPS and not by determination of RCS flow via TS 4.2.5.2. The proposed change to the TS does not create the possibility of a new or different type of accident since no changes to equipment or operating modes are involved. Finally, no safety margins would be significantly reduced. The slow buildup of crud, should it occur, would still be detected prior to any significant decrease in DNBR. Accordingly, the Commission proposes to determine that the proposed change to TS 4.2.5.2 involves no significant hazards considerations.

The October 27, 1986 application for license amendment proposes changes to the TS that would allow the reduction in the RCS flow rate from the current value of 350,000 GPM to 340,000 GPM. Since the reduction in the RCS flow rate would reduce the DNB margin, a change is also proposed to reduce the total integrated radial peaking factor (F_r^T). The current value for F_r^T is 1.565 for full power operation and is defined by TS Figure 3.2-3b for reduced power. It is proposed to replace F_r^T with a 1.537 limit for full power operation and a more restrictive Figure 3.2-3b for reduced power levels. The proposed change, therefore, is a trade-off of RCS flow for F_r^T . The following TS would change:

- o TS Figure 2.1-1, "Reactor Core Thermal Margin Safety Limit" - The indicated flow on this figure would be changed.
 - o TS Table 2.2-1, "Reactor Protective Instrumentation Trip Setpoint Limits" - The setpoint for low RCS flow would be changed.
 - o TS Figure 3.2-3b, "Total Radial Peaking Factor vs. Allowable Fraction of Rated Thermal Power" - This would be a revised curve.
 - o TS 3.2.3, "Total Integrated Radial Peaking Factor - F_r^T " - The limit on F_r^T would be changed.
 - o TS Table 3.2-1, "DNB Margin" - The indicated RCS flow would be changed.
- The licensee has provided a reanalysis of accidents and transients which could be affected by the proposed change in RCS flow and F_r^T and has determined that there are no significant changes in the analytic results.

Based upon the above, the proposed changes to the TS do not involve a significant increase in the probability or consequences of an accident previously evaluated. Since the reduction in RCS flow rate will be offset by a reduction in F_r^T , the Millstone Unit No. 2 design basis accidents are not adversely affected. The proposed TS changes will not create the possibility of a new or different kind of accident from any previously evaluated. Because the change in RCS flow rate is offset by changes to the total integrated radial peaking factor, no new unanalyzed events are created. Finally, the proposed TS changes do not involve a significant reduction in a margin of safety. The potential reduction in DNB margin which would be caused by a reduction in the RCS flow rate is offset by the reduction in F_r^T . Accordingly, the Commission proposes to determine that the proposed changes to the TS do not involve significant hazards considerations.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing. Comments should be addressed to the Rules and Procedures Branch, Division of Rules and Records, office of Administration, U.S. Nuclear Regulatory Commission, Washington, D. C. 20555.

By December 4, 1986, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR §2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding;

(2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and

make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility; the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Ashok C. Thadani: petitioner's name and telephone

number; date petition was mailed; plant name; and publication date and page number of this FEDERAL REGISTER notice. A copy of the petition should also be sent to the Office of the General Counsel-Bethesda, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to Gerald Garfield, Esq., Day, Berry and Howard, One Constitution Plaza, Hartford, Connecticut 06103, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board, that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the applications for amendments dated October 20, October 24 and October 27, 1986, which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C., and at the Waterford Public Library, 49 Rope Ferry Road, Waterford, Connecticut 06103.

Dated at Bethesda, Maryland, this October 29, 1986.

FOR THE NUCLEAR REGULATORY COMMISSION



Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B