Docket No.: 50-423

OCT 28 1985

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

Dear Mr. Opeka:

Subject: Draft License for Millstone Nuclear Power Station, Unit No. 3

Enclosed is a draft low power license for Millstone Nuclear Power Station, Unit 3. Please review this draft license and provide written comments by November 5, 1985. If you have any questions regarding this, contact the NRC Project Manager, Elizabeth Doolittle, at (301)492-9411.

Sincerely,
(5)
Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing

Enclosure: As stated

cc: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.*

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

FACILITY OPERATING LICENSE

License No. NPF-44

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for license filed by Northeast Nuclear Energy Company, as agent and representative of 15 utilities listed below and hereafter referred to as licensees, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;

   B. Construction of the Millstone Nuclear Power Station, Unit No. 3 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-113 and the application, as amended, the provisions of the Act, and the regulations of the Commission;

   C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission, (except as exempted from compliance in Section 2.D below);

   D. There is reasonable assurance: (1) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (2) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I, (except as exempted from compliance in Section 2D below):

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*Northeast Nuclear Energy Company is authorized to act as agent and representative for the following Owners: Central Maine Power Company, Central Vermont Public Service Corporation, Chicopee Municipal Lighting Plant, City of Burlington, Vermont, Connecticut Municipal Electric Energy Cooperative, The Connecticut Light and Power Company, Fitchburg Gas and Electric Light Company, Massachusetts Municipal Wholesale Electric Company, Montaup Electric Company, New England Power Company, Public Service Company of New Hampshire, The United Illuminating Company, The Village of Lyndonville Electric Department, Western Massachusetts Electric Company, and Vermont Electric Generation and Transmission Cooperative, Inc. and has exclusive responsiblility and control over the physical construction, operation and maintenance of the facility.

E. Northeast Nuclear Energy Company is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

F. The licensees have satisfied the applicable provisions of 10 CFR Part 140 "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of Facility Operating License No. NPF-44, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and

I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.

2. Based on the foregoing findings regarding this facility, Facility Operating License No. NPF-44 is hereby issued to Northeast Nuclear Energy Company, et al. (the licensees) to read as follows:

A. This license applies to the Millstone Nuclear Power Station, Unit 3, a pressurized water nuclear reactor and associated equipment (the facility), owned by the licensees. The facility is located in Waterford Township, New London County, Connecticut on the north shore of Long Island Sound, and is described in the licensees' "Final Safety Analysis Report", as supplemented and amended, and in the licensees' Environmental Report, as supplemented and amended.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Northeast Nuclear Energy Company, et al.:

(1) Northeast Nuclear Energy Company (NNECO) to possess the facility at the designated location in New London County, Connecticut in accordance with the procedures and limitations set for in this license;

(2) NNECO pursuant to Section 103 of the Act and 10 CFR Part 50, to use and operate the facility at the above designated location in accordance with the procedures and limitations set forth in this license;

(3) NNECO, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(4) NNECO, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(5) NNECO, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or associated with radioactive apparatus or components; and

(6) NNECO, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operations of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Northeast Nuclear Energy Company is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% rated power) in accordance with the conditions specified herein. Pending Commission approval, this license is restricted to power levels not to exceed 5 percent of rated power (170 megawatts thermal). The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specification and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Northeast Nuclear Energy Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Environmental Qualification (Section 3.11 SSER# 2)*

No later than November 30, 1985, NNECO shall environmentally qualify all electrical equipment according to the provisions of 10 CFR 50.49.
[LC may be deleted if all equipment is qualified by OL issuance]

(4) Mass and Energy Release Analysis (Section 6.2.1.4 SER, SSER 2)

Prior to exceeding 5% power operation, the applicant shall submit for staff review and approval the Westinghouse generic analysis described in the staff's January 25, 1985 meeting with Westinghouse. The applicant shall also justify the applicability of (i) the Westinghouse LOFTRAN Methodology to the Model F Steam Generator and (ii) the generic containment analysis to the Millstone containment design.

(5) Instrumentation for Monitoring Post Accident Conditions R.G. 1.97 Revision 2 Requirements (Section 7.5.2.6 SER, SSER)

NNECO shall install and have operational instrumentation to monitor containment sump water temperature at the firs scheduled outage of sufficient duration but no later than startup after the first refueling outage.

(6) Installation of Post Accident Sampling System (Section 9.3.2, SER)

Prior to exceeding 5% power operation, the licensee shall have installed and operational the post accident sampling system.

(7) Moisture in Air Start System (Section 9.5.6, SER)

NNECO shall install air dryers in the emergency diesel air start system at the first scheduled outage of sufficient duration but no later than startup after the first refueling outage.

(8) Fire Protection (Section 9.5.1, SER, SSER 2)

(a) NNECO shall implement and maintain in effect all provisions of the approved fire protection program as described in its Final Safety Analysis Report for the facility through Amendment 14 and as approved in the SER through Supplement No. 3, subject to provisions (b) and (c) below.

* The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

(b) NNECO may make no change to the approved fire protection program which would significantly decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change, NNECO must submit an application for a license amendment pursuant to 10 CFR 50.90.

(c) NNECO may make changes to features of the approved fire protection program which do not significantly decrease the level of fire protection without prior Commission approval provided:

(i) such changes do not otherwise involve a change in a license condition or Technical Specification or result in an unreviewed safety question (see 10 CFR 50.59), and

(ii) such changes do not result in failure to complete the fire protection program approved by the Commission prior to license issuance.

NNECO shall maintain, in an auditable form, a current record of all such changes, including an analysis of the effects of the changes on the fire protection program, and shall make such records available to NRC inspectors upon request. All changes to the approved program shall be reported to the Director of the Office of Nuclear Reactor Regulation, together with the FSAR revisions required by 10 CFR 50.71(e).

(9) TMI Item II.K.3.30 Revised Small Break LOCA Methods to Show Compliance with 10 CFR 50 Appendix K (Section 15.9.13, SSER 3)

By June 15, 1986, NNECO shall submit plant specific analysis utilizing NOTRUMP, as required by TMI Action Plan Item II.K.3.31 per Generic Letter 83-35, Compliance with TMI Action Plan Item IIK 3.31 may be submitted generically. The staff requires that the generic submittal include validation that the limiting break location has not shifted away from the cold legs to the hot or pump suction legs.

(10) Steam Generator Tube Rupture Analysis (Section 15.6.3, SER)

Prior to restart following the first refueling outage, NNECO shall submit for NRC review and approval an analysis which demonstrates that the steam generator single-tube rupture (SGTR) analysis presented in the FSAR is the most severe case with respect to the release of fission products and calculated doses. Consistent with the analytical assumptions, the licensee shall propose all necessary changes to Appendix A to this license.

(11) Main Steam Line Break Outside Containment (Section 3.6.1, 3.11 SER)

[Input to be provided by DE/EQB]

(12) Inservice Inspection Program (Section 5.2.4.3 SER, 6.6.3 SER)

NNECO shall submit the inservice inspection program for NRC staff review and approval within six months from the date of this license.

(13) SPDS and DCRDR (Section 18 SER, SSER 1)

Prior to restart followup the first refueling outage, NNECO shall add to the Safety Parameter Display System (SPDS) and have operational the following SPDS parameters:

(i) Resident Heat Removal (RHR) Flow
(ii) Containment Isolation
(iii) Containment Hyrdogen Concentration
(iv) Primary Coolant System Hot Leg Temperature

Open items regarding the DCRDR identified in the SER shall be resolved and acceptable implementation dates for Human Engineering Discrepancies (HEDs) shall be proposed prior to exceeding 5% power.

(14) Initial Test Program (Section 14, SER)

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(15) Item I.C.1, Reanalysis of Transients and Accidents - Emergency Operating Procedures Generaton Package (Section 13.5.2 SER)

Prior to operation in excess of 5% of full power, NNECO shall:

(a) Establish guidelines and critieria for the use of the RCS loop isolation valves during accident recovery.

(b) Revise the degraded core cooling guidelines, EOP 35 FR-C.2, to direct the operator to the correct procedural EOP steps and to include use of the RVLMS.

(c) Revise the Millstone 3 EOPs to include RVLMS setpoints corresponding to a 50% steam water mixture with reactor coolant pumps running, or demonstrate that the proposed alternatives are acceptable.

(16) Operating Staff Experience Requirements (Section 13.1.2.1 SER)

NNECO shall have a licensed senior operator on each shift who has had at least 6 months of hot operating experience as a licensed operator on a plant of the same type as Millstone Unit 3, including at least 6 weeks at power levels greater than 20% full power, and who has had start-up and shutdown experience. For those shifts without such an individual, an advisor shall be provided who has had at least 4 years of power plant experience, including 2 years of nuclear plant experience, and who has had at least 1 year of experience on shift as a licensed senior operator at a comparable facility or its equivalent as approved by the staff.

Use of advisors who were licensed only at the RO level will be evaluated on a case-by-case basis. Advisors shall be trained on plant procedures, Technical Specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained as to the role of the advisors. The training of the advisors and the shift crew shall be completed prior to achieving criticality. Prior to achieving criticality, NNECO shall certify to the NRC names of the advisors who have been examined and have been determined to be competent to provide advice to the operating shifts. These advisors, or fully trained and qualified replacements, shall be retained until the experience levels for licensed senior operators identified in the first sentence above have been achieved. Any replacement advisor shall be certified by NNECO prior to being placed on shift. The NRC shall be notified at least 30 days prior to the release of any special assigned advisors.

(17) Engineering Expertise on Shift (Section 13.1.2.1 SER, SSER 2)

NNECO shall provide on each operating shift:

(a) A dedicated Shift Technical Advisor (STA) who meets the STA criteria of NUREG-0737, Item I.A.1.1; or

(b) An individual serving in a dual role who is licensed as an SRO on Millstone Unit 3, who meets the STA criteria of NUREG-0737, Item I.A.1.1, and who:

(1) Holds a bachelor's degree in engineering from an accredited institution; or

(2) Holds a Professional Engineer's (PE) license obtained by successful completion of the PE examination; or

(3) Holds a bachelor's degree in engineering technology (BET) from an accredited institution, including course work in the physical, mathematical, and/or engineering sciences; or

(4) Holds a bachelor's degree in physical science from an accredited institution, including course work in the physical, mathematical, and/or engineering sciences.

(18) Generic Letter 83-28

NNECO shall submit responses to and implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in their October 7, 1985, letter.

D. Exemptions from certain requirements of Appendix J to 10 CFR Part 50 and from a portion of the requirements of General Design Criterion 4 of Appendix A to 10 CFR Part 50 are described in the Safety Evaluation Report. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. Northeast Nuclear Energy Company shall fully implement and maintain in effect all provisions of the Commission approved Physical Security, Guard Training and Qualification, and Safeguards Contingency plans, including all amendments and revisions made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p), which are part of the license. The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "Millstone Nuclear Power Station Security Plan", with revisions submitted through September 20, 1985; "Millstone Nuclear Power Station Guard Training and Qualification Plan," with revisions submitted through July 2, 1985; and "Millstone Nuclear Power Station Safeguards Contingency Plan" with revisions submitted through July 5, 1985.

F. Except as otherwise provided in the Technical Specification or Environmental Protection Plan, Northeast Nuclear Energy Company shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c) and (e).

G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

H. This license is effective as of the date of issuance and shall expire at Midnight on 2025.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:
1. Attachment 1 - Work Items to be Completed
2. Appendix A - Technical Specifications (NUREG-1161)
3. Appendix B - Environmental Protection Plan

Date of Issuance: