



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-49

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, see 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, see Section 2D below):

*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 responsibility and control over the physical construction, operation and maintenance of the facility.

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- 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-49, 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, and pursuant to approval by the Nuclear Regulatory Commission at a meeting on January 29, 1986, the license for fuel loading and low power testing License No. NPF-44, issued on November 25, 1985, is superseded by Facility Operating License No. NPF-49 and 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;
 - (1) Northeast Nuclear Energy Company (NNECO), pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use and operate the facility at the designated location in New London County, Connecticut in accordance with the procedures and limitations set forth in this license;
 - (2) 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;

- (3) 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;
 - (4) 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 components; and
 - (5) 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.
 - (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) Containment Average Temperature (Section 3.11, SSER 4)*

Prior to startup following the first refueling outage, the qualified life of electrical equipment within the scope of 10 CFR 50.49 located inside containment shall be recalculated based on the actual temperatures monitored inside containment during the first cycle of operation.

(4) N-1 Loop Operation (Section 4.4.7 SER, Section 4.4.7, 15.10, SSER 4)

Three loop operation is prohibited until outstanding issues are resolved to the satisfaction of the NRC staff.

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

Prior to May 25, 1986, NNECO shall submit the inservice inspection program which conforms to the ASME Code in effect on November 25, 1984 in accordance with 50.55a(g)(4), for NRC staff review and approval.

(6) Instrumentation for Monitoring Post Accident Conditions R.G. 1.97 Revision 2 Requirements (Section 7.5.2.6, SER, SSER 4)

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

* 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.

(7) Fire Protection (Section 9.5.1, SER, SSER 2, SSER 4, SSER 5)

- (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 17 and as approved in the SER through Supplement No. 5, subject to provisions (b) and (c) below.
- (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).

(8) Moisture in Air Start System (Section 9.5.6, SER SSER 3)

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

(9) Operating Staff Experience Requirements (Section 13.1.2.1, SER SSER 4, SSER 5)

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. This experience shall include at least 6 weeks at power levels greater than 20% full power and 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. These advisors, or fully trained and qualified replacements, shall be retained until the experience levels for licensed senior operators identified in the first two sentences 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.

(10) Initial Test Program (Section 14, SER SSER 3)

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.

(11) Revised Small Break LOCA Methods to Show Compliance with 10 CFR 50.46, TMI Item II.K.3.31 (Section 15.9.13, SSER 2)

By June 15, 1986, NNECO shall submit a 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 II.K.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.

(12) SPDS (Section 18, SER, SSER 1, SSER 4, SSER 5)

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

- (i) Residual Heat Removal (RHR) Flow
- (ii) Containment Isolation
- (iii) Containment Hydrogen Concentration
- (iv) Primary Coolant System Hot Leg Temperature

(13) Detailed Control Room Design Review (Section 18, SER, SSER 1, SSER 4)

NNECO shall correct all Human Engineering Discrepancies (HEDs) not resolved prior to exceeding 5% power, according to the schedule specified in their letter from J. F. Opeka to V. S. Noonan dated January 29, 1986.

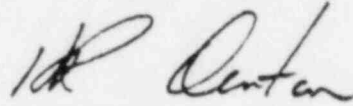
(14) Salem ATWS Events Generic Letter 83-28

NNECO shall submit responses to and implement the requirements of Generic Letter 83-28 Salem ATWS Events on a schedule which is consistent with that given in their November 8, 1983, letter as modified by their letters dated March 16, 1984 and September 5, 1985.

- D. Exemptions from certain requirements of Appendix J to 10 CFR Part 50 (Section 6.2.6, SSER 4) and from a portion of the requirements of General Design Criterion 4 (Section 3.9.3.1, SSER 4) of Appendix A to 10 CFR Part 50 have previously been granted. See Safety Evaluation Report Supplement 4, November 1985. With 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). The plans, which contain safeguards information protected under 10 CFR 73.21, are entitled: "Millstone Nuclear Power Station Security Plan"; "Millstone Nuclear Power Station Guard Training and Qualification Plan," and "Millstone Nuclear Power Station Safeguards Contingency Plan".
- 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 November 25, 2025.

FOR THE NUCLEAR REGULATORY COMMISSION



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Appendix A - Technical Specifications (NUREG-1176)
2. Appendix B - Environmental Protection Plan

Date of Issuance: JAN 31 1986

H. This license is effective as of the date of issuance and shall expire at Midnight on November 25, 2025.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

- 1. Appendix A - Technical Specifications (NUREG-1176)
- 2. Appendix B - Environmental Protection Plan

Date of Issuance: JAN 31 1986

*See previous concurrence

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|---|--|----------------------------------|-------------------------------|--------------------------------|---|
| PWR#6 M Rushbrook 1/9/86 | PWR#5 E Doolittle 1/14/86 | P&RAS WLamb 1/14/86 | SP IDinitz 1/28/86 | SP JSaltzman 1/27/86 | KOB VBenaroya 1/28/86 |
| OELD M Carman 1/15/86 | OELD JScinto 1/27/86 | PD PWR#5 VSNoochan 1/30/86 | DD PWR-A MNovak 1/30/86 | D PWR-A HTompson 1/27/86 | ED/KRR HDenton 1/31/86 |

[Handwritten signatures and initials are present over the table and in the margin. Notable signatures include those of IDinitz, JSaltzman, and HDenton.]

H. This license is effective as of the date of issuance and shall expire at Midnight on November 25, 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-1176)
- 2. Appendix B - Environmental Protection Plan

Date of Issuance:

PWR #5
M ~~Brook~~ Brook
1/9/86

ED
PWR#5
EDodittle
1/14/86

WL
P&RAS
WLambe
1/14/86

SP
IDinitz
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SP
JSaltzman
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GELD
BVogler
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RB
FOB
VBenaroya
1/28/86

OELD
MKarman
1/15/86
AKK

JScinto
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JScinto
1/15/86

PD PWR5
VSnoonan
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DD/PWR-A
TMNovak
1/ /86

D/PWR-A
HThompson
1/ /86

D/NRR
HDenton
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