

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20656-0001

# NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

**DOCKET NO. 50-423** 

### MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

#### AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 122 License No. NPF-49

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Northeast Nuclear Energy Company, et al. (the licensee) dated May 1, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

 Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-49 is hereby amended to read as follows:

#### (2) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 122, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance, to be implemented within 90 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Phillip F. McKee, Director Project Directorate I-3

Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: December 28, 1995

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# ATTACHMENT TO LICENSE AMENDMENT NO. 122

### FACILITY OPERATING LICENSE NO. NPF-49

# DOCKET NO. 50-423

Replace the following pages of the Appendix A, Technical Specifications, with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove	Insert
1-8	1-8
3/4 1-14	3/4 1-14
3/4 1-24	3/4 1 24
3/4 1-25	3/4 1-25
3/4 3-68	3/4 3-68
3/4 6-12	3/4 6-12
3/4 6-13	3/4 6-13
3/4 6-15	3/4 6-15
83/4 0-4	B3/4 0-4

TABLE 1.1

# FREQUENCY NOTATION

NOTATION	FREQUENCY
S	At least once per 12 hours.
D	At least once per 24 hours.
W	At least once per 7 days.
н	At least once per 31 days.
Q	At least once per 92 days.
SA	At least once per 184 days.
REFUELING INTERVAL, R	At least once per 24 months.
S/U	Prior to each reactor startup.
N.A.	Not applicable.
P	Completed prior to each release.

#### REACTIVITY CONTROL SYSTEMS

# FLOW PATHS - OPERATING

# LIMITING CONDITION FOR OPERATION

3.1.2.2 At least two of the following three boron injection flow paths shall be OPERABLE:

- a. The flow path from the boric acid storage system via a boric acid transfer pum, and a charging pump to the Reactor Coolant System (RCS), and
- b. Two flow paths from the refueling water storage tank via charging pumps to the RCS.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With only one of the above required boron injection flow paths to the RCS OPERABLE, restore at least two boron injection flow paths to the RCS to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least the limits as shown in Figure 3.1-4 at 200°F within the next 6 hours; restore at least two flow paths to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

#### SURVEILLANCE REQUIREMENTS

4.1.2.2 At least two of the above required flow paths shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that the Boric Acid Transfer Pump Room temperature and the boric acid storage tank solution temperature are greater than or equal to 67°F when it is a required water source;
- b. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position,
- c. At least once each REFUELING INTERVAL by verifying that each automatic valve in the flow path actuates to its correct position on a Safety Injection test signal; and
- d. At least once each REFUELING INTERVAL by verifying that the flow path required by Specification 3.1.2.2a. delivers at least 33 gpm to the RCS.

<sup>\*</sup>Only one boron injection flow path is required to be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 350°F.

# REACTIVITY CONTROL SYSTEMS

# POSITION INDICATION SYSTEM - SHUTDOWN

# LIMITING CONDITION FOR OPERATION

3.1.3.3 One digital rod position indicator (excluding demand position indication) shall be OPERABLE and capable of determining the control rod position within  $\pm 12$  steps for each shutdown or control rod not fully inserted.

APPLICABILITY: MODES 3\* \*\*, 4\* \*\*, and 5\* \*\*.

#### ACTION:

With less than the above required position indicator(s) OPERABLE, immediately open the Reactor Trip System breakers.

#### SURVEILLANCE REQUIREMENTS

4.1.3.3 Each of the above required digital rod position indicator(s) shall be determined to be OPERABLE by verifying that the digital rod position indicators agree with the demand position indicators within 12 steps when exercised over the full-range of rod travel at least once each REFUELING INTERVAL.

<sup>\*</sup>With the Reactor Trip System breakers in the closed position.

<sup>\*\*</sup>See Special Test Exceptions Specification 3.10.5.

# REACTIVITY CONTROL SYSTEMS

#### ROD DROP TIME

# LIMITING CONDITION FOR OPERATION

- 3.1.3.4 The individual full-length (shutdown and control) rod drop time from the fully withdrawn position shall be less than or equal to 2.7 seconds from beginning of decay of stationary gripper coil voltage to dashpot entry with:
  - a. Two greater than or equal to 551°F, and
  - All reactor coolant pumps operating.

APPLICABILITY: MODES 1 and 2.

#### ACTION:

- a. With the drop time of any full-length rod determined to exceed the above limit, restore the rod drop time to within the above limit prior to proceeding to MODE 1 or 2.
- b. With the rod drop times within limits but determined with three reactor coolant pumps operating, operation may proceed provided THERMAL POWER is restricted to less than or equal to 65% of RATED THERMAL POWER with the reactor coolant stop valves in the nonoperating loop closed.

- 4.1.3.4 The rod drop time of full-length rods shall be demonstrated through measurement prior to reactor criticality:
  - a. For all rods following each removal of the reactor vessel head,
  - b. For specifically affected individual rods following any maintenance on or modification to the Control Rod Drive System which could affect the drop time of those specific rods, and
  - At least once each REFUELING INTERVAL.

#### INSTRUMENTATION

# LOOSE-PART DETECTION SYSTEM

# LIMITING CONDITION FOR OPERATION

3.3.3.8 The Loose-Part Detection System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

#### ACTION:

- a. With one or more Loose-Part Detection System channels inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specifications 3.0.3 are not applicable.

- 4.3.3.8 Each channel of the Loose-Part Detection Systems shall be demonstrated OPERABLE by performance of:
  - a. A CHANNEL CHECK at least once per 24 hours,
  - b. An ANALOG CHANNEL OPERATIONAL TEST at least once per 31 days, and
  - c. A CHANNEL CALIBRATION at least once each REFUELING INTERVAL.

#### CONTAINMENT SYSTEMS

# 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

# CONTAINMENT QUENCH SPRAY SYSTEM

### LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Quench Spray subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With one Containment Quench Spray subsystem inoperable, restore the inoperable system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- 4.6.2.1 Each Containment Quench Spray subsystem shall be demonstrated OPERABLE:
  - a. At least once per 31 days:
    - Verifying that each valve (manual, power operated, or automatic) in the flow path is not locked, sealed, or otherwise secured in position, is in its correct position; and
    - Verifying the temperature of the borated water in the refueling water storage tank is between 40°F and 50°F.
  - By verifying, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 114 psid when tested pursuant to Specification 4.0.5;
  - c. At least once each REFUELING INTERVAL, by:
    - Verifying that each automatic valve in the flow path actuates to its correct position on a CDA test signal, and
    - Verifying that each spray pump starts automatically on a CDA test signal.
  - d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

#### CONTAINMENT SYSTEMS

### RECIRCULATION SPRAY SYSTEM

### LIMITING CONDITION FOR OPERATION

3.6.2.2 Two independent Recirculation Spray Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With one Recirculation Spray System inoperable, restore the inoperable system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Recirculation Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

- 4.6.2.2 Each Recirculation Spray System shall be demonstrated OPERABLE:
  - At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path is not locked, sealed, or otherwise secured in position, is in its correct position;
  - By verifying, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 130 psid when tested pursuant to Specification 4.0.5;
  - c. At least once each REFUELING INTERVAL by verifying that on a CDA | test signal, each recirculation spray pump starts automatically after a 660 ±20 second delay;
  - d. At least once each REFUELING INTERVAL, by verifying that each | automatic valve in the flow path actuates to its correct position on a CDA test signal; and
  - e. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

### CONTAINMENT SYSTEMS

# 3/4.6.3 CONTAINMENT ISOLATION VALVES

# LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE with isolation times less than or equal to the required isolation times.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With one or more of the isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- 4.6.3.1 Each isolation valve shall be demonstrated OPERABLE\* prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control, or power circuit by performance of a cycling test and verification of isolation time.
- 4.6.3.2 Each isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once each REFUELING INTERVAL by:
  - a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position,
  - b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position, and
  - c. Verifying that on a Containment High Radiation test signal, each purge supply and exhaust isolation valve actuates to its isolation position.
- 4.6.3.3 The isolation time of each power-operated or automatic valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

<sup>\*</sup>The provisions of Specification 4.0.4 are not applicable for main steam line isolation valves entry into MODE 3 and MODE 4.

"Surveillance requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

Specification 4.0.1 establishes the requirement that surveillances must be performed during the OPERATIONAL MODES or other conditions for which the requirements of the Limiting Conditions for Operation apply unless otherwise stated in an individual Surveillance Requirement. The purpose of this specification is to ensure that surveillances are performed to verify the operational status of systems and components and that parameters are within specified limits to ensure safe operation of the facility when the plant is in a MODE or other specified condition for which the associated Limiting Conditions for Operation are applicable. Surveillance requirements do not have to be performed when the facility is in an OPERATIONAL MODE for which the requirements of the associated Limiting Condition for Operation do not apply unless otherwise specified. The Surveillance Requirements associated with a Special Test Exception are only applicable when the Special Test Exception is used as an allowable exception to the requirements of a specification.

Specification 4.0.2 This specification establishes the limit for which the specified time interval for surveillance requirements may be extended. permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are specified to be performed at least once each REFUELING INTERVAL. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed once each REFUELING INTERVAL. Likewise, it is not the intent that REFUELING INTERVAL surveillances be performed during power operation unless it is consistent with safe plant operation. The limitation of 4.0.2 is based on engineering judgment and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the surveillance requirements. This provision is sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

Specification 4.0.3 establishes the failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, as a condition that constitutes a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Under the provisions of this specification, systems and components are assumed to be OPERABLE when Surveillance Requirements have been satisfactorily performed within the specified time interval. However, nothing in this provision is to be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when the Surveillance Requirements have not