

May 23, 1989

Docket No. 50-423

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See next page

Mr. Edward J. Mroczka
Senior Vice President
Nuclear Engineering and Operations
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

Dear Mr. Mroczka:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. 72700)

The Commission has issued the enclosed Amendment No. 34 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your application dated March 14, 1989.

The amendment changes the Technical Specifications (TS) as follows: (1) TS 4.3.4.2, "Turbine Overspeed Protection," is deleted and replaced with a reference to the requirements of the "Turbine Overspeed Protection Maintenance and Testing Program," and (2) TS 6.5.1.6, "Responsibilities," is supplemented by adding item (j) which requires that the Plant Operations Review Committee (PORC) provide for "Review of Unit Turbine Overspeed Protection Maintenance and Testing Program and revisions thereto." In addition, a footnote is added to the applicability for TS 3.3.4 to state that the Turbine Overspeed Protection System need not be operable "... in MODE 2 or 3 with all main steam line isolation valves and associated bypass valves in the closed position and all other steam flow paths to the turbine isolated."

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's bi-weekly Federal Register notice.

Sincerely,

/s/

David H. Jaffe, Project Manager
Project Directorate I-4
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 34 to NPF-49
2. Safety Evaluation

cc w/enclosures:
See next page

LA: PDI
SMorris
05/8/89

PM: PDI-4
DJaffe:bd
05/8/89

EM: MC
CYCheng
05/8/89

PDI-4
JStolz
05/8/89

PS Tam
for

OGC
05/11/89

AS with updated revision

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PDR ADOCK 05000423
PDC

DF01 4/11/89

DATED: May 23, 1989

AMENDMENT NO. 34 TO FACILITY OPERATING LICENSE NO. NPF-49

Docket File

NRC & Local PDRs

PDI-4 Reading

SVarga, 14/E/4

BBoger, 14/A/2

JStol

SNorris

DJaffe

OGC (for information only)

DHagan, 3302 MNBB

EJordan, 3302 MNBB

BGrimes, 9/A/2

TMeek (4)

Wanda Jones

EButcher, 11/F/23

ACRS (10)

GPA/PA

ARM/LFMB

DF01
11

Mr. E. J. Mroczka
Northeast Nuclear Energy Company

Millstone Nuclear Power Station
Unit No. 3

cc:

Gerald Garfield, Esquire
Day, Berry and Howard
Counselors at Law
City Place
Hartford, Connecticut 06103-3499

R. M. Kacich, Manager
Generation Facilities Licensing
Northeast Utilities Service Company
Post Office Box 270
Hartford, Connecticut 06141-0270

W. D. Romberg, Vice President
Nuclear Operations
Northeast Utilities Service Company
Post Office Box 270
Hartford, Connecticut 06141-0270

D. O. Nordquist
Manager of Quality Assurance
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

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

Regional Administrator
Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Bradford S. Chase, Under Secretary
Energy Division
Office of Policy and Management
80 Washington Street
Hartford, Connecticut 06106

First Selectmen
Town of Waterford
Hall of Records
200 Boston Post Road
Waterford, Connecticut 06385

S. E. Scace, Station Superintendent
Millstone Nuclear Power Station
Northeast Nuclear Energy Company
Post Office Box 128
Waterford, Connecticut 06385

W. J. Raymond, Resident Inspector
Millstone Nuclear Power Station
c/o U. S. Nuclear Regulatory Commission
Post Office Box 811
Niantic, Connecticut 06357

C. H. Clement, Unit Superintendent
Millstone Unit No. 3
Northeast Nuclear Energy Company
Post Office Box 128
Waterford, Connecticut 06385

M. R. Scully, Executive Director
Connecticut Municipal Electric
Energy Cooperative
3030 Scott Ave
Norwich Connecticut 26360-1535

Ms. Jane Spector
Federal Energy Regulatory Commission
825 N. Capitol Street, N.E.
Room 8608C
Washington, D.C. 20426

Michael L. Jones, Manager
Project Management Department
Massachusetts Municipal Wholesale
Electric Company
Post Office Box 426
Ludlow, Massachusetts 01056

Burlington Electric Department
c/o Robert E. Fletcher, Esq.
271 South Union Street
Burlington, Vermont 05402



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

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34
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 March 14, 1989, 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.

*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 Light Company, Massachusetts Municipal Wholesale Electric Company, Montaup Electric Company, New England Power 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.

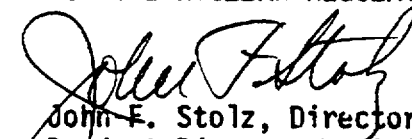
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-49 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 34, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate 1-4
Division of Reactor Projects 1/11
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 23, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 34

FACILITY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are provided to maintain document completeness.

Remove

3/4 3-81

6-8

Insert

3/4 3-81

6-8

INSTRUMENTATION

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one Turbine Overspeed Protection System shall be OPERABLE.

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

ACTION:

- a. With one stop valve or one governor valve per high pressure turbine steam line inoperable and/or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam line inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam line(s) or isolate the turbine from the steam supply within the next 6 hours.
- b. With the above required Turbine Overspeed Protection System otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4.1 The provisions of Specification 4.0.4 are not applicable.

4.3.4.2 The above required Turbine Overspeed Protection System shall be maintained, calibrated, tested, and inspected in accordance with the Millstone Unit No. 3 Turbine Overspeed Protection Maintenance and Testing Program. Adherence to this program shall demonstrate OPERABILITY of this system. The program and any revisions should be reviewed and approved in accordance with Specification 6.5.1.6.j. Revisions shall be made in accordance with the provisions of 10CFR50.59.

*Not applicable in MODE 2 or 3 with all main steam line isolation valves and associated bypass valves in the closed position and all other steam flow paths to the turbine isolated.

ADMINISTRATIVE CONTROLS

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PORC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PORC activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PORC shall meet at least once per calendar month and as convened by the PORC Chairman.

QUORUM

6.5.1.5 The quorum of the PORC shall consist of the Chairman or Vice Chairman or Station Superintendent and four members including alternates.

RESPONSIBILITIES

6.5.1.6 The PORC shall be responsible for:

- a. Review of: (1) all procedures, except common site procedures, required by Specification 6.8 and changes thereto, and (2) any other proposed procedures or changes thereto as determined by the Unit Superintendent to affect nuclear safety;
- b. Review of all proposed tests and experiments that affect nuclear safety;
- c. Review of all proposed changes to Sections 1.0-5.0 of these Technical Specifications;
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety;
- e. Investigation of all violations of the Technical Specifications, including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence, to the Vice President-Nuclear Operations and to the Chairman of the Nuclear Review Board;
- f. Review of all REPORTABLE EVENTS;
- g. Review of facility operations to detect potential safety hazards;
- h. Performance of special reviews, investigations, or analyses and reports thereon as requested by the Chairman of the Nuclear Review Board or the Station Superintendent; and
- i. Render determinations in writing with regard to whether or not each item considered under Specification 6.5.1.6a. through d. above constitutes an unreviewed safety question.
- j. Review of Unit Turbine Overspeed Protection Maintenance and Testing Program and revisions thereto.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 34

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

INTRODUCTION

By application for license amendment dated March 14, 1989, Northeast Nuclear Energy Company, et al. (the licensee), requested changes to Millstone Unit 3 Technical Specifications (TS).

The proposed amendment would change the Millstone Unit 3 TS to replace the Surveillance Requirements of TS 4.3.4, "Turbine Overspeed Protection," as follows: (1) TS 4.3.4.2 would be deleted and replaced with a reference to the requirements of the "Turbine Overspeed Protection Maintenance and Testing Program," and (2) TS 6.5.1.6, "Responsibilities," would be supplemented by adding item (j) which would require that the Plant Operations Review Committee (PORC) provide for "Review of Unit Turbine Overspeed Protection Maintenance and Testing Program and revisions thereto." In addition, a footnote would be added to the applicability for TS 3.3.4 to state that the Turbine Overspeed Protection System need not be operable "... in MODE 2 or 3 with all main steam line isolation valves and associated bypass valves in the closed position and all other steam flow paths to the turbine isolated."

DISCUSSION AND EVALUATION

During review of the licensee's operating license application for Millstone Unit 3, the NRC requested information concerning main turbine missile generation. The request for additional information (DSER 3.5.1.3), dated December 20, 1983, requested that the licensee provide information on maintenance of turbine missile generation at, or below, 10^{-5} per reactor year for the life of the facility. The following two options were suggested by the NRC staff:

1. Submit for NRC approval, within 3 years of obtaining an operation license, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities, or
2. Volumetrically inspect all low-pressure turbine rotors at the second refueling outage and at every other (alternate) refueling outage thereafter until a maintenance program is approved by the staff and to conduct turbine steam valve maintenance (following initiation of power output) in accordance with present NRC recommendations as stated in SRP Section 10.2.

By letter dated June 15, 1984, the licensee responded to DSER 3.5.1.3 by stating the following:

"NNECO agrees to submit for NRC approval, within three years of obtaining an operating license, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities with the option of conducting an independent review and analysis if so desired."

Subsequently, on November 7, 1988, the licensee submitted the Turbine Overspeed Protection Maintenance and Testing Program (TOPMTP). The TOPMTP contains the surveillance requirements presently incorporated in TS 4.3.4.2 for turbine stop, control and intercept valves, and for turbine overspeed trip circuitry. In addition, the TOPMTP prescribes inservice inspection requirements based on projected missile generation probabilities for the low pressure turbine wheels.

The TOPMTP encompasses the surveillance requirements of Section 4.3.4.2. In addition, the TOPMPT provides for other turbine overspeed system related tests and for high and low pressure turbine rotor inspections, thereby assuring an acceptably low probability of a rotor burst at or near design overspeed. Avoiding destructive overspeed and rotor failures is essential to minimizing the probability of the generation of turbine missiles which could impact and damage safety-related components, structures, and equipment. The more comprehensive TOPMPT provides the necessary assurance that the probability of turbine generated missiles will remain at or below the criteria of 1×10^{-5} per year in accordance with Standard Review Plan, Section 3.5.1.3, "Turbine Missiles." The NRC staff has reviewed the licensee's turbine system maintenance program and concludes that the low-pressure turbine wheel inspection interval of 6 years is supported by the missile generation probabilities derived from the GE report, "Probability of Missile Generation in General Electric Nuclear Turbines," January 1984. The inspection intervals for the high pressure turbine are based mostly upon the manufacturer's recommendations in GE TIL 1008-3, "Inservice Inspection of 1500 and 1800 RPM Turbine Rotors," and are acceptable.

We conclude that the TOPMPT is acceptable and acceptably replaces the Surveillance Requirements of TS 4.3.4.2. The proposed change to TS 6.5.1.6(f) would provide for acceptable administrative and technical oversight, by the licensee, for the TOPMPT.

With regard to the proposed footnote to TS 3.3.4, the provision would allow the inoperability of the Turbine Overspeed Protection System, during operational MODES 2 and 3 (hot standby and low power generation) only under specified conditions which prevent the turbine, itself, from operating.

Based upon the above, we conclude that the proposed changes to the TS are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. We have determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The staff has previously published a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). This amendment also involves changes in recordkeeping, reporting and/or administrative procedures or requirements. Accordingly, with respect to these items, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

CONCLUSION

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: May 23, 1989

Principal Contributor: D. Jaffe