

December 23, 1992

Docket No. 50-423

Mr. John F. Opeka
Executive Vice President, Nuclear
Connecticut Yankee Atomic Power Company
Northeast Nuclear Energy Company
Post Office Box 270
Hartford, Connecticut 06141-0270

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Dear Mr. Opeka:

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M84751)

The Commission has issued the enclosed Amendment No. 73 to Facility Operating License No. NPF-49 for Millstone Nuclear Power Station, Unit No. 3, in response to your application dated October 22, 1992.

The amendment revises the Technical Specifications to extend, on a one-time basis, the latest date for required testing of the emergency diesel generators from December 25, 1992, to the 1993 refueling outage, but no later than September 30, 1993.

A copy of the related Safety Evaluation is enclosed. Also enclosed is the Notice of Issuance which has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed
by D. Jaffe for

Vernon L. Rooney, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 73 to NPF-49
- 2. Safety Evaluation
- 3. Notice

cc w/enclosures:
See next page

*See previous concurrence

OFFICE	LA:PDI-4*	PM:PDI-4*	D:PDI-4*	OGC*	
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Mr. John F. Opeka
Northeast Nuclear Energy Company

Millstone Nuclear Power Station
Unit 3

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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

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 73
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 October 22, 1992, 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.

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. 73 , 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 - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 23, 1992

ATTACHMENT TO LICENSE AMENDMENT NO.73

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.

Remove

3/4 0-3

3/4 8-5

Insert

3/4 0-3

3/4 8-5

APPLICABILITY

LIMITING CONDITION FOR OPERATION (Continued)

- d. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements; and
- e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b) A kinematic viscosity at 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes (alternatively, Saybolt viscosity, SUS at 100°F of greater than or equal to 32.6, but not less than or equal to 40.1), if gravity was not determined by comparison with the supplier's certification;
 - c) A flash point equal to or greater than 125°F; and
 - d) A clear and bright appearance with proper color when tested in accordance with ASTM-D4176-82.
- 2) By verifying within 30 days of obtaining the sample that the other properties specified in Table 1 of ASTM-D975-81 are met when tested in accordance with ASTM-D975-81 except that the analysis for sulfur may be performed in accordance with ASTM-D1552-79, ASTM-D2622-82 or ASTM-D4294-83.
- f. At least once every 31 days by obtaining a sample of fuel oil in accordance with ASTM-D2276-78, and verifying that total particulate contamination is less than 10 mg/liter when checked in accordance with ASTM-D2276-78, Method A;
 - g. At least once per 18 months, during shutdown, by:
 - 1) Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service;*
 - 2) Verifying the generator capability to reject a load of greater than or equal to 595 kW while maintaining voltage at 4160 ± 420 volts and frequency at 60 ± 3 Hz;
 - 3) Verifying the generator capability to reject a load of 4986 kW without tripping. The generator voltage shall not exceed 4784 volts during and following the load rejection;
 - 4) Simulating a loss-of-offsite power by itself, and:
 - a) Verifying deenergization of the emergency busses and load shedding from the emergency busses, and
 - b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads within 11 seconds, energizes the auto-connected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ± 420 volts and 60 ± 0.8 Hz during this test.

*Except that the Surveillance Requirement inspection due no later than December 25, 1992 may be deferred until the next refueling outage, but no later than September 30, 1993 or whichever is earlier.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 73

TO FACILITY OPERATING LICENSE NO. NPF-49

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-423

1.0 INTRODUCTION

By letter dated October 22, 1992, the Northeast Nuclear Energy Company (NNECO, the licensee), submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 3 Technical Specifications (TS). The requested changes would extend the surveillance requirement frequency for the Millstone Unit No. 3 emergency diesel generators (EDGs) by allowing a one-time extension to the current 18-month surveillance plus the additional 25% allowed by TS 4.0.2. This change will allow the EDGs to be inspected in accordance with the procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service. The inspection is currently scheduled to be performed no later than December 25, 1992. The proposed change will defer the inspection until the 1993 (fourth) refueling outage, but not beyond September 30, 1993.

2.0 EVALUATION

The surveillance requirements contained in the existing TS are designed to assure that the quality of equipment and components is maintained. NNECO has determined the total time of the EDG inoperability during this inspection would be in excess of the current 72-hour TS limit and as such would prefer to perform the inspection in an extended outage.

In the absence of the proposed revision, an unscheduled shutdown of the plant would be necessary to meet the current EDG TS surveillance schedule. The previous EDG inspection of Train "A" was completed on March 4, 1991. Train "B" was last inspected on February 8, 1991. As a result of an unusually long maintenance outage during 1991, involving work on the service water system and erosion/corrosion-related repairs, NNECO has rescheduled Millstone Unit No. 3's refueling outage from November 1992 to approximately September 1993. Increasing the interval between refueling outages will cause Millstone Unit No. 3 to exceed the 18-month surveillance, plus the additional 25% allowance allowed by TS 4.0.2. The licensee notes that the proposed change does not alter or change any of the other surveillances required per TS 4.8.1.1.2.g.

The staff has reviewed the surveillance test data for both Millstone Unit No. 3 EDGs. There were no failures in the last 100 valid starts indicating high reliability for this period. A review of the start time data indicates that there is no observable trend toward increasing start times. In the period between December 1991 and September 1992, the start time trend data for the EDG Train "A" indicates 16 subsequent starts with start times remaining well below the 11-second time limit (maximum time recorded was approximately 8.5 seconds). The same data for the EDG Train "B" indicates 26 subsequent starts with start times remaining below the 11-second time limit (maximum time recorded was approximately 9.7 seconds).

Since the last surveillance inspection, the diesel engines logged the following number of hours: EDG Train "A" - 108 hours, EDG Train "B" - 103 hours. This total operating time for both engines is considered low, and therefore significant wear of the parts is not expected. The EDG manufacturer accepted a 6-month extension in the surveillance inspection time interval in 1987 stating that an additional 60 to 100 hours of diesel operation should pose no problem. The additional operating hours during the proposed 9-month extension of the surveillance interval are expected to be in this order and, therefore, not likely to have an impact on engine performance.

Additional information about the engine condition is available from lube oil analyses performed monthly. Samples are taken at two locations: the rocker arm area, and the engine sump. Lube oil is tested for water content which is an indication of an internal engine leak. Various metal particle contents are monitored, which provide an indication of excessive parts wear or bearing problems. Review of the lube oil analysis results since June 1991 do not indicate any abnormal readings except high water content in the January 1992 diesel Train "A" rocker arm oil sample. The presence of water was later attributed to a leak in an injector cooling line. The problem was corrected by replacing the injection nozzles.

In addition to the plant-specific test data discussed above, the staff has also reviewed the prototype qualification test data of these diesel engines. The starting reliability of the EDGs was confirmed during repeated start and load acceptance tests. In these tests, the engine had to start up and accelerate to rated speed and voltage within 10 seconds of initiation of start, run for 5 minutes, then shut down for cooling down to "keep warm" temperatures. The load acceptance reliability test consisted of 200 start and load cycles. This series required the engine to start and accelerate to rated speed and voltage within 10 seconds and accept 100% load within 25 seconds from initiation of the start signal. A minimum of 200 starts had to be made from standby to "keep warm" conditions. Then, 30 starts had to be made at hot equilibrium temperature conditions. The engine performed very satisfactorily during this test series and did not fail to start in any of an actual 230 cycles. These tests prove the engine's capability for taking the repeated thermal shock imposed by the start and load acceptance program.

The plant-specific surveillance test data and the prototype qualification test data discussed above satisfy the staff that the EDGs are reliable. The additional operational hours which would be imposed on the EDGs as a result of the proposed deferment of the EDG inspection until the 1993 (fourth) refueling outage, are not likely to have any significant impact on the EDG performance or reliability.

The staff has concluded, based on the considerations discussed above, that the proposed changes to the TS are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Connecticut State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on December 23, 1992, (57 FR 61100). Accordingly, based upon the environmental assessment, the staff has determined that the issuance of the amendment will not have a significant effect on the quality of the human environment.

5.0 CONCLUSION

The Commission has 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, (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.

Principal Contributor: J. Rajan

Date: December 23, 1992

UNITED STATES NUCLEAR REGULATORY COMMISSIONNORTHEAST NUCLEAR ENERGY COMPANYDOCKET NO. 50-423NOTICE OF ISSUANCE OF AMENDMENT TOFACILITY OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 73 to Facility Operating License No. NPF-49 issued to Northeast Nuclear Energy Company (the licensee), which revised the Technical Specifications for operation of the Millstone Nuclear Power Station, Unit No. 3 located in New London County, Connecticut.

The amendment revises the Technical Specifications to extend, on a one-time basis, the latest date for required surveillance testing of emergency diesel generators from December 25, 1992, to the 1993 refueling outage, but no later than September 30, 1993.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on November 9, 1992 (57 FR 53361). No request for a hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the issuance of this amendment will not have a significant effect on the quality of the human environment (57 FR 61100).

For further details with respect to the action see (1) the application for amendment dated October 22, 1992, (2) Amendment No. 73 to License No. NPF-49, (3) the Commission's related Safety Evaluation, and (4) the Commission's Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street NW., Washington, DC 20555, and at the local public document room located at the Learning Resources Center, Thames Valley State Technical College, 574 New London Turnpike, Norwich, Connecticut 06360. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Document Control Desk.

Dated at Rockville, Maryland this 23rd day of December 1992.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "David H. Jaffe", with a long horizontal flourish extending to the right.

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