

July 26, 1995

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

SUBJECT: ISSUANCE OF AMENDMENT (TAC NO. M92196)

Dear Mr. Opeka:

The Commission has issued the enclosed Amendment No. 118 to Facility Operating License No. NPF-49 for the Millstone Nuclear Power Station, Unit No. 3, in response to your application dated April 28, 1995.

The amendment revises the diesel generator fuel oil testing that is performed on new fuel prior to the addition of new fuel to the storage tank.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by:

Vernon L. Rooney, Senior Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-423

- Enclosures: 1. Amendment No.118 to NPF-49
- 2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in black ink, appearing to read "V. Rooney", written over a horizontal line.

Vernon L. Rooney, Senior Project Manager  
Project Directorate I-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-423

Enclosures: 1. Amendment No. 118 to NPF-49  
2. Safety Evaluation

cc w/encls: See next page

J. Opeka  
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Millstone Nuclear Power Station  
Unit 3

cc:

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

NORTHEAST NUCLEAR ENERGY COMPANY, ET AL.

DOCKET NO. 50-423

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 118  
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 April 28, 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.

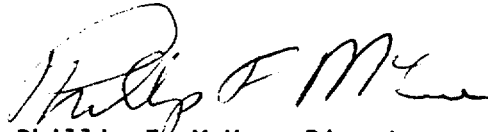
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-49 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 118, 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 60 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: July 26, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 118

FACILITY OPERATING LICENSE NO. NPF-49

DOCKET NO. 50-423

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

Remove

3/4 8-5

Insert

3/4 8-5

- 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 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) Water and sediment less than 0.05 percent by volume when tested in accordance with ASTM-D1796-83.
- 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: (1) the cetane index shall be determined in accordance with ASTM-D976 (this test is an appropriate approximation for cetane number as stated in ASTM-D975-81 [Note E]), and (2) 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  $4160 \pm 420$  volts and frequency at  $60 \pm 3$  Hz;
  - 3) Verifying the generator capability to reject a load of 4986 kW without tripping. The generator voltage shall not exceed 5000 volts during and 4784 volts 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 from standby conditions 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  $4160 \pm 420$  volts and  $60 \pm 0.8$  Hz during this test.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 118

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 April 28, 1995 the Northeast Nuclear Energy Company (the licensee), submitted a request for changes to the Millstone Nuclear Power Station, Unit No. 3 Technical Specifications (TS). The requested changes would revise the diesel generator fuel oil testing that is performed on new fuel prior to the addition of new fuel to the storage tank. The proposed changes to the TS would amend three diesel generator fuel oil Surveillance Requirements (SR). SR 4.8.1.1.2.e.1.b would be modified by including an editorial change which will correct the definition for the Saybolt viscosity range. In SR 4.8.1.1.2.e.1.d the qualitative "clear and bright" test for determination of water and sediments in the fuel oil would be replaced by a quantitative test. The modification of SR 4.8.1.1.2.e.2 would permit the use of a cetane index instead of a cetane number for characterizing ignition quality of the diesel fuel oil supplied to the plant.

2.0 EVALUATION

In the modification of SR 4.8.1.1.2.e.1.b an editorial change would be made to the definition of the Saybolt viscosity range. The corrected statement will read "...Saybolt viscosity, SUS at 100°F of greater than or equal to 32.6, but less than or equal to 40.1...." This modification corrects the previously erroneous definition.

The modification of SR 4.8.1.1.2.e.1.d consists of replacing the qualitative "clear and bright" test for determining water and sediments in diesel fuel oil (ASTM D-4176-82, "Free Water and Particulate Contamination in Distillate Fuel") by a quantitative test based on a centrifuge methodology (ASTM D-1796-83, "Water and Sediment in Fuel Oils by the Centrifuge Method"). This test would permit, as required by ASTM D-975-81, it to be ascertained if water content in the fuel oil is below 0.05 percent. In addition, this modification would allow determination of the water and sediments content in the fuel oil having color index higher than 5, as determined on the ASTM color scale in accordance with ASTM D-1500. For this high color index ASTM D-4176-82 cannot



be used. This modification is acceptable because it improves determination of water and sediments and allows the testing of fuel oils with color indices higher than 5.

The modification of SR 4.8.1.1.e.2 would allow use of a cetane index calculated in accordance with ASTM D-946 instead of a cetane number which is determined by ASTM D-613-84. The cetane number is an experimentally determined parameter characterizing ignition quality of the diesel fuel oil, and the cetane index is a value calculated using the formula given in the ASTM D-946. According to this standard, the cetane index can be used only as a check for the fuel whose cetane number has been initially established. The staff has verified that the licensee meets this requirement since the cetane number is specified for the fuel supplied to the plant. The requested modification is, therefore, acceptable.

Criterion 17 of 10 CFR 50, Appendix A provides requirements for Electrical Power Systems, including provisions for minimizing the probability of losing electrical power. Diesel generator fuel oil testing is required by Standard Review Plan, Section 9.5.4, which states that "periodic tests will be performed to verify that fuel degradation does not proceed to the point where engine performance is affected." The changes the licensee has proposed are consistent with Regulatory Guide 1.137, "Fuel Oil Systems for Standby Diesel Generators," which references appropriate ASTM standards. Based on the evaluation the staff concludes that all the changes to the TS, proposed by the licensee, are acceptable because they either consist of an editorial change, improved surveillance procedure, or meet the requirements of the appropriate ASTM standard.

### 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

The amendment changes surveillance requirements. The NRC staff has 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 Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (60 FR 29881). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). 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.

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: K.I. Parczewski

Date: July 26, 1995