

Northeast  
Utilities System

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company  
P.O. Box 270  
Hartford, CT 06141-0270  
(203) 665-5000

May 8, 1995

Docket No. 50-336  
B15220

Re: 10CFR50.90

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Millstone Nuclear Power Station, Unit No. 2  
Request for Additional Information  
Proposed Revision to Technical Specifications  
Emergency Diesel Generator Fuel Oil Supply (TAC No. M91019)

In a letter dated November 30, 1994,<sup>(1)</sup> Northeast Nuclear Energy Company (NNECO) transmitted a license amendment request that included changes to the Millstone Unit No. 2 Technical Specifications related to the emergency diesel generator (EDG) fuel oil supply. Specifically, the proposed changes will change the design basis requirements for the EDG fuel oil supply. In a telephone conference with the NRC Staff on March 7, 1995, questions concerning the EDG fuel oil change were discussed. In a letter dated March 20, 1995,<sup>(2)</sup> the NRC requested additional information pertaining to our license amendment request dated November 30, 1994.

The purpose of this letter is to provide the additional information requested by the NRC Staff. Enclosed as Attachment 1 are the Staff questions and the NNECO responses to those questions. Two of these questions request NNECO to provide specific documents. Attachment 2 to this letter contains the detailed calculation performed to determine the usable capacity of EDG fuel oil day tank. Attachment 3 includes appropriate pages of the emergency operating procedures which provide guidance for fuel oil supply actions. In a telephone

- 
- (1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Proposed Revision to Technical Specifications, Emergency Diesel Generator Fuel Oil Supply," dated November 30, 1994.
  - (2) G. S. Vissing letter to J. F. Opeka, "Millstone Nuclear Power Station, Unit 2 - Amendment Request Relating to Emergency Diesel Generator Fuel Oil Supply (TAC No. M91019)," dated March 20, 1995.

9505150282 950508  
PDR ADOCK 05000336  
P PDR

A001  
111

U.S. Nuclear Regulatory Commission  
B15220/Page 2  
May 8, 1995

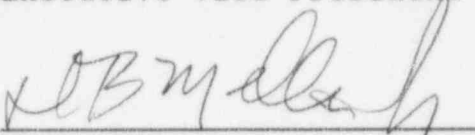
conversation with the Staff on May 3, 1995, it was agreed that, since there are many pages of these procedures that are unrelated to the specific interests of the Staff, only those pages of the requested procedures with relevant information would be submitted.

We believe the attached information, coupled with the information provided in our November 30, 1994, submittal provides a complete basis for approval of the requested amendment. Should the Staff require any further information regarding this request, please contact Mr. Rod S. Peterson at (203) 440-2074.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka  
Executive Vice President

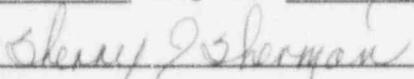
BY:   
D. B. Miller Jr.  
Senior Vice President

cc: T. T. Martin, Region I Administrator  
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2  
P. D. Swetland, Senior Resident Inspector, Millstone Unit  
Nos. 1, 2, and 3

Mr. Kevin T.A. McCarthy, Director  
Monitoring and Radiation Division  
Department of Environmental Protection  
79 Elm Street  
P.O. Box 5066  
Hartford, CT 06102-5066

Subscribed and sworn to before me

this 8<sup>th</sup> day of May, 1995



Date Commission Expires: Aug 31, 1998

Docket No. 50-336  
B15220

Attachment 1

Millstone Nuclear Power Station, Unit No. 2

Request for Additional Information

Proposed Revision to Technical Specifications

Emergency Diesel Fuel Oil Supply

May 1995

U.S. Nuclear Regulatory Commission  
B15220/Attachment 1/Page 1  
May 8, 1995

**Millstone Nuclear Power Station, Unit No. 2**

**Request for Additional Information  
Proposed Revision to Technical Specifications  
Emergency Diesel Fuel Oil Supply**

**Question 1.0:**

Provide the fuel oil consumption rate for the emergency diesel generator (EDG) operating at the continuous rated load of 2750 kW.

**Response:**

The fuel oil consumption rate for one EDG operating at the continuous rated load of 2750 kW is 211 gallons per hour.

**Question 2.0:**

Provide the detailed calculations (including the assumptions, e.g., instrument errors, vortex formation, etc.) which were performed to determine the usable storage capacities of the EDG fuel oil day tank.

**Response:**

NNECO Calculation No. 91-BOP-813-ES, Revision 1, is the detailed calculation performed to determine the EDG fuel oil day tank capacity. This calculation is enclosed as Attachment 2 to this letter.

**Question 3.0:**

Provide the emergency operating procedures to show: the guidance to order fuel oil within 4 hours of a LOCA; the guidance to monitor fuel oil inventory; the guidance to secure one EDG within an hour following a LOCA; and the guidance to align the valves and fuel oil pumps to facilitate the use of the fuel oil inventory in day tank of the secured EDG.

**Response:**

The guidance to order fuel oil within 4 hours of a LOCA is contained in EPIP 4400, "Event Assessment, Classification, and Reportability," Section 4.8.1.

The guidance to monitor fuel oil inventory is contained in EOP



U.S. Nuclear Regulatory Commission  
B15220/Attachment 1/Page 2  
May 8, 1995

2540B, "Functional Recovery of Vital Auxiliaries (AC & DC Power)," Instruction 2.4.g.

The guidance to secure one EDG within an hour following a LOCA is contained in EOP 2528, "Electrical Emergency," Contingency Action 2.13.b.

The guidance to align the valves and fuel oil pumps to facilitate the use of the fuel oil inventory in day tank of the secured EDG is contained in OP 2346B, "Diesel Fuel Oil System," Instruction 4.5.

A copy of the cover sheet and the appropriate related pages of each of these procedures is enclosed in Attachment 3 to this letter.

**Question 4.0:**

Discuss the administrative control established or to be established to monitor the fuel oil quality and inventory stored in the non-safety underground fuel oil storage tank. Sufficient fuel oil should be stored in the non-safety underground fuel oil storage tank to make up for the required minimum (7-day supply) inventory of fuel oil for the EDG operation following a LOCA. In addition, discuss the means (e.g., portable pumps) provided or to be provided to transfer the fuel oil from the underground storage tank to the EDG day tanks in the event of a LOOP.

**Response:**

Fuel oil is purchased from a QA vendor and delivered to the site via tanker truck. Upon arrival at the site, the fuel oil in the tanker truck is sampled and tested for appearance, flash point, and kinematic viscosity per common site procedure C OP 600.5, "Fuel Oil Delivery Sampling Requirements." If these test results are acceptable, the tanker truck is off-loaded to the underground storage tank. Additional samples from the tanker truck are sent to an off-site laboratory for additional analysis per Millstone Unit No. 2 surveillance procedure SP 2613E, "Diesel Generator Fuel Oil Sampling." After off-loading is complete, the underground tank is sampled and the sample sent off-site for analysis per the same procedure to verify that the combined oil meets the applicable requirements of ASTM D975.

Additionally, the underground storage tank is sampled once per month for water and color per Millstone Unit No. 2 surveillance procedure SP 2672, "Sampling & Inventory of Diesel Oil Storage Tank T47A." Furthermore, both the underground storage tank and the EDG day tanks are sampled every 92 days and verified by off-site laboratory analysis to meet ASTM D975 requirements.

The underground storage tank is currently maintained above a 20 percent minimum level as a prerequisite of Millstone Unit No. 2 system operating procedure OP2346B, "Diesel Fuel Oil System." This tank has a low level alarm which annunciates in the Millstone Unit No. 2 control room at the 20 percent level. The 20 percent level and setpoint are in the process of being changed to 25 percent to ensure that sufficient fuel oil is available to meet the 7-day supply requirement. Surveillance procedure SP 2672 requires the weekly verification of the underground storage tank inventory, and Millstone Unit No. 2 system operating procedure OP 2346A, "Emergency Diesel Generators," requires monitoring of the underground tank inventory as part of the monthly EDG surveillance.

The fuel oil transfer pumps that make up to the EDG day tanks are powered from vital power supplies. These pumps will, therefore, be operable during a LOOP. No provisions have been made, or are planned, to have portable pumps or other backup means available to transfer fuel oil in event of a LOOP.

**Question 5.0:**

**Discuss the assurance that off-site fuel oil would be obtained in a timely manner (e.g., within 24 hours) in the event of severe weather conditions.**

**Response:**

In addition to the extreme environmental conditions (hurricanes and earthquakes) evaluated in the Safety Assessment included with our original request, fuel oil delivery during severe weather conditions has been considered. Millstone Unit No. 2 normally receives a fuel oil delivery from its QA supplier on a non-exigent basis within one day of notification. In the event of severe weather conditions resulting in fuel oil not being available from the normal supplier within the required length of time, fuel oil would be obtained from a local fuel oil supplier. Currently there are two fuel oil suppliers within a five mile radius of the plant. In the event that a primary route to the site is blocked, there are alternate roads that would provide access to the plant from either supplier. The site also has an alternate access road to the east of the station that could be utilized in the event of an emergency. This road does not require use of the railroad overpass on the normal access road and thus provides additional assurance that accessibility is maintained. NNECO has concluded that the combination of local backup fuel oil suppliers coupled with alternate available delivery routes will ensure timely delivery of fuel oil during severe weather conditions.

Docket No. 50-336  
B15220

Attachment 2

Millstone Nuclear Power Station, Unit No. 2

Request for Additional Information  
Calculation 91-BOP-813-ES,  
MP2 Emergency Diesel Operating Time

May 1995