



**Northeast
Nuclear Energy**

Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station
Northeast Nuclear Energy Company
P.O. Box 128
Waterford, CT 06385-0128
(860) 447-1791
Fax (860) 444-4277

The Northeast Utilities System

Docket No. 50-423

B16663

July 31, 1997

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

Millstone Nuclear Power Station, Unit No. 3
Commitment Revision- NRC Routine Inspection 50-423/89-02
Emergency Diesel Generator (EDG) Fuel Oil System

The purpose of this letter is to update a commitment previously made in response to NRC Routine Inspection 50-423/89-02. This inspection closed TI 2515/100, "Proper Receipt, Storage, And Handling Of Emergency Diesel Generator (EDG) Fuel Oil". This inspection was conducted in response to NRC Information Notice 87-19, dated January 16, 1987, concerning inoperability of an EDG due to high concentrations of particulate in the fuel oil. It was also conducted in response to an event which occurred at this facility on November 20, 1987 in which an EDG was declared inoperable due to concentrations of particulate in the fuel oil in excess of the Technical Specification limit of 10 milligrams per liter (mg/l).

The primary source of particulate formation in fuel oil is the presence of water, which enables microbiological growth at the water - oil interface and causes an increase in particulate as a result of corrosion and biological products. Particulate contamination can also result from degradation of fuel oil during long term storage.

In the above referenced inspection, it was stated that Northeast Utilities "intends to purchase a filter skid to be used to filter fuel oil in the storage tanks during refueling outages." However, the aeration of the contents of the EDG fuel oil tank during the recirculation/filtration process can, dependent on the stability of the fuel, lead to increased particulate levels. Regular preventative maintenance inspections of strainers, replacement of filters, and inspection and cleaning of tanks, along with regular monitoring, trending and analysis are better suited to ensure fuel oil quality.

Fuel oil tank dewaterings have been regularly conducted and no water has been detected during the preceding four year period. Additionally, sufficient fuel is turned

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over during the course of regularly scheduled EDG testing to minimize concerns associated with degradation of fuel oil while in long term storage. Furthermore, the fuel oil transfer pump strainer and fuel oil filter differential pressures are monitored during each engine run. These parameters have exhibited a long term trend of minimal differential pressure which is indicative of no degradation in the Fuel Oil Supply system. Additionally, the strainer elements are inspected and the fuel filters are replaced on a refueling basis. Fuel oil samples are also taken monthly and are analyzed for particulate. Therefore, there is reasonable assurance that adverse trends in particulate levels would be detected and corrective action taken prior to exceeding the Technical Specification limit.

Current practices and operating experience has confirmed that the existing design and testing adequately address the requirements for fuel oil storage and prevention of possible fuel oil degradation. This is supported by the results of the Technical Specifications required cleaning of the EDG Fuel Oil Storage Tank, in that the tank was visually clean, and the tank bottoms contained minimal inorganic particulate and no organic particulate. Therefore, there is no technical basis for performing time-directed filtration of the contents of the EDG fuel oil tanks.

Should you have any questions regarding this matter, please contact Mr. D. A. Smith at (860) 437-5840.

NORTHEAST NUCLEAR ENERGY COMPANY



G. D. Hicks

Director - Millstone Unit No. 3

cc: H. J. Miller, Region I Administrator
A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3
J. W. Andersen, NRC Project Manager, Millstone Unit No. 3
W. D. Travers, Dr., Director, Special Projects