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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Emergency Diesel Generator Fuel Oil -
Storage Tank Sampling

Gentlemen:

Waterford 3 Technical Specification 4.8.1.1.2.c, Electrical Power Systems Surveillance Requirements, requires, in part, sampling of the Emergency Diesel Generator (EDG) fuel oil storage tanks every 92 days in accordance with ASTM-D270-1975. Table 1 of this ASTM standard requires the fuel oil sample be obtained by the bottle sampling procedure (reference section 12 of ASTM D270-1975). This method entails lowering a special sampling bottle into the storage tank three times to collect a sample from each third of the tank. The three samples are then combined as a representative sample for analysis.

To obtain this sample in accordance with ASTM D270-1975, a chemistry technician must climb a ladder 45 feet to the top of the storage tank. As a minimum, the technician must bring the sample bottle, a 50 foot graduated rope or cord to lower the sample bottle, and a container to hold a gallon fuel oil sample. Carrying these items, the technician must then traverse the slick shallow dome of the storage tank in a crouched position due to the 4 foot ceiling clearance, find the tank's sample port and open it. After obtaining the three samples, the sample port is closed. The technician, with equipment and full sample container then returns to the ladder and descends 45 feet. The above is then repeated for the second storage tank.

This sampling method poses an obvious safety hazard to the technician obtaining the sample. In addition, this sampling method puts the EDG fuel oil supply at risk. During sample collection with the sample port open, the possibility exists of dropping a tool, sample bottle, flash light, etc. into the tank. Should this happen, until the item(s) are recovered, the status of half the EDG fuel oil would be indeterminate.

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The Technical Specifications require periodic sampling of the storage tanks to ensure acceptable fuel quality during long term storage. Over a period of time, water and condensation may collect in the fuel and form an oil-water boundary. At this boundary, microbiological growth and oxidation may occur. Since any water or condensation would collect at the bottom of the tank, the oil-water boundary, and any growth or oxidation, will settle to the bottom of the tank. In addition, any sediment or containments formed at the air-oil boundary will either adhere to the tank wall or fall to the tank bottom. Therefore, should fuel degradation occur, it would be easily determined by sampling the fuel located at the bottom of the storage tanks.

ASTM D270-1975, Section 11 states that "Alternative sampling procedures may be used if a mutually satisfactory agreement has been reached by the parties involved. Such an agreement shall be put in writing and signed by authorized officials." To reduce safety risks to personnel and eliminate the possibility of dropping objects into the fuel oil storage tanks, an alternative to the sampling method of ASTM D270-1975 is being presented.

LP&L proposes to take samples from the fuel oil transfer pump discharge lines of each tank. The transfer pumps take suction from the bottom of their respective storage tanks through a 3 inch diameter line. There is a one (1) inch diameter drain line and valve off each discharge line that will be used as the sample point (see attached sketch). To obtain a fuel oil sample, the fuel oil transfer pump for the tank to be sampled will be placed in the recirculation mode. This is done to ensure the fuel oil sample came from the tank and not the pump piping. After opening sample valve EGF-110A(B) several liters of fuel oil will be allowed to flow through the valve to flush out any sediment that may be in the drain line or valve. The fuel oil sample will then be collected and the pump and drain valve secured. The fuel oil sample will be analyzed in accordance with existing Technical Specification requirements.

As previously discussed, any water, microbiological growth, sediment, etc. present in the fuel oil should be at the bottom of the storage tanks. Therefore, the proposed sampling method will provide analysis results which are conservative with respect to the present sampling method. LP&L feels the improvement in personnel and equipment safety far outweighs the additional sampling conservatism.

This requested change in sampling procedures is being made in accordance with the provisions of ASTM D270-1975. There will be no change to the wording or intent of the technical specifications as a result of this action. Therefore, no change to the technical specifications will be required.

LP&L requests the staff review the alternate sampling method proposed. If it is acceptable, a written confirmation of acceptance would satisfy the requirements of ASTM D270-1975, Section 11.

Should there be any questions on the above, please contact Larry Laughlin of my staff at (504) 464-3499.

Very truly yours,

R.F. Burski

RFB/DMU/ssf
Attachment
cc: Messrs. R.D. Martin, NRC Region IV
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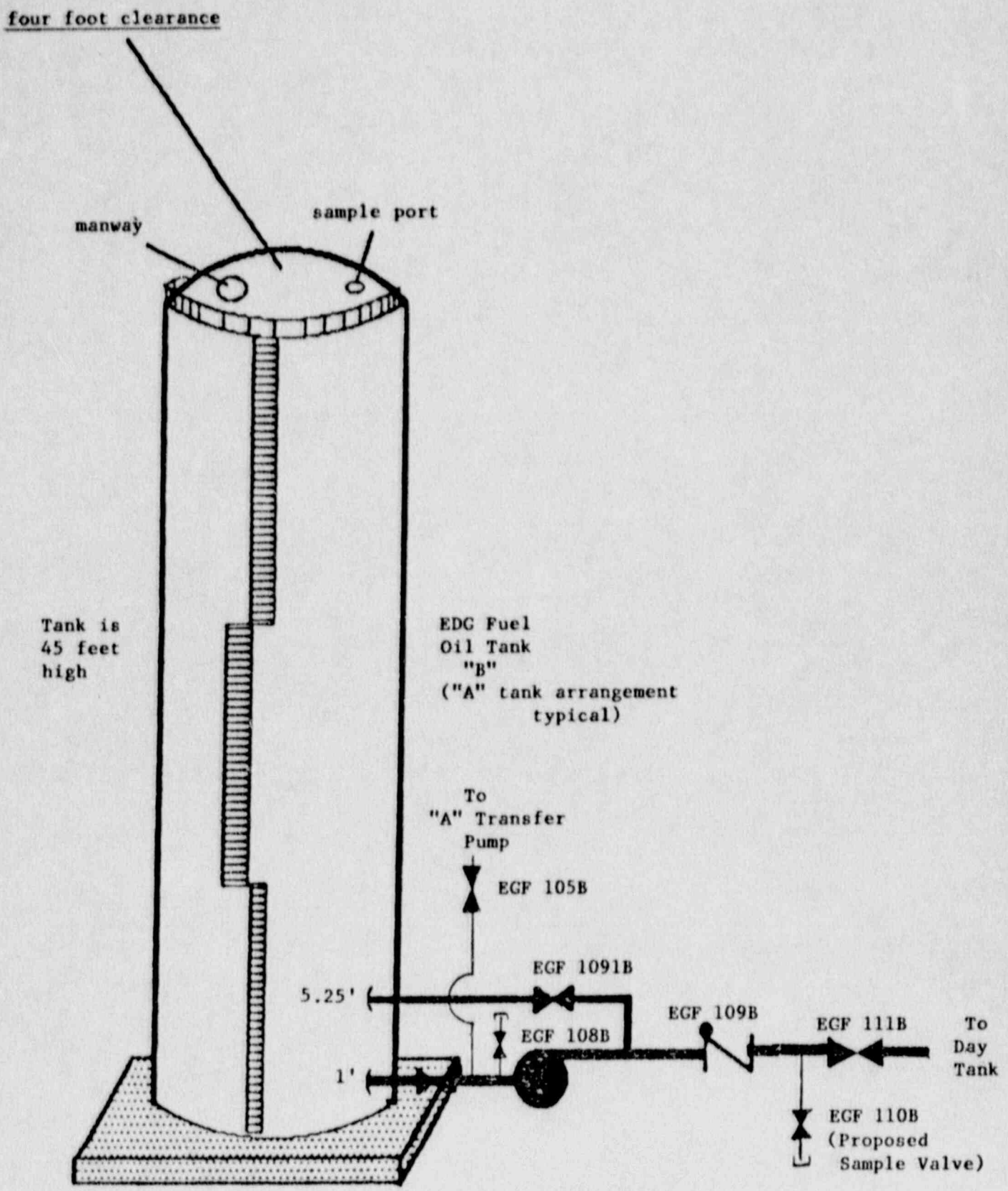
four foot clearance
manway
sample port
Tank is
45 feet
high
EDG Fuel
Oil Tank
"B"
("A" tank arrangement
typical)
To
"A" Transfer
Pump
EGF 105B
EGF 1091B
5.25'
EGF 109B
EGF 108B
EGF 111B
To
Day
Tank
1'
EGF 110B
(Proposed
Sample Valve)