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W3F1-97-0192
A4.05
PR

July 15, 1997

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
Deviation From ANSI N195

Gentlemen:

This letter is to inform the NRC of a deviation from the Waterford 3 commitment to ANSI Standard N195, "Fuel Oil Systems For Standby Diesel Generators." Waterford 3 recognizes that the NRC interprets ANSI N195 as requiring an additional 10% margin to the time dependent load calculation for fuel oil storage requirements in order to ensure operation for seven days of the required number of Emergency Diesel Generators (EDGs) following the limiting design basis accident. Waterford 3 does not meet the 10% margin of stored fuel oil in either of the two EDG Fuel Oil Storage Tanks (FOSTs). The Waterford 3 Technical Specification minimum stored fuel oil requirement provides for 7 days post accident operation of essential/non-essential loads with approximately one percent margin. Waterford 3 is committed to make the necessary facility changes to address this and other EDG fuel oil related issues. Based on the compensatory measures and other considerations discussed herein, the operation of Waterford 3 during Cycle 9 will not pose an undue risk to the health and safety of the general public.

From initial licensing, Waterford 3 considered the 10% margin of stored fuel oil as a design requirement to ensure that the EDG FOSTs, as purchased and installed, would have sufficient capacity for small future load growth demands as well as uncertainties. Therefore, the 10% margin was not included in the initial proposed Technical Specification minimum stored fuel oil value of 38,760 gallons, which is the

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current value specified. The NRC disagreed with this interpretation. Waterford 3 understands that the NRC expects the 10% margin requirement in ANSI N195 to be included in the minimum EDG FOST volume requirement.

Previous versions of the EDG fuel oil consumption calculation demonstrated that sufficient fuel oil storage capacity in each FOST was available for 7 days of operation with approximately 5 percent margin. These past versions of the calculation based available margin on the tank capacity and not on the minimum value specified by the Technical Specifications. In the current revision of the calculation it can be shown that the Technical Specification FOST volume requirement of 38,760 gallons is sufficient for seven days of EDG operation, using the time dependent loading method, with approximately one percent margin in each FOST. The current calculation credits the ability to cross-connect the FOSTs such that at least 10% percent margin is available. The calculation, system design, and plant procedures account for the uncertainties that impact the required fuel oil storage volume (e.g., vortexing, engine performance, fuel oil quality, instrument error, etc.). ANSI N195 requires an explicit allowance for fuel oil consumed during periodic testing. This allowance is accounted for by the provision in the Waterford 3 Technical Specification Limiting Condition for Operation 3.8.1.1 to allow reducing the volume in the EDG FOSTs to 38,000 gallons. Thus, the allowance is not specifically included in the calculation. As a result of the assessment of this issue and its background, Waterford 3 continues to evaluate this calculation to ensure it remains conservative and valid.

Waterford 3 has evaluated this condition and has committed in the Performance Improvement Plan (Letter dated May 8, 1997 Goal #4, Strategy B, Resolve long-standing issues, Action 34) to resolve fuel oil storage issues (i.e. fuel oil storage volume, fuel oil quality requirements, and this deviation from ANSI N195). Several options are being considered to resolve these issues, and the option chosen will be implemented prior to Cycle 10 operation. In addition, Waterford 3 will reconcile the inconsistencies between the Technical Specifications, its associated Bases, and design basis documentation (i.e. UFSAR, DBD, etc) related to this issue, clearly defining the design basis and conformance to ANSI N195.

Waterford 3 will establish the following compensatory measures prior to entry into Mode 1 following Refuel 8:

1. Emergency Plan Implementing Procedure EP 200-100 will be revised to include direction to perform one or more of the following post accident functions as necessary to assure the capability to operate essential/non-essential loads for at least 7 days, including at least a 10% margin:
 - order emergency fuel oil from the offsite vendor,
 - replenish the EDG FOSTs from the auxiliary boiler FOST,
 - cross-connect the EDG FOSTs, and/or
 - de-energize non-essential loads.
2. The required equipment (e.g., pumps, piping, fittings, tanker truck, etc.) will be available on-site to facilitate the transfer of fuel oil between onsite sources.
3. A minimum administrative limit for fuel stored in the Auxiliary Boiler Tank will be implemented to assure that adequate fuel is available on site.
4. The fuel stored in the Auxiliary Boiler Tank will be subject to periodic chemistry testing to verify fuel oil quality.

In addition to the above, Waterford 3 will provide practical training on the required equipment that will be available onsite to facilitate the transfer of fuel oil between onsite sources. This activity is intended to expose the individuals responsible for performing this action to a practical exercise to assure effective implementation, and is not intended to actually transfer fuel. This activity will be completed within 120 days following startup from Refuel 8.

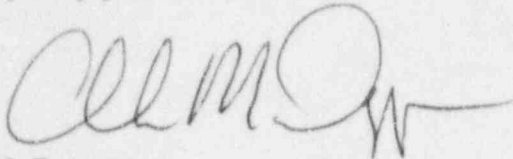
These compensatory measures will have been established and evaluated to provide additional, equivalent margin accommodating for the lack of margin in each tank required by ANSI N195 for operation through Cycle 9. The deviation from the ANSI N195 10% margin requirement for one cycle poses no undue risk to the health and safety of the general public for the following reasons:

1. The abundant on-site supply of EDG quality fuel oil (both EDG FOSTs and the auxiliary boiler FOST),
2. Compensatory measures as described above, and
3. The low probability of the combination of events that would inhibit fuel oil availability.

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Should you have any questions or comments concerning this issue, please contact
Early Ewing at (504)739-6242.

Very truly yours,

A handwritten signature in black ink, appearing to read 'C.M. Dugger', with a long horizontal flourish extending to the right.

C.M. Dugger
Vice President
Operations

CMD/PLC/ssf

cc: E.W. Merschoff (NRC Region IV)
C.P. Patel (NRC-NRR)
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NRC Resident Inspectors Office
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