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March 8, 1994

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U.S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
EMERGENCY DIESEL GENERATOR MAINTENANCE OUTAGES
CORE DAMAGE FREQUENCY EVALUATION
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

On March 7, 1994, in a telephone conversation between Mr. Allen Hansen of the NRC and Mr. Stan Guokas of Wisconsin Electric (WE), the NRC requested that WE provide justification for our practice of performing emergency diesel generator maintenance while both Point Beach Nuclear Plant Units 1 and 2 are at power. The analysis described below was performed in response to this request.

We have completed the evaluation of core damage frequency based on our Individual Plant Examination (IPE) methodology and the current operation and maintenance of our emergency diesel generators. We have evaluated two cases. The first case provides a baseline (or average) core damage frequency using the average annual unavailability of testing and maintenance for all systems and components including both emergency diesels, G01 and G02, and our gas turbine, G05). The second case provides a core damage frequency for the specific configuration of G01 not available due to testing and maintenance and all other systems and components available (i.e., not out-of-service for testing and maintenance).

The analysis for the first case provides a core damage frequency of 9.70E-5 per year assuming the following:

G01 reliability = 95%
G02 reliability = 97%
G05 reliability/ = 87% (10% unreliability +
availability 3% unavailability)

Note: These reliability numbers represent the worst case results for either the last 20, 50, or 100 starts of the particular generator.

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The second analysis with G01 alone out-of-service for testing and maintenance provides a core damage frequency of $2.43E-4$ per year, assuming the same reliability numbers for G02 and G05 as used in the base case.

As you requested, we have calculated the differential core damage frequency. We compared the first and second cases and assumed a 305-day year for power operation, and arrived at a value of $4.8E-7$ per day.

If you have any questions regarding our calculations, please contact Mr. Stan Guokas at (414)221-3973.

Sincerely,



Bob Link
Vice President
Nuclear Power

SEG/jg

cc: NRC Resident Inspector
NRC Regional Administrator, Region III