



**Nuclear Management Company, LLC**  
Prairie Island Nuclear Generating Plant  
1717 Wakonade Dr. East • Welch MN 55089

November 20, 2001

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

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT**  
Docket Nos. 50-306 License Nos. DPR-60

**Response to Preliminary White Finding (NRC Inspection Report No. 50-306/01-13)**

By letter dated October 15, 2001, the NRC Staff noted a preliminary determination of a White finding based on the Significance Determination Process. The finding involves the incompatibility of fuel oil and lubricating oil in the D5 and D6 emergency diesel generators (EDGs), resulting in high crankcase pressure in the D6 EDG. The NRC Staff, after consideration of uncertainties involved in calculating the rate of piston performance degradation and information provided in LER 2-01-03, concluded D6 was unavailable for 33.6 days. The NRC Staff determined D6 to be unavailable for the 25 days between March 15, 2001, and April 9, 2001, and for the 8.6 days during which D6 was out of service to repair the cylinder liner.

In the October 15, 2001 letter, the NRC Staff offered NMC the opportunity to request a Regulatory Conference where we would be able provide our perspectives on the preliminary White finding. NMC subsequently accepted the NRC offer for a Regulatory Conference, and that conference is scheduled for November 27, 2001. The NRC Staff also requested in the October 15, 2001 letter, that we submit our evaluation and any differences with the NRC evaluation one week prior to a Regulatory Conference. This letter includes a summary of our evaluation and our differences with the NRC evaluation.

**Prairie Island Evaluation and Differences with NRC Evaluation**

The Prairie Island evaluation of the significance of this issue was submitted in LER 2-01-03. In summary, the Prairie Island staff determined that this issue is not safety significant. This is based on our determination that D6 was operable between March 15, 2001, and April 9, 2001. Our evaluation of past operability of D6 concluded that, D6 could have performed its safety function (prior to April 9, 2001).

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The lubricating oil/fuel oil incompatibility called into question how long D6 could have operated, but, based on the as-found condition of D6, we concluded D6 would have run as long as required to perform its safety function (regardless of the initiating event). Our assessment of available run time of D6 is supported by the assessment of an outside diesel expert, whose assessment (after inspecting D6 parts and performing profilometry analysis of a sample of D6 cylinder liners) concluded that D6 was in good condition, and had adequate life for several hundreds of hours of operation at the calculated loads for postulated events.

It is our understanding that the NRC Staff conclusion of D6 unavailability between March 15, 2001, and April 9, 2001, is based on uncertainty of the degradation rate of piston performance. Again, based on our analysis and the analysis of our consultant, we are confident D6 would have operated as long as required to mitigate any initiating event at the loads analyzed for those events (event loads being significantly lower than the rated load of D6). That is, the degradation rate would not be such that D6 availability would have been impacted.

In addition, our own significance evaluation (based on the Prairie Island Probabilistic Risk Assessment model) has concluded that, even if accounting for uncertainty of D6 availability, the issue is of low safety significance. Uncertainty was analyzed by performing a sensitivity analysis assuming D6 degradation with differing failure probabilities. Even a worst case sensitivity, where probability of D6 failure was set to 1, shows the Incremental Core Damage Probability in 33.6 days was less than 1.0 E-6 for Unit 2. This bounds the actual case where D6 was available (as concluded above). Thus, we differ with the NRC evaluation of significance of this issue.

In this letter we have made no new Nuclear Regulatory Commission commitments. Please contact Jeff Kivi (651-388-1121) if you have any questions related to this letter.



Michael D. Werner  
Plant Manager  
Prairie Island Nuclear Generating Plant

c: Regional Administrator - Region III, NRC  
Senior Resident Inspector, NRC  
NRR Project Manager, NRC  
J E Silberg