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U S Nuclear Regulatory Commission
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Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

Comments on Safety Evaluation and License Amendment to Incorporate Large-Break Loss-of-Coolant Accident (LBLOCA) Analysis Using ASTRUM (TAC Nos. MD2567 and MD2568)

Reference 1: License Amendment Request (LAR) to Incorporate Large Break Loss Of Coolant Accident (LOCA) Analyses Using ASTRUM, dated July 6, 2006, Accession No. ML061880026.

By letter dated June 28, 2007, the Nuclear Regulatory Commission (NRC) issued Amendment No. 179 to Facility Operating License No. DPR-42 and Amendment No. 169 to Facility Operating License No. DPR-60 for the Prairie Island Nuclear Generating Plant, Units 1 and 2 respectively (Accession No. ML071800155). The Nuclear Management Company, LLC (NMC) has reviewed these License Amendments and the supporting Safety Evaluation (SE) and offers the following comments.

NRC Safety Evaluation, Section 3.0 TECHNICAL EVALUATION

Paragraphs 1 and 2

The SE states in two places that the analysis was done at 1650 megawatts thermal (MWt) plus 2 percent power measurement uncertainty or 1683 MWt. Tables 1-1 (Unit 1) and 2-1 (Unit 2) of Reference 1 state that the analyses were performed at ≤ 1683 MWt; no reference is made to 1650 MWt or power measurement uncertainty. This distinction has been made to recognize that no statistical application of power uncertainty was applied. All cases were conservatively run at 1683 MWt which will bound operation at any nominal power level plus power measurement uncertainty less than or equal to 1683 MWt. Clarification that this analysis is approved for use at 1683 MWt (which bounds operation at the currently licensed power level of 1650 MWt plus 2% power measurement uncertainty) will allow use of this analysis for a future measurement uncertainty recapture (MUR) uprate which increases the licensed core power level.

NRC Safety Evaluation, Table 1

The first data line of this table identifies a single break size for each unit. In the WCAP-16009-P-A ASTRUM methodology, the break sizes are statistically applied to all 124 analysis runs for each unit and each 10 CFR 50.46 LOCA acceptance criterion. This may result in different limiting break sizes for each unit and each criterion as shown in the following table with the limiting break sizes for each Prairie Island Nuclear Generating Plant unit.

Unit	Criteria	Limiting Break Size
1	Peak Clad Temperature (PCT)	Split Break (1.0492 * Cold Leg Area)
1	Local Maximum Oxidation (LMO)	Split Break (0.7644 * Cold Leg Area)
1	Core Wide Oxidation (CWO)	(1)
2	Peak Clad Temperature (PCT)	Split Break (1.2395 * Cold Leg Area)
2	Local Maximum Oxidation (LMO)	Split Break (0.8037 * Cold Leg Area)
2	Core Wide Oxidation (CWO)	(1)

(1) Due to the low calculated peak clad temperatures, Core Wide Oxidation was estimated and no limiting break size applies

In the NRC SE Table 1 second and third data lines, the Unit 1 and Unit 2 ASTRUM results for Peak Clad Temperature and Maximum Local Oxidation are transposed. The “greater than” symbols (>) in the Maximum Total Core-Wide Oxidation line should be replaced with “less than” symbols (<).

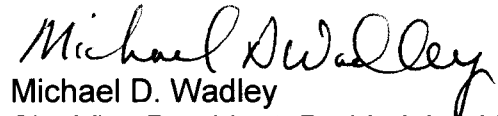
Technical Specification Page 5.0-36

The page issued by this license amendment, based on the page provided to the NRC, did not include minor typographical error corrections previously approved by License Amendments 176 and 166, issued February 13, 2007 (ML070300020 and ML070460318).

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

Please address any comments or questions regarding this letter to Mr. Dale Vincent, PE, at 1-651-388-1121.



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Nuclear Management Company, LLC

cc: Administrator, Region III, USNRC
Project Manager, Prairie Island, USNRC
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