

March 2, 2005

Mr. Joseph M. Solymossy
Site Vice President
Prairie Island Nuclear Generating Plant
Nuclear Management Company, LLC
1717 Wakonade Drive East
Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1 AND 2 -
CORRECTIONS TO EMERGENCY CORE COOLING SYSTEM (ECCS)
EVALUATION MODELS RE: (TAC NOS. MC4643 AND MC4644)

Dear Mr. Solymossy:

By letter dated August 5, 2004, and supplemented on September 24, 2004, October 22, 2004, and October 29, 2004, Nuclear Management Company (the licensee) submitted a report of changes to the Prairie Island Nuclear Generating Plant (PINGP) emergency core cooling system (ECCS) evaluation models. The report (which is applicable for the beginning of Fuel Cycle 22) was submitted in accordance with Title 10 of the *Code of Federal Regulations* (CFR) Part 50 Section 50.46. The NRC staff reviewed the submittal and concluded that the submittal was not in accordance with the requirements of 10 CFR 50.46(a)(3)(i) and 10 CFR 50.46(a)(3)(ii).

10 CFR 50.46 (a)(3)(i) states, in part,

... a significant change or error is one which results in ... a culmination of changes and errors such that the sum of the absolute magnitudes of the respective temperature changes is greater than 50 EF.

10 CFR 50.46 (a)(3)(ii) states, in part,

... if the change or error is significant, ... the licensee shall provide this report within 30 days and include in the report a proposed schedule for providing a reanalysis or taking other action ... to show compliance ... This schedule may be developed using an integrated scheduling system previously approved for the facility by the NRC. For those facilities not using an NRC approved integrated scheduling system, a schedule will be established by the NRC staff within 60 days of receipt of the proposed schedule.

The licensee's submittal identified changes and errors that resulted in an estimated change of peak cladding temperature (PCT) of 810 degrees Fahrenheit (EF) over a 9 year period when summing the absolute values of the changes. The NRC staff concluded that all but 58 EF of the estimated effects of changes and errors effects were calculated with NRC-approved, LBLOCA analysis codes. The remaining 58 EF exceeds the 50 EF reporting requirement.

By letter dated October 29, 2004, the licensee stated that a new large-break-loss-of-coolant (LBLOCA) analysis of record (AOR) would be submitted by March 31, 2006. The NRC staff finds that the licensee's proposed date acceptable, and also reminds the licensee that per the regulations, the AOR should continue to be tracked separately for each PINGP unit.

The NRC staff review noted PCT changes greater than 50 EF in the PINGP small-break (SB) LOCA analyses of record, whereas the licensee's August 5, 2004, letter, noted only a 35 EF PCT change. The NRC staff concluded that the small-break loss-of-coolant accident (SBLOCA) tracking is in error. Additionally, the NRC staff concluded that the SBLOCA analyses for PINGP were originally performed using a 1985 version of the NOTRUMP Westinghouse SBLOCA analysis code.

By letter dated December 30, 2003, the licensee submitted a report of changes to the PING ECCS evaluation models, the NRC staff concluded that the present PINGP SBLOCA analyses was performed with the Westinghouse NOTRUMP with COSI model. This COSI model differs from the NOTRUMP version that was used for PINGP in 1990, therefore, the NOTRUMP version used in the 1990 SBLOCA analyses for PINGP, and the associated analyses should be the SBLOCA methodology and SBLOCA analyses of record for PINGP. The NRC staff requests that the licensee submit a license amendment requesting that the NOTRUMP COSI model, associated analysis and provide discussion to clarify the SBLOCA analysis of record.

Subsequent to the NRC Staff review of the August 5, 2004, submittal, the licensee submitted its 30-day report by letter dated December 14, 2004. This report (which is applicable for the beginning of Fuel Cycle 23) will be reviewed by the NRC staff.

If you have any questions, please contact Deirdre W. Spaulding at 301-415-2928.

Sincerely,

/RA/

Deirdre W. Spaulding, Project Manager, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-282 and 50-306

cc: See next page

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Deirdre W. Spaulding, Project Manager, Section 1
Project Directorate III
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Prairie Island Nuclear Generating Plant,
Units 1 and 2

cc:

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November 2004