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Kewaunee / Point Beach Nuclear
Operated by Nuclear Management Company, LLC

NRC 2002-0041

May 10, 2002

10 CFR 50.46

Document Control Desk
U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

Ladies/Gentlemen:

Dockets 50-266 And 50-301
ECCS Evaluation Model Changes, 10 CFR 50.46
Point Beach Nuclear Plant, Units 1 And 2

As required by 10 CFR 50.46(a)(3)(ii), Nuclear Management Corporation, LLC (Licensee) is submitting this annual report of changes to, and errors discovered in, emergency core cooling system (ECCS) evaluation models for Point Beach Nuclear Plant (PBNP) Units 1 and 2. This letter is intended to provide a summary of ECCS evaluation model changes and errors identified since our previous annual report dated April 25, 2001. Model changes include changes to the large break loss of coolant accident (LOCA) model and the small break LOCA model. Any changes are summarized below with additional details and a summary sheet of peak cladding temperature (PCT) margin provided in the attachment.

As a result of the introduction of the new Westinghouse 422 Vantage+ (422V+) fuel product into the reactor cores at PBNP, there has been a change in the analyses of record for the large and the small break LOCA. The transition to the new analysis occurred with the start of Cycle 25 for Unit 2 in the Fall of 2000. Therefore, Unit 2 was covered by the new analyses for the entire reporting period (cy 2001). Unit 1 transitioned to the new LOCA analyses with the start of Cycle 27 in the Spring of 2001. Therefore, Unit 1 was covered by the old analysis (SECY UPI) for the first part of 2001 (Cycle 26), and by the new analysis for Cycle 27.

Large Break LOCA Evaluation Model

There are no changes or errors to the SECY UPI Large Break LOCA identified for PBNP Unit 1 since the last reporting period that resulted in a change to the PCT margin. This Evaluation Model was the analysis of record for Unit 1 during the first part of the reporting period prior to Cycle 27.

There are no changes or errors to the Best Estimate LOCA methodology identified for PBNP Units 1 and 2 since the last reporting period that resulted in a change to the PCT margin.

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Beginning with Unit 1 Cycle 27, the Large Break LOCA Evaluation Model was changed to the Best Estimate LOCA (BELOCA) methodology. The BELOCA methodology applied to Unit 2 during the entire reporting period.

In preparation for this years report, a typographical error was discovered on the report for the year 2000 (NRC 2001-022). The BELOCA Licensing Basis PCT was erroneously reported as 2028°F, when in fact it is actually 2128°F (Attachment 1 of NRC 2001-022). Therefore, the Licensing Basis + Model Assessment PCT for the year 2000 is 2132°F. The SECY UPI Large Break results, and the small break results, are correct as reported.

Small Break LOCA Evaluation Model

For PBNP Units 1 and 2, there were no changes or errors in the small break LOCA evaluation model that resulted in a change to the PCT. The old small break LOCA analysis (i.e., four inch cold leg limiting break) applied to Unit 1 during the first part of 2001 (Cycle 26). The new small break LOCA analysis (three inch cold leg limiting break), was applicable for Unit 1 Cycle 27, and for Unit 2 for the entire reporting period.

Current PCT rack-up sheets are provided in the attachment to this letter.

Sincerely,



Thomas J. Webb
Regulatory Affairs Manager

Attachments

cc: NRC Resident Inspector
NRC Regional Administrator

PSCW
NRR Project Manager

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bcc: R. A. Anderson
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Attachment 1
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ECCS EVALUATION MODEL CHANGES AND ERRORS

Large Break LOCA Evaluation Model

There are no changes or errors during this reporting period that resulted in a change to the calculated PCT for Point Beach Nuclear Plant.

Small Break LOCA Evaluation Model

There are no changes or errors during this reporting period that resulted in a change to the calculated PCT for Point Beach Nuclear Plant.

**LARGE BREAK PEAK CLADDING TEMPERATURE MARGIN UTILIZATION
FOR SECY UPI LARGE BREAK**

PBNP Unit 1*:

A.	Analysis of Record (2/91) Combined SSE and LOCA Events	PCT =	2028°F
		Δ PCT =	10°F
B.	Prior Permanent ECCS Model Assessments	Δ PCT =	62°F
C.	10 CFR 50.59 Safety Evaluations	Δ PCT =	85°F
D.	2000 10 CFR 50.46 Model Assessments (none)	Δ PCT =	0°F
E.	Temporary ECCS Model Issues (none)	Δ PCT =	0°F
F.	Other Margin Allocations (none)	Δ PCT =	0°F

Licensing Basis PCT + Margin Allocations **PCT = 2185°F**

* Applicable to Unit 1 through the end of Cycle 26.

**LARGE BREAK PEAK CLADDING TEMPERATURE MARGIN UTILIZATION FOR
BELOCA**

PBNP Units 1* and 2:

A.	Analysis of Record (11/2000)	PCT =	2128°F
B.	Prior Permanent ECCS Model Assessments 1. MONTECF Decay Heat Uncertainty Factor	Δ PCT =	4°F
C.	10 CFR 50.59 Safety Evaluations (none)	Δ PCT =	0°F
D.	2001 10 CFR 50.46 Model Assessments 1. None	Δ PCT =	0°F
E.	Temporary ECCS Model Issues (none)	Δ PCT =	0°F
F.	Other Margin Allocations (none)	Δ PCT =	0°F

Licensing Basis PCT + Margin Allocations **PCT = 2132°F**

* Applicable to Unit 1 beginning with Cycle 27.

SMALL BREAK PEAK CLADDING TEMPERATURE MARGIN UTILIZATION
(Four Inch Cold Leg)

PBNP Unit 1*:

A. Analysis of Record (7/88)	PCT =	809°F
B. Prior Permanent ECCS Model Assessments	Δ PCT =	70°F
C. 10 CFR 50.59 Safety Evaluations	Δ PCT =	330°F
D. 2001 10 CFR 50.46 Model Assessments	Δ PCT =	0°F
E. Temporary ECCS Model Issues (none)	Δ PCT =	0°F
F. Other Margin Allocations (none)	Δ PCT =	0°F
Licensing Basis PCT + Margin Allocations	PCT =	1209°F

* Applicable to Unit 1 through the end of Cycle 26.

SMALL BREAK PEAK CLADDING TEMPERATURE MARGIN UTILIZATION
(Three Inch Cold Leg)

PBNP Units 1* & 2:

A. Analysis of Record (11/2000)**	PCT =	1157°F/1046°F
B. Prior Permanent ECCS Model Assessments (none)	Δ PCT =	13°F
C. 10 CFR 50.59 Safety Evaluations (none)	Δ PCT =	0°F
D. 2001 10 CFR 50.46 Model Assessments	Δ PCT =	0°F
E. Temporary ECCS Model Issues (none)	Δ PCT =	0°F
F. Other Margin Allocations (none)	Δ PCT =	0°F
Licensing Basis PCT + Margin Allocations**	PCT =	1170°F/1059°F

* Applicable to Unit 1 beginning with Cycle 27.

** Unit 1/Unit 2