January 12, 2006

Mr. Dennis L. Koehl Site Vice President, Point Beach Nuclear Management Company, LLC 6610 Nuclear Road Two Rivers, WI 54241-9516

## SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 - REVISION TO SAFETY EVALUATION FOR AMENDMENT NOS. 220 AND 226 (TAC NOS. MC7650 AND MC7651)

Dear Mr. Koehl:

On September 23, 2005, the Nuclear Regulatory Commission (NRC) issued Amendment No. 220 to Facility Operating License No. DPR-24 and Amendment No. 226 to Facility Operating License No. DPR-27 for the Point Beach Nuclear Plant (PBNP), Units 1 and 2, in response to your application dated July 24, 2005, incorporating a PBNP, Unit 1 reactor vessel head (RVH) drop accident analysis into the PBNP Final Safety Analysis Report and revising the PBNP, Unit 2 RVH drop accident analysis. This letter transmits a revision to the NRC staff's safety evaluation (SE) associated with these amendments.

Enclosure 1 describes the revisions to the SE. Copies of the revised SE pages are included in Enclosure 2. The revisions do not change the conclusions of the original NRC staff's SE.

If there are any questions concerning this matter, please call me at (301) 415-4018.

Sincerely,

#### /**RA**/

Carl F. Lyon, Project Manager Plant Licensing Branch III-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-266 and 50-301

Enclosures: As stated

cc w/encls.: See next page

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#### ADAMS ACCESSION NUMBER: ML052850005

\*Previously concurred

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Point Beach Nuclear Plant, Units 1 and 2

CC:

Jonathan Rogoff, Esquire Vice President, Counsel & Secretary Nuclear Management Company, LLC 700 First Street Hudson, WI 54016

Mr. F. D. Kuester President & Chief Executive Officer WE Generation 231 West Michigan Street Milwaukee, WI 53201

Regulatory Affairs Manager Point Beach Nuclear Plant Nuclear Management Company, LLC 6610 Nuclear Road Two Rivers, WI 54241

Mr. Ken Duveneck Town Chairman Town of Two Creeks 13017 State Highway 42 Mishicot, WI 54228

Chairman Public Service Commission of Wisconsin P.O. Box 7854 Madison, WI 53707-7854

Regional Administrator, Region III U.S. Nuclear Regulatory Commission 801 Warrenville Road Lisle, IL 60532-4351

Resident Inspector's Office U.S. Nuclear Regulatory Commission 6612 Nuclear Road Two Rivers, WI 54241 Mr. Jeffery Kitsembel Electric Division Public Service Commission of Wisconsin P.O. Box 7854 Madison, WI 53707-7854

Nuclear Asset Manager Wisconsin Electric Power Company 231 West Michigan Street Milwaukee, WI 53201

Douglas E. Cooper Senior Vice President - Group Operations Palisades Nuclear Plant Nuclear Management Company, LLC 27780 Blue Star Memorial Highway Covert, MI 49043

Site Director of Operations Nuclear Management Company, LLC 6610 Nuclear Road Two Rivers, WI 54241

POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2	
CORRECTION TO THE NRC STAFF'S SAFETY EVALUATION FOR	
AMENDMENTS NO. 220 AND 226	

	-		
PAGE #	ORIGINAL TEXT	REVISED TEXT	REASON FOR THE CHANGE
13	factor of 8.8.	factor of 8.8 and multiplying by the sump volume scaling factor of 0.81 to account for the change in volume from 197,000 gallons to 243,000 gallons.	Clarify scaling factor
13	results by 8.8 as discussed above	results by 8.8 and multiplying by the sump volume scaling factor as discussed above	Clarify scaling factor
14	Unit 1 shall be operable	Units 1 and 2 shall be operable	Typographical error

Enclosure 1

ENCLOSURE 2: REVISED SE PAGES

sump fluid volume. The LOCA ECCS leakage pathway dose results reported in the PBNP FSAR were adjusted by this scaling factor, by dividing the values by the limiting I-131 factor of 8.8 and multiplying by the sump volume scaling factor of 0.81 to account for the change in volume from 197,000 gallons to 243,000 gallons. The licensee's dose results at the exclusion area boundary are 5.3 rem thyroid and 0.022 rem whole body, and at the low population zone they are 3.4 rem thyroid and 0.006 rem whole body. The offsite dose results are well within the dose criteria in 10 CFR Part 100, i.e., they are within 75 rem thyroid and 6 rem whole body.

The PBNP FSAR LOCA analysis does not bound the recent results of control room envelope unfiltered inleakage tracer gas testing. Additionally, the control room analysis assumed an ECCS leakage rate half that assumed for the offsite dose analysis. NMC included the impact on the control room dose results of (1) increasing the assumed unfiltered inleakage from 10 cubic feet per minute (cfm) to 100 cfm to account for the testing results, and (2) increasing the ECCS leakage rate from 400 cubic centimeters per minute (cc/min) to 800 cc/min. Considering these changes to the control room dose analysis assumptions, the licensee showed that the control room dose, estimated by dividing the FSAR LOCA results by 8.8 and multiplying by the sump volume scaling factor as discussed above, increases by a factor of 2.7. The licensee's calculated control room doses for the postulated RVH drop are 26.5 rem thyroid and 0.04 rem whole body. These are within the General Design Criteria-19, "Control Room Habitability System," dose criteria of 5 rem whole body or its equivalent to any part of the body, given as 30 rem thyroid in SRP 6.4, "Control Room."

# 3.5 Regulatory Commitments

The licensee made the following commitments in a letter dated July 24, 2005:

- 1. The reactor has been shutdown for greater than 100 hours.
- 2. A Senior Reactor Operator will be stationed in containment during RVH lift activities and will have communications capability with the control room.
- 3. The containment sump screen shall be installed and the flowpath for aligning RHR pump suction to the containment sump is available.
- 4. A minimum borated water volume of 243,000 gallons shall be available for sump recirculation.
- 5. The containment equipment hatch will be on and bolted. Both personnel airlock door interlocks will be functional to ensure one door in each airlock is closed.
- 6. Containment purge supply and exhaust fans are off and associated containment isolation valves are closed when the RVH is suspended greater than 24 inches over the reactor vessel flange.
- 7. Other containment penetrations that allow containment atmosphere to communicate with the environment or the Primary Auxiliary Building atmosphere shall be closed.
- 8. The maximum allowable lift height for the RVH (i.e., 26.4 feet above the reactor vessel flange when over the fuel) shall not be exceeded.

- 9. Both SI trains shall be available.
- 10 Both RHR trains shall be operable.
- 11. Technical Specification Limiting Condition for Operation (LCO) 3.7.9, "Control Room Emergency Filtration System (CREFS)," and LCO 3.3.5, "CREFS Actuation Instrumentation," shall be met.
- 12. One standby emergency power source capable of supplying each 4.16 kV/480 V Class 1E safeguards bus on PBNP, Units 1 and 2 shall be operable.
- 13. The licensee will incorporate an analysis of the RVH drop into the PBNP FSAR.
- 14. The licensee will incorporate the PBNP method of NUREG-0612 Phase I compliance into the PBNP FSAR.
- 15. The Programmed and Remote reactor vessel inservice inspection device will not be lifted over a core containing fuel assemblies.

## 4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulation at 10 CFR 50.92(c) states that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) result in a significant reduction in a margin of safety. The NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendment and that the amendment should be issued as allowed by the criteria contained in 10 CFR 50.91. The NRC staff's final determination is presented below:

1. Would the proposed amendment involve a significant increase in the probability or consequences of any accident previously evaluated?

#### Response: No

The proposed change incorporates a postulated RVH drop accident into the FSAR for PBNP Unit 1 and revises the PBNP Unit 2 accident analysis. This postulated accident involves the drop of the RVH over a reactor vessel containing fuel assemblies. Assuming that the BMI tubes are severed as a result of displacement of the reactor vessel, a decrease in reactor coolant inventory will occur. Thus, a RVH drop accident can be considered as a LOCA under shutdown conditions.