NMC
Committed to Nuclear Excellence

Point Beach Nuclear Plant
Operated by Nuclear Management Company, LLC

July 18, 2005

NRC 2005-0090
10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, Maryland 20852

Point Beach Nuclear Plant, Units 1 and 2
Dockets 50-266 and 50-301
License Nos. DPR-24 and DPR-27

Response to Request for Additional Information on Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors"

By letter dated March 7, 2005, Nuclear Management Company, LLC (NMC) provided the 90-day response to Generic Letter (GL) 2004-02. On June 3, 2005, NMC received a request for additional information (RAI). Enclosure 1 contains the NMC response for the Point Beach Nuclear Plant (PBNP). Guidance in responding to the RAIs was taken from the document dated June 30, 2005, entitled, "Nuclear Regulatory Commission Staff Responses to Industry Questions on Generic Letter 2004-02."

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

I declare under penalty of perjury that the foregoing is true and correct.
Executed on July 18, 2005.

For

Dennis L. Koehl
Site Vice-President, Point Beach Nuclear Plant
Nuclear Management Company, LLC

Enclosure

cc: Project Manager, Point Beach Nuclear Plant, USNRC
Regional Administrator, Region III, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC

A116

6590 Nuclear Road • Two Rivers, Wisconsin 54241
Telephone: 920.755.2321

ENCLOSURE 1
NUCLEAR MANAGEMENT COMPANY, LLC
RAI RESPONSE TO GENERIC LETTER 2004-02

Nuclear Regulatory Commission (NRC) Requested Information

By letter dated March 7, 2005, Nuclear Management Company, LLC, (the licensee) provided the 90-day response to U. S. Nuclear Regulatory Commission (NRC) Generic Letter (GL) 2004-02 for Point Beach Nuclear Plant, Units 1 and 2. The GL requested that addressees perform an evaluation of the emergency core cooling system and containment spray system recirculation functions in light of the information provided in the GL and, if appropriate, take additional actions to ensure system function. Additionally, addressees were requested to submit to the NRC the information specified in the GL. The staff has completed its preliminary review of your response and has determined it needs the following additional information to complete our review:

In your 90-day response to GL 2004-02, you indicated that you intend to use future test results, industry guidance, and NRC guidance to account for chemical precipitants in your evaluation and their availability will impact the schedule for performing an evaluation. The cooperative NRC-Electric Power Research Institute tests in progress at the University of New Mexico are designed to determine if chemical effects occur, but are not designed to measure head loss associated with any chemical effects. The staff notes that some chemical effects have been observed in the initial three tests.

In your 90-day response to GL 2004-02, you also indicated that you intend to use industry owners' group guidance and component manufacturer data to evaluate long-term performance degradation of downstream susceptible components caused by debris-laden fluid and their availability will impact the schedule for performing an evaluation.

For both of these issues, you stated the evaluation may occur after the September 1, 2005, response due date, depending on the schedule for testing and the availability of industry guidance. This is contrary to the information request in GL 2004-02, which requests that chemical and downstream effects be addressed in the September 1, 2005, response. This delay is also contrary to the staff's position that there are sufficient bases to address sump vulnerability to chemical effects and that the September response will be incomplete if the evaluation is incomplete, the design is not complete, or there is no schedule for upgrades. In this light, please discuss your plans and schedule for evaluating chemical effects and the long-term downstream effects. In addition, please discuss any plans for performing testing to support your evaluation of these effects.

Nuclear Management Company (NMC), LLC Response

NMC provided the 90-day response to Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors," based on the information available at that time. Subsequent to submitting the 90-day response, additional information has become available pertaining to chemical effects and downstream effects.

A guidance document for the evaluation of downstream effects, WCAP-16406-P, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191," has been made available. WCAP-16406-P provides guidance for assessing the downstream impact of sump debris on the performance of emergency core cooling systems (ECCS) following a loss-of-coolant accident (LOCA). NMC plans to apply the methodology outlined in WCAP-16406-P, along with industry data and manufacturer's data, to the downstream effects evaluations of each plant. NMC plans to perform these evaluations with contract support. The draft assessment of the downstream effects is scheduled to be complete by August 30, 2005. The specification for design & fabrication of replacement ECCS sump strainers, and the specification for supporting plant modifications are both in final internal review and will be issued for vendor bids by the end of July 2005. However, the specified downstream effects evaluations are based on methodologies that have not been approved by the NRC; therefore, these evaluations may need to be revised at a later date when industrial and regulatory standards are established.

The Integrated Chemical Effects Testing (ICET) program has confirmed that precipitant material may be formed under post-LOCA containment environment. However, the results for the buffer and debris mix most similar to that at Point Beach (Test 4) are not yet available. The effects of any precipitant on screen head loss have not been quantified nor has a methodology been formulated for determining this component of the total head loss. Due to the current lack of data useful for design purposes, NMC intends to proceed at risk with the design of a modular strainer system that will accommodate expansion during the design process. Since the installation area of the Point Beach containments have adequate room for expansion, this will provide assurance that additional margin can be obtained as test data becomes available and design methodologies are developed. If such data and methodology do not become available in time to support installation, a multiplier based on engineering judgment will be applied to the design screen surface area for final procurement and installation. This approach will minimize the potential impact of information that may become available late in the design cycle.

The bid specification for design and fabrication of the upgraded ECCS strainers requires a test of the strainers with the debris mix and loading determined from previous plant specific analyses.

All actions, including design, testing, fabrication, and installation, will be completed by December 31, 2007.