

February 1, 2003

Mr. A. Cayia  
Site Vice President  
Point Beach Nuclear Power Plant  
Nuclear Management Company, LLC  
6610 Nuclear Road  
Two Rivers, WI 54241

SUBJECT: NRC INSPECTION REPORT 0720005/2003-001 - POINT BEACH

Dear Mr. Cayia:

On January 17, 2003, the NRC completed an inspection at the Point Beach Nuclear Generating Plant. The purpose of the inspection was to determine whether dry fuel storage cask loading activities were conducted safely and in accordance with NRC requirements. Specifically, the NRC observed various portions of the loading of the fifteenth and sixteenth dry fuel storage casks. At the conclusion of the inspection on January 17, 2003, the NRC inspectors discussed the findings with members of your staff.

This inspection consisted of an examination of dry fuel storage cask loading activities at the Point Beach Nuclear Generating Plant as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities in progress, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any violations. Overall, the loading of the fifteenth and sixteenth dry fuel storage casks was performed well.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,  
**/RA by K. O'Brien acting for/**  
Christopher G. Miller, Chief  
Decommissioning Branch

Docket No. 07200005

Enclosure: Inspection Report 0720005/2003-001

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Region III

Docket No. 07200005

Report No. 07200005/2003-001(DNMS)

Licensee: Wisconsin Electric Power Company

Facility: Point Beach Nuclear Plant, Units 1 & 2

Location: 6610 Nuclear Road  
Two Rivers, WI 54241

Dates: December 9, 2002 - January 17, 2003

Inspector: Ross B. Landsman, Project Engineer

Approved by: Christopher G. Miller, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

## **EXECUTIVE SUMMARY**

### **Point Beach Nuclear Generating Plant, Unit 1 & 2 Point Beach Inspection Report 07200005/2003-001(DNMS)**

This inspection included direct observation by the inspector of various portions of the loading of the fifteenth and sixteenth dry fuel storage casks. Overall, the loadings were performed well.

## Report Details

### **1.0 Loading of the Fifteenth and Sixteenth Casks**

#### a. Inspection Scope (60855)

The inspector observed various portions of the loading of the fifteenth and sixteenth casks to verify compliance with the applicable sections of the loading procedures.

#### b. Observations and Findings

Licensee personnel completed most activities correctly during the loadings of the fifteenth and sixteenth casks. The cask loading team reinforced safety concerns, and quickly brought any problems that occurred to the attention of management. The team also made sound decisions throughout the loading. Radiation protection activities and controls were adequate. Cask workers and health physics personnel maintained good communication, and workers exhibited proper radiation worker practices. However, during the preparations for picking up the fifteenth cask, the primary auxiliary building (PAB) crane was damaged due to an inattention to detail.

### BACKGROUND

The PAB crane was originally installed with only a pendant control panel. The pendant control panel had a very long umbilical cord connection loop to the crane, almost reaching down to the spent fuel pool (SFP) deck elevation, approximately 20 feet below. This permitted crane operation from the next level down on the SFP deck. The pendant control panel eventually became out-dated in relation to industry crane operation, so a radio-remote control was installed. Since the pendant control panel was no longer useful, the panel and cabling were pulled up to the PAB crane walkway and stowed out of the way, thus removing any obvious interference from the cable loop.

In November 2001, during the previous dry cask loading campaign, licensee personnel identified a concern over the reliability of the radio-remote controls which could not be resolved in a timely manner to support dry cask loading. Licensee management made the decision to use the older pendant controls, but the old control cable had significant degradation and was replaced. Licensee management also decided that there was no need to operate the PAB crane with the pendant controls from the lower elevation, so operators only left a small cable-connecting loop at the north end of the PAB instead of using a long loop. This removed the long cable-interference loop and the indicator that required the operators to make cable loop clearance checks and judgements before each crane movement.

Licensee personnel resolved the radio-remote control reliability concern in October 2002, which resulted in the newly restored pendant control panel and its associated cabling being re-stowed on the PAB crane walkway. However, operators left a small cable loop dangling below the crane structure.

### DAMAGE TO CRANE

On December 5, 2002, in preparation of loading cask number fifteen, operators had completed all operational checks with the radio-remote control, including traveling the

PAB crane trolley fully east to west to inspect and ensure clearance of any interferences as required by procedure. The trolley location was east of the SFP area, away from the location of the SFP manipulator crane (the crane that moves fuel bundles in the SFP, located beneath the PAB crane). Operators moved the PAB crane to the SFP area to pick up the cask-lifting yoke, which is stored south and east of the SFP. The staff then moved the PAB crane (with the yoke attached), to the north end of the SFP area, toward the cask. The PAB crane operator asked personnel on the SFP manipulator crane, whether the PAB crane was clear of them on the north end because of the old pendant cable loop interference problem. The operator received a positive response since the long loop was not in place, and he started to shift the PAB crane west toward the truck bay to lift the transfer cask and fuel canister into the SFP.

The new short pendant cable loop caught on the top I-beam structure of the SFP manipulator crane without the operators' knowledge. The SFP manipulator crane shook, and operators observed sparks on the PAB crane. The PAB crane's light went out, and the radio-remote control no longer worked. All work was stopped, and operators opened the PAB crane electrical disconnects to place the PAB crane in a safe configuration. However, the cask-lifting yoke came to rest directly over the SFP; so it had to be moved away from the fuel pool.

Before moving the PAB crane, the licensee formed an investigation team as well as a repair team because of the significance of the event. The repair team approached the problem in three steps. First, the repair team installed a foreign material catch under the area of concern so that nothing would fall onto the fuel bundles in the pool. They manually rotated the PAB crane bridge motor-drive shaft to move the crane and release the tension on the new pendant cable. They removed all debris, and then manually moved the PAB crane away from the SFP to the east end of the building so that they could safely work on the crane. Second, the repair team disconnected the pendant cable from the junction box on the PAB crane, removed the junction box from the crane, and placed the pendant steel support cable in a safe location on the crane walkway. Third and finally, they installed a temporary modification which bypassed the pendant controls while allowing the radio-remote controls to work and fully tested the PAB crane using the radio-remote control (using the important attributes from the required semi-annual crane inspection procedure, MWP120, "Auxiliary Building Crane Inspections," June 12, 2002). The investigation team is conducting a high-level root cause evaluation.

c. Conclusions

The loading of the fifteenth and sixteenth casks demonstrated a thorough understanding of the procedures and activities by the cask team.

## **2.0 Exit Meeting Summary**

The inspector presented the inspection results to members of licensee management at an exit meeting on January 17, 2003. The licensee did not identify any information discussed as being proprietary.

**PARTIAL LIST OF PERSONS CONTACTED**

J. F. Becka    Dry Storage Supervisor

**INSPECTION PROCEDURE USED**

IP 60855    Operation of an Independent Spent Fuel Storage Installation

**ACRONYMS USED**

PAB            Primary Auxiliary Building  
SFP            Spent Fuel Pool