

November 26, 2004

Mr. Dennis L. Koehl  
Site Vice-President  
Point Beach Nuclear Plant  
Nuclear Management Company, LLC  
6590 Nuclear Road  
Two Rivers, WI 54241-9516

SUBJECT: POINT BEACH NUCLEAR POWER PLANT, UNITS 1 AND 2  
NRC INSPECTION REPORT 07200005/2004-002 (DNMS)

Dear Mr. Koehl:

On October 20, 2004, the NRC completed a routine spent fuel storage team inspection at the Point Beach Nuclear Power Plant. The purpose of the inspection was to determine whether the pre-operational testing program and the subsequent dry run operations for the NUHOMS dry fuel storage casks were conducted safely and in accordance with NRC requirements. At the conclusion of onsite inspections on September 24 and October 8, 2004, the NRC inspectors discussed the preliminary inspection findings with members of your staff. On October 20, 2004, at the conclusion of your initial dry run storage loading effort, a final exit meeting was conducted between members of your staff and the inspectors to discuss the inspection results.

The inspection consisted of examinations of dry fuel storage activities at the Point Beach Nuclear Power 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 the inspection, the NRC did not identify any violations. The pre-operational testing program and the subsequent dry run operations were conducted in accordance with applicable regulations and license conditions.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). The NRC's document system is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

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access to ADAMS. The NRC Public Documents Room is located at NRC Headquarters in Rockville, MD, and can be contacted at (800) 397-4209 or (301) 415-4737 or [pdr@nrc.gov](mailto:pdr@nrc.gov).

We will gladly discuss any questions you may have regarding this inspection.

Sincerely,

***/W. Snell acting for RA/***

Kenneth G. O'Brien, Chief  
Decommissioning Branch

Docket No. 07200005

Enclosure: Inspection Report 07200005/2004-002

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No. 07200005

Report No. 07200005/2004-002

Licensee: Nuclear Management Company, LLC

Facility: Point Beach Nuclear Power Plant

Location: 6590 Nuclear Road  
Two Rivers, WI 54241-9516

Dates: September 20 through 24, October 6 through 8,  
October 12 through 14, and October 18 through 20, 2004.

Inspectors: Ross B. Landsman, Project Engineer  
Magdalena R. Gryglak, Reactor Inspector  
Christopher G. Martin, Decommissioning Inspector  
James J. Pearson, Safety Inspection Engineer

Approved by: Kenneth O'Brien, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

## EXECUTIVE SUMMARY

Point Beach Nuclear Power Plant  
NRC Inspection Report 07200005/2004-002(DNMS)

This inspection included direct observation by the inspectors of various phases of the pre-operational testing program and dry run operations for the NUHOMS dry fuel storage casks. The objective of this inspection was to establish whether the Point Beach Nuclear Power Plant was ready to transfer fuel to a spent fuel storage cask. Overall, the pre-operational testing was performed satisfactorily.

### **On-Site Fabrication of Components and Construction of an Independent Spent Fuel Storage Installation (IP 60853)**

- C The licensee's analysis of the east pad of the Independent Spent Fuel Storage Installation (ISFSI) was adequate. The standardized cask design criteria are bounded by the Point Beach site parameters. (Section 1.1)
- C The licensee adequately evaluated the haul road and determined that it will sustain the dry cask storage loads during transport. (Section 1.2)

### **Pre-operational Testing of an Independent Spent Fuel Storage Installation (Licensee Dry Run) (IP 60854, IP 60854.1)**

- C The licensee's fuel selection criteria for verifying fuel selected for dry cask storage met Certificate of Compliance (CoC) conditions. (Section 2.1)
- The inspectors concluded that the licensee's radiation protection practices and controls associated with loading of the NUHOMS casks were commensurate with the radiological hazards present. (Section 2.2)
- C The inspectors determined that the licensee's training program regarding the loading and transfer of the loaded casks to the ISFSI was adequate and that the staff demonstrated an appropriate level of knowledge. (Section 2.3)
- C The inspectors verified that the auxiliary building crane and the new pneumatic yoke were acceptable to sustain the loads of the casks. The licensee's evaluation and analysis of the seismic qualifications of the auxiliary building will be the subject of further review by inspectors and is considered an Inspector Follow up Item (IFI 07200005/2004-002-01). (Section 2.4)
- C The inspectors verified that the licensee had proper controls in place to perform welding of the canister lower and upper lids. (Section 2.5)
- C The inspectors verified that the licensee could perform helium leak detection at the lid welds. (Section 2.6)
- C The inspectors determined that the licensee had conducted an adequate readiness review of the dry fuel storage process. Licensee management stated they would resolve all the outstanding items before the first loading. (Section 2.7)

- C The inspectors noted that the licensee implemented its program adequately and was ready to load spent fuel from the spent fuel pool into the DSC, transport the dry shielded canister to the Independent Spent Fuel Storage Installation pad, and then transfer the loaded dry shielded canister into the horizontal storage module. (Section 2.8)

**Review of 10 CFR 72.212(b) Evaluations**

- C The inspectors concluded that the licensee's evaluations of the cask design criteria were adequate to demonstrate compliance with the requirements of 10 CFR 72.212(b). (Section 3.0)

**Review of 10 CFR 72.48 Screenings**

- C The inspectors determined that the licensee's 10 CFR 72.48 program to perform design changes or evaluate non-conforming conditions was adequate. (Section 4.0)

## Report Details

### 1.0 On-Site Fabrication of Components and Construction of an Independent Spent Fuel Storage Installation (IP 60853)

#### 1.1 Storage Pad Stability

##### a. Inspection Scope

The inspectors reviewed documentation regarding the analysis of the east pad of the Point Beach Independent Spent Fuel Storage Installation (ISFSI) to verify that the licensee used an adequate safety margin to address possible pad failures under any static and dynamic load.

##### b. Observations and Findings

The Point Beach ISFSI was originally constructed in 1995 to provide a location to store the vertical concrete casks system (VSC-24) containing used reactor fuel. The ISFSI included two concrete storage pads; a west pad and an east pad that were constructed at the same time. The west pad currently stores 16 VSC-24 casks. The licensee planned to store the new NUHOMS 32PT casks on the east pad.

The licensee analyzed the existing geotechnical conditions underneath the east pad. The analysis was based on results obtained during the original geotechnical site investigation. Soils underlying the site typically consist of about 15 to 25 feet of stiff- to-hard yellowish-brown and reddish, silty clay and sandy clay with occasional pockets of sand and gravel. This upper till stratum is underlain by stiff-to-hard brown glacial (silty clay) deposits, continuing down to the bedrock. The bedrock was encountered approximately 100 to 110 feet below the existing ground surface. The depth to ground water was approximately 25 feet below the existing ground surface.

The licensee evaluated the east pad for bending and vertical shears as well as shear capacities across joints and soil bearing pressures. The licensee performed an analysis for pad capacity to resist its own weight as the dead load, and all vertical static loads imposed by the NUHOMS 32PT cask and Horizontal Storage Modules (HSMs). The pad was also analyzed to determine the structural adequacy to resist both gravity and seismic loadings. All engineering evaluation results indicated that the east pad will be utilized within the allowable design capacities. The standardized cask design of 0.25 g horizontal acceleration bounded the Point Beach site parameters.

The licensee also concluded that the site soils do not possess liquefaction potential. Since the site is relatively level and the consistency of the on-site soils is stiff to hard, there will be no slope stability concern. As a result, the existing pad designated to store the NUHOMS 32PT cask design will provide adequate foundation support to the loads of the casks.

##### c. Conclusions

The licensee's analysis of the east pad of the ISFSI was adequate. The standardized cask design criteria are bounded by the Point Beach site parameters.

## 1.2 Haul Road

### a. Inspection Scope

The inspector evaluated the licensee's engineering design assumptions for the haul road to verify that the road on which the dry storage cask will be transported will sustain the loads.

### b. Observations and Findings

The licensee evaluated the haul road to verify its capacity to support the movement of the transfer trailer carrying a fully loaded 32PT transfer cask. The haul road has been previously used to transport 16 vertical, VSC 24, storage casks of approximately twice the weight of the 32PT casks without any incidents.

The licensee determined that the subsurface soils and the load pathway from the plant to the ISFSI, including the existing gravel approach roadway, possessed sufficient strength for the expected new cask conditions. However, a redesign of the gravel areas surrounding the two pads was needed to upgrade the areas to concrete pavement in order to resist the vertical outrigger loads of the transfer trailer and the lateral loads imposed by the trailer while pushing a Dry Shielded Canister (DSC) from the transfer cask into the HSM.

### c. Conclusion

The licensee adequately evaluated the haul road and determined that it will sustain the dry cask storage loads during transport.

## 2.0 Pre-operational Testing of an Independent Spent Fuel Storage Installation (Licensee Dry Run) (IP 60854, IP 60854.1)

### 2.1 Fuel Characterization

#### b. Inspection Scope

The inspectors examined the licensee's fuel selection criteria to verify that fuel selected for storage in the 32PT casks met all the Certificate of Compliance (CoC) conditions.

#### b. Observations and Findings

The licensee's initial fuel selection criteria consisted of identifying assemblies with an enrichment value that met the CoC criteria of less than 4 percent. The licensee scanned its database and located approximately 500 assemblies that met this criteria. The database results were compared with the historical records consisting of a summary sheet for each assembly to verify the validity of information contained in the database. The licensee also performed a visual inspection of each preselected fuel assembly to ensure there was no gross structural damage of the cladding.

The inspectors reviewed the water chemistry records for each preselected fuel assembly to demonstrate compliance with the CoC requirements. The licensee performed the examination of fuel assemblies when an analysis of reactor water samples from a given



core cycle demonstrated an increase in the activity of radioactive isotopes. The fuel assemblies that were suspected to leak were ultrasonically examined and the results documented.

The licensee also prepared a detailed location and heat load map for each fuel assembly in each cask. The highest calculated heat load value for a cask was approximately 15 kilowatts (KW), which is less than the maximum value of 24 KW specified in the CoC.

The inspectors also verified that the personnel performing fuel selection were qualified per the Nuclear Management Corporation (NMC) and the Point Beach site specific requirements.

c. Conclusions

The licensee's fuel selection criteria for verifying fuel selected for dry cask storage met CoC conditions.

**2.2 Radiation Protection Program**

a. Inspection Scope

The inspectors evaluated the licensee's radiation protection program preparation as it related to the operation of the ISFSI; including the As-Low-As-Reasonably-Achievable (ALARA) review of loading the NUHOMS casks and the subsequent transfer of the loaded casks to the ISFSI pad.

b. Observations and Findings

The inspectors noted that the licensee's radiation protection (RP) staff pre-planned for the NUHOMS cask loadings and the plan was commensurate with the expected radiological hazards. The licensee's RP staff considered lessons learned from other utilities and previous onsite spent fuel loading campaigns during development of the radiological controls for the loading efforts. The radiation protection plan for the loading efforts included ALARA provisions, RP instructions, and radiological hold points in loading the spent fuel and storage of NUHOMS casks at the ISFSI pad.

The licensee's staff established appropriate acceptance criteria to ensure that radiological limits as set forth in administrative plant procedures and the CoC, were met. The licensee's RP staff developed comprehensive radiation protection procedures which contained the aforementioned limits. The procedures provided the radiation protection technicians (RPTs) with the guidance necessary to conduct appropriate radiation and contamination monitoring during the spent fuel operations. The inspectors noted that the dry fuel storage procedures contained sufficient RP hold points to allow the RPTs to perform the required radiological surveys.

The licensee estimated that the occupational dose for loading the NUHOMS casks and subsequent transport of the casks to the ISFSI pad would be approximately 0.650 person-rem per cask. The inspectors noted that the occupational dose estimate was consistent with doses received at other utilities, after taking into account the age of the spent fuel.

c. Conclusions

The inspectors concluded that the licensee's radiation protection practices and controls associated with loading of the NUHOMS casks were commensurate with the radiological hazards present.

**2.3 Training**

a. Inspection Scope

The inspectors reviewed the licensee's training program and verified the staff's ability to perform their assigned tasks during the loading and transfer of the loaded casks to the ISFSI.

b. Observations and Findings

The licensee provided general dry fuel storage overview training to all personnel involved in the process regarding the: (1) regulatory requirements; (2) design objectives; (3) major equipment components; (4) process for loading, transporting, and retrieving the fuel; and (5) descriptions of off-normal conditions. In addition, the licensee provided more detailed training to those involved directly with the work, as well as an on-the-job training, which was very specific to particular tasks being performed.

The licensee prepared a dry fuel storage qualification matrix which documented each team and individual, and the associated training requirements. The inspectors verified that selected personnel received the required training and successfully passed the examination. The inspectors also discussed specific aspects of the operation with the appropriate staff and determined that the staff had a clear understanding of its duties and responsibilities.

c. Conclusions

The inspectors determined that the licensee's training program regarding the loading and transfer of the loaded casks to the ISFSI was adequate and that the staff demonstrated an appropriate level of knowledge.

**2.4 Heavy Loads**

a. Inspection Scope

The inspectors verified that the auxiliary building crane, the building structure, and the new pneumatic yoke will be able to sustain the loads of the cask.

b. Observations and Findings

In the 1990s, the Auxiliary Building crane had been updated to a single failure proof crane for the original VSC-24 cask storage project. However, the Auxiliary Building crane control system had not been updated since the initial plant construction. The system components were showing wear and tear and were in danger of becoming inoperable during the dry cask storage project. To ensure the availability of the crane

during loading of casks, the licensee decided to modernize the entire crane control system. Some of the modifications included: (1) replacing the hoist motors; (2) upgrading all motor controls; (3) removing the operator pendant control and replacing it with a new radio remote control system; (4) upgrading the power system; (5) installing the latest anti-sway technology; (6) installing new end of travel limit switches; and (7) integrating the existing single proof trolley system into the new modifications. Because these modifications did not structurally change any components on the crane, the licensee did not perform a load test. However, the licensee performed a thorough post modification function test to ensure that the new crane controls worked properly.

The seismic qualifications of the Auxiliary Building structure were evaluated for the 101-ton VSC-24 cask storage project in the 1990's. However, the inspectors determined that the Auxiliary Building structure was not evaluated for the new NUHOMS 32PT cask storage project. The licensee was in the process of re-evaluating the building for the new loadings. The licensee's evaluation and analysis of the seismic qualifications of the auxiliary building will be the subject of further review by inspectors and is considered an Inspector Follow up Item (IFI 07200005/2004-002-01).

The NUHOMS 32PT standard cask lift yoke assembly utilizes standard hook shaped lifting arms. This configuration would not allow engagement or disengagement from the transfer cask if the cask were in the cask lay down area of the spent fuel pool because of its limited dimensions. Spent fuel pool modifications were considered. However, the licensee had previously procured a pneumatically operated lifting system. The system was procured for heavier Transnuclear (TN) 32 PT vertical, non transportable casks prior to the NRC approval of the transportable TN-40 cask design. The licensee decided to modify the pneumatic yoke, rather than modify the lay down area within the spent fuel pool. The modification to the yoke consisted of shortening the lift arm members, cross beam plates, and suspension configuration for the cask shield plug. This modification allowed engagement or disengagement in the spent fuel pool. The new lift beam assembly was modified, inspected, and tested according to American National Standards Institute (ANSI) N14.6 requirements.

c. Conclusions

The inspectors verified that the auxiliary building crane and the new pneumatic yoke were acceptable to sustain the loads of the casks. The licensee's evaluation and analysis of the seismic qualifications of the auxiliary building will be the subject of further review by inspectors and is considered an Inspector Follow up Item (IFI 07200005/2004-002-01).

**2.5 Welding**

a. Inspection Scope

The inspectors verified that the licensee had proper controls in place to perform welding of the canister lower and upper lids.

b. Observations and Findings

The inspectors verified that the licensee developed procedures to perform welding of the lower and upper lids sealing the canister. Included in these procedures were the dry run procedures, the welding specifications, the weld rod control procedures, specifications on the welding electrodes and filler metal, the welding and quality control checklist, procedures for visual inspection and the visible dye penetrant inspection of a weld, and the qualification records of the welding and quality control personnel.

The inspectors did not observe welding and non-destructive examination (NDE) dry runs of DSC mock-ups. The Nuclear Management Company (NMC) fleet crew performed the welding. The weld team consisted of six qualified welders from Duane Arnold, Palisades, and Point Beach nuclear power plants. The inspectors observed the same team perform the welding at Duane Arnold and Palisades plants during the loading campaigns at those plants. The Point Beach quality control (QA) personnel performed the NDE examinations.

c. Conclusions

The inspectors verified that the licensee had proper controls in place to perform welding of the canister upper and lower lids.

**2.6 Helium Leak Detection**

a. Inspection Scope

The inspectors verified that the licensee could perform helium leak detection at the lid welds.

b. Observations and Findings

The licensee contracted with Leak Testing Specialists, Inc. (LTS) to perform all leakage testing in accordance with LTS procedures. Certified personnel will be performing testing in accordance with LTS qualification and certification requirements. During inspections at the Palisades Nuclear Generating Plant, NRC report number 07200007/2004-002, the inspectors compared these requirements to the guidelines required by the CoC and the guidelines of the American Society for Non-Destructive Testing Recommended Practice No. SNT-TC-1A (1996 Edition), and found them acceptable.

c. Conclusions

The inspectors verified that the licensee could perform helium leak detection at the lid welds.

**2.7 Readiness Review**

a. Inspection Scope

The inspectors reviewed the adequacy of the licensee's Dry Fuel Storage Project internal readiness review report.

b. Observation and Findings

In September 2004, a licensee-sponsored review team completed an assessment of the Point Beach Dry Fuel Storage Project's readiness to begin loading fuel in October 2004. The review team determined that the project was at a critical junction due to the considerable amount of work remaining to be completed in a very limited amount of time.

The review team identified that lessons learned from other site loadings had not been disseminated formally to project team members. The review team recommended that management ensure that previous lessons learned, as well as new issues identified, were formalized, documented, and follow-up actions were tracked until resolved. In response to this recommendation, the licensee developed an Action Item List for emerging work. However, the inspectors determined that the licensee still was not formally tracking to closure all prior lessons learned and new items identified by the readiness review team. When brought to the licensee's attention, the licensee determined that a matrix should be prepared to address the readiness team's issues prior to loading the first cask. In addition, the inspectors noted that the licensee still did not formally document and track to closure the lessons learned during the licensee's own internal dry runs. The licensee stated that the lessons learned were tracked as they emerged during work and immediate action was taken to address the issues.

c. Conclusions

The inspectors determined that the licensee had conducted an adequate readiness review of the dry fuel storage process. Licensee management stated they would resolve all the outstanding items before the first loading.

**2.8 Dry Run**

a. Inspection Scope

The inspectors evaluated the licensee's ability to safely load, transfer, store, and retrieve the spent fuel.

b. Observations and Findings

The inspectors observed the licensee perform the various evolutions of a typical dry cask loading campaign. Specifically, the inspectors observed the licensee: (1) move all the necessary equipment, including the transfer cask (TC) and the DSC, into the wash down pit; (2) lower the transfer cask and the DSC into the spent fuel pool; (3) load and unload fuel assemblies using a dummy fuel bundle; (4) install the shield plug; (5) lift the transfer cask and the DCS from the spent fuel pool and place them in the cask lay down area; (6) lower and place the transfer cask and the DCS onto the transfer trailer after decontamination of the TC; (7) transport the transfer trailer to the ISFSI and insert the DCS into the Horizontal Storage Module (HSM), and; (8) retrieve the DSC from the HSM. The licensee performed the dry run activities adequately and in accordance with the CoC and site specific procedures. During the dry run demonstrations, the inspectors made observations which are summarized below.

The licensee leases the transfer cask and the transfer trailer to support the dry cask storage activities from the vendor. During the loading campaign at the Palisades Nuclear Generating Plant, the NRC observed that the licensee staff experienced difficulties while steering the transfer trailer due to the lack of preventive maintenance on the trailer. Prior to use of the trailer, the Point Beach staff, under the vendor's guidance, performed the necessary maintenance which included replacement and adjustment of handlebars and alignment of the steering plates, followed by adjustment of the rod bars to align the axle sets. During the NRC dry run demonstrations, the transfer trailer functioned as designed.

During lowering of the transfer cask and the DSC into the spent fuel pool, the licensee experienced some difficulties with positioning the transfer cask in the spent fuel pool cask lay down area. Due to a very small clearance area, the licensee needed to rotate the cask 90 degrees to clear the trunnions and the pneumatic yoke. During the dry run demonstration, the staff had to reposition the cask by lifting it and reseating it in the cask lay down area several times in order to disengage the yoke. Additionally, to determine the exact position of the transfer cask, the crew utilized an underwater camera. However, despite the use of the underwater camera, the inspectors noted that this process was time consuming and inefficient, due to the limited visibility. The licensee acknowledged the observation and was reevaluating this technique to determine if there were other methods available to correctly position the transfer cask in the cask lay down area.

During the course of the NRC dry run activities, the licensee performed major dry cask storage evolutions, some of which were complicated and performed for the first time. However, the inspectors noted that there was a lack of upper management oversight and a limited QA involvement with the project. The inspectors brought this issue to the licensee's attention during one of the preliminary exits. The licensee acknowledged the concern. Throughout the remainder of the dry run activities, representatives from Nuclear Oversight, the Production Planning Group, and Quality Control observed activities and independently evaluated the licensee's progress.

c. Conclusions

The inspectors noted that the licensee implemented its program adequately and was ready to load spent fuel from the spent fuel pool into the dry shielded canister, transport the dry shielded canister to the Independent Spent Fuel Storage Installation pad, and then transfer the loaded dry shielded canister into the horizontal storage module.

**3.0 Review of 10 CFR 72.212(b) Evaluations (IP 60856, IP 60856.1)**

a. Inspection Scope

The inspectors evaluated whether the licensee had reviewed, assessed, and documented the cask design criteria to demonstrate compliance with 10 CFR Part 72.212(b) requirements.

b. Observations and Findings

The inspectors performed review of the 10 CFR Part 72.212(b) evaluations to determine if the conditions set forth in the Part 72-1004 CoC had been met. Through the review, the inspectors had determined that the licensee had adequately assessed in its evaluations the CoC conditions, cask storage pad and areas, effluents and direct radiation, reactor building site parameters, 10 CFR Part 50.59 evaluations, the quality assurance program, the radiation protection program, the training program, the security plan, and the emergency plan. However, some of the areas of the evaluation lacked attention to detail or had included wording, title, or typographical errors. These areas were discussed with the Point Beach licensing representative during the inspection. During the following inspections, the inspectors determined that the licensee was addressing issues identified previously regarding the 10 CFR 212 evaluations and made the necessary changes.

c. Conclusions

The inspectors concluded that the license's evaluations of the cask design criteria were adequate to demonstrate compliance with the requirements of 10 CFR 72.212(b).

**4.0 Review of 10 CFR 72.48 Evaluations**

a. Inspection Scope

The inspectors reviewed the licensee's program for conducting safety evaluations of changes to the dry fuel storage process.

b. Observations and Findings

The inspectors reviewed the licensee's administrative procedures controlling the 10 CFR 72.48 design change process, completed 10 CFR 72.48 screenings, and the documentation associated with qualification requirements for the personnel involved with the fuel selection process. The inspectors determined that the 10 CFR 72.48 review process was implemented such that completed screenings met the licensee's criteria. The inspectors also verified that the reviewers were appropriately trained.

The licensee performed the 10 CFR 72.48 screenings by researching documentation related to the VSC-24 and the NUHOMS 32PT cask designs. The inspectors found no technical issues associated with the changes made through the 72.48 process. However, the inspectors noted that the licensee documented the changes/additions on an outdated form. The licensee did not revise the 72.48 screening form to accommodate the new NUHOMS 32PT cask design. The form used had references and questions related to the VSC-24 cask design only. The licensee utilized the VSC-24 casks in the past and the 72.48 screening questions were not valid. After bringing this concern to the licensee's attention, the licensee documented this issue in a condition report. The licensee's resolution of this concern called for revisiting the 10 CFR 72.48 screenings and documenting the changes on a newly revised form that would reference the NUHOMS 32PT design. The licensee took appropriate corrective actions to address this issue and changed the form on each screening prior to loading activities.

c. Conclusions

The inspectors determined that the licensee's 10 CFR 72.48 program to perform design changes or evaluate non-conforming conditions was adequate.

**5.0 Exit Meeting**

The inspectors presented the preliminary results of the inspections to the licensee on September 24, and October 8, 2004. On October 20, 2004, the inspectors presented the final inspection results to the licensee. The licensee acknowledged the findings presented and did not identify any documents or processes reviewed by the inspectors as proprietary.

**Partial List of Persons Contacted**

D. L. Koehl, Site Vice-President  
J. Shaw, Plant Manager  
R. Davenport, Production Planning Group Manager  
S. Leblang, NMC High Level Waste Manager  
J. Becka, Dry Fuel Storage Supervising Engineer  
J. Connolly, Regulatory Affairs Manager  
L. Schofield, Licensing

**Inspection Procedures Used**

IP 60853 On-Site Fabrication of Components and Construction of an ISFSI  
IP 60854 Pre-operational Testing of an Independent Spent Fuel Storage installation  
(Licensee Dry Run)  
IP 60854.1 Pre-operational Testing of an Independent Spent Fuel Storage installation  
(Licensee Dry Run) at Operating Plants  
IP 60856 Review of 10 CFR 72.212(b) Evaluations  
IP 60856.1 Review of 10 CFR 72.212(b) Evaluations at Operating Plants  
IP 60857 Review of 10 CFR 72.48 Evaluations

**Items Opened, Closed, and Discussed**

IFI 07200005/2004-002/01 Seismic analysis of the reactor auxiliary building structure

**List of Acronyms Used**

ALARA As-Low-As-Reasonably-Achievable  
ANSI American National Standards Institute  
CoC Certificate of Compliance  
DSC Dry Shielded Canister  
HSM Horizontal Storage Module  
ISFSI Independent Spent Fuel Storage Installation  
LTS Leak Testing Specialists, Inc.



NDE	Non-destructive Examination
NMC	Nuclear Management Company
RP	Radiation Protection
RPT	Radiation Protection Technicians
SFP	Spent Fuel Pool
TC	Transfer Cask
TN	Transnuclear, Inc.

## **Licensee Documents Reviewed**

### **Section 1.1, Section 1.2, Section 3.0**

Report, "Point Beach 10 CFR 72.212 and Certificate of Compliance Evaluation Report for NUHOMS-32PT System," Revision 2.

Report to AEC Regulatory Staff, "Adequacy of the Structural Criteria for the Point Beach Nuclear Plant Unit 2," dated April 1968.

Report, "Safety Evaluation by the Division of Reactor Licensing, U.S. Atomic Energy Commission, in the Matter of Wisconsin Michigan Power Company, Point Beach Unit No. 1, Two Creeks, Wisconsin, Docket No. 50-266," dated June 7, 1967.

### **Section 2.1**

Procedure DSP 10, "ISFSI Fuel Selection Criteria," dated August 6, 2004.

Record, "ISFSI NUHOMS-32PT Spent Fuel Criteria Record."

Record, "Irradiated Fuel Inspection Record."

### **Section 2.2 and Section 2.8**

ALARA Review for the Point Beach dry cask storage project.

Procedure RP 17, "NUHOMS Dry Cask Loading And Storage," Revision 1, dated 10/22/04.

Procedure RP 17 Part 1, "Preps Of TC/DSC," Revision 3, dated 10/22/04.

Procedure RP 17 Part 2, "Place DSC/TC Into Spent Fuel Pool," Revision 3, dated 10/22/04.

Procedure RP 17 Part 3, "Loading Spent Fuel Into The Dry Shielded Canister (DSC)," Revision 3, dated 10/22/04.

Procedure RP 17 Part 4, "Remove DSC/TC From Spent Fuel Pool," Revision 3, dated 10/22/04.

Procedure RP 17 Part 5, "Sealing 32PT Dry Shielded Canister (DSC)," Revision 3, dated 10/22/04.

Procedure RP 17 Part 6, "Move DSC/TC From Decon Area To ISFSI," Revision 3, dated 10/22/04.

Procedure RP 18, "NUHOMS Dry Cask Unloading," Revision 0, dated 07/22/04.

Procedure RP 18 Part 1, "Extract DSC From HSM And Move To PAB," Revision 0, dated 07/22/04.

Procedure RP 18 Part 2, "Preparing TC/DSC For Placement Into The Spent Fuel Pool (Milling Method)," Revision 0, dated 07/22/04.

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### **Section 2.3**

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On the Job Training and Performance Evaluation Guides.

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### **Section 2.4**

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### **Section 2.5 and Section 2.6**

Procedure NDE-3, "Written Practice for Qualification and certification for NDE Personnel."

Procedure BDE-401, "Visible Dye Penetrant Examination Temperature Applications 60 Degrees F to 350 Degrees F."

Procedure NDE-451, "Visible Dye Penetrant Examination Temperature Applications 45 Degrees F to 125 Degrees F."

Procedure-700, "Visible Weld Examination."

Procedure WPM 1.1, "Welding Program Manual Policy," Revision 2.

Procedure WPM 1.2, "Welding and Welder Operator Performance Qualification," Revision 2.

Procedure WPM 1.3, "Control of Weld Metal," Revision 2.

Procedure WPM 1.7, "General Welding Standard for Welds and Welding Technique," Revision 0.

Procedure WPM 1.10, "General Welding Standard for Identification and Repair of Defects", Revision 0.

Procedure FP-PE-WLD-02, "General Welding Specification."

Procedure FP-PE-III-P8P8-GTSM-062, "Groove Welds and Fillet Welds, P8 to P8, GTAW/SMAW, Without PWHT."

Procedure FP-III-P8P8-GTM-063, "Transnuclear Dry Cask Welding."

Procedure RMP 9395, Welding 32 PT Loaded Dry Shielded Canister (DSC)."

### **Section 2.7**

Procedure OBF-7517, "Dry Fuel Storage Contingency Plan," Revision 0.

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Condition Report, CAP 059799, "Dry Fuel Storage Readiness Review Team Comments, Section 2, Bill Borter," dated 10/12/04.

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"Dry Fuel Storage Team Readiness Review Report," dated 10/02/04.

"BPNP Cask Loading Campaign Action Item List," dated 10/8/04.

#### **Section 4.0**

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