December 31, 2008

Mr. Timothy J. O'Connor
Site Vice President
Monticello Nuclear Generating Plant
Northern States Power Company, Minnesota
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT
NRC INSPECTION REPORT 072-00058/2008-003(DNMS)

Dear Mr. O'Connor:

On December 22, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed its inspection of the preoperational testing of an Independent Spent Fuel Storage Installation (ISFSI) at the Monticello Nuclear Generating Plant. The inspection focused on the pre-operational demonstrations and program reviews associated with preparations to load fuel as well as the actual loading activities. The dry run inspection consisted of in-office review beginning April 12, 2008, and concluded with an exit teleconference on December 22, 2008, with onsite inspections June 30 through July 3, August 18 through 22, and September 8 through September 11, 2008. The enclosed report presents the results of this inspection.

The inspection consisted of observations of the dry run activities utilizing the Transnuclear NUHOMS 61 BT cask and its storage system and activities associated with loading, transfer, and storage of dry fuel as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the license. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of interviews with licensee personnel, as well as a review of select procedures and programs.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation was associated with a failure to establish measures to ensure that applicable regulatory requirements and the design basis were correctly translated into specifications, drawings, procedures, and instructions. This finding had a cross-cutting aspect in the area of Human Performance, Resources, because the design control process did not establish requirements necessary for complete, accurate, and up-to-date design documentation.

Because the violation was of very low safety significance, was non-repetitive, and was entered into the corrective action program, this violation is being treated as a Non-Cited Violation (NCV), consistent with Section VI.A of the NRC Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or significance of this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with a copies to the Regional Administrator, Region III, the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001, and the NRC Resident Inspector at the Monticello Nuclear Generating Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure((s), and your response, if you choose to provide one, 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/readingrm/adams.html. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Sincerely,

/RA by J. Madera Acting for/

Christine A. Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch

Docket No. 72-058; 50-263
License No. DPR-22

Enclosure:
Inspection Report 072-00058/2008-003(DNMS)

cc w/encl: D. Koehl, Chief Nuclear Officer
Manager, Nuclear Safety Assessment
P. Glass, Assistant General Counsel
Nuclear Asset Manager, Xcel Energy, Inc.
J. Stine, State Liaison Officer, Minnesota Department of Health
R. Nelson, President
Minnesota Environmental Control Citizens Association
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R. Hiivala, Auditor/Treasurer,
Wright County Government Center
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Letter to Timothy O'Connor from Christine A. Lipa dated December , 2008

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.	072-00058
License No.	DPR-22
Report No.	072-00058/2008-003(DNMS)
Licensee:	Northern States Power Company
Facility:	Monticello Nuclear Generating Plant
Location:	2807 West County Road 75 Monticello, MN 55362-9637
Inspection Dates:	Onsite: June 30 through July 3, 2008; August 18 through 22, 2008; and September 8 through September 11, 2008. In-office review completed on December 22, 2008
Exit Teleconference:	December 22, 2008
Inspectors:	Sarah Bakhsh, Reactor Inspector Matthew Learn, Reactor Engineer in training Scott Atwater, Senior Project Inspector, Region II John Bozga, Reactor Inspector, James Neurauter, Senior Reactor Inspector Jim Pearson, Senior Safety Inspector, Division of Spent Fuel Storage and Transportation, Office of Nuclear Material Safety and Safeguards
Approved by:	Christine A. Lipa, Chief Materials Control, ISFSI, and Decommissioning Branch Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Monticello Nuclear Generating Station
NRC Inspection Report 072-00058/2008-003(DNMS)

Preoperational Testing of an Independent Spent Fuel Storage Facility Installation at Operating Plants (60854.1)

- The inspectors observed the licensee's dry run activities utilizing the Transnuclear NUHOMS 61 BT cask and its storage system and activities associated with loading, transfer, and storage of dry fuel as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the license.

  The inspectors identified one violation of 10 Code of Federal Regulations (CFR) 72.146, "Design Control." Specifically, the licensee failed to establish measures to ensure that applicable regulatory requirements and the design basis were correctly translated into specifications, drawings, procedures, and instructions. This finding is being treated as a Non-Cited Violation, consistent with section VI.A of the NRC Enforcement Policy. The finding has a cross-cutting aspect in the area of Human Performance, Resources, because the licensee's design control process did not establish requirements necessary for complete, accurate, and up-to-date design documentation. [H.2(c)] (Section 1.0)

Review of 10 CFR 72.212(b) Evaluations (60856)

- The inspectors reviewed the licensee's 10 CFR 72.212 evaluation and determined that it was in compliance with conditions set forth in the Certificate of Compliance, Final Safety Analysis Report, and 10 CFR Part 72 requirements in regards to the NUHOMS 61BT cask system. (Section 2.0)

REPORT DETAILS

1.0 Preoperational Testing Of an Independent Spent Fuel Storage Facility Installation (ISFSI) at Operating Plants (60854.1)

a. Inspection Scope

The inspectors evaluated the licensee's readiness to load spent fuel. The inspectors observed the licensee's dry run activities utilizing the Transnuclear NUHOMS 61 BT cask and its storage system and activities associated with loading, transfer, and storage of dry fuel as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the license. The licensee faced several challenges and the NRC identified several issues during the dry run inspection phase, and these issues were subsequently resolved satisfactorily prior to loading spent fuel.

b. Observations and Findings

Heavy Loads

The inspectors reviewed the licensee's crane and heavy loads program with regards to ISFSI operations. The inspectors reviewed topics associated with the reactor building crane's hoisting system, wire rope, bridge and trolley, controls, crane inspection and maintenance, load testing, limit switches, operation, and safe load paths. The inspection consisted of documentation review, interviews with staff, and an inspection of the reactor building crane.

The inspectors reviewed that the reactor building crane had been static loaded to approximately 125 percent of the 105-ton maximum critical load on its main hook. The inspectors verified that a nondestructive examination of the welds, whose failure could result in the drop of a critical load, was performed following the 125 percent cold-proof testing. After the 125 percent load test, the crane was given a full performance test with approximately 100 percent of the maximum critical load attached. The inspectors verified that the default minimum crane operating temperature was defined as 70 degrees Fahrenheit in loading procedures. A 200 percent static load test had been performed for each load-attaching hook. The hook load testing was followed by a nondestructive examination and geometric measurements to verify the soundness of fabrication and ensure integrity of the hook. All limiting and safety control devices were tested.

The inspectors reviewed the crane's hoist brake system and observed the variable frequency power control braking system and three holding brakes. Holding brakes were tested to automatically apply the full holding position when power is off, and under overspeed and overload conditions. The inspectors verified the cask height during movement was sufficiently high to allow for engaging of the brakes during an uncontrolled descent before the load would impact the floor and reviewed the licensee's procedure for emergency positioning of the crane and lowering the load.

The cranes reeving system consisted of two drums with quadruple reeving of four wire ropes using sheave equalizers. The hoisting system had two mechanical load switches installed in the equalizer sheave that were used to de-energize the hoist drive motor and the main power supply under a load hang-up condition, but would still

allow a controlled lowering of the load. The Monticello Nuclear Generating Plant (MNGP) reactor building crane employs a system of three independent upper travel limit switches to prevent two-blocking (lower block coming in contact with the drum). The inspectors also observed the lower limit switch and verified that a sufficient amount of wraps around the drum were present at the lower limit. These devices de-energize the hoist drive motor and the main power supply. The hoist drum was equipped with drum capture plates put in place to limit drum drop during a shaft or bearing failure.

The inspectors reviewed the latest annual preventive maintenance program and crane inspection. The annual inspection also replaces and installs recently calibrated mechanical load switches used to prevent load hang-up. During ISFSI operations, the MNGP crane was categorized as being under normal service. This categorization required a "frequent check" on a monthly basis. The inspectors reviewed the crane's daily inspection list.

The inspectors observed the licensee test electrical interlocks that permit only one control station to be operated at a time. The inspectors reviewed the operator's qualifications; the licensee qualified the ISFSI crane operators based on a review of their previous training, education, experience, and medical records. The inspectors observed the emergency stop features in the cab, on the refuel floor and on the remote control unit. The inspector reviewed the safe load paths defined for the movement of heavy loads.

Dry Run Demonstrations

Inspectors observed the licensee's NRC dry run activities in preparations to load fuel at the MNGP August 18, 2008, through August 22, 2008. Additional operations, in particular the welding demonstration by TriVis, were observed by inspectors prior to the NRC dry run at the contractors facility in Pelham, Alabama and the inspection results are documented in inspection report 072-00058/2008-002(DNMS). The licensee faced challenges with several canisters received from the manufacturer, Transnuclear (TN), due to fabrication tolerances, i.e., build-up of the specified fabrication tolerances resulted in improper alignment of the outer top cover plate with the canister shell weld preparation. Due to this misalignment, the weld configuration had to be modified from a dual to a single bevel for the affected canisters. Transnuclear evaluated the issue and concluded the affected DSCs could be placed into service without any additional repairs, rework, testing, or weld demonstrations. The licensee documented this issue in the corrective action program as Action Request (AR) 01144172.

The inspectors reviewed the loading and unloading procedures to ensure that they contained commitments and requirements specified in the license, the Technical Specifications, the Final Safety Analysis Report (FSAR), and Title 10 Code of Federal Regulations (CFR), Part 72. The inspectors observed the licensee's pre-job briefings. The licensee conducted these meetings in a professional manner where the necessary items to enhance safety were discussed. Radiation protection staff attended pre-job briefs and gave insight into working conditions and As-Low-As-Is-Reasonably-Achievable (ALARA) practices. The staff was interactive and questions were addressed, as well as suggestions considered by supervisors to gain additional insight.

The inspectors observed licensee personnel perform a number of activities associated with dry fuel storage to demonstrate their readiness to safely load spent fuel from the spent fuel pool (SFP) into the dry cask storage system. The inspectors observed the loading and unloading of dummy fuel bundles into the storage canister basket. The licensee demonstrated removal of dummy fuel assemblies from the SFP storage racks, placed them into the canister, and returned them from the canister to the SFP racks. The licensee demonstrated alignment of the hold down ring and the shield plug.

The inspectors observed crane operation to ensure that heavy loads could be safely lifted and transferred. Down ending of the transfer cask containing a storage canister filled with dummy assemblies from the refueling floor to the transfer trailer was observed as well as lifts from the transfer trailer to the refueling floor. Due to space limitations during the down ending evolution, the licensee had to move the crane and transfer trailer simultaneously to properly lower the transfer cask. The inspectors observed the licensee's response to overspeed trips of the trolley during the down ending due to the trolley being positioned in front of the load without sufficient lowering. The licensee determined that this occurred when the trolley control was returned to neutral, and the trolley positioned itself above the load. As a contingency the licensee moved the transfer trailer and main hoist to complete the demonstration. For future down ending, the licensee decided to maximize the transfer trailer motion and minimize the trolley motion, which proved to be successful. The licensee documented this issue in AR 01148733.

The inspectors also observed a lift of the transfer cask out of the spent fuel pool and onto the cask preparation area. Inspectors verified that lifts were performed in accordance with appropriate industry standards and followed the designated safe haul path.

Inspectors observed the installation of the transfer cask lid, as well as removal of the lid at the Horizontal Storage Module (HSM). The inspectors observed the successful transfer of the storage canister to the ISFSI. During the licensee's internal demonstrations for dry shielded canister (DSC) insertion and retraction from an HSM, the DSC shell was damaged due to misalignment with the HSM. Canister DSC-001 was sent to TN for repair prior to use for storage of spent fuel. During the NRC dry run demonstration the inspectors observed both successful insertion and retraction of the storage canister from the HSM. The licensee documented this issue in AR 01145084. Proper controls were in place during the transfer of the canister from the reactor building to the HSM on the ISFSI. These controls included health physics coverage, adherence to the heavy haul path, and appropriate security oversight. The inspectors verified adequate communication and team work between departments and adherence to procedures.

Fuel Selection

The inspectors reviewed the licensee's processes and methods associated with fuel characterization and selection. The inspectors reviewed a completed fuel selection package for the first cask to be loaded during the campaign to verify that the licensee used the criteria specified in the Technical Specifications to verify the acceptability of assemblies to be loaded in a cask. The inspectors observed the licensee's methods to independently verify and document fuel assemblies. The licensee did not plan to load any damaged fuel assemblies during this campaign.

Radiation Protection

The inspectors evaluated the licensee's radiation protection program pertaining to the operation of the ISFSI. The inspectors reviewed the licensee's procedures describing the methods and techniques used when performing dose rate and surface contamination surveys and verified that they ensured dose rate limits and surveillance requirements of the Technical Specifications were met. The inspectors interviewed the licensee's personnel to verify their knowledge regarding the scope of the work and the radiological hazards associated with transfer and storage of spent fuel.

Training

The inspectors reviewed the licensee's training program which consisted of classroom and on-the-job training to ensure involved staff was adequately trained for the job they were responsible to perform. The licensee's contractor prepared a dry fuel storage qualification matrix which documented each workers training courses completed.

The inspectors reviewed the training material, including the content of the manuals. Training material topics were consistent with TN Technical Specifications. The inspectors independently verified satisfactory completion of training by applicable staff by comparing training documentation in the contractor's qualification matrix to the licensee's Learning Management System. The inspectors interviewed select individuals who were responsible for performance of specific tasks during loading to evaluate their knowledge regarding the campaign activities, the cask loading process, and use of the equipment.

The inspectors reviewed training records of welders and other personnel who the licensee authorized to perform the non-destructive examination inspections to ensure that these individuals' training was current.

Quality Assurance

The inspectors reviewed the licensee's Quality Assurance program, as it applied to the ISFSI. The inspectors also reviewed procedures pertaining to the receipt inspection of dry shielded canisters, transfer trailer, transfers cask, and auxiliary equipment. The inspectors observed that gauges were within their calibration date, and that the use of 99.999 percent pure helium was used during backfilling.

Emergency Preparedness and Fire Plan

The inspectors reviewed the licensee's emergency preparedness plan required by 10 CFR Part 50.47 for conformance with 10 CFR 72.32(c). The inspectors verified that the licensee incorporated Emergency Action Levels to the plant emergency plan to address the possible emergency scenarios, their classification, and recovery actions associated with the ISFSI. The inspectors' interviews with staff revealed confusion regarding "protected area" and "plant protected area," which the licensee clarified with staff and made enhancements to the definitions to clarify the two terms for their use in EAL classifications. In response to this NRC-identified issue, the licensee initiated AR 01148282.

The inspectors reviewed the licensee's Fire Hazard Analysis (FHA) at the ISFSI for compliance with the regulations in 10 CFR Part 72 and the Certificate of Compliance (CoC). The inspectors identified inconsistencies in the evaluation regarding the minimum separation distance for vehicles and addition of a control on transient combustibles. In response to the NRC identified issues with the FHA, the licensee initiated AR 01146176.

Structural Modifications and Associated Design Documentation

The inspectors reviewed plant design documentation, design calculations, safety evaluations, and resultant structural modifications that demonstrated the fuel cask could be safely placed into the SFP and loaded with spent fuel, lifted from the SFP and placed on the designated laydown areas, transferred to the transport vehicle, and transported to the ISFSI. The inspectors verified that the fuel cask loading, unloading, and transfer activities met MNGP site specific commitments and requirements with respect to the ISFSI.

Specifically, the inspectors reviewed the licensee's structural calculations associated with the reactor building superstructure, the structural integrity of the Rail Car Shelter (RS), Reactor Building cask laydown areas, and the spent fuel pool structure to support the 105-ton cask load. The inspectors also reviewed the licensee's structural calculation associated with the buried utilities along the haul path to support the 105-ton cask load. Lastly, the inspectors reviewed the licensee's structural calculation associated with the transfer cask hazard for a postulated RS collapse during a design basis tornado (DBT) event.

The inspectors identified technical errors in Calculation CA-08-135, "Transfer Cask Hazard from Rail Car Shelter Collapse," Revision 0, which resulted in exceeding the acceptance criteria of the calculation. In response to the NRC identified technical errors, the licensee initiated AR 01149709. The licensee removed conservative assumptions in the calculation, and revised Calculation CA-08-135, "Transfer Cask Hazard from Rail Car Shelter Collapse." Revision 1 of CA-08-135 was reviewed by the inspectors and no technical issues were identified. Therefore, the NRC identified errors were determined to be minor using Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues."

The inspectors identified a violation of 10 CFR 72.146, "Design Control," involving the licensee's design control process performed for the RS for the ISFSI transfer operations. Specifically, the inspectors identified a failure to assure and verify structural integrity of the RS due to the effects of a DBT event in accordance with ISFSI licensing requirements. This licensing issue was identified during review of calculation CA-05-104, "Design Adequacy of the Rail Car Shelter @ Elevations 935'-0," for the "ISFSI Transfer Operations," which analyzed the RS for design basis loading conditions associated with the ISFSI during transfer operations.

The inspectors reviewed calculation CA-05-104, which evaluated the RS structural integrity to withstand a design basis earthquake to demonstrate no collapse onto the transfer cask. This calculation provided the basis for storing the transfer cask in the RS during ISFSI transfer operations The licensee was required by 10 CFR 72.92(a) to identify the natural phenomena that could occur in the region and to assess their potential effects on the safe operation of the ISFSI or Monitored Retrievable Storage

Installation (MRS). The important natural phenomena that affect the ISFSI or MRS design must be identified. According to the Monticello Updated Safety Analysis Report, Section 2.3.5, tornadoes were a natural phenomena that could occur at the Monticello site. The licensee was further required by 10 CFR 72.122(b)(2)(i) to design its IFSFI structures, systems, and components to withstand the effects of natural phenomena such as earthquakes, tornadoes, lightning, hurricanes, floods, tsunami, and seiches, without impairing their capability to perform their intended design functions."

The inspectors noted that for the ISFSI transfer operation, as implemented, the licensee failed to assure and verify the integrity of the fuel cask system for a potential collapse of the RS during a DBT event. Specifically, since the licensee failed to evaluate the effects of a DBT on the RS structure, the licensee did not demonstrate that a collapse of the RS structure onto the fuel cask system during a DBT event would not have invalidated the licensing basis requirement of the fuel cask system to withstand tornado effects (wind force, missiles, and differential pressure) as described in Table 3.2-1 of NUH-003, Revision 10, NUH003.0103, "Updated Final Safety Analysis Report for the Standardized NUHOMS Horizontal Modular Storage Systems for Irradiated Nuclear Fuel." In response to this issue, the licensee initiated AR 01142790.

In response to AR 01142790, the licensee performed additional analysis that provided reasonable assurance the integrity of the fuel cask system would be maintained during a DBT event while inside the RS.

The inspectors noted that the licensee's failure to evaluate the RS for the effects of a DBT event warranted a significance evaluation. The inspectors determined the performance deficiency was within the licensee's ability to foresee and correct because the error could have been identified during the independent review.

Because this issue was related to an ISFSI license, it was dispositioned using the traditional enforcement process per Supplement I of the Enforcement Policy.

In accordance with Inspection IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports," the inspectors determined that the deficiency was more than minor in accordance with IMC 0610, "Nuclear Material Safety and Safeguards Inspection Reports," Section 06, which references the use of IMC 0612, "Power Reactor Inspection Reports" Appendix E. The deficiency was determined to be more than minor using IMC 0612, Appendix E, "Examples of Minor Issues," Example 3k, in that the design package did not assure cask integrity during a DBT and additional calculations were required to evaluate the effects of the DBT during transfer operations through the RS in accordance with the ISFSI licensing/design basis analysis requirements.

The finding was determined to be a Severity Level IV Violation per Enforcement Policy, Supplement I, example D.3, "a failure to meet regulatory requirements that have more than a minor safety or environmental significance." Specifically, Calculation CA-08-135, "Transfer Cask Hazard from Rail Car Shelter Collapse," when updated by Revision 1, demonstrated that the integrity of the fuel cask system was in accordance with licensing requirements even if a collapse of the RS were to occur during a design basis tornado event.

This finding has a cross-cutting aspect in the area of Human Performance, Resources, because the licensee's design control process did not establish requirements necessary for complete, accurate, and up-to-date design documentation. Specifically, the appropriate ISFSI design and licensing basis requirements related to a DBT were not established for all structures and components that could affect the transfer cask during ISFSI transfer operations. [H.2(c)]

Title 10 CFR Part 72.146, "Design Control," required, in part, that the licensee, applicant for a license, certificate holder, and applicant for a CoC shall establish measures to ensure that applicable regulatory requirements and the design basis, as specified in the license or CoC application for those structures, systems, and components to which this section applies, are correctly translated into specifications, drawings, procedures, and instructions. Further, it required that the design control measures must provide for verifying or checking the adequacy of design by methods such as design reviews, alternate or simplified calculation methods, or by a suitable testing program.

Title 10 CFR Part 72.92(a), "Design Bases External Natural Events," requires, in part, that natural phenomena that may exist or that can occur in the region of a proposed site must be identified and assessed according to their potential on the safe operation of the ISFSI.

Title 10 CFR 72.122(b)(2)(i) requires that structures, systems, and components important to safety must be designed to withstand the effects of natural phenomena such as earthquakes, tornadoes, lightning, hurricanes, floods, tsunami, and seiches, without impairing their capability to perform their intended design functions.

Contrary to the above, as of May 30, 2008, the licensee failed to establish measures to ensure that applicable regulatory requirements and the design basis, as specified in the license or CoC application for those structures, systems, and components to which this section applies, were correctly translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to establish measures to ensure that the tornado design bases accident analyses were correctly translated into specifications, drawings, procedures, and instructions. Licensee Calculation CA-05-104, "Design Adequacy of the Rail Car Shelter at Elevation 935'-0" for the ISFSI Transfer Operations" did not evaluate the adequacy of the Rail Car Shelter, a structure important to safety, for tornado conditions, an applicable regulatory requirement.

Because this violation was of very low safety significance, was non-repetitive, and was entered into the corrective action program (AR 01157276), it is being treated as a Non-Cited Violation (NCV), consistent with Section VI.A of the NRC Enforcement Policy (NCV 07200058/2008-003-01).

c. Conclusion

The inspectors observed the licensee's dry run activities utilizing the Transnuclear NUHOMS 61 BT cask and its storage system and activities associated with loading, transfer, and storage of dry fuel as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the license.

The inspectors identified one violation of 10 CFR 72.146, "Design Control." Specifically, the licensee failed to establish measures to ensure that applicable regulatory

requirements and the design basis were correctly translated into specifications, drawings, procedures, and instructions. This finding is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy. The finding has a cross-cutting aspect in the area of Human Performance, Resources, because the licensee's design control process did not establish requirements necessary for complete, accurate, and up-to-date design documentation. [H.2(c)]

2.0 Review of 10 CFR 72.212(b) Evaluations (60856)

a. Inspection Scope

The inspectors reviewed the licensee's 10 CFR 72.212 evaluation to determine its acceptability and compliance with conditions set forth in the CoC, the FSAR, and 10 CFR Part 72 requirements in regards to the NUHOMS 61BT cask system.

b. Observations and Findings

The inspectors reviewed portions of select documents referenced in the evaluation, including but not limited to radiological evaluations, fire hazard analysis, quality assurance topical report, records management procedure, and documentation of subsurface profiles.

The inspectors identified needed enhancements and weaknesses in the level of information in the evaluation. In particular, the inspectors determined that the licensee needed to add specific language to their 10 CFR 72.212 response to 72.212(b)(2)(c) in addressing 72.104(c) which requires that operational limits be established for radioactive materials in effluents and direct radiation levels associated with the ISFSI. The evaluation, in regard to satisfying 72.104(c), did not include Monticello's specific approach to establishment of operational limits.

The licensee also needed to address how it would store all quality records in the appropriate records management system. The inspectors noted that that the final record location for many documents was not fixed, as many documents were not yet transferred from a working location to the recognized records management system for each of the documents. The team discussed this situation with the ISFSI Project representative and indicated that all records should become resident in the proper system prior to loading fuel. In response to the NRC identified issues, the licensee initiated AR 01145347 and 01146174.

c. Conclusion

The inspectors reviewed the licensee's 10 CFR 72.212 evaluation and determined that it was in compliance with conditions set forth in the CoC, the FSAR, and 10 CFR Part 72 requirements in regards to the NUHOMS 61BT cask system.

3.0 Exit Meeting Summary

Interim debriefs regarding heavy loads were conducted on July 3, 2008, August 22, 2008, and September 11, 2008. An exit meeting for inspection procedure 60854.1 was held on December 22, 2008. The inspectors presented the inspection results to members of the licensee management and staff. Licensee personnel acknowledged the information presented. The inspectors asked licensee personnel whether any materials examined during the inspection and requested to be taken offsite should be considered proprietary. No proprietary information was identified.

Attachment: Supplemental Information

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

B. Brown, ISFSI Project Support
N. French, Operations Support Manager
S. Quiggle, ISFSI Project Manager
L. Samson, Manager, Spent Nuclear Fuel Storage
K. Shriver, ISFSI Project Support

Licensee and Contractor Employees in Attendance at July 3, 2008 Interim Debrief on ISFSI

R. Baumer, Compliance Engr Analyst (Regulatory Affairs)
T. Blake, Regulatory Affairs Manager
B. Brown, ISFSI Project Support
D. Crofoot, Nuclear Oversight (NOS) Supervisor
J. Gitzen, Cranes and Heavy Loads System Engineer
J. Grubb, Director Site Engineering
R. Lindberg, Sargent and Lundy Project Manager
T. J. O'Connor, Site Vice President
S. Quiggle, ISFSI Project Manager
G. Ridder, ISFSI Project Engineer Nathan French – Operations Support Manager
*#L. Samson, Manager, Spent Nuclear Fuel Storage
B. Sawatzke, Plant Manager
*#K. Shriver, ISFSI Project Support

*Indicates individuals present at the August 22, 2008 debrief
#Indicates individuals present at the September 11, 2008 debrief

Licensee and Contractor Employees in Attendance at the Exit Teleconference on December 22, 2008

T. Blake, Regulatory Affairs Manager
K. Shriver, ISFSI Project Support

INSPECTION PROCEDURES USED

IP 60854.1	Preoperational Testing Of An Independent Spent Fuel Storage Facility Installation (ISFSI) At Operating Plants
IP 60856	Review of 10 CFR 72.212(b) Evaluations (60856)

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

07200058/2008-003-01	NCV	Rail Car Shelter Not Evaluated for Effects Due to Design Basis Tornado

Closed

07200058/2008-003-01	NCV	Rail Car Shelter Not Evaluated for Effects Due to Design Basis Tornado

Discussed

None

LIST OF DOCUMENTS REVIEWED

CALCULATIONS

Number	Description or Title	Date or Revision
Job No. 5828	Civil-Structural Design Criteria for The Monticello Nuclear Generating Plant – Unit 1	Revision 1
Calculation CA-05-076	Documentation of Subsurface Profiles at the ISFSI Site	Revision 0
Calculation CA-05-099	Evaluation of Reactor Building Elevation 1027'-8" Cask Laydown Area for 100 Ton Cask	Revision 1
Calculation CA-05-100	Design Adequacy of the Reactor Building Rail Car Bay @ Elevation 935'-0" for the Independent Spent Fuel Storage Installation (ISFSI) Transfer Operations	Revision 1
Calculation CA-05-101	Evaluation of Reactor Steel Superstructure for 105 Ton Reactor Building Crane	Revision 3
Calculation CA-05-102	Evaluation of Spent Fuel Pool for 100 Ton Cask Laydown Load	Revision 0
Calculation CA-05-103	Reactor Building Superstructure Seismic Response Analysis with 105 Ton Crane	Revision 0
Calculation CA-05-103	Reactor Building Superstructure Seismic Response Analysis with 105 Ton Crane	Revision 0A
Calculation CA-05-104	Design Adequacy of the Rail Car Shelter @ Elevation 935'-0" for the ISFSI Transfer Operations	Revision 0
Calculation CA-05-106	Monticello Upgrade Trolley Calculations	February 24, 2006
Calculation No. CA-06-112	Evaluation of Buried Equipment for 100-Ton Cask Transfer Trailer Load. (for utilities inside the Plant Protected Area)	Revision 1
Calculation No. CA-07-015	Heavy Haul Road Design	Revision 0
Calculation No. CA-07-016	ISFSI Pad and Approach Slab	Revision 0
Calculation CA-08-135	Transfer Cask Hazard from Rail Car Shelter Collapse	Revision 0
Calculation CA-08-135	Transfer Cask Hazard from Rail Car Shelter Collapse	Revision 1
Calculation CA-82-769	Monticello Plant Unit 1 – Fuel Pool	Revision 2
Design Information Transmittal ISFSI-003	Reactor Building Structural Upgrades for ISFSI (04Q162	November 18, 2004
Design Information Transmittal	Reactor Building Structural Upgrades for ISFSI (04Q162)	January 4, 2005

CALCULATIONS

Number	Description or Title	Date or Revision
ISFSI-012		
Design Information Transmittal ISFSI-014	Reactor Building Structural Upgrades for ISFSI (04Q162)	January 13, 2005
Design Information Transmittal ISFSI-070	Independent Spent Fuel Storage Installation	August 26, 2008
Design Information Transmittal ISFSI-071	Independent Spent Fuel Storage Installation	September 2, 2008
MPS No. 0407	Specification for Installation and testing of Concrete Expansion Bolts (P-503)	Revision 10
NUH-003, NUH003.0103	Update Final Safety Analysis Report for the Standardized NUHOMS Horizontal Modular Storage Systems for Irradiated Nuclear Fuel	Revision 10

DRAWINGS

Number	Description or Title	Date or Revision
Drawing NF-36575	Reactor Building, Floor Framing, Plan at Elevation 1027'-8," Sheet 1	Revision 6
Drawing NF-36578	Reactor Building, Truss Plan & Lower Chord Bracing Details	Revision 76
Drawing NF-36579	Reactor Building, Craneway Plan & Details	Revision 77
Drawing NF-36580	Reactor Building, Framing Elevations & Details, Base Plate & Anchor Bolt Details	Revision 76
Drawing NGS-3483-S-001	Reactor Building, Partial Floor Framing, Plan Elevation 1027'-8"	Revision 1
Drawing NGS-3483-S-002-1	Reactor Building, Partial Floor Framing, Plan Elevation 935'	Revision 0
Drawing NGS-3483-S-002-2	Reactor Building, Floor Framing Details, Plan Elevation 935'	Revision 0
Drawing NGS-3483-S-003-1	Reactor Building, Craneway Plan & Details, Sheet 1	Revision 2
Drawing	Reactor Building, Craneway Plan & Details, Sheet 2	Revision 2

DRAWINGS

Number	Description or Title	Date or Revision
NGS-3483-S-003-2 Drawing	Reactor Building, Framing Elevation & Details	Revision 0
NGS-3483-S-004 Drawing	Reactor Building, Truss Lower Chord, Plan & Details	Revision 1
NGS-3483-S-005 Drawing	Reactor Building, Craneway Plan & Details, Sheet 1	Revision 0
NH-211482-1-1 Drawing	Reactor Building, Craneway Plan & Details, Sheet 2	Revision 0
NH-211482-1-2 Drawing	Secondary Containment, Floor Loading	Revision 2
NX-7865-11 Drawing	Reactor Building, Truss Lower Chord Bracing, Plan & Details	Revision A
NX-9324-22 Drawing	Reactor Building, Framing Elevations & Details, Base Plate & Anchor Bolt Details	Revision A
NX-9324-24 Drawing	Reactor Building, Column Details	Revision 2
NX-9324-33 Drawing	Reactor Building, Column Details	Revision 2
NX-9324-35		

CORRECTIVE ACTION PROGRAM DOCUMENTS

Number	Description or Title	Date or Revision
AR 01029594	H-2 Missing Reactor Building Crane Runway Rail Clips	May 11, 2006
AR 01033069	H-2 Trolley Rails do not Lay Flat on the Crane Girders	May 31, 2006
AR 01035555	Potential Reactor Building Crane Bridge Bus-Bar Issue	June 14, 2006
AR 01035947	H-2 Crane Main and Aux Hoist do not Operate During 1131 Procedure	June 17, 2006
AR 01035961	RX Bldg Crane (H-2) Trolley North Stop Limit Switch Failed	June 18, 2006
AR 01035962	H-2 Main Hoist Up Limit Switch (Geared Switch) Failed to Act	June 18, 2006
AR 01047058	Drum Capture Plates	August 29, 2006
AR 01054379	RB Crane Equalizer Sheave Bearing Seat Deformed	October 10, 2006

DRAWINGS

Number	Description or Title	Date or Revision
AR 01059718	Crane h-2 Small Mark on the Sister Hook from Load Test	November 3, 2006
AR 01065117	Main Hoist Line Shaft Coupling out of Tolerance	December 2, 2006
AR 01065868	Discrepancies from H-2 Crane PM	December 12, 2006
AR 01067235	RB Crane Aux. Hoist Motor is not Functioning During Tests	December 12, 2006
AR 01068103	Main Hoist Over Speed Switch Failed Function	December 16, 2006
AR 01068114	Condition of H-2 Crane During PM's Requires Resolution	December 16, 2006
AR 01068939	H2 Main Hoist Tripped During 125 percent Test	December 21, 2006
AR 01070508	H-2 Rx. Bldg. Crane Overload Switch Tripped During 125 percent Test	January 8, 2007
AR 01127967	Inspection of RB Crane Bridge End Truck Welds	February 19, 2008
AR 01127972	Incorporation Risk Assessment of Heavy Load in Site Procedure	February 19, 2008
AR 01134872	Dry Storage Canister Outer Packaging Damaged During Shipping	April 17, 2008
AR 01137048	Flowable Grout Placed on ISFSI Pad Has Flaked Off	May 7, 2008
AR 01138313	TN Supplied Weld Machine Does Not Meet Expectations	May 20, 2008
AR 01139429	Crane H-2 Preoperational Testing Delayed Due to Equipment & Wiring Issues	May 30, 2008
AR 01141164	Water Is Accumulating in Outer DSC Packaging	June 17, 2008
AR 01141400	Surface of ISFSI Asphalt Apron is Being Damaged	June 19, 2008
AR 01141418	Moisture in ISFSI Electrical Equipment on Pad	June 19, 2008
AR 01141785	RX Bld Crane 5 Year PM Revealed a Few Issues	June 23, 2008
AR 01141786	Intermittent Failures of the Reactor Building Crane Remote Control	June 23, 2008
AR 01142079	ISFSI Procedures Incorrectly Identify Classification of Safety Related	June 25, 2008
AR 01142790	Evaluation of Rail Car Shelter Was Incomplete	July 1, 2008
AR 01142801	Failed to Demonstrate Anchor Bolt Adequacy for SSE	July 1, 2008
AR 01143094	ISFSI Human Factor Errors Identified	July 2, 2008
AR 01143127	Electrical Discrepancies Discovered During ISFSI Walkdown	July 3, 2008
AR 01143398	Future Needs for Calculations 05-101 and	July 9, 2008

DRAWINGS

Number	Description or Title	Date or Revision
	05-103 Not Tracked by AR	
AR 01143567	Inadequate Conclusion Stated in Calculation 05-104	July 9, 2008
AR 01143601	Arc Strikes Noted on Interior of DSC #002	July 9, 2008
AR 01143643	DSC Cover Plate Weld Preps Possible Undersized	July 9, 2008
AR 01144172	Lid Fit Up Issues Discovered on DSC-001	July 15, 2008
AR 01144276	USAR 12.2 Description Inadequate re: SFP Structure Design Criteria	July 15, 2008
AR 01144280	Calc 05-01 Enhancements Needed	July 15, 2008
AR 01144452	Spurious Alarms of the ISFSI UPS Battery Discharge	July 17, 2008
AR 01144664	Wrong Method Submitted in LAR	July 18, 2008
AR 01144861	Strong Diesel Fumes During ISFSI Dry Run	July 21, 2008
AR 01144920	Procedure Changed in Field Without Required Review / Approval	July 22, 2008
AR 01145012	Revised Weld Specification Not Reviewed by Site Weld Representative	July 23, 2008
AR 01145052	Small Piece of Concrete from HSM 1A Broke Loose	July 23, 2008
AR 01145084	DSC Shell Deformation from Dry Run Insert / Retrieve	July 23, 2008
AR 01145347	NRC Inspectors Concerns of ISFSI 72.212	July 25, 2008
AR 01145347	NRC Inspection of ISFSI 10 CFR 72.212 Report	July 25, 2008
AR 01145916	HSM Rail Alignment	July 31, 2008
AR 01146174	Revise MNGP 72.212 Report to Incorporate Additional Information	August 1, 2008
AR 01146176	Revise MNGP Fire Hazards Report to Incorporate Site Identified Corrections	August 1, 2008
AR 01146570	Procedure Not In Compliance with 4 AWI-02.03.13	August 5, 2008
AR 01146826	In Pool Interference Interrupts ISFSI Dry Run	August 7, 2008
AR 01147364	ISFSI Battery Discharge Trouble Alarm	August 13, 2008
AR 01147693	Spent Fuel Cask Lid Weld Procedure Revisions	August 15, 2008
AR 01147693	Spent Fuel Cask Lid Weld Procedure Revisions	August 15, 2008
AR 01148282	Enhancement to EAL “Protected Area” Clarity	August 22, 2008
AR 01148601	Contamination Identified on Cask Transport Trailer	August 26, 2008

DRAWINGS

Number	Description or Title	Date or Revision
AR 01148733	H-2 Crane Trolley Over Speed Trip During ISFSI Dry Run During Downending	August 27, 2008
AR 01149709	Error Identified by NRC in Vendor Calculation	September 5, 2008
AR 01150005	ISFSI Cask Loading Started with Operations Approval	September 9, 2008
AR 01150088	DSC #4 Inner Lid Weld Problem Requires Repair	September 10, 2008
AR 01150191	ISFSI Hydrogen Nuisance Alarm	September 10, 2008
AR 01150233	TN UFSAR Appendix C.5 is vague re Tornado Missile	September 11, 2008
AR 01157276	Proposed NRC Violation - ISFSI Calculation Error	December 22, 2008

50.59/72.48 SCREENINGS

Number	Description or Title	Date or Revision
SCR-05-0487; 10 CFR 50.59 Screening	Modification 04Q162 Related Documents	Revision 0
SCR-07-0123; 10 CFR 50.59 Screening	Calculation CA-05-101 Revision 3, Evaluation of Reactor Steel Superstructure for 105 Ton Reactor Building Crane	Revision 0
SCR-08-0291; 10 CFR 72.48 Screening	Calculation 08-135, Transfer Cask Hazard from Rail Car Shelter Collapse	Revision 0 August 19, 2008
SCR-08-0291; 10 CFR 72.48 Screening	Calculation 08-135, Transfer Cask Hazard from Rail Car Shelter Collapse	Revision 1 September 3, 2008
SCR-08-0291; 10 CFR 72.48 Screening	Calculation 08-135, Transfer Cask Hazard from Rail Car Shelter Collapse;	Revision 2 September 8, 2008
SCR-08-0315; 10 CFR 50.59 Screening	Calculation 08-135, Transfer Cask Hazard from Rail Car Shelter Collapse	Revision 0 September 3, 2008
SCR-08-0315; 10 CFR 50.59 Screening	Calculation 08-135, Transfer Cask Hazard from Rail Car Shelter Collapse	Revision 1 September 10, 2008

MODIFICATIONS

Number	Description or Title	Date or Revision
Modification 04Q162	Design Description: Reactor Building Structural Upgrades for ISFSI	0
RPT-EC-785	Capacity Upgrade Modification and Safety Evaluation for the Reactor Building Crane System	1

PROCEDURES

Number	Description or Title	Date or Revision
----------	Crane Daily Checks Placard	July 2, 2008
0000-H	Operations Daily Log – Part H	Revision 91
4 AWI-02.07.02	DFS UFSAR and Monticello 72.212 Report Control	Revision 0
3832	ISFSI Fire Protection Change Review	Revision 0
4250-01-PM	Reactor Building Crane, Bridge Drive System	Revision 24
4250-02-PM	Reactor Building Crane, Trolley Drive System	Revision 22
4250-03-PM	Reactor Building Crane, Main Hoist System	Revision 21
4250-04-PM	Reactor Building Crane, Auxiliary Hoist System	Revision 22
4250-04-PM	Reactor Building Crane, Auxiliary Hoist System	Revision 20
4361-PM	Reactor Building Crane Inspection Checklist	Revision 5
8151	Heavy Load Movement Procedure	Revision 13
9009	Procedure for Moving Fuel Within the Fuel Storage Pool	
9501	Transfer Trailer Assembly, Receipt Inspection and Pre-Operational Testing	Revision 0
9502	Transfer Cask Inspection and Pre-Job Brief	Revision 0
9503	Dry Shielded Canister Receipt Inspection and Pre-Operational Testing	Revision 0
9504	Ancillary Equipment Receipt Inspection	Revision 0
9505	Preparations for Loading Dry Shielded Canister	Revision 1
9506	Dry Shielded Canister Sealing	Revision 1
9507	DSC Transport from Refueling Floor to ISFSI	Revision 1
9508	DSC Transfer from Transfer Cask to HSM	Revision 1
9513	HSM Equilibrium Temperature Monitoring	Revision 0
9514	Cask Registration Info	Revision 0
B.08.15-05	Reactor Building Crane Emergency Positioning	Revision 18

PROCEDURES

Number	Description or Title	Date or Revision
	and Manual Lowering of Load	
D.2-05	Operations Manual D.2-05 Reactor and Core Components Handling Equipment – Tool and Equipment Operation	Revision 19
FP-PE-pAWS-I-II-FC-003	Fleet Procedure: Groove & Fillets, Group I & II, FCAW, without PWHT;	Revision 0
FP-PE-WLD-02	Fleet Procedure: General Welding Specification	Revision 2
FP-E-SE-03	10 CFR 50.59 And 72.48 Processes	Revision 1
FP-G-RM-01	Records Management	Revision 5
GWS-3	Spent Fuel Cask Welding – NUHOMS Canisters	Revision 5
NMC-1 QATR	Quality Assurance Topical Report	Revision 4
NUC-06.02	Selecting Fuel Bundles for ISFSI Storage	Revision 0
R.02.01	Dose Rate Surveys	Revision 19
R.02.02	Surface Contamination Surveys	Revision 24

REFERENCES AND MISCELLANEOUS DOCUMENTS

Number	Description or Title	Date or Revision
----------	Table 1 Monticello Compliance Summary to the Heavy Load Handling Criteria of NRC Documents for Spent Fuel Transfer Cask Handling with the Reactor Crane	February 2, 2008
----------	ISFSI Crew LMS Reports	August 18, 2008
----------	Monticello Nuclear Generating Plant ISFSI 10 CFR 72.212 Evaluation Report	Revision 1
----------	Response to Crane Load Testing Question Page 17	July 16, 2008
----------	Response to Crane Load Testing Question Page 27	July 9, 2008
----------	Response to NRC 72.212 Inspection #7 - #12 Questions	-
----------	TriVis Dry Fuel Storage Training and Qualification Matrix	August 19, 2008
4 AWI-01.03.01	Quality Assurance Program Boundary	Revision 16
4 AWI-05.05.02	Fuel Integrity and Failed Fuel Action Plan	Revision 9
4 AWI-8.04.01	Radiation Protection Plan	Revision 24
A.2-101	Classification of Emergencies	Revision 39

REFERENCES AND MISCELLANEOUS DOCUMENTS

Number	Description or Title	Date or Revision
EC-1098/ECN-9423	Reactor Crane Upgrade to 105T for ISFSI Electrical Improvements	June 12, 2008
EC-783	MNGP ISFSI 50.59 Screening	Revision 0
RPT-EC-785	Capacity Upgrade Modifications and Safety Evaluation for Reactor Building Crane System	June 9, 2008
	Common Book Final Document Package for DSCs (Volumes 1-3)	
EP-6	Emergency Plan	Revision 30
	Final Document Package for DSC-002	
	Final Document Package for DSC-003	
	MNGP 72.212 Evaluations Report	Revision 0
	Monticello Nuclear Generating Plant ISFSI 10 CFR 72.212(b)(2)(i)(C) Radiological Evaluation	Revision 0
	Monticello Nuclear Generating Plant ISFSI Fire Hazards Analysis	Revision 0
	NMC letter L-HU-05-017, Notification of Intent to Apply the NMC Quality Assurance Topical Report (QATR), NMC-1, to ISFSI, Spent Fuel Cask and Radioactive Waste Shipment Activities at NMC Operated Plants	September 13, 2005
	NMC Letter L-MT-08-010, 90-Day Notification	
	PORC Meeting 2594 Minutes (documents 72.212 report review)	
	QF-0528 72.212 Review Comments	
	QF-0528 ISFSI FHA Review Comments	
EC-785	Reactor Building Crane Upgrade for ISFSI	Revision 2
	Technical Evaluation Report-Control of Heavy Loads	January 30, 1984
	ISFSI Loading Reports for 2008 Campaign	
	ISFSI Radiation Protection Work Plan	
	GNF Engineering Documents – Monticello Plant Fuel Reliability History Review	February 2008
	Casks 1- 10 Fuel Bundle Movement History (Sipping and Discharge Information)	
	USAR Section 02.03	Revision 24

REFERENCES AND MISCELLANEOUS DOCUMENTS

Number	Description or Title	Date or Revision
	Westinghouse-Summary of Sipping Results for Monticello 2008 Cask Sipping Campaign-Assembly Cycles 10, 11, 12	June 17, 2008

VENDOR DOCUMENTS

Number	Description or Title	Date or Revision
----------	Magnetek Certificate of Compliance	May 1, 2006
----------	Monticello Reactor Building Crane 5 Year PM & Refuel Bridge Support	June 27, 2008
----------	Overhead / Gantry Crane Worksheet – Crane Certification Co.	December 12, 2006
----------	Use of OS197-1 Hydraulic Ram at MNGP	June 30, 2008
----------	Washington Chain and Supply Certificate of Compliance	April 19, 2006
70587723	Design Criteria Review Monticello Reactor Building Crane Uprate From 85 Ton to 105 Tone Capacity - Par Nuclear	May 12, 2008
NUH-06-106M	Maintenance & Modification Procedure for the NUHOMS OS197-1 Transfer Cask Lifting Yoke and Other TN Owned Lifting Yokes	June 13, 2008
WCS-1051765	Certification of Test and Examination of Chains, Rings, Hooks, Shackles, Swivels, and Blocks	October 13, 2006
Bechtel Report 12085	Monticello Nuclear Power Station Reactor Building Seismic Evaluation of Spent Fuel Pool Structure	January 1977 Revision 1

WORK DOCUMENTS

Number	Description or Title	Date or Revision
WO00142573 07	Modify Reactor Building Structural Steel for Upgrade to Crane H-2, Gusset Weld Confirmation at elevation 1064'-2"	March 6, 2006
WO00142573 08	Weld Control Record 142573-08-01 Weld Map Sketch WM-142573-01	March 1, 2006
WO00142580 02	Reactor Building Crane Load Test	July 1, 2008
WO00142583 16	Site Acceptance Test Main & Auxiliary Hoist Control Panels &105 Ton Up-Rate	December 13, 2006

WORK DOCUMENTS

Number	Description or Title	Date or Revision
WO00280440 01	PM 4250 (RX Building Crane H-2)	January 12, 2007
WO00331532 01	PM 4250 (RX Building Crane H-2)	January 4, 2008

LIST OF ACRONYMS

ALARA	As Low As Reasonably Achievable
AR	Action Request
CoC	Certificate of Compliance
CFR	Code of Federal Regulations
DBT	Design Basis Tornado
DSC	Dry Shielded Canister
FHA	Fire Hazard Analysis
FSAR	Final Safety Analysis Report
HSM	Horizontal Storage Modules
IMC	Inspection Manual Chapter
ISFSI	Independent Spent Fuel Storage Installation
MNGP	Monticello Nuclear Generating Plant
MRS	Monitored Retrieval Storage Installation
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
RS	Rail Car Shelter
SFP	Spent Fuel Pool
TN	Transnuclear