



Monticello Nuclear Generating Plant
2807 W County Road 75
Monticello, MN 55362

October 7, 2013

L-MT-13-103
10 CFR 72.212(b)(2)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Director, Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
Washington, DC 20555-0001

Monticello Nuclear Generating Plant
Renewed Facility Operating License No. DPR-22
Reactor Docket Number: 50-263
Independent Spent Fuel Storage Installation Docket Number: 72-1004

Thirty (30) Day Notification Pursuant to 10 CFR 72.212, Conditions of General License Issued Under 10 CFR 72.210, for the Storage of Spent Fuel

In accordance with 10 CFR 72.212(b)(2), Northern States Power Company – Minnesota (NSPM), doing business as Xcel Energy, Inc., is registering the use of three U. S. Nuclear Regulatory Commission (NRC) approved spent fuel storage casks at the Monticello Nuclear Generating Plant (MNGP) Independent Spent Fuel Storage Installation (ISFSI). Registration of a cask is required no later than 30 days after using that spent fuel storage cask to store spent fuel in accordance with 10 CFR 72.212(b)(2). Cask-specific registration information is provided for each NUHOMS®-61BTH dry shielded canister (DSC) in Enclosure 1.

Enclosure 2 of this letter provides a summary of the results of the thermal performance assessment for the highest heat load DSC as required by the General Requirements and Conditions of the Technical Specifications for Amendment No. 10 to Certificate of Compliance No. 1004, Section 1.1.7, "Special Requirements for First System in Place." Enclosure 2 provides the results of the thermal performance assessment for DSC MNP-61BTH-1-B-2-011, which has the highest heat load to date.

If you have any questions or require additional information, please contact Mr. Richard Loeffler, Senior Regulatory Affairs Engineer, at (763) 295-1247.

NMSSZ6

Summary of Commitments

This letter proposes no new commitments and does not revise any existing commitments.

A handwritten signature in black ink that reads "Karen D. Fili". The signature is written in a cursive style with a large initial "K" and a distinct "Fili" at the end.

Karen D. Fili
Site Vice President Monticello Nuclear Generating Plant
Northern States Power Company – Minnesota

Enclosures (2)

cc: Regional Administrator, Region III, USNRC
Project Manager, Monticello Nuclear Generating Plant, USNRC
Resident Inspector, Monticello Nuclear Generating Plant, USNRC

ENCLOSURE 1

MONTICELLO NUCLEAR GENERATING PLANT

**SUMMARY OF REGISTRATION INFORMATION FOR THE FIRST THREE
DRY SHIELDED CANISTERS LOADED DURING THE 2013 LOADING CAMPAIGN**

(1 Page Follows)

**SUMMARY OF REGISTRATION INFORMATION FOR THE FIRST THREE
DRY SHIELDED CANISTERS LOADED DURING THE 2013 LOADING CAMPAIGN**

		HSM Model Number	HSM Serial Number	Date Placed into Service
Cask Certificate of Compliance:	No. 1004			
Cask Amendment Number:	Amendment 10			
DSC Model Number:	NUHOMS®-61BTH			
DSC Serial Number:	MNP-61BTH-1-B-2-011	NUHOMS® HSM-H	HSM-6A	09/09/2013
	MNP-61BTH-1-B-2-012	NUHOMS® HSM-H	HSM-6B	09/17/2013
	MNP-61BTH-1-B-2-013	NUHOMS® HSM-H	HSM-7A	09/26/2013

ENCLOSURE 2

MONTICELLO NUCLEAR GENERATING PLANT

**SUMMARY OF THE THERMAL PERFORMANCE OF THE
MNP-61BTH-1-B-2-011 DRY SHIELDED CANISTER**

(3 Pages Follow)

**SUMMARY OF THE THERMAL PERFORMANCE OF THE
MNP-61BTH-1-B-2-011 DRY SHIELDED CANISTER**

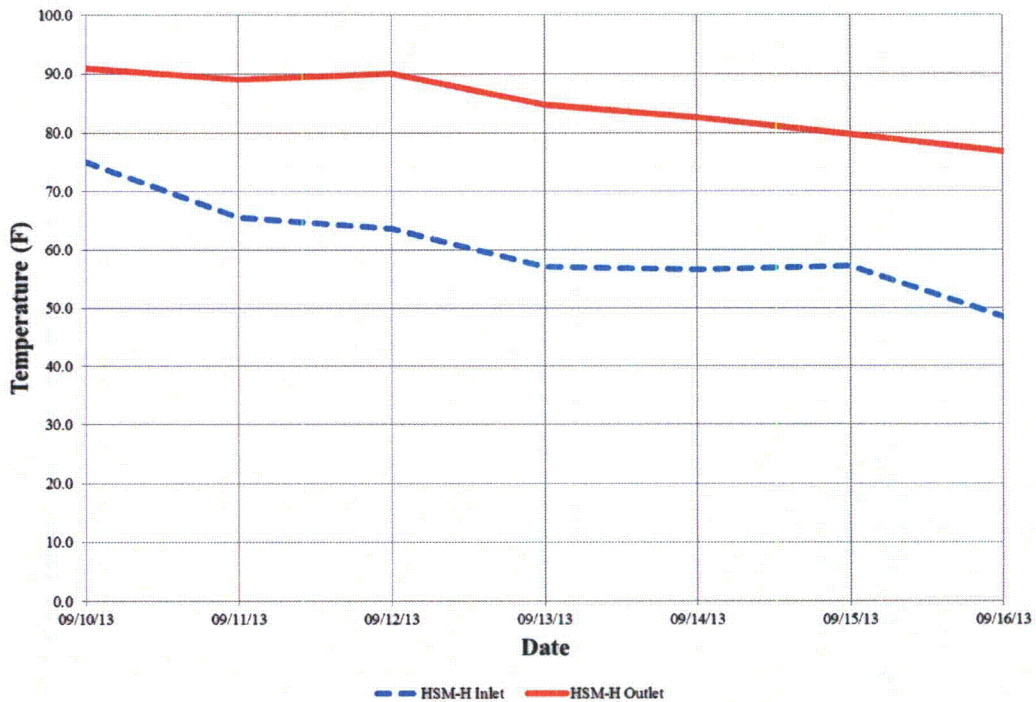
On September 9, 2013 the Monticello Nuclear Generating Plant (MNGP) placed its initial NUHOMS-61BTH Dry Shielded Canister (DSC) for the 2013 loading campaign into storage. Technical Specification 1.1.7 of Certificate of Compliance 1004, Amendment 10 requires that the heat transfer characteristics of the system be recorded by taking temperature measurements of the first DSC placed in service (MNP-61BTH-1-B-2-011 on 09/09/2013) and any subsequent DSCs containing higher decay heat loads. The thermal performance of the system will be assessed by measuring the air inlet and outlet temperature for normal airflow through the HSM in accordance with Technical Specification 1.2.8b.

Technical Specification 1.1.7 requires that a letter report be submitted to the NRC for the evaluation and assessment of the heat removal characteristics of the loaded DSC in the HSM within 30 days of placing the DSC in service, in accordance with 10 CFR 72.4. This report is being submitted to meet this requirement.

System Information	
DSC Serial Number:	MNP-61BTH-1-B-2-011
DSC Model:	NUHOMS-61BTH
Total Decay Heat Load for DSC:	10.96 kW
HSM Serial Number:	HSM-6A
HSM Model:	HSM-H
Certificate of Compliance:	No. 1004, Amendment 10

As required by Technical Specification 1.2.8b, inlet and outlet vent temperatures for HSM-6A were taken daily. These readings are shown in Figure Number 1 below.

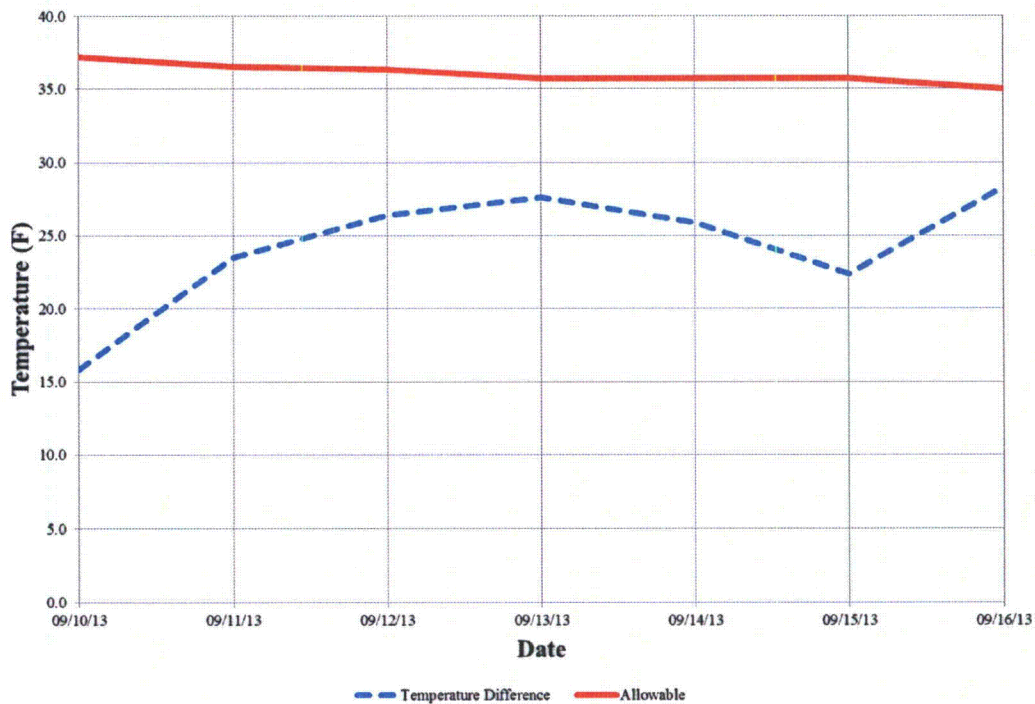
Figure 1 – HSM-6A Inlet and Outlet Vent Temperatures



Technical Specification 1.2.8b requires that, if a 61BTH DSC is placed in the HSM-H with a heat load less than 31.2 kW, the limiting difference between outlet and ambient temperatures shall be determined by a calculation performed by the user using the same methodology and inputs documents in Appendix T of the Standardized NUHOMS FSAR. Transnuclear calculation NUH61BTH-0425, *NUHOMS HSM-H Air Temperature Rise vs. Decay Heat Calculation* establishes acceptance criteria for the temperature rise across the HSM-H vents for varying ambient temperatures and decay heat loads.

Data on the Temperature Rise across the inlet and outlet vents of HSM-6A are shown in Figure Number 2 below along with the associated allowable temperature difference from Transnuclear calculation NUH61BTH-0425.

Figure 2 – HSM-6A Vent Temperature Difference



The system reached thermal equilibrium on or before September 16, 2013. At that time the temperature difference across the inlet and outlet vents was 28.3°F. This is below the acceptance criteria of 35.0°F. MNGP has determined the system is functioning as designed.