

2807 West County Road 75
Monticello, MN 55362



June 6, 2017

L-MT-17-041
EA-14-193

ATTN: Director – Division of Nuclear Materials Safety
U.S. Nuclear Regulatory Commission Region III
2443 Warrenville Road
Suite 210
Lisle, Illinois 60532-4352

Monticello Nuclear Generating Plant
Docket 50-263
Renewed Facility Operating License No. DPR-22
Independent Spent Fuel Storage Installation Docket No. 72-58

Project Plan Progress Toward Restoring 10 CFR 72 Compliance to Dry Shielded
Canisters Designated 11 through 16

- References:
- 1) NRC Letter (Pederson) to Northern States Power - Minnesota (Gardner) EA-14-193, Confirmatory Order Related to NRC Reports No. 05000263/2015008; 07200058/2014001 and OI Report 3-2014-004; Monticello Nuclear Generating Plant, dated December 21, 2015 (ADAMS Accession No. ML15355A459)
 - 2) NSPM letter (Timothy O'Connor) to Director - Division of Nuclear Materials Safety, Project Plan for Restoring 10 CFR 72 Compliance to Dry Shielded Canisters Designated 11 through 16, dated December 12, 2016 (ADAMS Accession No. ML16347A295)
 - 3) NRC Memorandum (Jacobs to Hsia), Summary of March 2, 2017, Meeting with Xcel Energy to Discuss Xcel Energy's Proposed Exemption Request for Dry Storage NUHOMS® Canisters, Numbers 11-15, at Monticello Nuclear Generating Plant, dated March 30, 2017 (ADAMS Accession No. ML17089A146)

Pursuant to Confirmatory Order EA-14-193 (Reference 1), Northern States Power Company, a Minnesota corporation (NSPM), doing business as Xcel Energy, provided in Reference 2 a project plan for restoring 10 CFR 72 compliance to dry shielded canisters (DSCs) designated 11 through 16 at Monticello Nuclear Generating Plant (MNGP).

Action 3 of the Confirmatory Order requires the following:

“Within 180 days after submittal of the DSCs 11 through 16 project plan, Xcel Energy shall submit a letter to the Director, DNMS, Region III, regarding progress under the plan, and any non-editorial changes to the plan. A letter providing a progress update and any non-editorial plan changes shall be provided every 360 calendar days thereafter to the Director, DNMS, Region III, until the plan is completed.”

In response to the above, NSPM is providing this letter to describe progress made under the project plan and to identify any non-editorial plan changes. The only non-editorial change to the project plan is the elimination of the Major Milestone 9/2017, as described below. As discussed at the March 2, 2017 public meeting with NRC, the project plan continues to be rooted in the concept that the DSCs are inherently safest while passively residing in the protective environment of their respective Horizontal Storage Modules (HSMs). To preclude the mechanical stresses of DSC extraction/re-insertion, the hazards associated with moving a canister outside the protection of the HSM, and the radiological dose of an examination campaign, the project plan would defer any future DSC movement to the day when 10 CFR 71 transport is necessary. Therefore, the project plan progress is described as follows:

Specifically pursuant to the 6/2017 Major Milestone:

- 6/2017 Xcel Energy engage with NRC and determine feasibility of crediting the defense in-depth of quality processes and the confirmation provided by the DSC 16 examination to demonstrate compliance for DSC 11 through 15. Apply the precedent of similar regulatory positions (e.g., ADAMS Accession No. ML092180140). If feasible, an exemption request will be submitted within six months.
- On March 2, 2017, Xcel Energy engaged the NRC in a pre-application public meeting to propose an Exemption Request that would involve no further DSC movement and examination during the storage period, but would credit the defense-in-depth weld quality factors including weld design, procurement quality, weld process requirements, and those weld examinations that were satisfactorily completed on the subject DSCs. In that discussion, Xcel Energy stated that DSC 16 may be considered “representative” of DSCs 11 – 15 and that the weld integrity demonstrated through Phased Array Ultrasonic Examination (PAUT) of DSC 16 would be applied to DSCs 11 - 15. It was NSPM’s position that such an Exemption Request would be amply supported by the aforementioned weld quality factors, an additional structural analysis, a risk assessment, and a dose assessment that together would be fully responsive to the regulatory criteria of 10 CFR 72.7. In this regard, the proposed Exemption Request scope was considered feasible by Xcel Energy.

- No regulatory decisions were made at the pre-application meeting; however, it is Xcel Energy's understanding from the meeting (and the NRC summary documented in Reference 3) that three particular evaluations would strengthen the proposed Exemption Request: (1) an evaluation to support any position that relies on DSC 16 being representative of other DSCs, (2) a quantitative risk assessment, and (3) a comparative dose assessment related to a comparable real person or group.
- After careful consideration of NMSS Staff input, Xcel Energy has concluded that the proposed exemption request, strengthened by NMSS suggestions, would continue to be a feasible approach for demonstrating compliance for DSCs 11 - 15. The proposed Exemption Request would rely significantly on the preponderance of factors that demonstrate weld integrity. However, to further strengthen the proposed Exemption Request, Xcel Energy is pursuing new or more detailed analyses and engaging industry experts to provide what Xcel Energy believes is overwhelming evidence demonstrating the safety of DSCs 11 – 15. These industry experts are providing advice and analysis in each of the three key areas (structural, risk, and dose) of concern. For example, Xcel Energy has contracted a detailed comparison of the Automated Welding System (AWS) weld video for DSC-16 to the DSC-16 PAUT to inform and provide comparative insights into the remaining canister welds based on available AWS video for DCSs 11 - 15. Xcel Energy will use the experts' input as it prepares the additional structural analysis to identify weld margin, and as it prepares a probabilistic risk assessment (PRA). Xcel Energy will also use experts to prepare a quantitative dose assessment that will compare the theoretical dose to a person at the site boundary (from a postulated release during storage) to the expected dose to a real person involved in a PAUT evolution for one canister. Preliminary feedback from these experts supports Xcel Energy's proposed approach. Based on current projections, the activities are scheduled to be completed in time to support an Exemption Request submittal as early as September 2017.

Specifically pursuant to the 9/2017 Major Milestone:

- 9/2017 If determined that PAUT of DSC 11 is necessary, NRC and Xcel Energy resolve the approach to address the open question of moving a noncompliant DSC.
- At the aforementioned pre-application meeting, Xcel Energy noted that the regulatory approach to justify and authorize moving a noncompliant DSC had not yet been resolved. There was an open question whether an exemption request, enforcement discretion, or other process would be required. NMSS Staff recognized that the proposed approach to the Exemption Request involved no DSC movement, and therefore tabled discussion of the open question until such time that DSC movement may be required. Based on the proposed scope of the submittal, this milestone is not necessary for restoring compliance and is therefore eliminated.

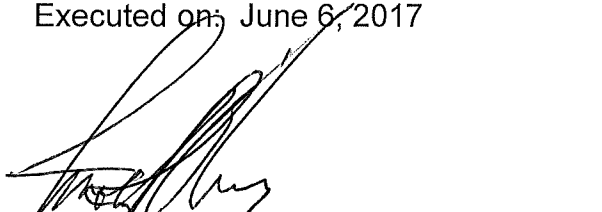
If there are any questions or if additional information is needed, please contact Gene Eckholt at 651-267-1742.

Summary of Commitments

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

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: June 6, 2017



Timothy O'Connor
Senior Vice President and Chief Nuclear Officer
Northern States Power Company-Minnesota

cc: Document Control Desk, USNRC
Administrator, Region III, USNRC
Rob Kuntz, Project Manager, Monticello Nuclear Generating Plant, USNRC
Christian Jacobs, Project Manager, Spent Fuel Management, USNRC
Resident Inspector, Monticello Nuclear Generating Plant, USNRC
Marc Dapas, Director NMSS
Bill Dean, Director NRR
Michael Layton, NMSS/DSFM
Darrell Roberts, Region III
Richard Skokowski, Region III
Jared Heck, Region III
Jorge Corujo-Sandin, Region III
Matt Learn, Region III
Pete Glass, Xcel Energy
Jay Silberg, Pillsbury Law