

From: Kuntz, Robert
Sent: Friday, June 24, 2022 1:42 PM
To: Loeffler, Richard A.
Cc: Scott, Sara
Subject: RAI RE: Monticello Fuel Oil Storage Tank Inspection (EPID L-2021-LLA-0231)

Mr. Loeffler,

By request dated December 13, 2021 (Agencywide Documents Access and Management System Accession No. ML21348A718), Northern States Power Company (NSPM), a Minnesota corporation, doing business as Xcel Energy (Xcel), submitted a license amendment request to allow the common fuel oil storage tank to be out of service for up to 14 days at Monticello Nuclear Generating Plant.

The following requests for additional information (RAI) is needed for the Nuclear Regulatory Commission (NRC) staff to complete its review. Subsequent to a clarification discussion held on June 24, 2022 you requested a 45 day response to the following RAI. The staff has determined that a 45 day response is acceptable and therefore expects a response by August 8, 2022.

Robert Kuntz
Senior Project Manager
NRC/NRR/DORL/LPL3

REQUEST FOR ADDITIONAL INFORMATION
XCEL ENERGY
MONTICELLO NUCLEAR GENERATING PLANT
AMENDMENT RELATED TO THE INSPECTION OF THE FUEL OIL STORAGE TANK
DOCKET NO. 50-263
RENEWED FACILITY OPERATING LICENSE
NO. DPR-22

RAI 1

Regulatory Basis:

“
10 CFR 73.55(f)(1) states that “The licensee shall document and maintain the process used to develop and identify target sets, to include the site-specific analyses and methodologies used to determine and group the target set equipment or elements.”

10 CFR 73.55(e)(9), Vital areas, states that:

- (i) Vital equipment must be located only within vital areas, which must be located within a protected area so that access to vital equipment requires passage through at least two physical barriers, except as otherwise approved by the Commission and identified in the security plans.

(ii) The licensee shall protect all vital area access portals and vital area emergency exits with intrusion detection equipment and locking devices that allow rapid egress during an emergency and satisfy the vital area entry control requirements of this section.

(iii) Unoccupied vital areas must be locked and alarmed.

(iv) More than one vital area may be located within a single protected area.

Issue:

On page 9 of 22 of the license amendment request dated December 13, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21348A718), the first paragraph mentions that the hoses from the double-walled temporary fuel oil storage tanks referred to as "FRAC" penetrating the protected area (PA) fencing will have security compensatory measures implemented as determined by the Security Plan. The first paragraph also mentions that the FRAC system will be located outside the PA and the fuel transfer system will be located inside the PA.

Request:

What effect, if any, will the removal of the fuel oil storage tank and the installation of temporary equipment have on (1) target sets, (2) vital areas and equipment, and (3) implementation of the site's protective strategy?

RAI 2

Regulatory Basis:

10 CFR 73.55(b)(9) states that "The licensee shall establish, maintain, and implement an insider mitigation program and shall describe the program in the Physical Security Plan."

(i) The insider mitigation program must monitor the initial and continuing trustworthiness and reliability of individuals granted or retaining unescorted access authorization to a protected or vital area, and implement defense-in-depth methodologies to minimize the potential for an insider to adversely affect, either directly or indirectly, the licensee's capability to prevent significant core damage and spent fuel sabotage.

(ii) The insider mitigation program must contain elements from:

(A) The access authorization program described in § 73.56;

(B) The fitness-for-duty program described in part 26 of this chapter;

(C) The cyber security program described in § 73.54; and

(D) The physical protection program described in this section.

10 CFR 73.55 (e)(7)(i)(B) states that “Monitored with intrusion detection equipment designed to satisfy the requirements of § 73.55(i) and be capable of detecting both attempted and actual penetration of the protected area perimeter barrier before completed penetration of the protected area perimeter barrier.”

10 CFR 73.55(g), “Access controls,” states that “(1) Consistent with the function of each barrier or barrier system, the licensee shall control personnel, vehicle, and material access, as applicable, at each access control point in accordance with the physical protection program design requirements of 10 CFR 73.55(b).”

10 CFR 73.55(h), “Search programs,” states, in part, that the licensee is required to develop and implement a search program “to detect, deter, and prevent the introduction of firearms, explosives, incendiary devices, or other items which could be used to commit radiological sabotage.”

10 CFR 73.55(i) “Land vehicles,” states that:

Licensees shall: (A) Design, construct, install, and maintain a vehicle barrier system, to include passive and active barriers, at a stand- off distance adequate to protect personnel, equipment, and systems necessary to prevent significant core damage and spent fuel sabotage against the effects of the design basis threat of radiological sabotage land vehicle bomb assault.

10 CFR 73.55(o), “Compensatory measures,” states that

(1) The licensee shall identify criteria and measures to compensate for degraded or inoperable equipment, systems, and components to meet the requirements of this section.

(2) Compensatory measures must provide a level of protection that is equivalent to the protection that was provided by the degraded or inoperable, equipment, system, or components.

Appendix C to Part 73, Section II.B.3.c (v), requires licensees to develop, implement, and maintain a written protective strategy to be documented in procedures that describes in detail the physical protection measures, security systems and deployment of the armed response team relative to site specific conditions, to include but not be limited to, facility layout, and the location of target set equipment and elements. The protective strategy should support the general goals, operational concepts, and performance objectives identified in the licensee’s safeguards contingency plan.

Issue:

The license amendment request does not appear to address how Monticello Nuclear Generating Plant (Monticello) will continue to be protected against the Design Basis Threat (DBT) or provide any detailed information regarding the physical security compensatory measures that will be taken to ensure the plant remains adequately protected for the duration of the temporary configuration change to the plant. On page 9 of 22, “Alternate Fuel Oil Supply System,” the first paragraph mentions that the hoses from the FRAC tanks penetrating the protected area (PA) fencing will have security compensatory measures implemented as determined by the Security Plan. The first paragraph also mentions that the FRAC system will be located outside the PA and the fuel transfer system will be located inside the PA. The

submittal does not provide a description of where outside the PA the FRAC system will be located (e.g., will it be in the owner-controlled area near the large or small vehicle barrier system?). It also does not describe where the fuel transfer system will be located within the PA (will the location interfere with interlocking/overlapping fields-of-fire?). Page 11 of 22, top of page states in part: "... security measures will be implemented during the time the hose is run through the door of the Diesel Generator Building." Page 11 of 22, "AFOSS Weather Operational Considerations," second paragraph states in part: "...the tank can be quickly refilled the hoses removed and the Diesel Generator Building door closed."

Request:

- (1) Describe how Monticello will continue to be protected against the DBT with the security compensatory measures for the duration of the temporary configuration change to the plant.
- (2) Describe how the hoses will penetrate the PA fence line (e.g., through open gates, penetration(s) through the fence line fabric) and describe the security compensatory measures that will be provided and implemented within the site procedures. Also, describe how the intrusion detection system (IDS) and assessment system at the PA barrier will continue to provide its intended functions for the duration of the temporary plant configuration.
- (3) Describe how changes to the IDS will be inspected and tested during implementation of any changes. Confirm whether the testing of IDS will conform to Regulatory Guide 5.44, "Perimeter Intrusion Alarm Systems," Revision 3, (Agencywide Documents Access and Management System Accession No. ML003739217), Section 3, "Recommended Testing Procedures," Testing Option I or II.
- (4) Provide detailed descriptions of where the FRAC and fuel oil transfer systems will be located and whether these locations will interfere with the site protective strategy.
- (5) Describe the security compensatory measures for the Diesel Generating Building that will be implemented per site procedures to protect against unauthorized access and control.

RAI 3

Regulatory Basis:

10 CFR 73.58, "Safety/security interface requirements for nuclear power reactors," states that:

- (a) Each operating nuclear power reactor licensee with a license issued under part 50 or 52 of this chapter shall comply with the requirements of this section.
- (b) The licensee shall assess and manage the potential for adverse effects on safety and security, including the site emergency plan, before implementing changes to plant configurations, facility conditions, or security.
- (c) The scope of changes to be assessed and managed must include planned and emergent activities (such as, but not limited to, physical modifications, procedural changes, changes to operator actions or security assignments,

maintenance activities, system reconfiguration, access modification or restrictions, and changes to the security plan and its implementation).

(d) Where potential conflicts are identified, the licensee shall communicate them to appropriate licensee personnel and take compensatory and/or mitigative actions to maintain safety and security under applicable Commission regulations, requirements, and license conditions.

Issue:

The submittal did not appear to address safety/security interface.

Request:

Describe how safety/security interface is being addressed for this temporary plant change in accordance with 10 CFR 73.58.

RAI 4

Regulatory Basis:

NUREG-1764 "Guidance for the Review of Changes to Human Actions," provides guidance for reviewing changes to human actions that are credited for safety. NUREG-1764 provides guidance in Sections 3 and 4 for verifying those deterministic aspects of design have been appropriately considered. NUREG-1764 says that deterministic aspects include verifying that the change meets current regulations and does not compromise defense-in-depth.

Issue:

The submittal states that procedures will be in place and training will be provided to the operators as determined by the Systematic Approach to Training (SAT) process. It is not clear in the submittal if there are any operator actions for this new alignment.

Request:

Provide a list of any revised operator actions that will be required to transfer oil from the alternate fuel oil storage system, as well as any timing analyses for those operator actions.

Hearing Identifier: NRR_DRMA
Email Number: 1689

Mail Envelope Properties (SA9PR09MB464009CC5CE7B01DF039348B99B49)

Subject: RAI RE: Monticello Fuel Oil Storage Tank Inspection (EPID L-2021-LLA-0231)
Sent Date: 6/24/2022 1:42:18 PM
Received Date: 6/24/2022 1:42:00 PM
From: Kuntz, Robert

Created By: Robert.Kuntz@nrc.gov

Recipients:
"Scott, Sara" <sara.scott@xcelenergy.com>
Tracking Status: None
"Loeffler, Richard A." <rick.a.loeffler@xcelenergy.com>
Tracking Status: None

Post Office: SA9PR09MB4640.namprd09.prod.outlook.com

Files	Size	Date & Time
MESSAGE	11841	6/24/2022 1:42:00 PM

Options
Priority: Normal
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date: