MONTICELLO NUCLEAR GENERATING PLANT SUBSEQUENT LICENSE RENEWAL APPLICATION

Public Meeting

September 13, 2022

Public Meeting, MNGP SLRA

Purpose of Meeting:

1. **Share examples of CAT 1 issue analysis to be provided and obtain NRC feedback**

AGENDA

1. Opening Remarks
   - NRC
   - XCEL Energy
2. MNGP Examples of CAT 1 issue analysis presented in ER
3. Questions / Feedback
4. Closing Remarks
   - XCEL
   - NRC

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OPENING REMARKS

1.NRC

2.XCEL

MNGP SLR ER Project Team

Scott McCall, Director of Nuclear Fleet Operations

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Discussion of Generic Examples

- **Effect of Feb. 24, 2022 NRC Memoranda and Orders on MNGP SLR ER Content:**
  - The Commission determined that the GEIS for license renewal does not specifically apply to SLRAs
  - The Commission provided applicants the option of proceeding in site-specific manner
  - Xcel is including site-specific analysis of Category 1 issues in Chapter 4 of the ER
  - Accordingly Section 5 will be modified

- **MNGP SLR ER 4 Content:**
  - Generic example No. 1: Land Use and Visual Resources
  - Generic Example No. 2: Scouring Caused by Discharge Cooling Water

Generic Example No. 1: Land Use and Visual Resources

4.1 LAND USE AND VISUAL RESOURCES

Impacts to land use and visual resources are evaluated in the GEIS and are considered to be generic (the same or similar at all plants). The following sections address the land use issues applicable to MNGP, providing background and environmental analyses representing the proposed SLR operating term.

4.1.1 Generic Analysis for Initial License Renewals [GEIS Section 4.2.1.1]

Operational activities at a nuclear power plant during the license renewal term would be similar to those occurring during the current license term. Generally, onsite land use conditions would remain unchanged. However, additional spent nuclear fuel and low-level radioactive waste generated during the license renewal term could require the construction of new or expansion of existing onsite storage facilities. Should additional storage facilities be required, this action would be addressed in separate license reviews conducted by the NRC. Refurbishment activities, such as steam generator and vessel head replacement, have not permanently changed onsite land use conditions.

For initial license renewals, the NRC codified its conclusion that changes in onsite land use from continued operations and refurbishment associated with license renewal would be a small fraction of the nuclear power plant site and would involve only land that is controlled by the licensee. The NRC found the impact for this issue to be SMALL.

Generic Example No. 1: Land Use and Visual Resources (Cont.)

4.1.2 Site-Specific Analysis for MNGP SLR

Onsite land use information is discussed in Section 3.2.1 of this ER. No license renewal-related refurbishment activities have been identified, as presented in Section 2.3. As discussed in Section 3.1.4, currently planned projects include the replacement of the cooling towers within the existing cooling tower footprints and the installation of a new ISFSI pad within the existing ISFSI fenced area. These projects do not change existing onsite land uses. Continued operation of MNGP during the proposed SLR term is not expected to change and no refurbishment activities are anticipated, and therefore no changes to onsite land use are projected. As to this issue, the 2013 GEIS analysis of the incremental effects of a 20-year renewal does not materially differ between an initial 20-year renewal period and a second 20-year renewal period.

Thus, the 2013 GEIS analysis of land use and visual resources remains valid and applicable to one SLR term for MNGP as supported by the Site-Specific Analysis. Based on the discussion above and that no new and significant information was identified, Xcel finds that collectively, the Generic Analysis for Initial License Renewal and the Site-Specific Analysis for MNGP SLR demonstrates that impacts to onsite land uses for the proposed SLR term are SMALL.

Generic Example No. 2: Scouring Caused by Discharged Cooling Water

4.5 WATER RESOURCES

Site-specific impacts to water resources are discussed below.

4.5.7 Scouring Caused by Discharged Cooling Water

4.5.7.1 Generic Analysis for Initial License Renewals [GEIS Section 4.5.1.1]

The high flow rate of water from a cooling system discharge structure has the potential to scour sediments and redeposit them elsewhere. While scouring is possible during reactor startup, operational periods would typically have negligible scouring. Scouring is expected to occur only in the vicinity of the discharge structure where flow rates are high. Scouring has been observed at only three nuclear power plants and the effects were localized and minor. The NRC reviewed the impacts of scouring caused by discharged cooling water and found the impacts during the license renewal term would be SMALL for all plants.

For initial license renewals, the NRC codified its conclusion that scouring effects would be limited to the area in the vicinity of the intake and discharge structures. These impacts have been SMALL at operating nuclear power plants.

Generic Example No. 2: Scouring Caused by Discharged Cooling Water (Cont.)

4.5.7.2 Site-Specific Analysis for MNGP SLR

The discharge canal is separated from the Mississippi River by a discharge weir. The discharge weir consists of an earth filled dike and a vertical sheet-pile overflow section. The crest level of the 54-foot-wide weir structure is at 910 feet msl. The water elevation in the discharge canal is at 912.5 feet msl; therefore, the height of the overflow is 2.5 feet. When the water is at this level, the overflow section discharges at a rate of 645 cfs to the river. To prevent scouring below the discharge, a 20-foot-long concrete apron was built on the downstream side of the sheet pile wall, and a 50-foot-long rip-rap apron was built downstream of the concrete apron. (Section 20 2.2.3.1)

There are no plant operations or modifications planned for the proposed SLR operating term that would alter discharge patterns and flow rates. (Section 2.2)

The GEIS determined continued operation of a nuclear plant in a license renewal term to have a small impact due to scouring caused by cooling water discharge. As to this issue, the 2013 GEIS analysis of the incremental effects of a 20-year renewal does not materially differ between an initial 20-year renewal period and a second 20-year renewal period.

Thus, the 2013 GEIS analysis of scouring caused by discharged cooling water remains valid and applicable to one SLR term for MNGP as supported by the Site-Specific Analysis. Based on the discussion above and that no new and significant information was identified, Xcel finds that collectively, the Generic Analysis for Initial License Renewal and the Site-Specific Analysis for MNGP SLR demonstrates that impacts to onsite land uses for the proposed SLR term are SMALL.

Questions and/or Feedback

Closing Remarks

- XCEL
- NRC


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