

PRELIMINARY NOTIFICATION - REGION III

March 27, 2023

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE - PNO-III-23-001

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. Some of the information may not yet be fully verified or evaluated by the Region III staff.

Facility

Xcel Energy
Monticello Nuclear Generating Plant
Monticello, MN
Docket: 50-263

Licensee Emergency Classification

Notification of Unusual Event
 Alert
 Site Area Emergency
 General Emergency
 Not Applicable

SUBJECT: CONTROLLED SHUTDOWN OF MONTICELLO NUCLEAR GENERATING PLANT DUE TO INCREASED TRITIUM LEVELS FOUND IN ON-SITE GROUNDWATER WELLS

On March 24, the licensee initiated actions for a controlled shutdown of the Monticello Nuclear Generating Plant to repair a leaking pipe, after onsite monitoring detected radioactive tritium was leaking into the groundwater. At 7:01 a.m. CDT on March 25, 2023, the reactor was shut down. This leakage was originally reported to the State of Minnesota on November 22, 2022, and subsequently to the NRC in a publicly available non-emergency Event Notification (EN) 56236 the same day.

The NRC resident inspectors have been closely monitoring the plant's actions to address the leak since November 2022. Radiological specialist inspectors have independently reviewed and assessed the potential impact of the leak and continue to conclude that the public, the plant, and the environment remain safe.

The leakage source is from condensate system supply lines located inside the Monticello plant boundaries. After initial identification of the source of tritium, on December 21, 2022, the licensee built a temporary catchment to capture and divert the tritiated water back to the plant for reuse. The licensee continued to routinely monitor the groundwater in the area of the catchment by sampling and determined on March 22, 2023, that a small amount of tritiated water was escaping the catchment to the surrounding ground water. The amount of leakage is still being quantified. Monitoring of groundwater wells has not identified any tritium outside the Monticello station boundaries. The licensee concluded that a plant shutdown was necessary to repair or replace the leaking supply line pipe. The shutdown was a decision based on equipment performance and was not required by the plant Technical Specifications. The NRC resident inspectors observed the shutdown and identified no concerns.

The State of Minnesota was notified by the licensee.

The NRC resident inspectors and regional radiation specialists will continue to monitor the licensee's efforts, including the groundwater monitoring. The resident inspectors are scheduled to observe and monitor the pipe replacement activities.

Region III, located in Lisle, IL, received initial notification of this occurrence by telephone call from the licensee at 5:00 p.m. CDT on March 23, 2023. The information presented herein has been discussed with the licensee and is current as of 8:25 a.m. CDT on March 27, 2023.

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