EPA Seeks Comments on Two Draft Class V Underground Injection Permits

Martin Marietta Magnesia Specialties LLC

Mason County, Michigan **January 2025**

United States Environmental Protection Agency

How to comment

You may comment on the proposed permit re-issuances in writing. Please refer to Martin Marietta Magnesia Specialties permits numbered MI-105-5X16-16 and MI-105-5X16-17

Submit your comments to **Docket ID No. EPA-R05-OW-2024-0614** at https://www.regulations.gov/docket/EPA-R05-OW-2024-0614

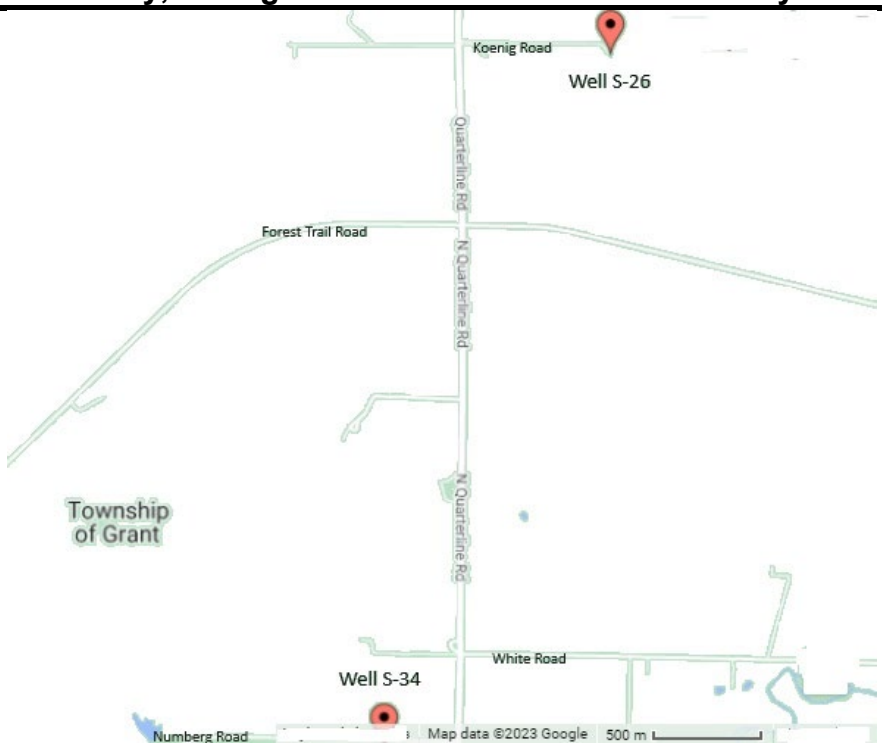
If you are unable to submit electronically to the docket, please call William Tong at 312-886-9380 for instructions on how to comment.

Comment period

EPA will accept written comments until **February 18, 2025.**

To view the draft permits, go to: https://www.epa.gov/node/88753#public-notices

To learn more about EPA's Underground Injection Control program, or to join our mailing list visit: https://www.epa.gov/node/88753#public-notices



Map shows locations of the existing spent brine injection wells in Mason County, Michigan.

The U.S. Environmental Protection Agency is providing the public an opportunity to comment *(see left-hand box)* on the proposed re-issuance of two Class 5X16 permits to Martin Marietta Magnesia Specialties ("Martin Marietta"), LLC, 1800 Eastlake Road, Manistee, Michigan. Martin Marietta produces, from the Filer Sandstone, natural brine that is rich in calcium chloride and magnesium chloride, extracts the magnesium, and reinjects the spent brine underground for disposal through two existing Class 5X16 injection wells, S-26 and S-34, located in Mason County, Michigan, into the Amherstburg and Bois Blanc Formations, at depths shown on the next page.

Permit Requirements

Federal regulations for underground injection wells list standards for construction, geology, location (siting), operating conditions, and monitoring, record keeping, and reporting to protect underground sources of drinking water from contamination caused by injection wells. Through preliminary review of the permit applications for these wells, EPA concludes they would have no environmental impact. On the following page is an explanation of the some of the factors involved in permitting an injection well.

Underground Source of Drinking Water (USDW): A USDW is defined as any aquifer or portion thereof that contains less than 10,000 milligrams per liter of total dissolved solids, and which is being or can be used as a source of drinking water. In the case of the Martin Marietta wells, the base of the lowermost USDW has been identified at a maximum depth of 682 feet below the ground surface. This water-bearing formation is the Glacial Drift.

Site Geology: The injection zone is the Amherstburg and Bois Blanc Formations; depth information for the top and bottom of the injection zone for each well is shown in the table below.

Area of Review (AOR): The AOR is the area within a ¼ mile radius of each injection well covered by each permit. EPA has analyzed the composite AOR to identify other existing wells that might allow fluid to move out of the injection zone. In the AOR for the wells; there are no other existing wells that penetrate the injection zone.

Maximum Injection Pressure: EPA calculated a maximum injection pressure limit for each well that will prevent the injection formation from fracturing. The proposed maximum injection pressure for each well is limited to 593 pounds per square inch (psi) for Well S-26 and 609 psi for Well S-34.

Financial Assurance: Martin Marietta Magnesia Specialties LLC has demonstrated adequate financial resources to close, plug and abandon the underground injection well, and maintains a yearly financial statement covering the costs to plug and abandon for all active injection wells.

Well Name	S-26	S-34
Lowest USDW depth	682’	609’
Injection Zone top	2565’	2630’
Injection Zone bottom	2771’	2752’
Maximum Injection Pressure	593 psi	609 psi
Thickness of rock layers between lowest USDW and top of the injection zone	1883’	2028’
Estimated Cost to Plug & Abandon Well	$227,439	$286,948

Intent to Issue Permits: Part C of the Safe Drinking Water Act specifically mandates regulation of the underground injection of fluids through wells to assure that the quality of the underground sources of drinking water is protected. Review of the permit applications and other information in the administrative record indicates that the wells will not pose a risk of endangerment to USDWs. Section 1421 of the SDWA requires the EPA to administer underground injection control (UIC) programs in the states which do not have approved UIC programs. Michigan has not acquired primacy over the UIC program for Class V injection wells, therefore EPA is administering the permit program pursuant to regulations at 40 C.F.R. Part 147. In accordance with the SDWA and attendant regulations published by EPA under 40 C.F.R. at Parts 124, 144, 146, and 147, EPA intends to issue a permit for each of the two wells. EPA will review all public comments, and respond to all significant comments in writing, before making a final decision on the proposed permit renewals.

Administrative Record

The administrative record, including copies of the draft permits, statement of basis or fact sheet, and the permit application documents, is available upon request to William Tong, 312-886-9380 or R5UIC@epa.gov. In addition, a copy of the administrative record is open for public inspection at 77 West Jackson Blvd. Chicago, IL at a time by appointment or request. All data submitted by the applicant is available as part of the administrative record. EPA will finalize the complete administrative record at the time of any final permit decision is issued, consistent with 40 C.F.R. § 124.18.

Notice

In accordance with 40 C.F.R. § 124.19, any person who filed comments on the draft permits or participated in a public hearing may petition EPA’s Environmental Appeals Board (EAB) to review any condition of the final permit decision upon issuance of any such decision. A hearing is not planned at this time.