

Public Meeting & Hearing

July 11, 2024

EPA Presentation: 5:10 to 5:20 p.m.

Q&A Session: 5:20 to 6:20 p.m.

Public Hearing: 8:00 to 9:00 p.m.

Osceola Community Building (inside the
Osceola County Fair Grounds)

101 Recreation Avenue, Ewart, MI

How to comment

Extended comment period: You may comment on the draft permit modifications for three existing Class I permits in writing; please refer to **Michigan Potash Operating, LLC, Permit Numbers MI-133-11-0004, MI-133-11-0005, and MI-133-11-0006.**

Previously submitted comments do not need to be resubmitted.

Submit your comments to **Docket ID No.**

EPA-R05-OW-2024-0236 at

<https://www.regulations.gov/docket/EPA-R05-OW-2024-0236>

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 11:59 PM on July 15, 2024.

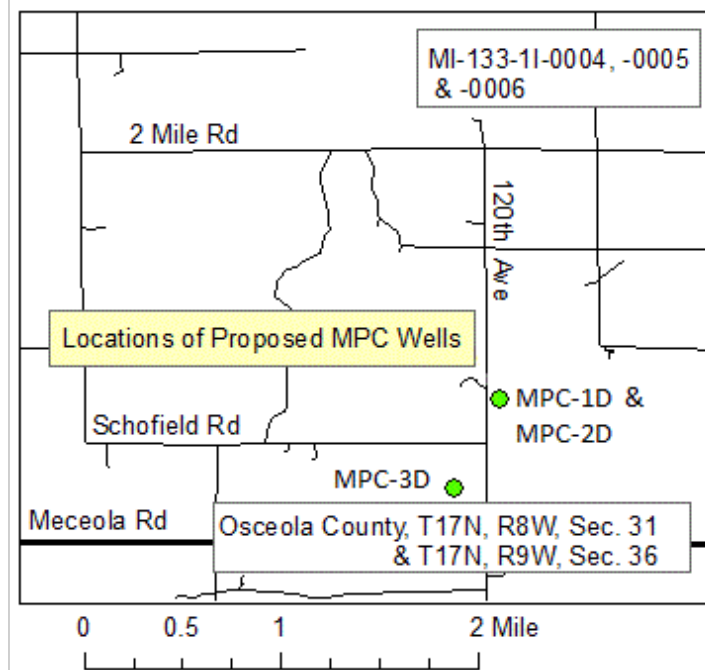
To view the draft permits go to:

<https://www.epa.gov/node/88753#public-notice>

To learn more about EPA's Underground Injection Control program, or to join our mailing list visit:

<https://www.epa.gov/uic/underground-injection-control-epa-region-5-il-mi-mn-oh-and-wi#public-notice>

modifications. Public comments for the three existing 2017 permits are limited by federal regulations solely to the proposed modifications made to the permits. Only the permit conditions proposed for modification are re-opened for comment. EPA is accepting comments from the public on these proposed permit modification approvals (*see box, top left*). EPA will consider all comments it receives, and then issue a final decision along with a response to the significant comments. The public comment period ends **July 15, 2024**.



This map shows the location of the three permitted injection wells in south central Osceola County, Michigan

The U.S. Environmental Protection Agency (EPA) plans to modify three permits for injection wells to be located in Osceola County, Michigan for Michigan Potash Operating, LLC, 600 17th Street, Suite 2300, Denver, Colorado. The existing permits authorized Michigan Potash Operating, LLC to construct three injection wells, MPC-1D, MPC-2D, and MPC-3D to inject non-hazardous salt water from a proposed potash mining and processing facility.

EPA first issued these permits in 2017. The proposed modifications will allow for the injection of non-hazardous salt water into additional rock formations specifically the Dundee Limestone and Lucas Formation, and reduce the maximum injection pressure from 1269 psig to 1006 psig, as calculated from the new depth of injection.

EPA will hold a public meeting and hearing on July 11, 2024. The Michigan Department of Environment, Great Lakes, and Energy will participate. During the hearing, you will have an opportunity to make oral comments or submit written comments about EPA's draft permit

Protection of Underground Sources of Drinking Water: The Safe Drinking Water Act (“SDWA”) requires EPA to regulate injection of fluids through wells to protect the quality of underground sources of drinking water (“USDWs”). A USDW is an aquifer or part of an aquifer that contains water with less than 10,000 milligrams per liter of total dissolved solids. Issuing permits is one way EPA does this. Federal regulations require Class I wells to inject waste into an area below the deepest underground source of drinking water. All Class I wells must be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. You may find the regulations governing underground injection wells at Title 40 of the Code of Federal Regulations, Parts 124, 144, 146, and 147.

Facility Background: The Class I non-hazardous waste injection wells are permitted for construction and, once authorized to inject, are intended to be used for the disposal of non-hazardous salt water from a potash mining and processing facility.

Site geology: The current injection zone for the three permitted wells includes the Amherstburg Formation, Sylvania Sandstone, Bois Blanc Formation, and the upper Bass Island Group. The additional proposed injection zone for the three permitted wells includes the Dundee Limestone and Lucas Formation. The immediate overlying confining zone is the Bell Shale. There are adequate confining layers between the injection zone and the deepest source of drinking water (the Glacial Drift) to prevent the movement of injected fluids into underground sources of drinking water. In the Area of Review (2-mile radius around each well site), the base of the deepest USDW is the Glacial Drift, at a depth of 712 feet below the surface.

Area of Review (AOR): The AOR is a circle of 2-mile radius from each injection well borehole. Well MPC 8D, a proposed new Class I well covered by a draft EPA permit MI-133-1I-0009, is located within the AOR of Well MPC 3D covered by existing EPA Permit MI-133-1I-0006. Both wells were subject to independent technical review regarding their well construction design and geologic siting conditions under the UIC regulations. When constructed, Well MPC 8D will inject into the Dundee Limestone and if the presently pending modification is issued for Well MPC 3D, it will also be authorized to inject into the Dundee Limestone. EPA has reviewed the geophysical and geochemical characteristics of the Dundee Limestone as well as the proposed injection rates for both wells and has concluded that the Dundee Limestone’s capacity to accept fluid is much greater than the proposed total volume to be injected by both wells. Due to adequate well designs and characteristics of the site geology, EPA has concluded that neither well will negatively affect the other during injection operations. Neither well will pose a risk of endangerment to USDWs. There are no other wells that penetrate the confining zone within the composite AOR of the three proposed Class I injection wells.

Maximum Injection Pressure: Maximum Injection Pressure (MIP) is calculated to assure that the rock formations of the injection zone are not fractured during injection, using an equation found in Attachment A of each permit, where depth to the injection zone is one of the mathematical variables. The new MIP was calculated as 1006 psig.

| Proposed Permit Modifications | |
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| Permit Condition | Modification |
| Page 1 | Change the injection zone top to 3,945 feet and add the Dundee Limestone and Lucas Formation to the list of injection zone formations. |
| Part II(C)(6) | Add provision to require at least a 30-day notification to EPA of any proposed testing and seek EPA approval if necessary. |
| Attachment A | Update the maximum injection pressure limitation to 1006 psig. Update the formation and depth used for the maximum injection pressure calculation to the Dundee formation at 3,945 feet. |
| Attachment B | Update the Plugging and Abandonment Plan. |
| Attachment E | Update the well diagram to identify the change in construction related to the additional injection formations. |
| Attachment G | Add specifications for EPA pre-approved Mechanical Integrity Testing procedures. |

Intent to Modify Permits: Part C of the SDWA 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 as modified 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 of the UIC program for Class I 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 Title 40 of the Code of Federal Regulations at parts 124, 144, 146, and 147, EPA intends to issue a modified permit for each of the three wells. EPA will review all public comments before making a final decision on the modifications to the permits.

Administrative Record

The administrative record, including copies of the draft permit, 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 the 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.