EPA Seeks Comments on Injection Well Permits

Cargill, Inc.

Osceola County, Michigan — August 2020

The U. S. Environmental Protection Agency tentatively approved the reissuance of two Class I nonhazardous injection well permits for Cargill, Incorporate. Before EPA makes a final decision, the Agency is providing the public an opportunity to comment on the draft permits *(see left-hand box on how to comment)*.

Cargill plans to dispose of nonhazardous liquid waste from their salt mining operation at the Cargill Incorporated facility, located at 1395 135th Street, Hersey, Michigan. The injection fluid, which consists of waste brine associated with solution mining operations, will be injected into a confined interval approximately 3830 feet below ground surface.

Federal law requires all Class I wells be built in a way that protects drinking water supplies.[1] That means waste must be injected into a rock formation beneath the lowermost formation containing an underground drinking water source. All Class I wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water.

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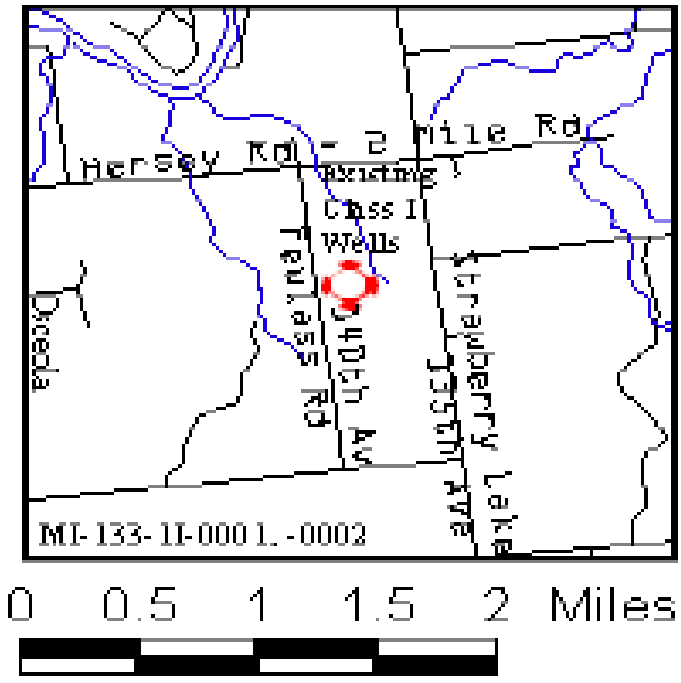

Map shows location of the proposed injection well in Osceola County, Michigan.

[1]Injection wells must meet the regulatory criteria of 40 Code of Federal Regulations, or C.F.R., sections 124, 144, 146, and 147; and the Safe Drinking Water Act, or SDWA. To view these regulations and laws, see https://www.epa.gov/laws-regulations/regulations.

How to Comment

You may comment on the proposed draft permits in writing. Please refer to Cargill Incorporated draft permit numbers MI-133-1I-0001 and MI-133-1I-0002.

Email your comments to: **Janette Hansen**
U.S. EPA, Water Division
UIC Section (WP-16J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590
Email: hansen.janette@epa.gov
Phone: 312-886-0241

If you do not have access to email, please contact Janette Hansen for instructions on how to comment.

Comment Period

EPA will accept written comments until **September 18, 2020** (midnight). You may see the draft permits at http://go.usa.gov/3JwFP.

Administrative Record

To request review of Administrative Record files, contact Janette Hansen (*see above*).

Right to Appeal

You have the right to appeal any final permit decision if you make an official comment during the comment period or participate in a public hearing. A public hearing is not planned at this time. The first appeal must be made to the Environmental Appeals Board. The final decision can be appealed in federal court only after all agency review procedures have been exhausted.

To learn more about EPA's Underground Injection Control program, or to join our mailing list visit http://go.usa.gov/3JwFP

Public comments and hearing requests

Send comments and requests for a hearing to EPA's Janette Hansen (hansen.janette@epa.gov) during the public comment period *(see front-page box)*. The public comment period includes 30 days for comments as required by law, plus a additional days for any delay caused by mailing.

Requests for a hearing must be in writing and must identify issues to be raised. EPA will hold a hearing if there is significant public interest in the draft permit decision based on written requests. If a hearing is scheduled, EPA will publish a notice of the hearing at least 30 days in advance.

EPA will consider all comments received during the comment period and the hearing, if held, and then issue a final decision along with a document that lists EPA responses to significant comments.

Be aware that the USEPA does not have the authority to change the surface location of the injection wells. Any issues regarding surface facilities, such as the location of the injection wells should be addressed to the Michigan Department of Environment, Great Lakes, and Energy (EGLE). EGLE can be contacted at the following address: P.O. Box 30256, Lansing, Michigan 48909-7756 and phone number (517) 241-1515.

Permit requirements

Federal regulations for underground injection wells list standards for construction, geology, location (siting), operating conditions, and record keeping, to protect supplies of underground drinking water from contamination caused by injection wells.

EPA's preliminary review of the permit application for these wells concluded they would have no environmental impact.

Below is an explanation of the some of the factors involved in permitting injection wells:

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 Cargill wells, the base of the lowermost USDW has been identified at a depth of ~550 feet below the ground surface. This water-bearing formation is the Glacial Drift.

Site geology: The injection zone is the Dundee Limestone, Reed City Anhydrite, and Reed City Dolomite from 3830 feet to 4085 feet below the surface. The immediate overlying confining zone is the Bell Shale. Additional adequate confining layers exist between the injection zone and the base of the lowermost Underground Source of Drinking Water.

Area of review (AOR): The AOR is the area within a two-mile radius of the proposed injection wells. EPA analyzed the AOR to identify wells that might allow fluid to move out of the injection zone. In the AOR for the proposed wells, there are approximately 7 producing, 22 injection, 0 temporarily abandoned, 5 plugged and abandoned, and 0 other wells that penetrate the confining zone. These numbers fluctuate because of the nature of solution mining. The plugged and abandoned wells that penetrate the confining zone does not require corrective action to prevent fluid movement out of the injection zone.

Maximum injection pressure: EPA set an injection pressure limit that will prevent the injection formations from fracturing. The proposed maximum injection pressure for these wells are limited to 2453 and 2393 pounds per square inch gauge for wells MI-133-1I-0001 and MI-133-1I-0002, respectively.

Financial assurance: Cargill, Inc. has demonstrated adequate financial resources to close, plug and abandon these underground injection wells. Cargill has established a Letter of Credit to cover these costs at the amount of $157,078.00.