United States
Environmental Protection
Agency

EPA Plans to Reissue Exemption for Hazardous Waste Injection Wells

Applicant: Republic Industrial & Energy Solutions LLC

Site Location: Romulus, Michigan September 2025

You are invited

EPA will hold a formal public hearing on the proposed exemption reissuance at:

Romulus Athletic Center
35766 Northline Road
Romulus, Michigan
November 5, 2025
6:00 to 8:00 p.m.

Oral comments will be recorded and written comments accepted at the hearing. EPA will not answer questions or respond to comments during the hearing.

How to Comment

You may comment on the proposed exemption reissuance in writing or at the public hearing. Please refer to Republic Industrial & Energy Solutions LLC.

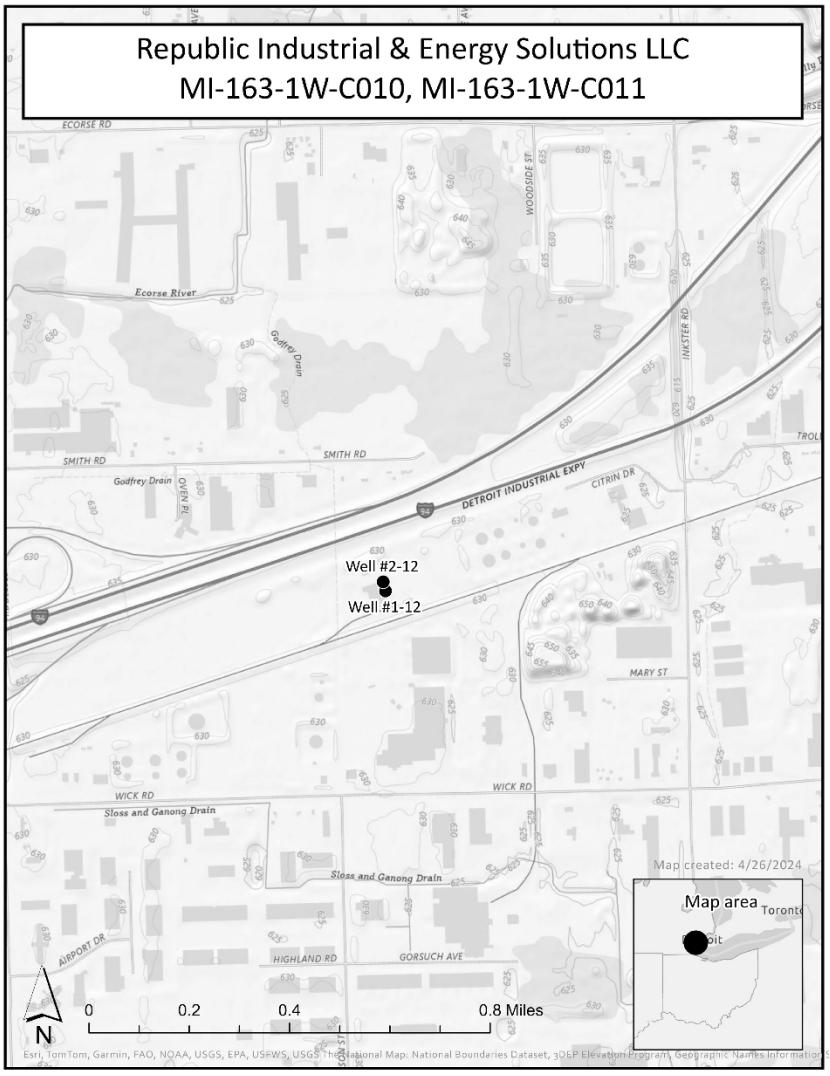
Submit your comments to Docket ID No. EPA-R05-OW-2025-1775 at https://www.regulations.gov/docket/EPA-R05-OW-2025-1775.
If you are unable to submit electronically, please contact Colin Murphy at 312-866-6941 for instructions on how to comment.

Comment Period

The EPA will accept written comments until 11:59 PM Eastern Time on November 6, 2025.

To view the draft exemption, go to the above Docket.

Site Map



The U.S. Environmental Protection Agency (EPA) plans to approve a request from Republic Industrial & Energy Solutions LLC (RIES) to reissue an existing exemption to the general ban, under the Resource Conservation and Recovery Act (RCRA), on land-based disposal of hazardous waste. The Agency will consider public comments on the proposed reissuance (*see box, left*) before making a final decision.

RIES has two existing injection wells at 28470 Citrin Drive, Romulus, Michigan. The company currently holds an exemption from the federal ban on underground disposal of hazardous waste for these two wells, wells #1-12 and #2-12. The company also has current permits for the injection issued by EPA under the Safe Drinking Water Act

(SDWA). The EPA originally approved the RCRA exemption in 2004. The existing exemption is valid until December 2025. The wastes are being injected between 3,356 and 4,537 feet below ground level (bgl) through existing wells that have been operating for about 20 years. There is no potential that the proposed activity would change the circumstances on or near the surface. It would thus not affect any historic properties or the habitats of any species.

The EPA found the company has shown – based on a reliable prediction – that there will be no migration of hazardous constituents out of the injection zone or into an underground source of drinking water (USDW) for at least 10,000 years.

Background

Federal law prohibits the disposal of untreated hazardous waste on the land or into an injection well. The law allows the EPA to grant exemptions. To qualify for an exemption, an owner or operator of an injection well must demonstrate that, to a reasonable degree of certainty, injected material will stay in the injection zone for as long as the waste is hazardous. That can be done by showing conditions at the injection site will prevent any movement of injected waste out of the injection zone or into a USDW in 10,000 years. This is known as a no-migration demonstration. Details are in Title 40 of the Code of Federal Regulations (C.F.R.) part 148. RIES made an acceptable no-migration demonstration in a 2023 request that the EPA reissue the 2004 exemption.

Technical information

RIES uses hazardous waste wells that fall under the EPA SDWA Class I well category, to inject into a geologic interval composed of the Precambrian wash sediments, Mount Simon Sandstone, Eau Claire Formation, and Franconia-Galesville Formation. The top and bottom of the injection interval are 3,924 and 4,537 feet below ground level (bgl), respectively. The base of the deepest underground source of drinking water in the area is approximately 342 feet bgl, so there is approximately 3,582 feet of separation between the lowermost underground source of drinking water and the injected hazardous waste. An arrestment interval is just above the injection interval. The top and bottom of the arrestment interval are 3,356 and 3,924 feet bgl, respectively. The Trempealeau Formation, Prairie Du Chien Group, Glenwood Shale, and lower Black River Limestone comprise the arrestment interval. The arrestment interval keeps the injected fluid within the injection zone because it contains low-permeability rock and does not have faults or fractures that could allow the fluid to move upward. Together, the injection interval and the arrestment interval are called the injection zone. A 1,005-foot-thick confining zone lies above the injection zone. Extending laterally for hundreds of miles, the confining zone provides additional protection.

All underground injection projects have an “area of review.” In this case, the area of review for the exemption has a radius extending approximately 7.11 miles around the well bores. If there are other wells in the area of review that are not properly plugged or abandoned, they could serve as a pathway for waste migration from the injection zone. Six wells within the area of review were identified which penetrate the confining zone or injection zone. These wells were shown to be properly constructed or plugged. There are no known faults in the area of review that connect the injection interval with drinking water sources.

The SDWA permits provide that the injection wells must pass an annual pressure test and a radioactive tracer survey to confirm the injected fluids are entering the injection interval and not moving up the well bore out of the injection zone. These tests demonstrate the mechanical integrity of a well’s key components. The wells passed the annual pressure test and radioactive tracer survey performed in August 2024.

Conditions of petition approval

The proposed reissuance of the exemption is subject to conditions as summarized below. Failure to comply with the conditions is grounds for termination of the exemption. Restricted wastes designated by RCRA waste codes K140, U365, and U396 were allowed to be injected under the 2004 exemption. These waste codes are not included in the proposed exemption reissuance because these waste codes are no longer listed as hazardous wastes under RCRA regulations.

1. The exemption applies to the two existing injection wells, #1-12 and #2-12 located at the RIES facility at 28470 Citrin Drive, Romulus, Michigan.
2. The injection zone for wells #1-12 and #2-12 is at depths of 3,369 to 4,537 ft below ground level (3,937 to 4,550 ft relative to kelly bushing; true vertical depths) and is composed of the Precambrian wash sediments, Mount Simon Sandstone, Eau Claire Formation, Franconia-Galesville Formation, Trempealeau Formation,

Prairie du Chien Group, Glenwood Shale, and lower Black River Formation.

3. Injection shall only occur into the injection interval composed of the Precambrian wash sediments, Mount Simon Sandstone, Eau Claire Formation, and Franconia-Galesville Formation from 3,924 to 4,537 ft below ground level (3,937 to 4,550 ft relative to kelly bushing; true vertical depths).
4. The only hazardous waste that can be injected are the hazardous wastes designated by the RCRA waste codes found in Table 1.
5. The specific gravity of the injected waste must be within the range of 0.9 to 1.1 measured at 68 °F.
6. The combined total injection rate of both wells shall not exceed a monthly average of 166 gpm and a maximum instantaneous rate of 225 gpm.
7. The total injection volume shall not exceed 87,249,600 gallons annually into wells #1-12 and #2-12.
8. The injection pressure at the well head of wells #1-12 and #2-12 shall be limited to 968 psig.
9. Maximum concentrations of chemical contaminants which are hazardous at less than one part in a trillion (1:1,000,000,000,000) shall have limits for maximum concentration at the wellhead set through the permits.
10. RIES must submit copies of the reports on the annual bottom-hole pressure surveys conducted in wells #1-12, and #2-12 to the EPA. The annual reports must include a comparison of reservoir parameters determined from the fall-off test, such as permeability, transmissibility, and long-term shut-in pressure, with parameters used in the approved no migration petition.
11. RIES must annually submit copies of a waste sample report and the reports on the annual radioactive tracer surveys and annulus pressure tests for wells #1-12 and #2-12 to the EPA.
12. RIES shall notify the EPA in writing if any injection well loses mechanical integrity and prior to any workover or plugging and shall provide workover or plugging to procedures to the EPA prior to commencing the work.
13. RIES must fully comply with all requirements set forth in Underground Injection Control Permits. MI-163-1W-C010 and MI-163-1W-C011 issued by the EPA.
14. Upon the expiration, cancellation, reissuance, or modification of the permits referenced above, this exemption is subject to review.
15. This exemption is granted only while the underlying assumptions are valid.
16. Whenever the EPA determines under 40 C.F.R. §§ 148.23 or 148.24 that the basis for approval of a petition may no longer be valid, the EPA may terminate this exemption. There are also other causes for terminating an exemption at 40 C.F.R § 148.24. Whenever the EPA determines that the basis for approval of a petition may no longer be valid, EPA will require a new demonstration in accordance with 40 C.F.R. §§ 148.20 and 148.23(b).
17. In the event that a brine extraction well is drilled within the AOR into the injection zone and is used for extraction from any strata within the injection zone, the exemption will terminate. In order to resume injection, RIES must prepare a new demonstration of no migration including consideration of the extraction activity, and a new exemption must be issued by the EPA. Operation must be in full compliance with all conditions of its permits and other conditions relating to the exemption found in 40 C.F.R. §§ 148.23 and 148.24.
18. This exemption is only approved for the 20-year modeled injection period, which ends on January 31, 2043. RIES may petition the EPA for a reissuance of the exemption beyond that date, provided that a new and complete petition and no-migration demonstration is received at EPA Region 5, by July 31, 2041.

Administrative Record

To request review of Administrative Record files or for additional information please contact Colin Murphy at 312-886-6941 or Murphy.Colin.D@epa.gov