

# EPA Seeks Comments on Three Draft Underground Injection Permits

## Comments welcome

You may comment on the three draft permits in writing. Refer to permit numbers:

#IN-091-1I-0001 (Well No. 1)

#IN-091-1I-0002 (Well No. 2)

#IN-091-1I-0006 (Well No. 3)

until the public comment period closes on **Monday, December 21, 2015**.

Mail or email your comments to:

### William Tong

EPA Region 5 (WU-16J)

77 W. Jackson Blvd.

Chicago, IL 60604-3590

(312) 886-9380

tong.william@epa.gov

### Comment Period

The Agency will accept written comments until Monday, **December 21, 2015** (midnight postmark).

### Information Repository

You may see the permits at:

**Michigan City Public Library**

**100 East 4th Street**

**Michigan City, Indiana**

Monday-Thursday 9 a.m. to 8 p.m.,

Friday-Sat. 9 a.m. to 6 p.m.

Or at <http://go.usa.gov/3JwFP>

### Administrative Record

You may see the full administrative record, including all data submitted by Criterion Catalysts & Technologies, at EPA's Chicago office. To arrange an appointment, contact Mr. Tong (see above).

### Right to Appeal

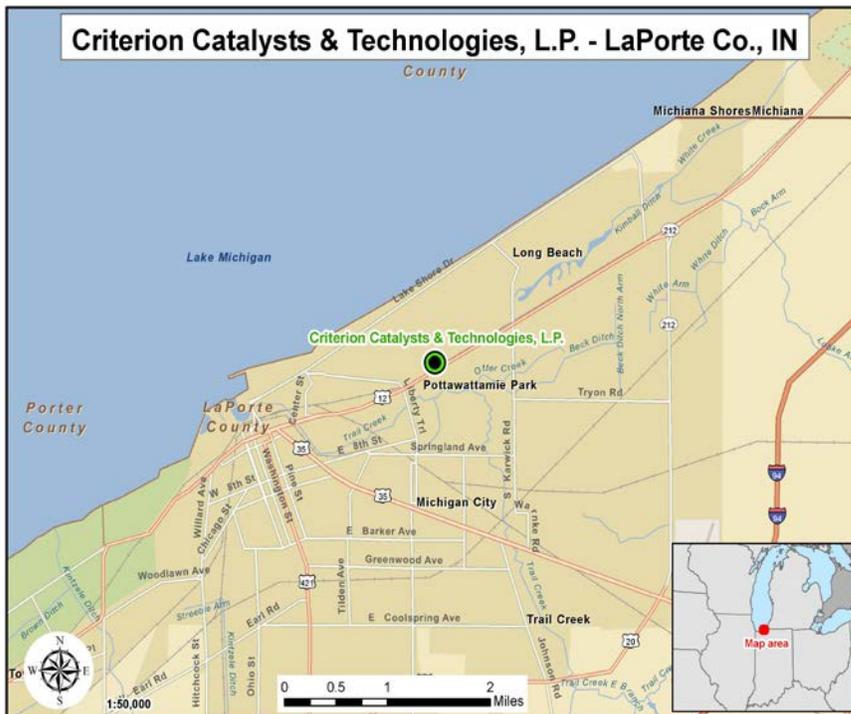
You have the right to appeal any final permit decision if you make an official comment during the comment period of participate in a public hearing. A public hearing is not planned at this time. The first appeal must be made to the Environmental Appeals Board. The final decision can be appealed in federal 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>.

## Criterion Catalysts & Technologies L.P.

Michigan City, Indiana

November 2015



*Map of the area where underground injection wells are located*

The U.S. Environmental Protection Agency (EPA) plans to approve a request from Criterion Catalysts & Technologies L.P. of Michigan City, Indiana, for re-issuance of three existing Class I injection well permits for the disposal of non-hazardous liquid waste from the manufacture of alumina and alumina-silica powders and hydro-treating catalysts used in petroleum refining. There are two existing injection wells (Well No. 1 and Well No. 2); the third injection well (Well No. 3) has not yet been drilled. All three wells have been permitted since 1990.

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.

### Site geology

The injection zone for the three wells is the Mount Simon Sandstone, at the following injection intervals below the surface: Well No. 1 (2867' to 4285'), Well No. 2 (2878' to 4286'), Well No. 3 (2900' to 4200'). The immediate overlying confining zone is the Eau Claire Formation, which is composed of shale. There are adequate confining layers between the injection zone and the deepest source of drinking water to prevent the movement of injected fluids into underground sources of drinking water.

An underground source of drinking water is an aquifer or part of an aquifer that contains water with less than 10,000 milligrams per liter of total dissolved solids. In LaPorte County, the base of the deepest USDW is 510 feet below the surface – the Detroit River Formation.

## Technical Information

**Facility Background:** The Class I non-hazardous waste injection wells are used for the disposal of non-hazardous liquid waste from the manufacture of alumina and alumina-silica powders and hydro-treating catalysts used in petroleum refining that originate from the Criterion facility in Michigan City, Indiana. The construction of the injection wells meet (or, in the case of Well #3, will meet) the regulatory criteria of 40 C.F.R. §146.22.

**Area of Review:** The AOR is a circle of 2 mile radius from each injection well. There are no other wells that penetrate the confining zone within the AOR of the two existing Criterion Class I injection wells, nor within the AOR of the proposed Well #3.

**Maximum Injection Pressure:** EPA set a limit on injection pressure to prevent injection-formation fracturing. The maximum allowable injection pressure for each well was calculated by EPA by factoring the depth of the injection zone, the highest specific gravity of the injected fluid, and the fracture gradient of the rock formation. The formula appears on Page A-1 of the draft permits. The calculated maximum permitted injection pressure is proposed to be 832 pounds per square inch gauge (psig) for Well No. 1, 834 psig for Well No. 2, and 841 psig for Well No. 3.

**Financial Assurance:** Criterion Catalysts and Technologies L.P., through its corporate parent, Shell Oil Company, has demonstrated adequate financial resources to plug and abandon these wells. This financial assurance must be updated and submitted to EPA on an annual basis.

**Intent to Issue Permits:** Review of the permit applications indicate no significant environmental impacts should result from re-issuing these three permits. In accordance with provisions of the Safe Drinking Water Act and attendant regulations incorporated by EPA under Title 40 of the Code of Federal Regulations at parts 124, 144, 146, and 147, EPA intends to issue a permit for each of the three wells.

**Public Comments:** The dates of the public comment period for the draft permit will be published in the Michigan City News-Dispatch. Comments and requests for a public hearing must be submitted to Mr. Tong in writing. EPA will hold a hearing if it determines that there is significant public interest in one or more of the draft permits, based on written requests. If a public hearing is scheduled, a notice of the hearing will be published at least 30 days in advance.

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. 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. Indiana has not acquired primacy over 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.