

EPA Seeks Comments on Three Injection Well Permits

Duke Energy Indiana, LLC
Gibson County, Indiana

November 2017

How to comment

You may comment on the proposed draft permits in writing. Please refer to draft permit numbers IN-051-11-0001, IN-051-11-0002, and IN-051-11-0003.

Mail or email your comments to:

Jeffrey McDonald
U.S. EPA, Water Division
UIC Branch (WU-16J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590
Email: mcdonald.jeffrey@epa.gov
Phone: 312-353-6288

Comment Period

EPA will accept written comments until **December 8** (midnight postmark).

Information Repository

You may see the draft permits at:

Princeton Public Library

124 South Hart
Princeton, IN

Mt. Carmel Public Library

727 N. Mulberry
Mt. Carmel, IL

Or on the Internet at:

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

Administrative Record

You may see the full administrative record, including all data submitted by Duke Energy Indiana, LLC, at the EPA's Chicago regional office (address above), weekdays from 9am to 4pm. For an appointment to see the files, contact Jeffrey McDonald (see above).

Right to Appeal

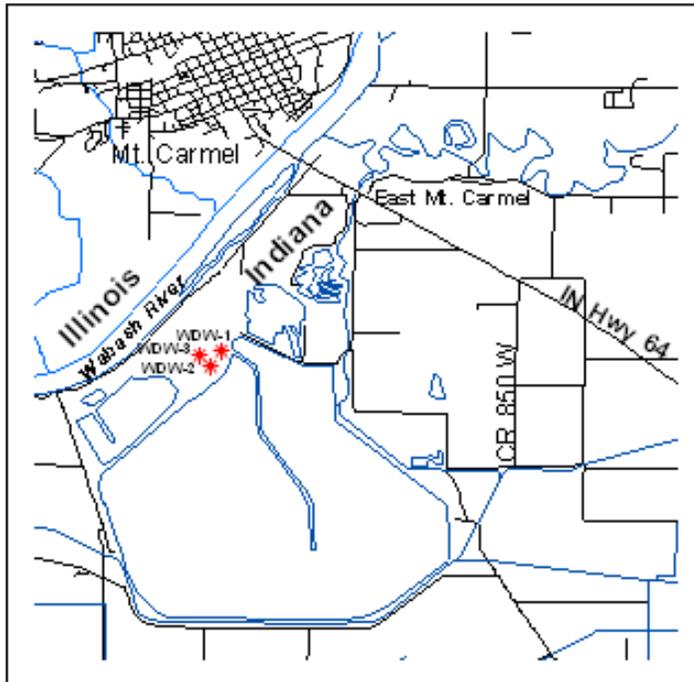
You have the right to appeal any final permit decision if you make an official comment during the comment period or participate in a public hearing. A public hearing is not planned at this time. The first appeal must be made to the Environmental Appeals Board.

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

The U. S. Environmental Protection Agency tentatively approved a request from Duke Energy Indiana, LLC for three Class I nonhazardous injection well permit renewals. Before EPA makes a final decision, the Agency is providing the public an opportunity to comment on the draft permit renewals (*see left-hand box on how to comment*).

Duke Energy Indiana, LLC of Plainfield, Indiana plans to continue disposal of nonhazardous liquid waste associated with the coal-fired electric power generating plant into three existing wells at the Owensville facility in Gibson County, Indiana.

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. *Text continued on back ...*



Map shows location of the three existing injection wells in northern Gibson County, Indiana. The wells are identified by the stars.

¹Injection 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>.

Public comments & requests for a hearing

Send comments and requests for a hearing to EPA's Jeffrey McDonald during the public comment period (*see front-page box*). The public comment period includes 30 days for comments as required by law, plus an additional three 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 decisions. 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.

Permit requirements

Federal regulations for underground injection wells list standards for construction, geology, location (siting), operating conditions, and record keeping. The goal of the regulations is to protect Underground Sources of Drinking Water from contamination caused by injection wells.

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

Underground Source of Drinking Water

(USDW): A USDW is any aquifer or portion of an aquifer that contains less than 10,000 milligrams per liter of total dissolved solids.

An aquifer is an underground layer of water-bearing rock or sand from which water can be extracted by a well.

In the case of the Duke Energy Gibson wells, the base of the lowermost USDW sits at a depth of roughly 400 feet. This water-bearing formation is the Petersburg Formation.

Site Geology: The injection zone for wells #1 and #3 is the Trenton Limestone, Black River Group, Ancell Group, and the Knox Supergroup from 5,718 feet to 8,501 feet below the surface. Well #2 has an injection zone of 5,661 to 11,720 feet below surface and includes the injection zone of wells #1 and #3, in addition to the Potsdam Supergroup. The immediate overlying confining zone for all three wells, at a depth of ~5,332 to ~5,718 feet, is the Maquoketa Group, which is composed of 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 each injection well. EPA analyzed the AOR to identify wells that might allow fluid to move out of the injection zone. In the AOR for the three proposed wells, there are no wells, other than these three wells, that penetrate the confining zone.

Maximum injection pressure (MIP): EPA set an injection pressure limit that will prevent the injection formation from fracturing. The proposed MIP for these wells varies by exact depth of the well. Well #1 is limited to 1,920 pounds per square inch gauge, Well #2 is limited to 1,714 pounds per square inch gauge, and Well #3 is limited to 1,926 pounds per square inch gauge.

Financial assurance: Duke Energy Indiana, LLC, has demonstrated adequate financial resources to close, plug and abandon these underground injection wells, based upon a financial statement.