

Response to Comments on Draft Class II Permit in Isabella County, Michigan, Issued to Summit Petroleum Corporation (Permit Number MI-073-2D-0033)

Introduction

This response is issued in accordance with Section 124.17(a), (b), and (c) of Title 40 of the Code of Federal Regulations (40 C.F.R. § 124.17(a), (b), and (c)), which require that at the time any final United States Environmental Protection Agency (EPA) permit decision is issued, the Agency shall: (1) describe and respond to all significant comments on the draft permit decision raised during the public comment period; (2) specify which provisions, if any, of the draft decision have been changed and the reasons for the change; (3) include in the administrative record any documents cited in the response to comments; and (4) make the response to comments available to the public.

Background

On June 25, 2015, EPA issued a draft Class II permit to inject produced brine for the purpose of disposal (permit number MI-073-2D-0033) to Summit Petroleum Corporation for its Vandersys 1-29 well, and invited public comment. The public comment period ended July 28, 2015.

Two parties submitted written comments to EPA during the public comment period. This document categorizes the public comments submitted on the draft Class II permit and includes EPA's response to those comments.

General and Out of Scope Comments

EPA regulations at 40 C.F.R. Parts 144 and 146 state the requirements and standards that a permit applicant must meet to have an Underground Injection Control (UIC) permit application approved. These regulations define the general scope of EPA's authority and review process, which includes standards for geologic siting, well engineering, operation and monitoring, and plugging and abandonment of deep injection wells. EPA received some comments directed at matters outside the scope of the UIC Program's purview. The comments falling into the "out of scope" category focus on topics including: background information on the commenters or the project, other Class II projects, hydraulic fracturing other than where diesel is used, surface location, surface facilities, and the applicant's safety record. EPA acknowledges the submission of these comments and clarifies that because they raise matters that are not addressed by the UIC regulations and are outside the scope of the UIC permit process, EPA does not respond to them specifically in this document. These out-of-scope comments are listed below without response. Specific comments that address topics that are within the scope of this permitting decision, and EPA's responses to those comments, are in a subsequent section.

Out of Scope Comments

EPA is not responding to the following comments because they do not relate to geologic siting, well engineering, operation and monitoring standards, or plugging and abandonment for deep injection wells.

- a. There was a well drilled across the road from me in January or February of 2011. There is grey water standing most of the year around the well along with parts of torn up membrane used when drilling. This well is up hill from my property and a wet land to the south.
- b. This proposed project is ½ mile from the Chippewa River, and surface drainage from this parcel drains directly into the Chippewa River. Is the EPA equipped to monitor this?
- c. I believe we should be better informed and consideration should be made to the fact that we are up hill from a major river in the Central Michigan area and also part of the Saginaw Bay River Shed. Please respond.
- d. I question the safety of this company's work when it comes to well injection.
- e. What is the safety track record of Summit Petroleum Corporation?
- f. Will the EPA test the water near the fracking site before, during and after fracking?

Specific comments

Comment #1

EPA's job is to protect people, not the oil and gas industry. Everyone deserves clean drinking water.

Response to Comment #1: The mission of the EPA is to protect human health and the environment. The purpose of the UIC program is to protect underground sources of drinking water (USDWs) from being contaminated by underground injection practices. UIC permit construction, operation, and geological siting criteria prevent drinking water contamination. UIC permits require fluid to be injected underground into zones that will accept and retain the fluid, while preventing the fluid from moving into USDWs.

Comment #2

Down the road when this material holding this brine ages and erodes what happens?

Response to Comment #2: The permit allows brine injection into the Dundee Limestone, which is 3,761 feet below the surface and 3,213 feet below the lowest source of drinking water. The material that will hold the brine in place is the Bell Shale formation overlaying the Dundee Limestone. According to the Michigan Hydrogeologic Atlas (1981), the Bell Shale is a good confining layer. The Bell Shale is impermeable and free of known fractures so fluids below it will not move through it. Additional rock formations above the Bell Shale also act as confining layers, further protecting USDWs from contamination.

The injection well is constructed with multiple layers of steel and cement to ensure that fluid stays inside the well until it reaches the Dundee Limestone at 3,761 feet below the surface. The Vandersys 1-29 well is drilled to 3,865 feet, and is constructed with three steel casing strings, set at 483 feet, 1,054 feet, and 3,763 feet, respectively. Each of the steel casings is cemented in place over hundreds of feet to prevent the movement of fluids into and between USDWs. Injection will take place through the tubing within the innermost casing. A packer set at the bottom of the tubing will seal off the space between the casing and the tubing. This space, called the annulus, will be filled with a liquid mixture containing a corrosion inhibitor. During the life of the permit, the pressure of the annulus is monitored and tested for mechanical integrity. This testing assures that any problems with the well tubing and casing are detected early. The permit requires injection to cease when mechanical integrity problems are detected. Any problems must be fixed before injection can continue. When the well is no longer being used to inject brine, it will be closed according to the permit's "Plugging & Abandonment Plan." The plan requires several hundred feet of cement to plug the well, ensuring that injected brine does not move up through the well.

Comment #3

Who is going to pay for the annual testing of my well water? These test are costly.

Response to Comment #3: The draft and final permits do not require Summit Petroleum Company to test private water wells. Conditions in the permit require injection well construction and operation that protects USDWs. For information about injection well monitoring required by the permit, please see the Response to Comment #4.

Comment #4

How will this proposed project be monitored? How often? By whom?

Response to Comment #4: In accordance with 40 C.F.R. §§ 144.54 and 146.23, the applicant will be responsible for observing and recording injection pressure, flow rate, annulus pressure, and cumulative volume on a weekly basis and reporting this to EPA on a monthly basis. The applicant will also be responsible for observing, recording and reporting annulus liquid loss on a quarterly basis. An analysis of the injected fluid must be submitted annually. The applicant will be required to repeat a mechanical integrity test at least once every five (5) years. Documents reporting the results of tests and monitoring activities must be certified as complete, true and accurate by the operator. Additionally, EPA inspects wells and collects information to assess whether wells are meeting permit requirements.

Comment #5

As to the oil and gas company's monitoring these wells it is like the fox guarding the henhouse.

Response to Comment #5: Self-monitoring and self-reporting are fundamental elements of the UIC permit program and other federal environmental programs. Agency inspections and oversight supplement the facility's self-monitoring and self-reporting. The facility is subject to penalties for permit violations, including failure to monitor and report well activity.

Comment #6

Not enough people were informed.

Response to Comment #6: 40 C.F.R. § 124.10(c) sets the requirements that EPA must meet to let people know about a draft permit decision. EPA met these requirements for the draft permit decision for the Vandersys 1-29 well. Public notices were mailed on June 25, 2015 to: (1) interested parties who had contacted EPA to be placed on the mailing list; and (2) residents within a ¼ mile radius of the proposed Vandersys 1-29 injection well. Public notices were also shared with the applicant, Michigan Department of Environmental Quality, Michigan Department of Natural Resources, Michigan State Historic Preservation Office, U.S. Fish & Wildlife Service, Advisory Council on Historic Preservation, the Isabella County Board of Commissioners, the Sherman Township Clerk, and recognized Indian Tribes in Michigan. EPA also provided the Vandersys 1-29 draft permit to the Veterans Memorial Library in Mt. Pleasant for public viewing. Further, though not required, during the comment period the draft permit and public notice were available on our website <http://www.epa.gov/region5/water/uic/index.htm>.

Final Determination

Following review of the permit application, EPA has determined that there should be no impact to drinking water supplies as a result of injection via this well. The geologic siting, engineering and construction, and operating and monitoring standards applied to the well are sufficient to protect the USDW. EPA has determined that the public comments submitted did not demonstrate deficiency of the application based on UIC program requirements. Further, comments did not raise issues which would alter EPA's basis for determining that it is appropriate to issue Summit Petroleum Company a permit to convert and operate the proposed injection well. Therefore, the final permit for the Vandersys 1-29 well is issued to Summit Petroleum Company concurrently with this document.

Appeal

In accordance with 40 C.F.R. § 124.19(a), any person who filed comments on the draft permit may petition the Environmental Appeals Board to review any condition of the final permit decision. Additionally, any person who failed to file comments on the draft permit may petition the EAB for administrative review of any permit conditions set forth in the final permit decision, but only to the extent that those final permit conditions reflect changes from the proposed draft permit. Any petition shall identify the contested permit condition or other specific challenge to the permit decision and clearly set forth, with legal and factual support, petitioner's contentions for why the permit decision should be reviewed, as well as a demonstration that any issue raised in the petition was raised previously during the public comment period (to the extent required), if the permit issuer has responded to an issue previously raised, and an explanation of why the permit issuer's response to comments was inadequate as required by 40 C.F.R. § 124.19(a)(4). If you wish to request an administrative review, documents in EAB proceedings may be filed by mail (either through the U.S. Postal Service ("USPS") or a non-USPS carrier), hand-delivery, or

electronically. The EAB does not accept notices of appeal, petitions for review, or briefs submitted by facsimile. All submissions in proceedings before the EAB may be filed electronically, subject to any appropriate conditions and limitations imposed by the EAB. To view the Board's Standing Orders concerning electronic filing, click on the "Standing Orders" link on the Board's website at www.epa.gov/eab. All documents that are sent through the USPS, except by USPS Express Mail, must be addressed to the EAB's mailing address, which is: Clerk of the Board, U.S. Environmental Protection Agency, Environmental Appeals Board, 1200 Pennsylvania Avenue, NW, Mail Code 1103M, Washington, D.C. 20460-0001. Documents that are hand-carried in person, delivered via courier, mailed by Express Mail, or delivered by a non-USPS carrier such as UPS or Federal Express must be delivered to: Clerk of the Board, United States Environmental Protection Agency, Environmental Appeals Board, 1201 Constitution Avenue, NW, WJC East Building, Room 3334, Washington, D.C. 20004.

A petition for review of any condition of a UIC permit decision must be filed with the EAB within 30 days after EPA serves notice of the issuance of the final permit decision. 40 C.F.R. § 124.19(a)(3). When EPA serves the notice by mail, service is deemed to be completed when the notice is placed in the mail, not when it is received. However, to compensate for the delay caused by mailing, the 30-day deadline for filing a petition is extended by three days if the final permit decision being appealed was served on the petitioner by mail. 40 C.F.R. § 124.20(d). Petitions are deemed filed when they are received by the Clerk of the Board at the address specified for the appropriate method of delivery. 40 C.F.R. § 124.19(a)(3) and 40 C.F.R. § 124.19(i). The request will be timely if received within the time period described above. For this request to be valid, it must conform to the requirements of 40 C.F.R. § 124.19. A copy of these requirements is enclosed. This request for review must be made prior to seeking judicial review of any permit decision. Additional information regarding petitions for review may be found in the Environmental Appeals Board Practice Manual (August 2013) and A Citizen's Guide to EPA's Environmental Appeals Board, both of which are available at http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/General+Information/Environmental+Appeals+Board+Guidance+Documents?OpenDocument.

The EAB may also decide on its own initiative to review any condition of any UIC permit. The EAB must act within 30 days of the service date of notice of the Regional Administrator's action. Within a reasonable time following the filing of the petition for review, the EAB shall issue an order either granting or denying the petition for review. To the extent review is denied, the conditions of the final permit decision become final agency action when a final permit decision is issued by the EPA pursuant to 40 C.F.R. § 124.19(l).

Final Permit/Information Available

The final permit and Response to Comments document are available for viewing at the Veterans Memorial Library, 301 South University, Mount Pleasant, Michigan or on EPA's website at <http://go.usa.gov/3JwFP>.

Please contact Lilly Simmons of my staff at (312) 886-5740, or via email at simmons.lilly@epa.gov if you have any questions about the Summit Petroleum Corporation's Vandersys 1-29 injection well permit.



Date 11-10-15

Tinka G. Hyde
Director, Water Division
U.S. Environmental Protection Agency
Region 5