



MEMO

To: Brian Babb, P.G.
Subsurface Permits Environmental Program Manager
Northwest Regional Office

From: Randall Kresge, P.G. 
Professional Geologist/Manager
Northwest Regional Office

Date: February 7, 2020

Re: ROD UIC Disposal Well Application
Seneca Resources Co., LLC
FEE Seneca Resource Warrant 3771 No. 38282, API 047-23885
Elk County, Highland Township

Background

On June 4, 2019, Seneca Resources Company, LLC (Seneca), submitted an application to the Pennsylvania Department of Environmental Protection (Department, or DEP) to change the use of the Fee Seneca Resources Warrant 3771 38282 well, API Permit Number 37-047-23885, from a conventional gas production well to a disposal well. In accordance with 25 Pa. Code § 78.18, the disposal well application consists of a well permit application to drill and operate a conventional well (CDOW); an Erosion and Sedimentation Control (E&S) Plan; a Control and Disposal (C&D) Plan, otherwise named Preparedness, Prevention, and Contingency (PPC) Plan; the application submitted to the U.S. Environmental Protection Agency (EPA) for a Class II-D Underground Injection Control (UIC) Permit; and the issued EPA UIC Permit Number PAS2D026BELK.

The location of the existing well is in Highland Township, Elk County, off of Lamont Road, with a 911 address of 36 Mustang Road, James City, PA, 16734; Seneca is the surface landowner. The applicant proposes to alter the use of the well from the production of gas originating in the Elk formation to disposal of fluid produced by Seneca oil and gas operations into the same formation, at a subsurface interval between approximately 2327 and 2372 feet below ground surface.

Application Review

The application for Seneca's 38282 well was reviewed with consideration of applicable sections of the 2012 Pennsylvania Oil & Gas Act; the Oil & Gas Conservation Law; 25 Pa. Code

Chapters 78, 91, 102, and 105; “Guidelines for the Development and Implementation of Environmental Emergency Response Plans” program manual; and other relevant sources.

This document summarizes the primary portions of the Department’s review, including review of the CDOW; the E&S Plan; the C&D Plan; a geologic review; and mechanical integrity review.

CDOW Review:

The CDOW application consists of operator-answered questions, notifications to interested parties, a Well Location Plat, a Pennsylvania Natural Diversity Index (PNDI) search receipt, and a non-coal justification. Also included with the CDOW application is the Well Record and Completion Report, which was originally submitted in April 2008.

The application was reviewed by a DEP Licensed Professional Geologist who reviewed and analyzed answers to the operator-answered questions; reviewed the notifications to interested parties, the Well Location Plat, the PNDI, and the non-coal justification; and confirmed all information with Department records.

The CDOW application is complete and is in accordance with all applicable statutes and regulations in the 2012 Pennsylvania Oil & Gas Act, the Oil & Gas Conservation Law, and 25 Pa. Code Chapter 78.

Erosion and Sedimentation (E&S) Plan Review:

The E&S Plan conforms with applicable regulations in 25 Pa. Code, Chapters 102 and 105. The plan was reviewed by a DEP Water Quality Specialist, who determined the plan, when implemented, will be adequate to minimize accelerated erosion and potential sediment impacts to surface waters of the Commonwealth.

Control and Disposal (C&D) Plan Review:

The C&D Plan, otherwise named Preparedness, Prevention, and Contingency (PPC) Plan, conforms with the Department’s “Guidelines for the Development and Implementation of Environmental Emergency Response Plans” manual, and applicable regulations in 25 Pa. Code, Chapter 78. The plan was reviewed by a DEP Water Quality Specialist.

Geologic Review:

The Department conducted a geologic review in accordance with 25 Pa. Code, Chapter 91.51, which considered stratigraphy and geologic structures to investigate potential pathways for injected fluids to reach water supplies or basement rock. The Department’s geologic review revealed no evidence of potential pathways for injected fluid to reach water supplies or basement rock, and it is improbable injection of fluids would be prejudicial to the public interest. Additionally, no underground coal mines or gas storage areas exist within the area of review. For reasons set forth in the Department’s geologic review memorandum, the Department concludes

the location of the proposed disposal well makes it a suitable candidate to handle injection fluids. Well permit conditions will address seismic monitoring and mitigation.

Mechanical Integrity Review:

The Department performed a mechanical integrity review of the proposed disposal well and considered proposed operating data, proposed construction procedures and details, proposed injection procedures, proposed monitoring, and plans for well failures. The mechanical integrity of the proposed well will be adequate to meet the Department's regulations for an underground disposal well. With implementation of the Department's well permit conditions, mechanical integrity will be monitored and subject to notification requirements.

USEPA Class II-D UIC Permit Application and Issued Permit Review:

The EPA application and issued permit were reviewed for completeness and consistency with applicable Pennsylvania laws and regulations. EPA held a public hearing for their proposed permit on July 24, 2017. The issued EPA Class II-D UIC Permit Number PAS2D026BELK was effective as of March 7, 2018.

Summary

The Department has determined the application and project meets all applicable statutes, regulations, and guidance manuals relating to permitting of a disposal well in Pennsylvania. The Department concludes that underground disposal into the Fee Seneca Resources Warrant 3771 38282 well would be for an abatement of pollution by providing a lawful alternative to other disposal options. Seneca's proposed operation is sufficient to protect surface water and water supplies, and it is improbable that disposal into the 38282 well would be prejudicial to the public interest.

I recommend issuance of the permit for Well #38282, API # 37-047-23885, located in Highland Township, Elk County with special conditions attached to the permit. All documents related to this application will be located in the permit file 37-047-23885.

