IN RE PENNSYLVANIA GENERAL ENERGY COMPANY, LLC

UIC Appeal Nos. 14-63, 14-64, & 14-65

ORDER DENYING REVIEW

Decided August 21, 2014

Syllabus

This matter involves three consolidated petitions for review of an Underground Injection Control ("UIC") permit that U.S. Environmental Protection Agency Region 3 ("Region") issued to Pennsylvania General Energy Company for a Class II injection well on March 19, 2014. The Board received petitions from the following individuals: Ms. Suzanne Watkins (UIC Appeal No. 14-63), Ms. Judy and Mr. Paul Wanchisn and Ms. Stacy and Mr. Mark Long (UIC Appeal No. 14-64) ("Wanchisn/Long Petition"), and Mr. William J. Woodcock III (UIC Appeal No. 14-65). Petitioners contend that the Region failed to respond adequately to public comments submitted regarding the permit and question whether the permit conditions are adequate to protect the groundwater aquifer.

Held: The Board denies all three petitions for review. The Board denies Mr. Woodcock's petition for lack of standing. The Board finds that the Region provided thorough and well-reasoned responses during the public comment period to the questions and concerns raised in the Wanchisn/Long and Watkins petitions. The Board denies those petitions for failure to confront the Region's responses and failure to demonstrate that the Region made a clear error of law or fact or abused its discretion in issuing the permit.

Before Environmental Appeals Judges Leslye M. Fraser, Catherine R. McCabe, and Kathie A. Stein.

Opinion of the Board by Judge McCabe:

I. *STATEMENT OF THE CASE*

On March 19, 2014, the U.S. Environmental Protection Agency ("EPA" or "Agency") Region 3 ("Region") issued an Underground Injection Control ("UIC") permit to Pennsylvania General Energy Company, LLC ("PGE") for a Class II injection well, referred to as the "Marjorie C. Yanity 1025." *See*

Injection Control Permit No. PAS2D013BIND Authorization to Operate Class II-D Injection Well (Mar. 19, 2014) ("Permit"). The Environmental Appeals Board ("Board") received three petitions for review of the permit from the following individuals: Ms. Suzanne Watkins (UIC Appeal No. 14-63), Ms. Judy and Mr. Paul Wanchisn and Ms. Stacy and Mr. Mark Long (UIC Appeal No. 14-64) ("Wanchisn/Long Petition"), and Mr. William J. Woodcock III (UIC Appeal No. 14-65). The Board consolidated these appeals on April 30, 2014. For the reasons explained below, the Board denies the petitions for review.

II. *PROCEDURAL AND FACTUAL HISTORY*

A. *The UIC Program*

Congress established the UIC program pursuant to Safe Drinking Water Act ("SDWA") section 1421, 42 U.S.C. § 300h, and EPA promulgated regulations at 40 C.F.R. parts 144 through 148 to protect underground sources of drinking water. The program is designed to protect underground water that "supplies or can reasonably be expected to supply any public water system." SDWA § 1421(d)(2), 42 U.S.C. § 300h(d)(2). The regulations specifically prohibit "[a]ny underground injection [] except into a well authorized by rule or except as authorized by permit issued under the UIC program." 40 C.F.R. § 144.11. The UIC permit application procedures are set forth in section 144.31, which provides: "all injection activities including construction of an injection well are prohibited until the owner or operator is authorized by permit." 40 C.F.R. § 144.31(a).[1]

The UIC regulations establish minimum requirements for state-administered permit programs. EPA administers the UIC program in those states

[1] Under 40 C.F.R. § 144.6, injection wells fall into five classes depending on the material being disposed of in the well. Class II wells are used to inject fluids:

> (1) Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.
>
> (2) For enhanced recovery of oil or natural gas; and
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> (3) For storage of hydrocarbons which are liquid at standard temperature and pressure.

40 C.F.R. § 144.6(b).

that, like Pennsylvania, are not yet authorized to administer their own programs. *See* 40 C.F.R. §§ 144.1(e), 147.1951.

B. *The PGE Permit*

The proposed permit authorizes PGE to convert an existing PGE production well into a Class II brine disposal injection well, and to inject fluids produced in association with PGE's oil and gas production operations. Permit at 1. The lowermost source of drinking water in the area surrounding the proposed well is located approximately 520 feet below surface elevation. *See* Statement of Basis for U.S. EPA's Underground Injection Control (UIC) Program Draft Class IID Permit No. PAS2D013BIND for Pennsylvania General Energy Company, LLC at 2 (Sept. 18, 2013) ("Statement of Basis"). The permit limits injection to an area referred to as the "Huntsville Chert Formation" in the interval between approximately 7,544 feet through 7,620 feet. *Id*. An interval of approximately 7,024 feet separates this injection area from the lowermost source of drinking water. *Id*. at 3. Immediately above the injection zone is a confining zone referred to as the "Onandoga Formation," comprised of approximately 180 feet of limestone and shale. *Id*. at 3; U.S. EPA Region 3, Responsiveness Summary for the Issuance of [a UIC] Permit for [PGE] at 10 (Mar. 19, 2014) ("Responsiveness Summary"). This geological formation has a low permeability, giving it the ability to confine and trap fluids and prevent upward migration. *Id*. As discussed below, the permit contains provisions designed to ensure both well integrity and the protection of drinking water.

III. *THRESHOLD REQUIREMENTS FOR BOARD REVIEW*

Section 124.19 of Title 40 of the Code of Federal Regulations governs Board review of a UIC permit. In considering any petition filed under 40 C.F.R. § 124.19(a), the Board first evaluates whether the petitioner has met threshold procedural requirements such as timeliness, standing, issue preservation and specificity. 40 C.F.R. § 124.19(a)(2)-(4); *see also In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143 (EAB 2006). If the Board concludes that a petitioner satisfies all threshold pleading obligations, then the Board evaluates the merits of the petition for review. *See Indeck-Elwood*, 13 E.A.D. at 143. If a petitioner fails to meet a threshold requirement, the Board typically denies or dismisses the petition for review. *See, e.g.*, *In re Russell City Energy Ctr., LLC*, PSD Appeal Nos. 10-12 & 10-13, at 4-7 (EAB June 9, 2010) (Order Dismissing Two Petitions for Review as Untimely).

In any appeal from a permit decision issued under part 124, the petitioner bears the burden of demonstrating that review is warranted. 40 C.F.R.

§ 124.19(a)(4). The petitioner bears that burden even when the petitioner is unrepresented by counsel, as is the case here.[2] *In re New Eng. Plating Co.*, 9 E.A.D. 726, 730 (EAB 2001); *In re Encogen Cogen. Facility*, 8 E.A.D. 244, 249-50 (EAB 1999). With these principles in mind, the Board next considers the three petitions presented in this appeal.

IV. *ANALYSIS*

A. *Mr. Woodcock Lacks Standing*

In every appeal from a permit decision, a petitioner must demonstrate prior involvement in the public review process, *either* by filing written comments on the draft permit *or* by participating in a public hearing. 40 C.F.R. 124.19(a)(2).[3] A person who does not participate during the public review process may petition for review if changes are made between the draft and final permit, but may only challenge the decision with respect to those changes. *Id.*; *see, e.g.*, *In re Am. Soda LLP*, 9 E.A.D. 280, 288-89 (EAB 2000); *In re Envotech*, 6 E.A.D. 260, 267 (EAB 1996). The Board denies, for lack of standing, petitions for review that do not meet this threshold requirement. *E.g.*, *In re Beeland Group, LLC*, UIC Appeal Nos. 08-01 & 08-03, at 4, 10-11 (EAB May 23, 2008) (Order Denying Review); *In re Avon Custom Mixing Servs., Inc.*, 10 E.A.D. 700, 708 (EAB 2002).

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[2] The Board generally endeavors to construe liberally the issues presented by an unrepresented petitioner, so as to fairly identify the substance of the arguments being raised. The Board nevertheless "expect[s] such petitions to provide sufficient specificity to apprise the Board of the issues being raised." *In re Seneca Res. Corp.*, 16 E.A.D. 411, 412 n.1 (EAB 2014); *In re Sutter Power Plant*, 8 E.A.D. 680, 687-88 (EAB 1999). "The Board also expects the petitions to articulate some supportable reason or reasons as to why the permitting authority erred or why review is otherwise warranted." *Sutter*, 8 E.A.D. at 688; *accord In re Beckman Prod. Servs.*, 5 E.A.D. 10, 19 (EAB 1994).

[3] This regulation provides in relevant part:

> Any person who filed comments on the draft permit or participated in a public hearing on the draft permit may file a petition for review as provided in this section. Additionally, any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition 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.

40 C.F.R. § 124.19(a)(2).

Mr. Woodcock's petition does not indicate that he submitted comments on the draft permit, nor does the record reflect that he participated in any way. Further, the Region's response to the petitions states that Mr. Woodcock did not submit comments on the draft permit during the public comment period or participate in the public hearing. Region's Response at 14-15. Mr. Woodcock also does not challenge the Region's permit decision with respect to changes made between the draft and final permit. Based on all of the above, the Board concludes that Mr. Woodcock does not meet the threshold standing requirements of 40 C.F.R. § 124.19(a)(2) and, accordingly, denies Mr. Woodcock's petition for review.

B. *The Wanchisn/Long Petition Fails to Demonstrate That Review Is Warranted*

The part 124 regulations require that a petition demonstrate that the contested permit conditions are based on either a clear error of fact or law or an exercise of discretion or important policy consideration warranting Board review. The petitioner must explain, with factual and legal support, why the permit condition or other challenge warrants Board review, and why the Region's response to comment on the issue raised was clearly erroneous or otherwise warrants review. 40 C.F.R. § 124.19(a)(4).

The Wanchisn/Long petition fails to meet these requirements. The petition consists essentially of a series of questions and concerns pertaining to the UIC permit. The petitioners contend on appeal that the Region did not specifically answer all of their very detailed technical questions. The Board finds, to the contrary, that the Region provided thorough and well-reasoned responses to the questions and concerns.[4] As petitioners note, these same questions were submitted to the Region as comments on the draft permit. *See* Wanchisn/Long Petition at 3-4. Yet, the petition fails to reference the Region's responses or to

[4] In its response to comments, the Region grouped the specific questions into common categories, which enabled it to provide a clear and efficient response to the overarching concerns and questions that petitioners raised. This format for the response to comments is consistent with the regulations and the Board's case law. *See* 40 C.F.R. § 124.17(a) (requiring that the permit issuer briefly respond to all significant comments); *In re Kendall New Century Dev.*, 11 E.A.D. 40, 50 (EAB 2003) (stating that § 124.17(a) "'does not require a [permit issuer] to respond to each comment in an individualized manner,' nor does it require the permit issuer's response 'to be of the same length or level of detail as the comment'") (quoting *In re NE Hub Partners, LP*, 7 E.A.D. 561, 583 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3rd Cir. 1999)).

explain why the Region's responses were clearly erroneous or otherwise warrant Board review.

The Region appropriately recognized the petitioners' legitimate and understandable concerns with respect to the safety of their drinking water, and explained in detail how its technical analysis supports the conclusion that the permit conditions for this Class II well protect the drinking water aquifer in accordance with the requirements of the federal UIC regulations. This satisfies the Region's obligations under the law. Simply repeating questions in a petition for review before the Board that have been previously presented to and answered by the permit issuer does not satisfy the regulatory requirement that petitioners confront the permit issuer's responses and explain why the responses were clearly erroneous or otherwise warrant Board review. *See* 40 C.F.R. § 124.19(a)(4)(ii).

Federal circuit courts of appeal have consistently upheld the Board's threshold requirement to demonstrate, with specificity, that review is warranted, including the requirement that a petitioner must substantively confront the permit issuer's response to the petitioner's previous objections. *See, e.g.*, *Native Vill. of Kivalina IRA Council v. EPA*, 687 F.3d 1216, 1219 (9th Cir. 2012), *aff'g In re Teck Alaska, Inc.*, NPDES Appeal No. 10-04, at 7-11 (EAB Nov. 18, 2010) (Order Denying Review); *City of Pittsfield v. EPA*, 614 F.3d 7, 11-13 (1st Cir. 2010), *aff'g In re City of Pittsfield*, NPDES Appeal No. 08-19 (EAB Mar. 4, 2009) (Order Denying Review); *Mich. Dep't of Envtl. Quality v. EPA*, 318 F.3d 705, 708 (6th Cir. 2003) ("[Petitioner] simply repackag[ing] its comments and the EPA's response as unmediated appendices to its Petition to the Board * * * does not satisfy the burden of showing entitlement to review."), *aff'g In re Wastewater Treatment Facility of Union Twp.*, NPDES Appeal Nos. 00-26 & 00-28 (EAB Jan. 23, 2001) (Order Denying Petitions for Review); *LeBlanc v. EPA*, 310 F. App'x 770, 775 (6th Cir. 2009) (concluding that the Board correctly found petitioners to have procedurally defaulted where petitioners merely restated "grievances" without offering reasons why the permit issuer's responses were clearly erroneous or otherwise warranted review), *aff'g In re Core Energy, LLC*, UIC Appeal No. 07-02 (EAB Dec. 19, 2007) (Order Denying Review); *see also* 78 Fed. Reg. at 5,282. The petition does not satisfy this requirement.

The questions and concerns raised in the Wanchisn/Long petition fall into the following general categories: (1) the calculation of the "area of review" and "zone of endangering influence" surrounding the injection well; (2) the potential for seismic activity; (3) well integrity, monitoring, and testing requirements; (4) the injection and confining zones; and (5) the plugging and abandonment of the well when operations cease. Petitioners and others, including the League of

Women Voters of Pennsylvania, raised these concerns in a virtually identical fashion during the public comment period.[5] The Board finds that the Region provided thorough and well-reasoned responses to each of these concerns, as described below.

1. *Area of Review*

Under 40 C.F.R. § 144.3, the "area of review" is defined as the area surrounding the injection well calculated according to the criteria set forth in 40 C.F.R. § 146.6. Section 146.6 calls for the area of review to be determined according to calculation of a "zone of endangering influence" or according to a "fixed-radius method" around the well of not less than one-fourth mile.[6] 40 C.F.R. § 144.6(b). The zone of endangering influence is defined as "the lateral distance in which the pressure in the injection zone may cause the migration of the injection and/or formation of fluid into an underground source of drinking water." *Id.* § 146.6(a)(1)(i). The zone of endangering influence is calculated based on a mathematical model, an example of which is provided in the regulations. *Id.* § 146.6(a)(2).[7] In the present case, as the Region explained in the Statement of Basis accompanying the draft permit, PGE initially chose a one-quarter mile fixed radius as the area of review surrounding the proposed injection well. Statement of Basis at 2. In considering PGE's permit application, the

[5] *Compare* Wanchisn/Long Petition *with* League of Women Voters of Pennsylvania, Comments Regarding General Energy Co., LLC (PGE) PAS2D013BIND (Oct. 28, 2013), *and* E-mail from Judy & Paul Wanchisn to Steve Platt, U.S. EPA Region 3, Re: Comments on Draft UIC Permit (Nov. 4, 2013).

[6] An important part of the application and approval process for Class II wells is identifying existing and abandoned injection and drinking water wells in the area of the proposed well and developing appropriate corrective action plans, as needed, for those wells. The regulations require applicants to submit a topographical map extending one mile beyond the property boundary depicting springs and other surface water bodies, as well as drinking water wells within a quarter mile of the property boundary. 40 C.F.R. § 144.31(e)(7). In addition, the Region must consider data on the operation, construction, and history of any water wells within the area of review. *Id.* § 146.24(a)(1)-(3); *see id.* § 144.55(a) (requiring applicants to identify, among other things, all wells within the area of review that penetrate the injection zone).

[7] The regulations provide a mathematical model, referred to as a modified Theis equation, which may be used for calculating the zone of endangering influence. The model includes the following parameters: thickness of injection zone, injection rate, duration of injection, specific gravity of fluid in the injection zone, and thickness of the injection zone. 40 C.F.R. § 146.6(a)(2).

Region "conducted a zone of endangering influence calculation (a modified Theis equation flow model) using geologic information pertinent to the injection zone as well as anticipated operational parameters" provided by PGE. *Id*. Based on its zone of endangering influence calculation, the Region extended the area of review beyond the one-quarter mile fixed-radius chosen by PGE. *Id*. As a result, PGE provided data on wells approximately 100 feet beyond the one-quarter mile radius. *Id*.

The Wanchisn/Long petition asserts that the Region failed to describe the assumptions and methodology underlying the zone of endangering influence calculation and failed to identify "many of the values" used in calculating the zone of endangering influence. Wanchisn/Long Petition at 3, 12-13. Thus, according to the petition, the Region did not provide the public with sufficient information to critique EPA's calculation. *Id*. In responding to the identical comments on this issue submitted during the public comment period, the Region explained:

> Calculation of the [zone of endangering influence] considers pressure build-up in the injection zone over a given period of time based on geologic and operational parameters. The [area of review] or [zone of endangering influence] analyses are conducted to make sure that if old wells exist, they would not allow fluids to migrate upwards into [underground sources of drinking water] during the injection well operation. If an applicant chooses to use a one-quarter mile [area of review], as PGE did, EPA Region III verifies that this is acceptable by calculating a [zone of endangering influence] around the injection well. EPA used information such as the porosity and permeability of the injection zone, the existing reservoir pressure, and operational parameters, such as the injection rate and volume to calculate the [zone of endangering influence]. When EPA calculated the [zone of endangering influence] it determined that, after a ten year period, the [zone of endangering influence] would be a distance of 1450 feet away from the injection well, approximately 130 feet greater than the one-quarter mile [area of review] [chosen by PGE]. This would mean that if any open conduits (i.e., abandoned wells) existed within this 1450 foot distance, they could potentially allow fluid to move upwards into [underground sources of drinking water] after injection for ten years. No wells were found to exist, that penetrated the injection zone, within 1450 feet of the proposed injection well.[8]

[8] Should any unplugged or abandoned wells that penetrate the injection zone within the area of review be identified at a later date, the permit requires that PGE

Responsiveness Summary at 3-4. The Board finds that the Region's response provided a rational and well-supported explanation of its zone of endangering influence analysis and the parameters considered in extending the area of review beyond the one-quarter mile radius PGE proposed. The Wanchisn/Long Petition does not discuss or "explain why the [Region's] response to the comment[s] was clearly erroneous or otherwise warrants review," as required by 40 C.F.R. § 124.19(a)(4)(ii).

2. *Seismic Activity*

The Wanchisn/Long Petition repeats concerns expressed during the comment period regarding the potential for seismic events in the area surrounding the well and the potential consequences of any such events. *See* Wanchisn/Long Petition at 7-8. The Region addressed these concerns extensively in its response to public comments.[9] The Region evaluated factors relevant to seismic activity, such as the existence of known faults and/or fractures and any history of, or potential for, seismic events in the area of the injection well. The Region explained that it found no geologic evidence of the existence of a fault in the location of the proposed PGE injection well or any recorded seismic activity originating in the county. Responsiveness Summary at 7. Although it acknowledged that injection of fluids has the potential to induce seismic activity, the Region stated that the conditions necessary to cause such activity (a fault in a near-failure state of stress, a "path of communication" between injected fluid and a fault, and sufficient pressure of injected fluids to cause movement along a fault line) are not present in this case. *Id*. (citing National Research Council, *Induced Seismicity Potential in Energy Technologies* 6 (Nat'l Academies Press 2013)).

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perform corrective action. *See* Permit pt. III.A.5 (prohibiting injection operations until the permittee has plugged all abandoned wells identified in the area of review).

[9] The Region's response includes: (1) a background discussion on induced seismic activity, citing a National Academy of Sciences report on induced seismic potential; (2) a discussion of known faults in the location of the proposed well, relying on data from the United States Geologic Survey and the Pennsylvania Department of Conservation and Natural Resources; (3) a discussion of the effects of earthquakes centered elsewhere, such as a seismic event in Youngstown, Ohio; (4) a discussion of factors affecting seismic activity and comparing the geology where such activity has occurred with the geology surrounding the proposed well; (5) a discussion of the effects of natural gas production at the proposed injection well and the general suitability of depleted oil, gas, or geothermal reservoirs for underground injection; and (6) a discussion of the potential for contamination of underground sources of drinking water resulting from seismic events. *See* Responsiveness Summary at 7-10.

With regard to the potential endangerment of underground sources of drinking water due to earthquakes, the Region explained:

> Of the hundreds of thousands of injection wells operating in the United States, EPA is not aware of any case where a seismic event caused an injection well to contaminate an [underground source of drinking water]. There have not been any reports of earthquakes having affected the integrity of injection wells in the cases of induced-seismicity in the United States. A number of factors help to prevent injection wells from failing in a seismic event and contributing to the contamination of an [underground source of drinking water]. Most deep injection wells, those that are classified as Class I or Class II injection wells[,] are constructed to withstand significant amounts of pressure. They are typically constructed with multiple steel strings of casing that are cemented in place. The casing in these wells is designed to withstand both significant internal and external pressure. * * * Furthermore, brine disposal injection wells are required to be mechanically tested to ensure integrity before they are operated and many are continuously monitored after testing to ensure that mechanical integrity is maintained. The well should shutdown if a seismic event that affects its mechanical integrity were to occur, because the well will be designed to automatically cease operation if there is a mechanical integrity failure. * * * Furthermore, there is no fault system present that would allow for the migration of fluid out of the injection zone.

Id. at 9-10. Further, as noted in the Statement of Basis, the permit establishes a maximum injection pressure designed to avoid over-pressurization and limit the potential for seismic events. Statement of Basis at 3.

The Board finds that the Region provided a thorough and rational response to the concerns raised about seismology. The Wanchisn/Long Petition does not address the Region's response to comments or explain why the response was clearly erroneous or otherwise warrants Board review.

3. *Well Integrity, Monitoring, and Testing Requirements,*

The Wanchisn/Long Petition raises concerns regarding the well's construction, including the pipe thickness and the cement around the well casings, the general integrity of the well, and its ability to withstand the fluid injection pressure. Petitioners also question the sufficiency of testing and monitoring requirements to ensure protection of underground sources of drinking water. *See* Petition at 5-6, 8-9, 15. The Region responded in detail to these concerns. For

example, the Region explained in detail why it found that the construction specifications provide adequate protection of drinking water:

> A provision of the UIC regulations, 40 C.F.R. Section 147.1955(b)(1), requires an injection well's surface casing to be placed 50 feet below the determined lowermost [underground source of drinking water]. The lowermost [underground source of drinking water] where the proposed PGE injection well is located is found at a depth of approximately 520 feet. The well is constructed with 11 ¾ inch surface casing, placed to a depth of 568 feet and cemented back to the surface. It also contains 8 5/8 inch intermediate casing which has been placed to approximately 1539 feet and cemented back to the surface. Both of these casing strings are designed to protect [underground sources of drinking water] as well as help prevent the rupture or collapse of the well. In addition 4 ½ inch long string casing has been placed to a depth of 7788 feet and has been cemented back to a depth of 6850 feet. The requirements of 40 C.F.R. § 147.1955(b)(5) outline the cementing provisions for the long string casing and do not require the long string casing to be cemented back to the surface. They were developed for the protection of [underground sources of drinking water] as well as the stability of the down-hole wellbore. This casing also helps to support the well and prevent rupture or collapse.

Responsiveness Summary at 2.

Similarly, the Region explained in detail why it has confidence in the well's integrity, in the well's ability to withstand the permit's maximum allowable injection pressure, and in the sufficiency of the permit's testing requirements to ensure mechanical integrity:

> EPA will also be conducting a mechanical integrity test. The mechanical integrity test is a pressure test, run at ten percent above the permitted maximum injection pressure and held for thirty minutes. The pressure test is conducted between the 4 ½ inch long string casing and the tubing and packer which will be installed in the well. This test will determine whether the long string casing, tubing and packer have integrity and whether it will be able to withstand the maximum injection pressure permitted for the injection well. After the mechanical integrity test is conducted and the results are successful, the permit requires continuous monitoring of the injection well during its operation to verify its on-going mechanical integrity.

Id. at 2-3. Finally, the Region explained why it believes the permit's monitoring requirements are adequate:

> The permit requires certain injection fluid constituents to be analyzed and the results submitted to EPA every two years and whenever the operator anticipates any change in the injection fluid. The parameters which will be analyzed are listed on page six of the permit. EPA believes that the conditions found in * * * the permit, are sufficient to adequately characterize and monitor the wastewater for injection purposes.[10] The purpose of this monitoring is to verify that the fluids injected in the well are the type of fluids authorized in the permit. In addition, many of the parameters that will be monitored in the injection fluid are also found in shallow ground water. Therefore, if any sample results show shallow ground water contamination, those results can be compared against the injection fluid analyses conducted by the injection well operator to determine whether the injection well may be the cause of that contamination.

Id. at 5. The petitioners fail to confront the Region's response on this issue or explain why the Region's responses were clearly erroneous or otherwise warrant Board review. Further, the Board finds that the permit sets forth detailed construction and operating requirements, as provided in the applicable regulations,that are designed to achieve the overarching purpose of the SDWA and UIC regulations – to protect underground sources of drinking water from contamination.[11]

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[10] The permit requires continuous and extensive monitoring of various parameters for the life of the well, such as surface injection pressure, annular pressure, flow rate and cumulative volume in the Injection Well. *See* Permit pt. II.B. The well must be equipped with a automatic shut-off device in the event of a mechanical integrity failure. *Id*. In addition, the permit requires monitoring of the nature and composition of the injection fluid. *Id*. II.B.3. The petition does not raise any specific objections to these or other permit conditions.

[11] For example, the permit allows injection "only into a formation which is separated from any underground source of drinking water by a confining zone, as defined in 40 C.F.R. § 146.3, that is free of known open faults or fractures within the Area of Review as required by 40 C.F.R. § 146.22." Permit pt. III.A.1. The permit specifically prohibits injection that initiates fractures in the confining zone adjacent to underground sources of drinking water or causes the movement of fluids into an underground source of drinking water. *Id*. pt. III.B.4. The well must be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water for the life of the well. *Id.* pt. III.A.2. The permit prohibits injection until the permittee demonstrates

Overall, the record demonstrates that the Region imposed appropriate permit conditions regarding the well's construction and operating requirements and rationally concluded that these conditions are sufficiently protective of underground sources of drinking water in the vicinity of the well. Petitioners fail to demonstrate that the Region's determination regarding the well's construction, mechanical integrity, and testing and reporting requirements was clearly erroneous or otherwise warrants Board review. *See In re Bear Lake Props., LLC*, 15 E.A.D. 630, 646 (EAB 2012) (the Board typically defers to the permit issuer on fundamentally technical or scientific issues where the permit issuer adequately explains its rationale and supports its rationale in the record).

4. *Injection and Confining Zones*

The Wanchisn/Long Petition expresses concerns regarding the ability of the well's injection zone to contain the injected fluid. *See* Wanchisn/Long Petition at 6. In particular, petitioners ask whether injection will cause fractures or faults into which the injected fluids will flow and whether fluid might travel beyond the injection zone. *Id*. at 6, 8. As with the other issues, petitioners' concerns were raised in identical fashion during the comment period, and the Region provided a detailed response. In response, the Region explained that a confining zone, the Onondaga Formation, is immediately above the injection zone and has "very low permeability giving it the ability to confine and trap fluids from migrating upwards." Responsiveness Summary at 10. In addition, the Region cites other factors preventing migration out of the injection zone such as the permit's limit on injection pressure and the absence of abandoned wells or other penetrations of the injection zone. *Id*. at 11. The petition fails to confront the Region's responses to comments or explain why the responses are clearly erroneous or warrant Board review.

5. *Plugging and Abandonment*

The UIC regulations impose financial requirements for plugging and abandonment of Class II wells. Applicants are required to submit a plan for plugging and abandonment of the well that complies with 40 C.F.R. § 146.10. *See* 40 C.F.R. § 144.31(e)(10). Further, the applicant must "demonstrate and maintain financial responsibility and resources to close, plug, and abandon the

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the well's mechanical integrity and that it has plugged all abandoned wells identified within the area of review. *Id*. pt. III.A.4. Further, as noted above, the permit requires continuous monitoring and an automatic shut-off device in the event of mechanical integrity failure. *Id*. pt. II.B. Finally, the permit contains detailed reporting requirements for any noncompliance. *Id*. pt. II.D.

underground injection operation in a manner prescribed by the [Region] * * *." *Id*. § 144.52(a)(7). In the present case, the permit specifies that the permittee "shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug and abandon the underground Injection Well in accordance with 40 C.F.R. § 144.52(a)(7) in the amount of at least $60,000." Permit pt. III.D.

The Wanchisn/Long Petition asks whether $60,000 is sufficient for plugging and abandonment. *See* Wanchisn/Long Petition at 9. The Region addressed this issue in responding to public comments as follows:

> The cost of plugging a well depends, among others things, upon the depth of the well and how the well was constructed. PGE has submitted a $60,000 letter of credit with a standby trust agreement for the plugging and abandonment of the injection well. The $60,000 cost to plug and abandon the well was determined by a third party plugging contractor. EPA Region III reviewed and approved this submission. In the future the Region under the permit terms can require the permittee to increase the financial responsibility if the Region determines the cost to plug and abandon the well has increased beyond what is currently projected.

Responsiveness Summary at 12. The petition fails to indicate why the Region's response was clearly erroneous or otherwise warrants Board review.[12]

[12] By motion filed with the Board on August 4, 2014, Ms. Wanchisn seeks to supplement the administrative record in this permitting matter with a report prepared by the Government Accountability Office ("GAO"), as well as a summary of that report compiled by Ms. Wanchisn. The Region filed a response to the motion on August 19, 2014. The GAO report, entitled *EPA Program to Protect Underground Sources from Injection of Fluids Associated with Oil and Gas Production Needs Improvement*, reviews EPA's regulations governing the UIC program for Class II injection wells and makes various recommendation for improved oversight. *See* GAO-14-555, Report to Congressional Requesters (June 2014). As this Board has explained, however, well-established principles of administrative law and EPA regulations governing permit proceedings significantly limit the materials that may be considered part of the administrative record. The part 124 regulations governing this proceeding specify the documents that must be included in the administrative record and expressly provide that the "record shall be complete on the date the final permit is issued." 40 C.F.R. § 124.18(c). Consistent with that regulation and general principles of administrative law, the Board generally declines requests to include in an administrative record materials that were not actually before the decisionmaker at the time he or she made the decision that is under review. *See In re Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 516-19

In sum, petitioners Mr. and Ms. Wanchisn and Mr. and Ms. Long have failed to confront the Region's responses to their technical concerns and comments, and have failed to demonstrate that the Region made a clear error of law or fact or abused its discretion in issuing this permit. The Board therefore denies the Wanchisn/Long Petition for review. *See, e.g.*, *In re Seneca Resources Corp.*, 16 E.A.D. 411, 416 (EAB 2014) (denying review where petitioner failed to discuss the response to comments or specify why the response was clearly erroneous or otherwise warranted Board review).

C. *Suzanne Watkins' Petition for Review Fails to Demonstrate That Review Is Warranted*

Ms. Watkins' petition seeks Board review of the Region's permit decision on the following three issues: the potential adverse effect of a surface spill of injection fluids, the possibility that approval of any additional gas production wells could cause fluid to flow out of the injection zone, and the possibility that injected fluids will return to the surface after injection. *See* Watkins Petition at 1-2. For the following reasons, the Board concludes that the petition fails to demonstrate that review is warranted.[13]

The issues raised by Ms. Watkins were raised during the public comment period on the draft permits. The Region provided a substantive and reasoned response to each of these issues. In particular, in its response to public comments, the Region explained that the possibility of surface spills at the well site and possible future production wells in the area are outside the scope of the UIC permitting program. Responsiveness Summary at 1. As the Region stated, "when making the decision whether to issue a UIC permit for PGE, EPA's jurisdiction rests solely in determining whether the proposed injection operation will safely protect underground sources of drinking water * * * from the subsurface emplacement of fluids. Although these other concerns listed may be relevant to residents, EPA is not authorized under the [Safe Drinking Water Act] to address them within a UIC permit." *Id.* at 1-2. The Region stated further that "[t]he Pennsylvania Department of Environmental Protection is the agency responsible

(EAB 2006). Because the GAO report postdates the permit decision in this matter, the Board denies Ms. Wanchisn's request to supplement the record.

[13] Ms. Watkins also appears to question the integrity of the injection well and the Region's area of review/zone of endangering influence determination. *See* Watkins Petition at 2. However, as discussed above, the Region has responded to similar concerns raised during the comment period. *See* Responsiveness Summary at 3-4, 9-10. The petition fails to demonstrate that the Region's response to comments was clearly erroneous or otherwise warrants Board review.

for all surface construction at the proposed well site as well as for surface spill protection." *Id*. at 2. Similarly, the Region responded to concerns regarding the approval of additional production wells by pointing out that the State of Pennsylvania, not EPA, regulates production well development in Pennsylvania, including the issuance of drilling permits for any future production wells. *Id*. at 11.

In response to questions raised during the public comment period concerning the possibility of injected fluids returning to the surface, the Region explained:

> Some comments expressed concern that once the fluid is injected under pressure it will come back to the surface. There is a confining zone, the Onondaga formation * * * immediately above the injection zone. This geologic formation has a very low permeability giving it the ability to confine and trap fluids from migrating upwards.

Id. at 10. Further, as explained above, several other factors serve to keep injected fluids in place such as permit limits on injection pressure and the absence of other wells penetrating the injection zone within the area of review. *Id*. at 11.

Ms. Watkins' petition does not discuss or explain why the Region's responses to the comments were clearly erroneous or otherwise warrant review, as required by 40 C.F.R. § 124.19(a)(4)(ii) and Board precedent. Accordingly, the Board denies Mr. Watkins' petition for review of the Region's permit decision.

V. *CONCLUSION*

For all of the reasons stated above, the Board denies the petitions for review of the Region's permit decision filed by Ms. Suzanne Watkins (UIC Appeal No. 14-63), Ms. Judy and Mr. Paul Wanchisn and Ms. Stacy and Mr. Mark Long (UIC Appeal No. 14-64), and Mr. William J. Woodcock III (UIC Appeal No. 14-65).

So ordered.