

**BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.**

In Re:	:	
	:	
	:	Permit Appeal
Penneco Environmental Solutions, LLC	:	UIC 23-01
	:	
	:	
UIC Permit No. PAS2D702BALL	:	
	:	
	:	
	:	

REGION 3'S RESPONSE TO THE PETITION FOR REVIEW

TABLE OF CONTENTS

TABLE OF AUTHORITIES----- 3
TABLE OF EXHIBITS----- 5
STATEMENT OF COMPLIANCE WITH WORD LIMITATION ----- 7
INTRODUCTION----- 8
STATUTORY AND REGULATORY FRAMEWORK----- 8
PRINCIPLES GOVERNING BOARD REVIEW----- 9
FACTUAL AND PROCEDURAL BACKGROUND -----11
RESPONSE TO PETITION FOR REVIEW-----15
CONCLUSION -----55

TABLE OF AUTHORITIES

FEDERAL STATUTES

Part C of the SDWA, 42 U.S.C. §§ 300h to 300h-9	8
Safe Drinking Water Act, Section 1421 <i>et seq.</i> of the SDWA, 42 U.S.C. § 300h <i>et seq.</i>	8
Section 1421 of the SDWA, 42 U.S.C. § 300h	passim
Section 1422 of the SDWA, 42 U.S.C. § 300h-1	34, 35
Section 1423 of the SDWA, 42 U.S.C. § 300h-2	22
Section 1425 of the SDWA, 42 U.S.C. 300h-4	34, 35
Subtitle C of the Resource Conservation and Recovery Act, 42 U.S.C. § 6921 <i>et seq.</i>	40, 52

EAB CASES

<i>In re American Soda, LLP</i> , 9 E.A.D. 280 (EAB 2000)	55
<i>In re Arecibo & Aguadilla Regional Wastewater Treatment Plants</i> , 12 E.A.D. 97 (EAB 2005).....	18
<i>In re Ash Grove Cement Co.</i> , 7 E.A.D. 387 (EAB 1997)	10
<i>In re Beeland Grp., L.L.C.</i> , 14 E.A.D. 189 (EAB 2008).....	10, 55
<i>In re BP Cherry Point</i> , 12 E.A.D. 209 (EAB 2005)	18
<i>In re Carlota Copper Co.</i> , 11 E.A.D. 692 (EAB 2004).....	18
<i>In re Chevron Michigan</i> , UIC Appeal No. 13-03 (EAB Nov. 7, 2013)	20
<i>In re City of Keene</i> , 18 E.A.D. 720 (EAB 2022).....	18
<i>In re City of Lowell</i> , 18 E.A.D. 115 (EAB 2020)	10, 21
<i>In re City of Palmdale</i> , 15 E.A.D. 700 (EAB 2012).....	11
<i>In re City of Taunton</i> , 17 E.A.D. 105 (EAB 2016), <i>aff'd</i> , 895 F.3d 120 (1st Cir. 2018), <i>cert. denied</i> , 139 S. Ct. 1240 (2019).....	10
<i>In re Dominion Energy Brayton Point, L.L.C.</i> , (Formerly USGEN New England, Inc.) <i>Brayton Point Station</i> , 12 E.A.D. 490 (EAB 2006).....	11
<i>In re Encogen Cogeneration Facility</i> , 8 E.A.D. 244 (EAB 1999)	18
<i>In re Environmental Disposal Systems, Inc.</i> , 12 E.A.D. 254 (EAB 2005)	22
<i>In re Envotech, L.P.</i> , 6 E.A.D. 260 (EAB 1996).....	22, 45, 46, 47
<i>In re Federated Oil & Gas</i> , 6 E.A.D. 722 (EAB 1997).....	22
<i>In re Gen. Elec. Co.</i> , 17 E.A.D. 434 (EAB 2018)	10, 11
<i>In re Gov't of D.C. Mun. Separate Storm Sewer Sys.</i> , 10 E.A.D. 323 (EAB 2002).....	11
<i>In re Jordan Dev. Co., L.L.C.</i> , 18 E.A.D. 1 (EAB 2019).....	10, 25, 47
<i>In re La Paloma Energy Ctr., L.L.C.</i> , 16 E.A.D. 267 (EAB 2014)	10
<i>In re Muskegon Dev. Co.</i> , 18 E.A.D. 88 (EAB 2020)	47
<i>In re NE Hub Partners, L.P.</i> , 7 E.A.D. 561 (EAB 1998), <i>pet. for review denied sub nom. Penn. Fuel Gas, Inc. v. EPA</i> , 185 F.3d 862 (3rd Cir. 1999).....	11, 55
<i>In re Pa. Gen. Energy Co.</i> , 16 E.A.D. 498 (EAB 2014)	55
<i>In re Panoche Energy Center, LLC</i> , 18 E.A.D. 818 (EAB 2023)	9
<i>In re Peabody W. Coal Co.</i> , 12 E.A.D. 22 (EAB 2005).....	11
<i>In re Phelps Dodge Corp.</i> , 10 E.A.D. 460 (EAB 2002).....	22
<i>In re Russell City Energy Ctr., L.L.C.</i> , 15 E.A.D. 1 (EAB 2010), <i>petition denied sub nom. Chabot-Las Positas Cmty. Coll. Dist. v. EPA</i> , 482 F. App'x 219 (9th Cir. 2012).....	11, 20
<i>In re West Bay Exploration Co.</i> , UIC Appeal No. 14-66, unpublished final opinion, (EAB Sept. 22, 2014)	20
<i>In re Windfall Oil & Gas, Inc.</i> , 16 E.A.D. 769 (EAB 2015).....	55

FEDERAL REGULATIONS

40 C.F.R. § 122.32	33
40 C.F.R. § 122.34	33
40 C.F.R. § 124.6.....	13
40 C.F.R. § 124.10	13, 47
40 C.F.R. § 124.11	46
40 C.F.R. § 124.12	46
40 C.F.R. § 124.13	18, 20
40 C.F.R. § 124.15	13
40 C.F.R. § 124.17	13
40 C.F.R. § 124.19	passim
40 C.F.R. § 143.3	12
40 C.F.R. § 144.3.....	12
40 C.F.R. § 144.6.....	passim
40 C.F.R. § 144.12	13
40 C.F.R. § 144.13	29
40 C.F.R. § 144.36	49
40 C.F.R. § 144.52	46
40 C.F.R. § 146.5.....	9, 29, 33
40 C.F.R. § 146.23	48, 53
40 C.F.R. § 146.24	25
40 C.F.R. §§ 146.1–10 and 146.21–24	12, 39
40 C.F.R. §§ 147.1951–147.1955	9
40 C.F.R. Part 124	9, 19, 46
40 C.F.R. Part 144	9
40 C.F.R. Part 146	9, 33, 34

FEDERAL REGISTER NOTICES

Consolidated Permit Regulations: RCRA Hazardous Waste; SDWA Underground Injection Control; CAA Prevention of Significant Deterioration; CWA National Pollutant Discharge Elimination System; and Section 404 Dredge or Fill Programs, 44 FR 34244 (June 14, 1979)	32
Consolidated Permit Regulations: RCRA Hazardous Waste; SDWA Underground Injection Control; CWA National Pollutant Discharge Elimination System; CWA Section 404 Dredge or Fill Programs; and CAA Prevention of Significant Deterioration, 45 FR. 33290 (May 19, 1980)	10, 32, 33
Environmental Permit Regulations, 48 FR 14186 (Apr. 1, 1983)	33
Executive Order 12898, Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (Feb. 11, 1994).....	45, 46, 47
Executive Order 14096, Revitalizing Our Nation’s Commitment to Environmental Justice for All, 88 FR 25251 (Apr. 21, 2023)	46
Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes , 53 FR 25446, (July 6, 1988)	40, 52
Revisions to the Underground Injection Control Regulations for Class V Injection Wells, 64 FR 68545, (Dec. 7, 1999)	41
State Underground Injection Control Programs, 41 FR 36730 (Aug. 31, 1976).....	32
Underground Injection Control Program Criteria and Standards, 46 FR 48243 (Oct. 1, 1981)	40
Underground Injection Control Program Crtieria and Standards, 47 FR 4992 (Feb. 3, 1982)	40
Water Programs: State Underground Injection Control Programs, 44 FR 23738 (Apr. 20, 1979)	32, 33, 34
Water Programs; Consolidated Permit Regulations and Technical Criteria and Standards; State Underground Injection Control Programs, 45 FR 42472 (June 24, 1980).....	34

FEDERAL AGENCY DOCUMENTS

EPA, Classification of Wells Used to Inject Air Scrubber Waste or Water Softener Regeneration Brine Associated with Oil Field Operations (July 1987)40

EPA, Guidance for State Submissions under Section 1425 of the Safe Drinking Water Act (1981).....35

EPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (December 2016) passim

U.S. GAO, Drinking Water: EPA Program to Protect Underground Sources from Injection of Fluids Associated With Oil and Gas Production Needs Improvement (June 2014)31, 39

STATE REGULATIONS

25 Pa. Code § 1.128

25 Pa. Code § 91.5128

STATE STATUTES

Pennsylvania Clean Streams Law, 35 P.S. §§ 691.1–1001.121, 28

OTHER CASES

County of Maui v. Hawaii Wildlife Fund, 140 S. Ct. 1462 (2020)24

Defenders of Wildlife v. Jackson, 791 F. Supp. 2d 96 (D.D.C. 2011).....47

Franklin Twp. v. Pennsylvania, 452 A.2d 718 (Pa. 1982)27

Pennsylvania Environmental Defense Fund v. Commonwealth, 161 A.3d 911 (Pa. 2017)26, 27

Robinson Twp., Washington County v. Com., 83 A.3d 901 (Pa. 2013).....26, 27

CONSTITUTIONAL PROVISIONS

Pennsylvania Environmental Rights Amendment (Article 1, Section 27 of the Pennsylvania State Constitution)
..... passim

LEGISLATIVE MATERIALS

2005 Energy Policy Act, Pub. L. No. 109-58, § 322, 119 Stat. 594 (2005).....17, 23

H. Rept. 96-1348 to accompany H.R. 8117, 96th Congress, 2d Session, September 19, 1980, 5.....36

Safe Drinking Water Act Amendments of 1980, P.L. 96-50236

TABLE OF EXHIBITS

1. Final Permit.
2. Certified Index of the Administrative Record.
3. Draft Permit, Statement of Basis, and Public Notice for Injection Well Sedat #4A.
4. Notice of Draft Permit on EPA’s Public Website.
5. Public Notice in *Pittsburgh Post-Gazette* (May 26, 2022).
6. First Hearing Transcript (June 28, 2022).

7. Email Message Announcing Public Notice of the Draft Permit, PAS2D702BALL, Sent to Region 3 UIC Mailing List and Borough Managers, including attached Public Notice document (July 28, 2022). (Portions redacted to prevent release of Personally Identifiable Information.)
8. Public Notice in *Pittsburgh Post-Gazette* (July 28, 2022).
9. Second Hearing Transcript (August 30, 2022).
10. Written comments from the public. (Portions redacted to prevent release of Personally Identifiable Information.)
11. Final Response to Comments on the draft permit PAS2D702BALL.
12. Revised Notice of Permit Issuance. (Portions redacted to prevent release of Personally Identifiable Information.)
13. EPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (December 2016). (Because the Board limits the size of files that can be downloaded on its eFiling System, this exhibit consists of one document that was broken down into nine files to meet the size limitation. For the exhibits filed with the Board, the Executive Summary is in files 1 and 2; Chapter 3 is in files 2 and 3; and Chapter 8 is in files 6 and 7.)
14. United States General Accountability Office, Drinking Water - EPA Program to Protect Underground Sources from Injection of Fluids Associated With Oil and Gas Production Needs Improvement (GAO) (June 2014).
15. EPA, Guidance for State Submissions under Section 1425 of the Safe Drinking Water Act (May 1981).
16. EPA, Summary of Input on Oil and Gas Extraction Wastewater Management Practices Under the Clean Water Act (May 2020).
17. EPA, Classification of Wells Used to Inject Air Scrubber Waste or Water Softener Regeneration Brine Associated with Oil Field Operations (July 1987).
18. EJSCREEN Results.

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

Exclusive of introductory tables and attachments, this Response does not exceed the 14,000-word limit for responses, specified in 40 C.F.R. § 124.19(d)(3).

INTRODUCTION

The United States Environmental Protection Agency, Region 3 (“Region”) hereby responds to the Petition for review filed by Protect PT and Three Rivers Waterkeeper (“Petitioners”). Pursuant to 40 C.F.R. § 124.19, Petitioners seek review by the Environmental Appeals Board (the “Board”) of an Underground Injection Control (“UIC”) permit issued by the Region to Penneco Environmental Solutions, LLC (“Penneco” or “Permittee”), under the Underground Injection Control Program, Part C of the Safe Drinking Water Act (“SDWA”), Section 1421 *et seq.* of the SDWA, 42 U.S.C. § 300h *et seq.* Final Permit, Exhibit 1 (Exhibits in this Response referred to as “Exh.”). Attached to this Response is a certified index of the administrative record for the challenged permit. Certified Index for the Administrative Record, Exh. 2.

For the reasons set forth below, the Petitioners have failed to meet their burden to obtain review by the Board, and therefore the Board should deny the Petition.

STATUTORY AND REGULATORY FRAMEWORK

Congress enacted the SDWA in 1974 to ensure that the Nation’s sources of drinking water are protected against contamination and “to prevent underground injection which endangers drinking water sources.” Section 1421(b)(1) of the SDWA, 42 U.S.C. § 300h(b)(1). Part C of the SDWA, 42 U.S.C. §§ 300h to 300h-9, is designed to protect underground sources of drinking water (“USDWs”) from contamination caused by the underground injection of fluids. Among other things, the SDWA directs EPA to promulgate permit regulations containing minimum requirements for State UIC programs. Section 1421 of the SDWA, 42 U.S.C. § 300h. In

states such as Pennsylvania without an approved UIC program, EPA is the permitting authority, directly implementing the UIC regulations and issuing permits. *Id.*

EPA's UIC regulations are contained in 40 C.F.R. Parts 144–148. Part 144 establishes the regulatory framework, including permitting requirements, for EPA-administered UIC programs. Part 146 sets out technical criteria and standards for UIC permits. In addition, state-specific requirements applicable for Pennsylvania are set forth in 40 C.F.R. §§ 147.1951–147.1955. Procedural requirements applicable to UIC permits are found in 40 C.F.R. Part 124.

The UIC regulations classify injection wells as Class I, II, III, IV, V, or VI wells. 40 C.F.R. §§ 144.6 and 146.5. The classes are defined by the types of fluids injected, whether for the disposal of wastewater or some other purpose such as the mining of minerals. The permit at issue here is for a Class II well. Class II wells are wells which 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
- (3) For storage of hydrocarbons which are liquid at standard temperature and pressure.

40 C.F.R. §§ 144.6(b) and 146.5(b).

PRINCIPLES GOVERNING BOARD REVIEW

The Board's review of UIC permits is governed by Agency permitting regulations at 40 C.F.R. Part 124, which authorize parties to file petitions for review of EPA permit decisions. 40 C.F.R. § 124.19(a)(1); *In re Panoche Energy Center, LLC*, 18 E.A.D. 818, 819 (EAB 2023). EPA's intent in promulgating these regulations was that this "review should be only sparingly

exercised.” Consolidated Permit Regulations: RCRA Hazardous Waste; SDWA Underground Injection Control; CWA National Pollutant Discharge Elimination System; CWA Section 404 Dredge or Fill Programs; and CAA Prevention of Significant Deterioration (“Final Consolidated Rules”), 45 FR 33290, 33412 (May 19, 1980); *see also In re Beeland Grp., L.L.C.*, 14 E.A.D. 189, 195–96 (EAB 2008). 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)(i); *In re Jordan Dev. Co., L.L.C.*, 18 E.A.D. 1, 4 (EAB 2019).

The Board ordinarily denies a petition for review of a permit decision (and thus does not remand it) unless the petitioner demonstrates that the permit decision is based on a clearly erroneous finding of fact or conclusion of law, or involves an exercise of discretion that warrants review under the law. 40 C.F.R. § 124.19(a)(4)(i)(A)–(B); *see, e.g., In re La Paloma Energy Ctr., L.L.C.*, 16 E.A.D. 267, 269 (EAB 2014). A petitioner must demonstrate why the permit issuer’s responses to submitted comments on the draft permit are clearly erroneous or otherwise warrant review. 40 C.F.R. § 124.19(a)(4)(ii); *In re City of Lowell*, 18 E.A.D. 115, 131 (EAB 2020); *see In re City of Taunton*, 17 E.A.D. 105, 111, 180, 182–83, 189 (EAB 2016), *aff’d*, 895 F.3d 120 (1st Cir. 2018), *cert. denied*, 139 S. Ct. 1240 (2019). When evaluating a challenged permit decision for clear error, the Board examines the administrative record that serves as the basis for the permit to determine whether the permit issuer exercised “considered judgment.” *Lowell*, 18 E.A.D. at 132 (citing *In re Gen. Elec. Co.*, 17 E.A.D. 434, 560–61 (EAB 2018); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417–18 (EAB 1997)). As a whole, the record must demonstrate that the permit issuer “duly considered the issues raised in the comments” and ultimately

adopted an approach that “is rational in light of all information in the record.” *In re Gov’t of D.C. Mun. Separate Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002); see *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 568 (EAB 1998), *pet. for review denied sub nom. Penn. Fuel Gas, Inc. v. EPA*, 185 F.3d 862 (3rd Cir. 1999).

In reviewing an exercise of discretion by the permit issuer, the Board applies an abuse of discretion standard. See *In re City of Palmdale*, 15 E.A.D. 700, 704 (EAB 2012). The Board will uphold a permit issuer’s reasonable exercise of discretion if that decision is cogently explained and supported in the record. See *Ash Grove Cement*, 7 E.A.D. at 397 (“[A]cts of discretion must be adequately explained and justified.”).

On matters that are fundamentally technical or scientific in nature, the Board typically defers to a permit issuer’s technical expertise and experience, if the permit issuer adequately explains its rationale and supports its reasoning in the administrative record. See *In re Peabody W. Coal Co.*, 12 E.A.D. 22, 50–51 (EAB 2005); *Gen. Elec.*, 17 E.A.D. at 514–15; *In re Dominion Energy Brayton Point, L.L.C., (Formerly USGEN New England, Inc.) Brayton Point Station*, 12 E.A.D. 490, 510, 560–62, 645–47, 668, 670–74 (EAB 2006); see also, e.g., *In re Russell City Energy Ctr., L.L.C.*, 15 E.A.D. 1, 12, 39–42, 60–66 (EAB 2010), *petition denied sub nom. Chabot-Las Positas Cmty. Coll. Dist. v. EPA*, 482 F. App’x 219 (9th Cir. 2012); *NE Hub Partners*, 7 E.A.D. at 570–71. Clear error or abuse of discretion in a permit issuer’s technical determination cannot be “established simply because petitioners document a difference of opinion or an alternative theory.” *NE Hub Partners*, 7 E.A.D. at 567.

FACTUAL AND PROCEDURAL BACKGROUND

On July 23, 2021, Penneco applied for a Class II brine disposal permit for the conversion and operation of a well identified as Sedat #4A, located in Plum Borough, Pennsylvania. The well is an existing gas production well that Penneco wants to convert into a commercial injection well for disposal of brine from its own gas and oil production wells and from gas and oil production wells owned by other operators. The application for this permit included information on the well's construction, the geologic conditions surrounding the site (including shallow groundwater information), the well's proposed operation and monitoring conditions, and information about nearby drinking water wells and nearby oil and gas production wells.

Following receipt of Penneco's application, the Region conducted a review of the application. As part of this review, the Region evaluated the geology of the injection and confining zones, and determined whether the well's construction, its proposed operation and monitoring conditions, the plugging and abandonment plan, and proposed arrangements for financial responsibility met the regulatory requirements for Class II wells, in particular, 40 C.F.R. Part 144, and §§ 146.1–10 and 146.21–24. The Region reviewed Penneco's application to ensure that, if the Region granted the permit, USDWs¹ in the area would be protected from endangerment from the injection operations. *See* Section 1421(b)(1)(B) of the SDWA, 42 U.S.C.

¹ A USDW is defined as an aquifer or its portion which contains less than 10,000 milligrams per liter (mg/L) of total dissolved solids and which is being or can be used as a source of drinking water. 40 C.F.R. § 144.3. This definition is meant to protect potential sources of underground drinking water, even if such water is not currently being consumed and would require treatment, including desalination, before use. For comparison's sake, the secondary maximum contaminant level for total dissolved solids recommended for public water systems under the SDWA is 500 mg/l. *See* 40 C.F.R. § 143.3.

§ 300h(b)(1)(B); 40 C.F.R. § 144.12.

Based on that review, as set out in 40 C.F.R. § 124.6, the Region developed a draft permit and a statement of basis. Draft Permit and Statement of Basis, Exh. 3. As required by 40 C.F.R. § 124.10, the Region provided public notice of the draft permit on May 26, 2022, requested comments, and offered the opportunity for a public hearing. The notice included a notice on EPA's Website, Exh. 4, and notice in a public newspaper, Exh. 5. In response to many requests, on June 28, 2022, EPA held a virtual public hearing that 61 people attended where 23 people provided comments. First Hearing Transcript, Exh. 6.

Based upon requests for an in-person hearing, EPA decided to hold a second public hearing, which took place on August 30, 2022, in Plum Borough. See Email Message Announcing Public Notice of the Draft Permit, PAS2D702BALL, Sent to Region 3 UIC Mailing List and Borough Managers, including attached Public Notice document (July 28, 2022); and Public Notice in *Pittsburgh Post-Gazette* (July 28, 2022), Exhs. 7 and 8. Approximately 55 people attended and 19 people provided comments. Second Hearing Transcript, Exh. 9. EPA also extended the period for submitting written comments until September 7, 2022. *Id.* About 92 commentors, both individuals and organizations, provided written comments on the draft permit. Written Comments from the Public, Exh. 10.

Consistent with 40 C.F.R. §§ 124.15 and 17, after reviewing the information before the Region, including the comments, on September 21, 2023, the Region issued the Final Permit to Penneco along with the Response to Comments. Response to Comments ("RTC"), Exh. 11. The Region emailed a Notice of Final Permit along with the RTC and the Final Permit to all who

provided written comments. Consistent with the Board's Order of February 28, 2024, the Region issued a new Notice of Permit Issuance on March 7, 2024. Revised Notice of Permit Issuance, Exh. 12.

In reaching this permit decision, the Region found, as part of its technical evaluation, that the lowermost USDW at the Sedat #4A well site is approximately 412 feet below the surface. Statement of Basis at 2 (Statement of Basis' own page numbering). The injection zone is approximately 94 feet thick and lies at a depth of 1,706 feet to 1,800 feet below the ground surface in the well's Area of Review; therefore, the USDW is separated from the injection zone by approximately 1,328 feet. *Id.* at 3. A confining zone of shale about 80 to 90 feet thick, located immediately above the injection zone, will help to contain the injected fluid within the injection zone. *Id.*

The Final Permit includes conditions developed to prevent the movement of fluids into USDWs and to ensure prompt notification to EPA in the case of unforeseen potential fluid migration. Section II.D.3, Final Permit at 9. The Final Permit requires the well to have surface casing cemented back to the surface from a depth of approximately 564 feet, 152 feet below the lowermost USDW. *See* Section III.A.2.c, *id.* at 12.

The Final Permit also includes an injection volume limit, as well as monitoring requirements, to assure the proper operation of the well. Sections III.B.3 and II.C, *id.* at 13 and 6–8. One monitoring requirement mandates the Permittee have a monitoring well that will allow monitoring of the fluid level in the injection zone. Section II.C.4, *id.* at 7. Another monitoring requirement directs the Permittee to test the specific gravity of each truckload of

fluid delivered to the well for injection. Section II.C.5, *id.* at 7–8. A formula for calculating the maximum injection pressure is part of the Final Permit and is meant to prevent fracturing of the injection zone during operation. Section III.B.4.b, *id.* at 14; Statement of Basis at 4. Additionally, the Permittee must continuously monitor the injection well for surface injection pressure, flow rate, and cumulative volume. Section II.C.2, Final Permit at 7; Response to Comment No. 17, RTC at 32–33.

Finally, part of the Final Permit’s requirements ensure that the Permittee maintains the well’s mechanical integrity by pressure testing the well. Section II.C.7, Final Permit at 8. The Permittee must also continuously monitor the well’s annular pressure to ensure mechanical integrity. Section II.C.2, *id.* at 7; Response to Comment No. 17, RTC at 32–33. (For more discussion of the Permit’s conditions, see Response argument 9, *infra.*)

RESPONSE TO PETITION FOR REVIEW

The Petitioners have raised eight issues they contend form a basis for review of the UIC Permit. However, Petitioners do not provide sufficient justification for the Board to review the Final Permit.

In issuing the Final Permit, the Region acted reasonably based on the information contained in the record and did not abuse its discretion. Therefore, the Board should deny this petition for review.

The Region’s first six arguments concern the Board’s jurisdiction or Petitioners’ misinterpretations of law. The last three arguments concern the Region’s authority under and compliance with the SDWA.

1. **The Board should dismiss three of the Petitioners' issues because the issues were not raised during the public comment period in accordance with 40 C.F.R. Part 124 and also because the documents the Petitioners cite in support of the arguments for the three issues were not cited by any party during the public comment period. (Issues A, C, and H)²**
 - a. **The procedural requirements of the Board require dismissal of the three issues because the issues were not raised during the public comment period.**

The Petitioners did not raise three of their issues during the public comment period.

Also, no other person or entity raised these issues during the public comment period. As a result, 40 C.F.R. § 124.19(a)(4)(ii) bars the Petitioners from raising them in this appeal.

The Petitioner's first issue is that the Final Permit violates the SDWA because it would allow the Permittee to inject into a Class II well brine and other waste fluids from oil and gas production which results from hydraulic fracturing. (Issue A, Petition at 7–12, is discussed more fully in Response argument 7, *infra.*). The Petitioners claim that hydraulic fracturing is an "unconventional" type of oil or natural gas production. According to the Petitioners, the classification regime for Class II wells at 40 C.F.R. 144.6 (b)(1) only provides for the injection of fluids that results from "conventional" oil or gas production; therefore, the Final Permit is invalid.

The second issue asserted by Petitioners is that a provision in the SDWA violates the Pennsylvania Environmental Rights Amendment (Article 1, Section 27 of the Pennsylvania State Constitution) because the provision exempts from regulation under the SDWA hydraulic

² Given the large number of claims raised by the Petitioners in their Petition, the Region identifies their claims based on the letters used in Part V of the Petition.

fracturing as a method for producing oil and gas. Issue C in the Petition at 36–39 and discussed more fully in Response argument 3, *infra*.

The 2005 Energy Policy Act, Pub. L. No. 109-58, § 322, 119 Stat. 594, 694 (2005), amended the SDWA by enacting the exclusion. The provision (commonly referred to as the Halliburton Loophole), by defining what constitutes “underground injection” for purposes of the SDWA, exempts from EPA’s regulation the underground injection of fluids or propping agents (other than diesel fuels) used to hydraulically fracture geologic formations for oil, gas, or geothermal production. Section 1421(d)(1)(B)(ii) of the SDWA, 42 U.S.C. § 300h(d)(1)(B)(ii). According to the Petitioners, “The Halliburton Loophole would allow Penneco to dispose of ‘fluids’ containing chemicals linked to negative health effects including cancer, kidney and liver disease, fertility impairment and reduced sperm counts without being subject to regulation [under] the [SDWA]; this violates Pennsylvania’s Environmental Rights Amendment.” Petition at 38–39.

The third issue is the Petitioners’ argument that the Final Permit does not require adequate financial assurance for plugging and abandoning the well. Issue H in the Petition at 52–55 and discussed more fully in Response argument 9, *infra*. Section III.D of the Final Permit imposes financial assurance duties on the Permittee, including the requirement that the Permittee maintain financial resources of approximately \$13,397 to close, plug, and abandon the well. Section III.D, Final Permit at 14–15. The Petitioners allege that the dollar amount required is insufficient when compared to other estimates of what it costs to plug a well.

The permit appeal regulations require that a petitioner demonstrate that any issue or argument raised on appeal was previously raised during the comment period. 40 C.F.R. 124.19(a)(4)(ii); *In re City of Keene*, 18 E.A.D. 720, 754 (EAB 2022). This requirement ensures that a Region issuing a permit has an opportunity to address any potential problems. *In re Arecibo & Aguadilla Regional Wastewater Treatment Plants*, 12 E.A.D. 97, 116–17 (EAB 2005).

Beyond that, preservation of an issue for the Board's review is a matter of the Board's jurisdiction. 40 C.F.R. § 124.19(a)(4)(ii); *In re BP Cherry Point*, 12 E.A.D. 209, 218–220 (EAB 2005). Generalized questions and concerns during the comment period are not sufficient to preserve a more specific challenge during appeal. *In re Carlota Copper Co.*, 11 E.A.D. 692, 722–23 (EAB 2004).

A petitioner may raise an issue that was not raised during the public comment period if the petitioner demonstrates that the issue was not reasonably ascertainable, such as a difference between the draft and final permits resulting from a change made after the end of the public comment period. 40 C.F.R. §§ 124.13 and 19(a)(4)(ii); *see In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 n.8 (EAB 1999).

Neither the Petitioners nor any member of the public raised the three issues set out above during the public comment period in either a specific or general manner. First Hearing Transcript, Second Hearing Transcript, and Written comments from the public. Exhs. 6, 9, and 10.

While Petitioners may argue that changes the Region made to the Final Permit justify review of the three issues, the Region made only three changes to the Final Permit from what it

proposed for the draft permit. As part of its review of the public comments, the Region added an additional monitoring requirement, dropped a redundant requirement (Draft Permit repeated requirement to test for specific gravity that is in Section II.C.5, Final Permit at 7), and corrected a typographical error. Response to Comment No. 1, RTC at 3. Thus, the changes the Region made to the Final Permit are unrelated to the three issues the now raise for the first time.

Because Petitioners have not demonstrated that any of the three issues they raise now were raised during the public comment period nor have the Petitioners provided any justification for raising the issues now because of differences between the Draft and Final Permits, the Board should dismiss these issues.

- b. The Board should dismiss the three issues because the documents that the Petitioners cite as support for their position on the three issues were not cited to during the public comment period and, therefore, Petitioners cannot cite to them as support for their arguments.**

Besides raising issues for the first time in their Petition that were not raised during the public comment period, Petitioners compound their noncompliance with the regulations at 40 C.F.R. Part 124 by relying on materials submitted with the Petition that were not referred to or submitted during the public comment period by them or any other commentors. In support of Issue A, the Petition relies on Petitioners' Attachments 10 (Petition at 7, n.22), 11 (*Id.* at 10, n.31) and 24 (*Id.* at 8, n.26). These materials were not referred to or submitted during the comment period.

Also, for Issue A, Petitioners rely on a book, *Environmental Impacts from the Development of Unconventional Oil and Gas Reserves* (*Id.* at 9, n.29) and a newsletter (*Id.* at 9, n.30) as supporting materials. Besides not being referencing during the public comment period, these two items were not provided as attachments to the Petition.

In support of Issue C, the Petition again relies on Petitioners' Attachments 10 (*Id.* at 37, n.110) and 24 (*Id.* at 38, n.113). The Petition also relies on Attachments 21 (*Id.* at 35, n.107), 22 (*Id.* at 36, n.108), and 23 (referred to in footnote as attachment 22) (*Id.* at 37, n.112). Again, these materials were not referred to or submitted during the comment period.

In support of Issue H, the Petitioners refer to materials that relate to litigation in state court. *Id.* at 53–54. In addition to these materials not being provided during the comment period, Petitioners did not submit any of the materials as attachments to the Petition which would have provided the Region with an opportunity to respond to them.

The regulations requiring commentors to raise all reasonably ascertainable issues and all reasonably available arguments during the public comment period also require that “[C]ommenters shall make supporting materials not already included in the administrative record available to EPA as directed by the Regional Administrator.” 40 C.F.R. § 124.13. Based on these regulations, the Board has frequently barred petitioners from relying on documents on appeal that could have been, but were not, submitted to the permit issuer during the comment period. *In re West Bay Exploration Co.*, UIC Appeal No. 14-66 at 13, unpublished final opinion, (EAB Sept. 22, 2014), citing *In re Chevron Michigan*, UIC Appeal No. 13-03 at 16 (EAB Nov. 7, 2013), and *Russell City*, 15 E.A.D. at 34 n.35, 43 n.46.

At no point during the comment period did the Petitioners or any other commentor refer to or submit the attachments and other materials listed above. Consequently, the Board should decline to consider the attachments submitted and references to them in the Petition.³

Further, because Petitioners failed to submit important supporting materials for these issues with their Petition, the Petition has little or no technical support for these contentions. As noted *supra*, a petitioner must demonstrate why the permit issuer's response to those objections is clearly erroneous or otherwise warrants review. 40 C.F.R. § 124.19(a)(4)(ii); *Lowell*, 18 E.A.D. at 131. The Petitioners have failed to do this. On this basis alone, the Board should deny review of these issues.

- 2. Because the Board is a tribunal of limited jurisdiction, it does not adjudicate claims based on state law. Therefore, the Board should deny review of Petitioners' claims regarding the Pennsylvania Environmental Rights Amendment and Clean Streams Law. (Issues B–F and H)**

As noted in the prior section, Petitioners have asserted that the Final Permit is invalid because it does not comply with the requirements of the Pennsylvania Constitution's Environmental Rights Amendment (Issue B in the Petition at 13–36). They also assert the Final Permit does not comply with the Pennsylvania Clean Streams Law, 35 P.S. §§ 691.1–1001.1

³ In addition, although the Petitioners presented the Environmental Justice issue (Issue F) during the public comment period, their argument also substantially depends upon materials that were not submitted or referred to during the public comment period. Petition at 47, nn.127–30, Attachments 25–28; Petition at 48, nn.131–32, Attachments 30–32; and Petition at 49, n.134, Attachment 29. The Board should also dismiss Issue F on this basis as well.

(Issue E in the Petition at 44–46.).⁴ Besides the broad general argument that the Petitioners make for the Environmental Rights Amendment’s reach in the Petition’s Issue B section, the Petitioners also rely on the Amendment to support their arguments for Issues C–F and H.

These assertions ignore the Board’s precedent of limiting its adjudication of UIC well permits to interpretation of the SDWA and the UIC Permit regulations promulgated thereunder. *See In re Federated Oil & Gas*, 6 E.A.D. 722, 725 (EAB 1997) (“[I]t is well established that the Board will only review permit conditions claimed to violate the requirements of the Safe Drinking Water Act or of the applicable UIC regulations.”). Because of this limitation, the Board has consistently declined to review matters of state and local law. *In re Environmental Disposal Systems, Inc.*, 12 E.A.D. 254, 294–95 (EAB 2005); *In re Envotech, L.P.*, 6 E.A.D. 260, 272 (EAB 1996); *See also In re Phelps Dodge Corp.*, 10 E.A.D. 460, 514 (EAB 2002).

Depending upon a state’s law, a person or entity seeking to use underground injection for disposal may have additional responsibilities under state law. Section 1423(d) of the SDWA, 42 U.S.C. § 300h-2(d); Section I.D.11, Final Permit at 5. However, since it has been the Board’s consistent position that issues of state and local law are outside the Board’s jurisdiction in UIC Permit appeals, the Board should reject this issue for review.

In addition to the Petitioners’ primary argument about the Final Permit violating the Environmental Rights Amendment in Issue B, the Petitioners also rely on the Amendment to

⁴ Pennsylvania is in the process of consolidating its statutes, so some laws are consolidated while others are not. The Clean Streams Law is still unconsolidated and most easily found through Westlaw.

support their arguments for Issues C–F and H (e.g., Issue C relates to the Halliburton Loophole). Therefore, the Board should decline to review any of the issues in the Petitioners’ brief based on or related to the Environmental Rights Amendment for the reasons provided in this section (i.e., Issues B–F and H).

3. Petitioners’ arguments against the “Halliburton Loophole” are an inaccurate representation of the exclusion. (Issue C)

As discussed previously, with an amendment to the SDWA in the 2005 Energy Policy Act, Congress prohibited EPA from regulating the hydraulic fracturing of oil and gas production wells as part of the UIC Permit Program. This amendment, the so-called “Halliburton Loophole” provision (in this Response referred to as the “Exclusion”) defined what constitutes “underground injection” for purposes of the UIC Program by adding the following exclusion to the jurisdiction of the SDWA:

- (d)(1) Underground injection. The term “underground injection” —
 - (A) means the subsurface emplacement of fluids by well injection; and
 - (B) excludes
 - (i) . . .
 - (ii) the underground injection of fluids or propping agents (other than diesel fuels) pursuant to *hydraulic fracturing operations* related to *oil, gas, or geothermal production* activities.

Section 1421(d)(1)(B)(ii) of the SDWA, 42 U.S.C. § 300h(d)(1)(B)(ii) (emphasis added).

The Petitioners have misunderstood the Exclusion and/or have made an irrelevant argument. The Exclusion does not affect EPA’s authority to regulate the disposal by injection of hydraulic fracturing wastewater; Hydraulic fracturing wastewater meaning produced water that is the byproduct of hydrocarbon production and which flows to the

surface through the production well along with oil and gas. Section 1421(b)(2)(A) of the SDWA, 42 U.S.C. § 300h(b)(2)(A). The Exclusion only exempts from regulation the injection of fluids used to hydraulically fracture geologic formations for oil and gas production. Section 1421(d)(1)(B)(ii) of the SDWA, 42 U.S.C. § 300h(d)(1)(B)(ii). Since the Final Permit only regulates the disposal of hydraulic fracturing wastewater that comes back to the surface, the Petitioners' argument regarding the Exclusion is irrelevant and the Board should not review it.

4. While the *Maui* decision may affect whether an NPDES Permit is necessary for a UIC well, it has no bearing on EPA's issuance of the UIC Permit and therefore, the Board should not review this contention. (Issue D)

The Petitioners contend that the injection well needs a National Pollutant Discharge Elimination System ("NPDES") permit in addition to a UIC Permit. The Region addressed this issue in the Response to Comments. As the Region stated in the Response to Comment No. 18 in the RTC (RTC at 34), in *County of Maui v. Hawaii Wildlife Fund*, 140 S. Ct. 1462 (2020) ("*Maui*"), the issue before the U.S. Supreme Court was whether a wastewater treatment plant on the Island of Maui, Hawaii, needed an NPDES permit for discharging pollutants into underground injection wells when, after injection into the wells, the pollutants traveled through groundwater and were discharged to surface waters, i.e., surface waters that were "waters of the United States," in that instance, the Pacific Ocean. The Court held that such injection requires an NPDES permit if the discharge through groundwater to surface water is the "functional equivalent" of a discharge directly to surface water. *Maui*, 40 S. Ct. at 1477. While this means that some UIC wells may also need an NPDES permit, the need for an NPDES permit is not one of the criteria for consideration when EPA issues a UIC permit for a Class II

well. The criteria for issuing a UIC permit for a Class II well are limited to those set forth in 40 C.F.R. § 146.24. *Jordan*, 18 E.A.D. at 26. EPA cannot deny or issue a permit outside of the site-specific factors allowed in the regulations. *Id.* Because 40 C.F.R. § 146.24 does not require a Class II UIC permit applicant to have applied for or obtained an NPDES permit in order to receive a UIC permit, an NPDES permit is not needed to receive a Class II UIC well permit.

The requirements for a permittee to obtain a Class II UIC permit are independent of the need for a permittee to obtain an NPDES permit. Therefore, in this instance, the Board should dismiss and not review this objection to the Class II permit for Sedat #4A well.

5. The Pennsylvania Environmental Rights Amendment only applies to state and local government in Pennsylvania and, therefore, does not apply to the Federal Government's actions, including issuing UIC permits under the SDWA. (Issue B–F and H).

The Petitioners assert that the Environmental Rights Amendment restricts the Region's issuance of UIC permits. The Region argues in Response argument 2, *supra*, that the Board should not review the Amendment-based issues the Petitioners raise because the Board has limited jurisdiction over UIC permits and does not hear matters based on state or local law. If the Board decides to review this state constitutional provision, the Board should alternatively deny review of all the Petitioners' Environmental Rights Amendment claims based on the following second jurisdictional argument.

Based on the Pennsylvania state caselaw interpreting the Environmental Rights Amendment, the Amendment does not apply to EPA's issuance of this Federal Class II UIC well

permit. The Environmental Rights Amendment is limited in application to state and local government in Pennsylvania. It is inapplicable to the Federal Government.

The Environmental Rights Amendment provides the following:

Natural resources and the public estate.

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the *Commonwealth* shall conserve and maintain them for the benefit of all the people.

Article I, Section 27 of the Pennsylvania Constitution (emphasis added).

According to the Pennsylvania Supreme Court, the Amendment establishes two separate rights or goals for the Commonwealth's citizens. *Robinson Twp., Washington County v. Com.*, 83 A.3d 901, 950 (Pa. 2013)(plurality opinion later adopted by a majority of the Pennsylvania Supreme Court in *Pennsylvania Environmental Defense Fund v. Commonwealth* ("PEDF II"), 161 A.3d 911, 930–32 (Pa. 2017)). The two separate rights or goals are (1) the identification of protected rights for the citizens, e.g., a right to clean air and pure water, that prevents the Commonwealth from acting in certain ways (*Robinson Twp.*, 83 A.3d at 951); and (2) the common ownership by the Commonwealth's people of Pennsylvania's public natural resources and the establishment of a public trust for the resources with the Commonwealth as the trustee. *Id.* at 954–57. On its face, the text of the Environmental Rights Amendment only identifies the Commonwealth in prescribing who "shall conserve and maintain" the resources identified. Further, the Pennsylvania Supreme Court has made it clear that the Amendment only applies to Pennsylvania government, state and local. This is true for both the rights

protected by the Amendment: the protected rights for the citizens, *id.* at 952 citing *Franklin Twp. v. Pennsylvania*, 452 A.2d 718, 722 and n.8, (Pa. 1982) (“[C]onstitutional obligation binds all government, state or local, concurrently.”) and the establishment of the public trust, *PEDF II*, 161 A.3d at 931–32 & n.23 (“[A]ll agencies and entities of the Commonwealth government, both statewide and local, have a fiduciary duty to act toward the corpus with prudence, loyalty, and impartiality . . .”).

As an article in a state constitution, the Environmental Rights Amendment only applies to Pennsylvania state and local government. Therefore, it does not apply to actions of the Federal Government, including EPA’s issuance of the Final Permit, which is the subject of this appeal. Therefore, the Board should reject the Petitioners’ citation of the Environmental Rights Amendment as justification for reviewing the Final Permit.

6. The regulation cited by the Petition as implementing Pennsylvania’s Clean Streams Law does not apply to a UIC permit because it is a requirement for an agency of the Commonwealth to implement, not EPA. (Issue E)

The Region has argued in Response argument 2, *supra*, that the Board should not review the Petitioners’ argument based on the Clean Streams Law because the Board is an adjudicative body with limited jurisdiction over UIC permits under the SDWA and does not hear matters based on state or local law. If the Board decides to review this matter of state law, the Board should alternatively deny review of the issue because, as with its arguments based on the Environmental Rights Amendment, the state law does not apply to EPA’s issuance of the Federal Class II UIC well permit at issue here.

In contending that the Final Permit violates Pennsylvania’s Clean Streams Law, Petitioners rely on regulations promulgated by the Pennsylvania Department of Environmental Protection (“DEP”). They contend the Final Permit violates DEP’s rules and, as a result, should have been denied. Specifically, the Petitioners contend that Final Permit will violate 25 Pa. Code § 91.51(b). Petition at 44. However, this contention ignores the plain meaning of the rule, especially when considered in relation to 25 Pa. Code § 91.51(a). 25 Pa. Code § 91.51 reads as follows:

- (a) The *Department* will, except as otherwise provided in this section, consider the disposal of wastes, including stormwater runoff, into the underground as potential pollution, unless the disposal is close enough to the surface so that the wastes will be absorbed in the soil mantle and be acted upon by the bacteria naturally present in the mantle before reaching the underground or surface waters.
- (b) The following underground discharges are prohibited:
 - (1) Discharge of inadequately treated wastes, except coal fines, into the underground workings of active or abandoned mines.
 - (2) Discharge of wastes into abandoned wells.
 - (3) Disposal of wastes into underground horizons unless the disposal is for an abatement of pollution and the applicant can show by the log of the strata penetrated and by the stratigraphic structure of the region that it is improbable that the disposal would be prejudicial to the public interest and is acceptable to the *Department*. Acceptances by the *Department* do not relieve the applicant of responsibility for any pollution of the waters of this Commonwealth which might occur. If pollution occurs, the disposal operations shall be stopped immediately.
- (c) New wells constructed for waste disposal shall be subject to this section.

25 Pa. Code § 91.51 (Emphasis added.).

The regulations define “Department” as the “The Department of Environmental Protection of this Commonwealth.” 25 Pa. Code § 1.1. The introductory clause to 25 Pa. Code § 1.1 sets out that the definitions apply to all of Part 1 of the Title 25 of Pennsylvania Code. *Id.* 25 Pa. Code § 91.51 is in Subpart C of Part 1. 25 Pa. Code § 91.51. Read together, the two sections,

25 Pa. Code §§ 1.1 and 91.51, make it clear that Section 91.51(b), by citation to the *Department*, is part of a regulatory regime that a Pennsylvania state agency, the DEP, will implement, not EPA. The Board should deny review of the Final Permit based on this issue.

7. Petitioners have not met their burden of proof to show why EPA’s reasonable interpretation of the ambiguous phrase “conventional oil or natural gas production” at 40 C.F.R. § 144.6(b)(1) is clearly erroneous or an abuse of discretion. (Issue A)

Petitioners argue that the use of “conventional” preceding “oil or natural gas production” in the definition of Class II wells in 40 C.F.R. § 144.6(b)(1)⁵ prohibits EPA from issuing Class II permits for the disposal of wastewater resulting from “unconventional” gas production. Petition at 7. Instead, Petitioners argue that the SDWA limits injection into Class II wells to only fluids from “conventional” oil and natural gas operations.⁶ *Id.* at 12. Petitioners oppose injecting wastewater from unconventional operations into Class II wells because the wastewater contains hydraulic fracturing fluids used to produce oil and natural gas that comes from “unconventional formations,” that is, from low permeability formations. *Id.* at 7, 8.

Response argument 1, *supra*, contends that the Petitioners cannot raise this issue for review because it was not raised during the public comment period. However, if the Board decides to consider this argument, it should nonetheless find in the Region’s favor.

In response to the Petitioners’ argument, the Region asserts that the scope of the definition of “conventional oil or natural gas production” is not clear from the UIC regulations

⁵ The definition is repeated in 40 C.F.R. § 146.5(b)(1).

⁶ Petitioners also argue elsewhere in the Petition that wells used for disposal of fracking waste should be permitted as Class IV wells. However, since new Class IV wells are banned or severely restricted as set forth in 40 C.F.R. § 144.13, the Region does not address that argument here.

or the relevant regulatory history. Further, the rule references production, not formations. In addition, the statute does not use the term “conventional” but rather groups the wastewater from all oil and natural gas production into one type of UIC well, a Class II well. Consistent with the statute, EPA has developed and consistently applied a broad but reasonable interpretation of the ambiguous phrase “conventional oil or natural gas production,” which allows appropriate well classification for all oil and gas production waste streams and thus, meets the purposes of the SDWA by protecting USDWs.

For this discussion of Petitioners’ Issue A, a “conventional formation” refers to an adequately permeable oil and natural gas reservoir where the economic extraction of gas may only require drilling to bring oil or gas to the surface. An “unconventional formation” refers to formations that have low permeability which prevents the oil and gas from flowing through the rocks into wells in economic amounts when just using drilling. Combining hydraulic fracturing with drilling allows for the economic extraction of oil and gas from unconventional formations.

a. Hydraulic fracturing is used to produce oil and natural gas from both conventional and unconventional formations.

A 2016 study by EPA of the effects of hydraulic fracturing on the water cycle described “hydraulic fracturing” as follows:

During hydraulic fracturing, hydraulic fracturing fluid is injected down an oil or gas production well and into the targeted rock formation under pressures great enough to fracture the oil- and gas-bearing rock. The hydraulic fracturing fluid usually carries proppant (typically sand) into the newly-created fractures to keep the fractures “propped” open. After hydraulic fracturing, oil, gas, and other fluids flow through the fractures and up the production well to the surface, where they are collected and managed.

EPA, Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States, (“HF 2016 Study”) ES-5 (internal cross references omitted), December 2016. Exh. 13.

For about fifty years after its introduction in the late 1940s, hydraulic fracturing was used to increase oil and natural gas production from vertical wells in conventional formations. *Id.* at 3-3. In 1980, when EPA adopted the current UIC well classification system, using hydraulic fracturing this way was a common practice for the oil and gas production industry. *Id.* at 3-4. Today, hydraulic fracturing is still used for oil and natural gas production from conventional formations, particularly from oil and natural gas sources that are older. *Id.* at ES-6 to ES-7, 3-1.

Around 2000, a major shift in the use of hydraulic fracturing occurred that caused a surge in its use. Using directional or horizontal drilling, coupled with hydraulic fracturing, allowed oil and gas production to expand to unconventional formations. *Id.* at ES-6, 3-4. This resulted in greatly increased production from such previously uneconomical sources of oil and natural gas. U.S. GAO, Drinking Water: EPA Program to Protect Underground Sources from Injection of Fluids Associated With Oil and Gas Production Needs Improvement 2–3 (“GAO Report”) (June 2014).⁷ Exh. 14. Using hydraulic fracturing in unconventional formations results in the wastewater that Petitioners argue should not be allowed in Class II wells. Petition at 7–8.

b. EPA’s rule and the regulatory history for the rule defining Class II wells do not provide a meaning for “conventional oil and natural gas production,” and, as a result, the precise contours of the phrase as applied to newer types of

⁷ The *GAO Report* was an audit by the GAO of EPA’s and selected states’ UIC programs’ effectiveness in regulating the disposal of wastewater from oil and gas production.

hydraulic fracturing is unclear.

In 1976, EPA proposed, but did not adopt, rules to control the underground injection of various fluids, including fluids from oil and gas related wells. State Underground Injection Control Programs, 41 FR 36730, 36742–45. (Aug. 31, 1976). While the proposed rule included requirements for brine from oil and gas production wells, it did not include the phrase “conventional oil and natural gas production” in the regulatory text, nor did it discuss the phrase in the rule’s preamble. *Id.* at 36730–36, 36742–45.

EPA proposed the present classification system for UIC wells in 1979 and adopted it in 1980. The rulemaking began when EPA issued a proposed set of technical requirements for UIC wells. Water Programs: State Underground Injection Control Programs (“Proposed Part 146 Technical Requirements”), 44 FR 23738 (Apr. 20, 1979)

The Proposed Part 146 Technical Requirements rule was related to the proposal of what became the Final Consolidated Rules. (This Response refers to the proposal of the Final Consolidate Rules as the “Proposed Consolidated Rules.”), Consolidated Permit Regulations: RCRA Hazardous Waste; SDWA Underground Injection Control; CAA Prevention of Significant Deterioration; CWA National Pollutant Discharge Elimination System; and Section 404 Dredge or Fill Programs 44 FR 34244 (June 14, 1979). With the Proposed Consolidated Rules, EPA brought together permit program requirements governing the UIC permit program and three other permit programs. *Id.* at 34244.

In the Proposed Consolidated Rules, EPA proposed to adopt the current system of dividing the types of UIC wells into classes of wells. As part of the delineation of Class II wells,

the proposed 40 C.F.R. § 122.34(b) included the “[w]ell injection of produced water or other fluids which are brought to the surface in connection with oil or natural gas production . . .” *Id.* at 34282. (In the Proposed Part 146 Technical Requirements, 40 C.F.R. § 146.5 would incorporate by reference the 40 C.F.R. § 122.34 classification system. Proposed Part 146 Technical Requirements, 44 FR at 23758.)

When EPA adopted the Final Consolidated Rules in 1980, it altered the definition of what qualified as a Class II well from the 1979 proposal by adding the term “conventional” to modify “oil or natural gas production.” This was part of a slight rewording of the classification section. Specifically, Class II wells would include wells which injected fluids “(1) [w]hich are brought to the surface in connection with *conventional* oil or natural gas production . . .” 40 C.F.R. § 122.32(b)(1)⁸. Final Consolidated Rules, 45 FR at 33437 (emphasis added). This was the first time EPA used the term “conventional” in connection with oil and gas production in its UIC regulations.

The preamble to the notice for the Final Consolidated Rules discussed the classification system for UIC wells without indicating why EPA added the term “conventional” to the phrase “oil or natural gas production.” *Id.* at 33329. The same is true for the preamble to the adopted version of the UIC permit programs technical requirements in 40 C.F.R. Part 146. Water Programs; Consolidated Permit Regulations and Technical Criteria and Standards; State

⁸ In the Final Consolidated Rules, EPA renumbered the sections so the section defining UIC well classes moved to 40 C.F.R. § 122.32. Then in 1983 EPA moved the definition to 40 C.F.R. § 144.6. Environmental Permit Regulations, 48 FR 14186, 14192–93 (Apr. 1, 1983).

Underground Injection Control Programs, 45 FR 42472, 42479–80 (June 24, 1980). There, EPA did not indicate why it added the term “conventional” to the Class II definition.⁹

- c. As with the rule and its regulatory history, the SDWA and its legislative history do not define or use the phrase “conventional oil and natural gas production” or the term “unconventional.”**

Section 1425 of the SDWA, 42 U.S.C. 300h-4, allows States to obtain UIC Permit Program primacy for certain types of injection wells that qualify as Class II wells. As discussed in the next subsection, Section 1425 imposes a less stringent standard for state UIC primacy than Section 1422 of the SDWA, 42 U.S.C. § 300h-1, which sets the primacy requirements for other classes of UIC wells. Section 1425 addresses, among others, wells that inject “brine or other fluids which are brought to the surface in connection with oil or natural gas production or natural gas storage operations . . .” Section 1425 (a)(1) of the SDWA, 42 U.S.C. § 300h-4(a)(1).

Section 1421 of the SDWA, 42 U.S.C. § 300h, authorizes EPA to issue the UIC Permit Program’s regulations, including the requirements for state programs. Neither Section 1421 nor Section 1425 include the word “conventional” to describe oil and natural gas activities such as production. They also do not use the term “unconventional” to describe the activities or to exclude hydraulic fracturing wastewater from Class II wells. This is also the case for the

⁹ Twice in the preamble to the Proposed Part 146 Technical Requirements rule, EPA used the term “conventional” to mean “typical” or “normal.” First, while discussing the meaning of the term “well injection,” EPA used “conventional” to describe the methods used to create many wells. 44 FR at 23740.

Second, while discussing its regulatory approach to Class IV and V wells, EPA characterized certain types of wells as “conventional” again meaning “typical” or “normal” when it noted the differences in design between Classes I-III wells and Classes IV and V. *Id.* at 23747. In both instances, EPA did not use the term “conventional” to limit the types of fluids that would be injected into Class II wells.

legislative history for these sections.

While the Petitioners allege that “the disposal of ‘fluids’ from unconventional oil and gas operations is prohibited under the SDWA,” Petition at 12, neither the SDWA nor the UIC regulations have such a prohibition. The term “unconventional,” as referred to by the Petitioners, is never used in the statute (or the rules).

Therefore, the statute clearly classifies all wastewater from oil and gas production into a single category. As a result, the most straightforward interpretation of the regulatory definition is that it parallels this broad classification.

- d. While the SDWA and its legislative history do not provide a meaning for “conventional oil and natural gas production,” they do evidence Congress’s interest in oil and natural gas production while at the same time protecting drinking water, which suggests that the phrase has an expansive meaning.**

Sections 1425 and 1421 both provide support for EPA’s broader interpretation of “conventional oil or natural gas production.” As described in the prior subsection, Section 1425 authorizes States to obtain UIC Permit Program primacy for certain types of injection wells that qualify as Class II wells. Section 1425(a) describes such activities broadly and includes “the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production or natural gas storage operations . . .” within the section’s coverage. Section 1425(a)(1), 42 U.S.C. § 300h-4(a)(1).

The Section 1425 standard for Class II primacy is less prescriptive and less exacting than the Section 1422 standard applicable to primacy approval for all other well classes. EPA, Guidance for State Submissions under Section 1425 of the Safe Drinking Water Act 2 (1981),

Exh. 15. (EPA is left with a “great deal more discretion to the State to develop and EPA to approve State UIC programs under Section 1425.”). The Safe Drinking Water Act Amendments of 1980, P.L. 96-502, added SDWA Section 1425, and the Congressional intent was to allow state programs to continue their existing underground injection programs related to oil and gas without the burden of additional requirements. The House committee report accompanying the legislation that added Section 1425 noted:

Most of the 32 states that regulate underground injection related to the recovery or production of oil or natural gas (or both) believe they have programs already in place that meet the minimum requirements of the Act including the prevention of underground injection which endangers drinking water sources . . . It is the Committee’s intent that states should be able to continue these programs unencumbered with additional Federal requirements if they demonstrate that they meet the requirements of the Act . . . So long as the statutory requirements are met, the states are not obligated to show that their programs mirror either procedurally or substantively the Administrator’s regulations.

U.S. House of Representatives, Committee on Interstate and Foreign Commerce, Safe Drinking Water Act Amendments, *H. Rept. 96-1348 to accompany H.R. 8117*, 96th Congress, 2d Session, September 19, 1980, 5.)

Therefore, Section 1425 of the SDWA and corresponding legislative history suggests that Congress intended for states to obtain primacy to regulate Class II wells, regardless of the type of oil or natural gas production.

In addition, SDWA Section 1421, which authorizes EPA to issue regulations for the UIC Permit program, specifically underscores Congress’s interest in oil and natural gas production while protecting USDWs. Section 1421(b)(2)(A) of the SDWA, 42 U.S.C. § 300h(b)(2)(A) prohibits

EPA regulatory requirements for state programs that “interfere or impede (A) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production . . .” unless such regulation is “essential” to the protection of USDWs. These provisions do not distinguish between the types of formations that are the source of the fluids or if hydraulic fracturing is part of the production process.¹⁰

As described in the next subsection, EPA has consistently interpreted its Class II regulations to parallel the broad statutory provisions, thus providing consistent and appropriate regulation of all the wastewaters from oil and natural gas production. Therefore, EPA’s interpretation of the rule is consistent with Congresses’ intent as evidenced by the SDWA’s text and legislative history.

- e. While the term “conventional oil or natural gas production” at 40 C.F.R. § 144.6 (b)(1) has some ambiguity, longstanding practice nationwide has been to apply the Class II definition and corresponding regulations to wastewater, including all hydraulic fracturing wastewater, from both conventional and unconventional formations thus ensuring consistent and adequate protection of USDWs.**

The unambiguous practice of this Region and EPA nationwide has been to apply the Class II permitting requirements to the disposal of waste fluids from hydraulic fracturing for all oil and gas well production activities. HF 2016 Study at ES-38, 8-23. This practice makes sense because there are similarities between oil and gas production fluids that return to the surface because of conventional and unconventional oil and gas production activities. See EPA,

¹⁰ Congress’s interest in oil and natural gas production is also evidenced by its passage of the Halliburton Loophole discussed elsewhere in this Response.

Summary of Input on Oil and Gas Extraction Wastewater Management Practices Under the Clean Water Act 5, 7–9 (May 2020), (“Summary of Input”), Exh. 16 (The summary sets out results from a study EPA undertook to better understand wastewater generation, management, and disposal options at the regional, state, and local levels for *both* conventional and unconventional onshore oil and gas extraction.). Such fluids include brine plus chemicals and other materials some of which are added to assist with hydraulic fracturing. *Id.*

EPA’s interpretation of the Class II well definition to encompass waste fluids from oil and natural gas production from wells, including fluids from hydraulic fracturing of unconventional formations, is reasonable and one that EPA has held consistently. It is evidenced by the HF 2016 Study and the GAO Report.

EPA published the HF 2016 Study in December 2016 to report on the potential impacts on drinking water resources of hydraulic fracturing of unconventional formations. HF 2016 Study at ES-3. According to the study, “[a]vailable information suggests that hydraulic fracturing wastewater is mostly managed through Class II wells.” *Id.* at ES-38.

The study also reported that the majority of wastewater from all oil and gas operations is managed via Class II wells. *Id.* at 8-3. At the same time, the study recognized the nature of the chemicals that could be in the hydraulic fracturing wastewater. *Id.* at ES-18 to ES-21. Finally, the study stated that “the aboveground disposal of hydraulic fracturing wastewater, in particular, can impact drinking water resources.” *Id.* at ES-40. (for aboveground disposal methods, *id.* at ES-39.)

In 1980, EPA identified the major pathways that contaminants can take to enter USDWs. GAO Report at 21. To prevent fluids from moving along these pathways and potentially contaminating underground sources of water, EPA designed several safeguards. *Id.* at 24–25. The safeguards described in the GAO Report were and continue to be required by EPA’s regulations. *Id.* at 26–32 (for the Area of Review, geologic characteristics of injection zone and confining layers; casing, cementing, tubing, and packer; mechanical integrity testing; injection pressure; plugging and abandonment; and monitoring and reporting, *see* 40 C.F.R. §§ 146.1–10 and 146.21–24; GAO Report at 32). When GAO discussed the Class II Program safeguards with EPA officials for the report, the officials told GAO that, generally, the safeguards established at the UIC program’s inception remained sufficient to ensure the protection of underground sources of drinking water. *Id.* at 25

Given the reliance on underground injection as a means of disposal and the nature of the materials that are injected, EPA’s interpretation of the rule is reasonable and consistent, and the Agency’s regulations ensure that communities’ potential sources of drinking water are protected.

f. Apart from issuing Class II permits for the injection of wastewaters from unconventional formations, EPA’s other actions support the Region’s decision to issue a Class II permit for this well.

Apart from issuing Class II permits, EPA has taken other actions that show it consistently views Class II wells as the correct classification of wells for the disposal of wastewater from all oil and natural gas production. First, in 1982, EPA broadened a part of the Class II wells definition not in dispute in this appeal to allow the disposal of wastewater from gas plants that

are an integral part of producing gas from oil and gas fields along with produced brines, so long as the waste waters are not a hazardous waste at the time of injection. Underground Injection Control Program Criteria and Standards, proposed, 46 FR 48243, 48245, 48250 (Oct. 1, 1981); adopted 47 FR 4992, 4997, 4999 (Feb. 3, 1982)

Next, in 1987, EPA issued a guidance to respond to a query about using Class II wells to dispose of air scrubber waste and water softener regeneration brine associated with oil field operations. EPA, Classification of Wells Used to Inject Air Scrubber Waste or Water Softener Regeneration Brine Associated with Oil Field Operations (July 1987), Exh. 17. The guidance clearly allows for the disposal of this wastewater from oil and natural gas related operations into Class II wells. *Id. at 2.* (The Region notes that the guidance lists four types of wastewater that qualify for disposal by Class II wells. For three types, the guidance uses the phrase “oil and gas production” to describe the wastewater’s source. In each instance, the guidance omits the term “conventional” as a modifier to the phrase. *Id. at 2.*)

In 1988, as discussed further in Response argument 9, *infra*, EPA determined that many types of wastes from oil and gas production would not be subject to Subtitle C of the Resource Conservation and Recovery Act (“RCRA”), 42 U.S.C. § 6921 *et seq.* Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes (“Regulatory Determination”), 53 FR 25446, (July 6, 1988). While EPA found that oil and gas production wastewaters may include hazardous and radioactive components, underground injection using Class II UIC wells was a proper way to dispose of the wastewater. *Id. at 25448, 25456.*

Finally, in 1999, EPA changed the classification of radioactive disposal wells from Class V to Class I. Revisions to the Underground Injection Control Regulations for Class V Injection Wells, 64 FR 68545, (Dec. 7, 1999). The preamble to the notice of the rule change states that naturally occurring radioactive material found in hydraulic fracturing wastewater from oil and natural gas operations could continue to be injected into Class II wells. *Id.* at 68558.

EPA's consistent position that using Class II wells for the disposal of wastewaters from oil and natural gas production makes sense considering the protections that EPA requires for Class II wells. As Response argument 9, *infra*, describes, the UIC permitting process for Class II wells provides significant safeguards to protect USDWs with respect to all oil and gas well production wastewaters.

For example, prior to issuing this permit, to avoid providing a pathway for possible USDW contamination, the Region conducted an extensive review of the information in the permit application including information about the injection site, the surrounding area, and the injection well's configuration. As another safeguard, the permit imposes operational requirements, including a limit on maximum injection pressure, monitoring parameters and mechanical integrity testing.

g. Adopting the Petitioners' arguments would be unreasonable and could have adverse impacts on the environment.

Requiring the injection of some hydraulic fractured wastewater into Class II wells while requiring other hydraulic fracturing wastewaters be injected into Class I wells would be unreasonable because of the wastewaters' similarity. See Summary of Input at 5 ("[T]he EPA

embarked on this study to better understand produced water generation, management, and disposal options at the regional, state and local levels for both conventional and unconventional onshore oil and gas extraction.”); *id.* at 7 n.10; *id.* at 7–8; and figure 3.1, *id.* at 9. Given the reliance by the industry on Class II wells for disposal, Petitioners’ argument could lead to an increase in aboveground disposal, such as land application or discharge into surface waters, which may have increased adverse impacts to the environment. See HF 2016 Study at ES-39 and 8-1.¹¹ In contrast, the wastewater injected into Sedat #4A well will be subject to significant geologic constraints. Response to Comment 2, RTC at 7–8.

h. Petitioners have failed to meet their burden to justify review of this issue by the Board.

To be consistent with the Board’s standard for review at 40 C.F.R. § 124.19(a)(4)(ii), the Petitioners must demonstrate why the Board should reject EPA’s interpretation of “conventional oil and natural gas production,” as clearly erroneous or an abuse of discretion. They have not done so.

First, Petitioners have not provided any support for their interpretation that EPA intended to preclude unconventional wells when, while adopting the Class II definition in 1980, the Agency added the term “conventional” to the phrase “oil and natural gas production.” EPA

¹¹ The Petition’s discussion of the unconventional production issue (Issue A) does not reference injecting the hydraulic fracturing wastewater into Class I wells (40 C.F.R. § 144.6(a)). Petitioners’ discussion of the Environmental Rights Amendment (Issue C) argues that the Amendment mandates meeting Class I permit requirements for disposing of fluids from unconventional formations. Petition at 17, 30–31. For the reasons stated elsewhere in this Response, the Board should reject all the Petitioners’ arguments regarding the Environmental Rights Amendment, including this one.

did not explain in the preamble to the rule's adoption in 1980 or in the rule itself what it intended by applying the term "conventional" when referring to the production of oil and natural gas. Interpreting "conventional" and "unconventional" now is complicated by the terms' evolving application to aspects of the oil and gas industry over the years. HF 2106 Study at 3-7 "[A]s hydraulic fracturing has increasingly become a standard industry technique, the word "unconventional" is less apt than it once was to describe these oil and gas reservoirs. In a sense, 'the unconventional has become the conventional' (citation omitted)."

Second, Petitioners' argument rests on distinguishing between conventional and unconventional oil and gas wells. They allege, "[t]here are differences between the types of conventional wells and unconventional ('fracked') wells. (footnote citation omitted)" Petition at 8. However, although there may be differences between how the two types of wells are drilled, they have not cited any material demonstrating the differences between the types of waste fluids that result from production from conventional formations versus unconventional formations. Given the similarities between oil and gas production fluids that return to the surface because of all oil and gas production activities, EPA's approach of issuing Class II permits that allow for the injection of fluids from both types of formations is reasonable. See Summary of Input 5, 7-9.

Finally, the regulation itself contradicts the Petitioner's argument. Application of 40 C.F.R. § 144.6(b)(1) is based upon the injection of the "*fluids* which are brought to the surface in connection with . . . conventional oil or natural gas *production*" (emphasis added). 40 C.F.R. § 144.6(b)(1) does not say anything about the permeability of different types of formations.

Hence, Petitioners' emphasis on distinguishing between conventional and unconventional wells based on the permeability of different types of formations and not on the fluids that result from oil or natural gas production seems misplaced given the text of the regulation. Therefore, the Board should concur with EPA's application of the rule in this instance given EPA's reasonable interpretation of the term "conventional oil or natural gas production" and decline to review this issue.

- i. In conclusion, the Board should decline to review this issue because the Petitioners have not met the requisite burden to show why EPA's reasonable interpretation of the ambiguous term "conventional oil or natural gas production" at 40 C.F.R. § 144.6(b)(1) is clearly erroneous or an abuse of discretion.**

Given the ambiguity of the phrase "conventional oil and natural gas production," EPA's interpretation of this phrase to allow the disposal of the wastewater from all hydraulic fracturing into Class II wells is a reasonable reading that is consistent with longstanding agency practice both in Region 3 and EPA nationwide, as well as the statutory provisions governing oil and gas wastes. It provides consistent and appropriate regulation for the injection of these wastewaters. Further, EPA's decision to issue a Class II UIC permit for the disposal of wastewater from hydraulic fracturing of both conventional and unconventional formations is a rational application of the regulations considering all the information in the record.

- 8. In issuing the Final Permit, the Region appropriately considered and sufficiently addressed the Environmental Justice concerns raised by the community and therefore the Board should decide not to review this issue. (Issue F)**

Petitioners have asserted several bases for contending that, for Environmental Justice reasons, the Region should not have issued the Final Permit. First, they contend that the Final

Permit violates the Commonwealth of Pennsylvania's Environmental Rights Amendment. Petition at 47. The Region addressed the Amendment in Response argument 4, *supra*, and counters that, on substantive grounds, it applies to Pennsylvania state and local government actions, not to actions by Federal Agencies. Also, as discussed in the Region's argument 2, *infra*, the Board has consistently refrained from deciding matters of state and local law.

The Petitioners' next contention is that the Region violated EPA's "Environmental Justice Policy" by using the Halliburton Loophole in issuing the Final Permit. *Id.* The Region first replies that, as discussed in Response argument 3, *supra*, Petitioners have misunderstood the Exclusion and/or have made an irrelevant argument.

Also, it is unclear what Petitioners are referring to as EPA's "Environmental Justice Policy" since they do not provide a citation or reference to any specific policy by name. *Id.* However, the Region's actions were consistent with the Board's holding in the *Envotech* decision which interpreted Executive Order (EO) 12898, Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (Feb. 11, 1994) . *Envotech*, 6 E.A.D. at 276-82. EO 12898 directs Federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and

permitted by law.¹² The remainder of this section discusses EPA’s accounting for Environmental Justice considerations in complying with the SDWA and issuing the Final Permit.

The Board has found that EPA does have authority under specific regulatory provisions to address Environmental Justice in the UIC permitting program. As established by the Board, these provisions allow EPA to address Environmental Justice in two ways: (1) by expanding public participation (*Envotech*, 6 E.A.D. at 281; public participation requirements, *see* 40 C.F.R. Part 124, for example, 40 C.F.R. §§ 124.11 and 124.12); and (2) by exercising its discretion under its UIC omnibus regulatory authority under 40 C.F.R. § 144.52(a)(9) to “impose, on a case-by-case basis, permit conditions ‘necessary to prevent the migration of fluids into underground sources of drinking water’” in order to protect the drinking water “upon which the minority or low-income community may rely.” *Envotech*, 6 E.A.D. at 281–82.

The Board stated in *Envotech* that EPA may and “should, as a matter of policy, exercise its discretion under 40 C.F.R. § 144.52(a)(9) to include within its assessment of the proposed well an analysis focusing particularly on the minority or low-income community whose drinking water is alleged to be threatened.” *Id.* at 282. Based on this analysis, EPA may impose permit conditions on a case-by- case basis under this omnibus authority to ensure that proposed injection wells will not result in the migration of fluids to underground sources of drinking

¹² Shortly before the Region issued the final permit, EO 14096, Revitalizing Our Nation’s Commitment to Environmental Justice for All, 88 FR 25251 (Apr. 21, 2023), was signed. The Executive Order, which supplements EO 12898, calls for the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability. EPA, as a Federal Agency, is in the process of ensuring that its actions comply with the new Executive Order’s directives.

water used by communities with Environmental Justice concerns. EPA’s authority applies in all cases, “regardless of the composition of the community surrounding the proposed injection site.” *Id.* at 280–81.

EPA can only include conditions that address Environmental Justice concerns to the extent that it has authority to do so under the SDWA and the UIC regulations. *Id.* at 280. EO 12898 “self-limits its applicability in any given situation to what existing law allows.” *In re Muskegon Dev. Co.*, 18 E.A.D. 88, 106 (EAB 2020) (citing *Jordan*, 18 E.A.D. at 13, which cites EO 12898, § 6-608, 59 FR at 7632).¹³

As previously noted, the Region provided public notice of the draft permit, requested comments, and provided the opportunity for a public hearing, as required by 40 C.F.R. § 124.10. Consistent with EOs 12898, the Region screened for disproportionate and adverse environmental and health impacts around the well using EPA’s EJScreen tool.¹⁴ The tool did not identify any potential community with Environmental Justice (EJ) concerns within the reviewed area. Response to Comment No. 6, RTC at 19. The screening for this well looked at EJ indices within a one-mile radius of the well and demographic information within a three-mile radius of

¹³ The Region notes that Federal Agency compliance with an Executive Order is not judicially reviewable. *Defenders of Wildlife v. Jackson*, 791 F. Supp. 2d 96, 121 (D.D.C. 2011) (“Plaintiffs cannot use the review provisions of the APA to enforce an Executive Order that is not subject to judicial review.”).

¹⁴ EJScreen is the EPA's environmental justice mapping and screening tool that provides the EPA with a nationally consistent dataset and approach for combining environmental and demographic socioeconomic indicators. Information about EJScreen is available at <https://www.epa.gov/ejscreen/what-ejscreen> (last accessed February 29, 2024).

the well. EJSCREEN Results, Exh. 18.

Although no potential community with EJ concerns was identified, the Region exercised its discretion and took steps to expand public participation; provide opportunities for the meaningful engagement of potentially affected persons; and address community concerns about protection of its drinking water. Based on requests from the public, the Region held a second public in-person meeting and extended the comment period to allow for comprehensive feedback. Response to Comment No. 6, RTC at 20. After fully considering the information before the Region, including the comments, the Region issued the Final Permit with appropriate conditions meant to address concerns raised in comments from the public.

The Response to Comments sets out that, when it issues a UIC permit, EPA may include conditions to protect drinking water for any potential community with EJ concerns even if the community does not formally qualify as a community with Environmental Justice concerns based on the factors EPA uses for its Environmental Justice assessments. Response to Comment No. 6, RTC at 19–21. To protect the community’s drinking water supply, EPA added more stringent provisions to the Final Permit than the minimum required by the UIC permit regulations.

First, the Final Permit requires the Permittee to test the well’s mechanical integrity at least once every two years. Section II.C.7, Final Permit at 8. This is more stringent than the requirement in 40 C.F.R. § 146.23(b)(3) that requires mechanical integrity testing at least once every five years.

Second, the Region added a provision to the monitoring requirements that the injection well immediately cease injection if the fluid level in a monitoring well rises to within 100 feet of the bottom of the USDW. Section II.C.4, Final Permit at 7. This permit requirement, which the UIC regulations do not require, will protect the USDW by limiting the volume of fluid injected in the #4A well. Response to Comment No. 11, RTC at 23.

Finally, the Region limited the term of the Final Permit to a fixed term of ten years. Final Permit at 1. This is more protective of the drinking water than EPA's regulations' requirement because the rules authorize a Class II UIC permit to have a full allowable term that lasts for the life of the well. 40 C.F.R. § 144.36(a). The fixed term will give the Region an opportunity to evaluate the well's performance and reassess permit conditions for any renewed permit.

Given the authority granted to EPA by the SDWA and UIC regulations, the Region reasonably identified, analyzed, and addressed the community's Environmental Justice concerns. As a result, the Board should decline to review this issue.

9. The factual record in this appeal demonstrates that the Region, by using the sound application of the Region's technical expertise, issued a permit with conditions that were based on a thorough evaluation of relevant facts. (Specifically for Issues G and H and generally for the other issues)

To varying degrees, underneath all the issues the Petitioners have raised is the argument that EPA failed to meet its obligations under the SDWA when it issued the Final Permit for the Sedat #4A Well. Some of the specific deficiencies alleged by the Petitioners are the following:

- The Final Permit does not protect against the possibility that an accident or unforeseen occurrence will lead to the contamination of a USDW. Petition at 27.

- The Region has failed to determine all the chemicals that Penneco will inject into the well and that the known pollutants going into the well are hazardous. For example, *id.* at 11 and 15.
- The Permittee’s other injection well, the Sedat #3A Well, failed and contaminated neighboring drinking water supplies, and this demonstrates that it is likely that the Sedat #4A Well will fail as well. For example, *id.* at 21.
- The Final Permit does not require that sufficient funds are set aside to ensure that proper plugging or abandonment will take place at the end of the well’s useful life. *Id.* at 52–55. (Issue H)

Each of these specific claims is addressed below.

As a general response to the criticisms throughout the Petition, the Region states that it closely evaluated the Permittee’s application and applied its technical expertise in developing the draft permit and responding to comments. The Response to Comments document details the points the Region considered before it issued the Final Permit. Response to Comment No. 2 discusses the siting issues that the Region addressed when it evaluated the suitability of the site. RTC at 4–13. The Response to Comment No. 3 lays out the permit conditions the Region placed in the Final Permit based upon its evaluation of the data and information in the Permittee’s application as well as data from other sources. *Id.* at 13–17. Additional support is provided by the Responses to Comments No. 4, *id.* at 17–18; and No. 17, *id.* at 32–34.

- a. **The Final Permit requires the Permittee to take steps that will serve to protect against accidents and malfunctions.**

In response to the Petitioners' specific concern about guarding against accidents or well malfunctions that might cause contamination of a USDW, the Final Permit requires Penneco to take several steps to demonstrate and monitor the well's mechanical integrity. The Permittee must conduct an initial mechanical integrity test using pressure testing before beginning injection (Section II.D.2.b, Final Permit at 8, and Section III.A.4, *id.* at 13.) and conduct the test at least once every two years after injection starts as well as when the protective casing or tubing is removed from the well, the packer is resealed, a well failure is likely, or as requested by EPA. Sections II.C.7, *id.* at 8, and II.E.1, *id.* at 12.

In addition to mechanical integrity testing, during the well's operation, the Permittee must continuously monitor, among other indicators, the well's annular pressure at the wellhead. Section II.C.2, *id.* at 7. In the event of any significant increase or decrease in pressure, the well must be equipped to automatically shut down. *Id.* Such a change in pressure would indicate a problem with the well and its mechanical integrity.

b. Although the chemicals in the injected wastewater may present the possibility of environmental contamination, EPA's Program for issuing UIC Permits is reasonably structured to prevent the contamination of surface and ground water.

With respect to the Petitioners' concern about the nature and types of fluid injected, the wastewater injected into the well is limited by 40 C.F.R. § 144.6(b)(1) to fluids produced solely in association with oil and gas production, which includes the additives necessary to maintain the injection wells. Section III.B.2, *id.* at 13. This reflects the classification of the well as a Class II well.

Because of the regulatory determination EPA made in 1988, while the individual constituents within the fluids produced from an oil or gas operation may be toxic, hazardous, or radioactive, these fluids are not subject to Subpart C of RCRA with its “cradle to grave” management requirement. Regulatory Determination, 53 FR 25446, 25456 (July 6, 1988). As noted in Response argument 7, *supra*, EPA concluded that the UIC’s Permit Program was an effective way to deal with these fluids.¹⁵ *Id.* at 25455–56.

The UIC permitting program provides an alternative by which injection activities may occur in a regulated and environmentally protective manner. This ensures that best management practices are identified and employed to protect USDWs. Further, by providing a regulatory framework whereby the fluids can be safely managed, the UIC Permit Program seeks to prevent oil and gas fluids from discharging uncontrollably into a stream or a river, or from overflowing and/or seeping into the groundwater from aboveground containment pits.

Also as noted in the Response to Comments, public and privately owned wastewater treatment facilities discharging to surface waters are unable to adequately remove many constituents found in brine, for example, chlorides and bromides. Response to Comment No. 7, RTC at 21. When these constituents are discharged to streams or rivers, they can pose a serious risk to fish and other aquatic organisms living in the stream as well as contribute to serious health effects for people who obtain their drinking water from these streams and rivers. *Id.* The

¹⁵ EPA based the 1988 regulatory determination on the report to Congress cited by the Petition at 36, n.108. 53 FR at 25446.

UIC Permit Program provides a safer alternative.

In addition, based upon 40 C.F.R. § 146.23(b)(1), Section II.C.3 (Final Permit at 7) requires the Permittee to monitor every two years for a specified list of chemicals and other values that include pH, Total Dissolved Solids, and Barium. Section 146.23(b)(1) gives the Regions the discretion to require monitoring for those parameters the Regions deem critical for USDW protection.

Based on its technical expertise, the Region 3 UIC Program has determined that the testing parameters listed in Section II.C. 3 of the Final Permit would enable the Region to establish, if groundwater contamination occurred, whether the contamination was the result of fluid migration from a Class II well, such as the Sedat #4A well. Response to Comment No. 17, RTC at 33. While the required testing parameters may not be as extensive as the Petitioners desire, the parameters reflect some of the typical constituents found both in the injection fluid and shallow ground water. In case ground water contamination occurs during the operation of the well, using these testing parameters, EPA will be able to compare samples collected from groundwater with the injection fluid analysis to help determine whether operation of the injection well may be the cause of the contamination.

c. EPA and DEP examined Petitioners' claims about the Sedat #3A Well and found that they were without merit.

The Petition repeats the erroneous claims Petitioners and others made during the public comment about the Sedat #3A Well, an existing Class II well that the Permittee already

operates. These are claims that, after evaluation by EPA and DEP, proved invalid. Response to Comment No. 12, RTC at 23–28.

The Response to Comment 12 provides an adequate response that addresses the Petitioners' erroneous claims about the Permittee's other injection well. While the Region provides a short response here, the Region requests that the Board deny review of this issue because, like many other issues identified in this Response, it is outside the scope of review for this permit because it relates to a separate, already permitted action not now before the Board for review.

d. Based on the Region's expertise, the financial assurance the Permittee must provide for plugging and abandoning the well is adequate. (Issue H)

Petitioners' Issue H asserts that the financial assurance that the Region has required for plugging and abandonment is insufficient. Petition at 52–54. As discussed in Response argument 1, *supra*, the Region objects to the Petitioners raising this issue in this appeal since the issue was not preserved for appeal plus they rely on materials that were neither provided during the public comment period nor with the Petition.

If the Board decides to consider this issue, the Region first notes that Region agrees with the Petitioners' concern about the problems caused when injection wells are not plugged at the end of their use or plugged incorrectly. The financial assurance for plugging or abandonment is a means to prevent the problems.

As part of the Region's technical evaluation of the permit application, the Region reviewed the estimated costs for plugging provided by independent contractors. Statement of

Basis at 5. Based upon the Region's expertise with UIC well permits and general information about the industry, the Region concluded that the estimate was reasonable, and set the financial assurance condition in the Final Permit based on the estimate. *Id.*

When issues raised by an appeal challenge a Region's technical judgments, clear error or a reviewable exercise of discretion is not established simply because petitioners document a difference of opinion or an alternative theory regarding a technical matter. In cases where the views of the Region and the petitioner indicate bona fide differences of expert opinion or judgement on a technical issue, the Board typically will defer to the Region. *In re American Soda, LLP*, 9 E.A.D. 280, 296 (EAB 2000), *quoting*, *NE Hub Partners*, 7 E.A.D. at 567–568.

Further, regarding the Region's ultimate decision to issue the Final Permit and the support for the decision the Region stated in the Response to Comments, to warrant review by the Board, it is not sufficient for a petitioner to simply to repeat objections made during the comment period; instead, the petitioner must demonstrate why the permit issuer's response to those objections is clearly erroneous or otherwise warrants review. *In re Windfall Oil & Gas, Inc.*, 16 E.A.D 769, 797 (EAB 2015). Petitioners must explain why the Region's responses to comments failed to address the petitioners' concern. *Id.*; *In re Pa. Gen. Energy Co.*, 16 E.A.D 498, 503 (EAB 2014); *Beeland Group*, 14 E.A.D. at 196; 40 C.F.R. § 124.19(a)(4)(ii).

CONCLUSION

The Petitioners have not shown that the Region's decision to issue the Final Permit is clearly erroneous or otherwise warrants review. To the contrary, the record supports the Region's factual and technical determinations relating to issuing the Final Permit. As a result, the Board should deny the Petitioners' request to review this Final Permit.

Respectfully submitted,

/s/ Philip Yeany

*(signed per Revised EAB Order re: Electronic Filing
in non-Part 22 Proceedings, 8/12/13)*

Philip Yeany

Senior Assistant Regional Counsel
U.S. Environmental Protection Agency, Region III
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103
Phone: (215) 814-2495
Email: Yeany.Philip@epa.gov

Of Counsel:
Katie Spidalieri
Water Law Office
Office of General Counsel
U.S. Environmental Protection Agency
William Jefferson Clinton North Building
Office 7308B
202-564-4138
Email: Spidalieri.Katie@epa.gov