

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

In re)	
)	
Wabash Carbon Services, LLC)	
)	UIC Appeal No. 24-01
Permit Nos. IN-165-6A-0001 (Vermillion) and)	
IN-167-6A-0001 (Vigo))	

RESPONSE OF WABASH CARBON SERVICES, LLC
TO PETITION FOR REVIEW

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I. Introduction

Petitioners' effort to seek this Board's review of the Permits at issue,¹ governing the injection of carbon dioxide for geologic sequestration at two sites in Indiana, is both procedurally deficient and substantively without merit: At the outset, the Petition for Review does not meet the threshold procedural requirements for Board review, because it fails to identify where or how specific arguments were raised during the public comment period, instead improperly relying on the Board to sift through the voluminous administrative record in an effort to discern whether or how the specific matters at issue here were previously brought to the Region's attention. Nor does the Petition sufficiently demonstrate that the Region's permit decision was based on clearly erroneous findings of fact or conclusions of law:

- While Petitioners contend that the Region did not follow National Environmental Policy Act (NEPA) requirements, it is well settled that UIC permits are categorically exempt from complying with NEPA's formal requirements, *see* 40 C.F.R. § 124.9(b)(6), because EPA's UIC permit decision-making is the functional equivalent of the environmental review contemplated by NEPA.
- The record demonstrates—contrary to Petitioners' argument—that the Region properly approved an initial ten-year post-injection site care (PISC) period, subject to periodic reevaluation and (if necessary) extension, consistent with the regulatory requirements of 40 C.F.R. § 146.93(c).

¹ Underground Injection Control (UIC) Permit Nos. IN-165-6A-0001 and IN-167-6A-0001, issued by Region 5 on January 24, 2024 to permittee Wabash Carbon Services, LLC (WCS) (Attachments 1 & 2).

- For these same reasons, Petitioners’ cursory argument that the Region failed to comply with the Administrative Procedure Act (APA) by violating NEPA and the Safe Drinking Water Act (SDWA) also fails.

In short, the Region reasonably set the terms and conditions of the Permits, considering the concerns Petitioners and other commenters raised during the public comment period and complying with all relevant statutory and regulatory requirements, and provided a reasonable explanation for its determinations in the record for the Permits. Accordingly, permittee WCS asks the Board to deny Petitioners’ request for review of the Permits.

II. Legal Background

The SDWA is designed to protect the quality of drinking water in the United States. It directs EPA to promulgate regulations for UIC permitting that contain “minimum requirements for effective programs to prevent underground injection which endangers drinking water sources,” 42 U.S.C. § 300h(b)(1), and that prohibit underground injections that are not authorized by a permit, *id.* § 300h(b)(1)(A). Under this authority, EPA has promulgated UIC regulations for a variety of activities under 40 C.F.R. Part 146. In 2010, EPA promulgated minimum federal requirements under the SDWA for underground injection of carbon dioxide (CO₂) for the purpose of geologic sequestration, known as “Class VI” wells, at 40 C.F.R. §§ 146.81–146.95. Those regulations set forth the legal framework and requirements for EPA to issue permits for Class VI wells in a manner that prevents endangerment of underground sources of drinking water (USDWs).

Among other requirements, as relevant here, the UIC regulations require the owner or operator to “conduct monitoring as specified in the Director-approved post-injection site care and site closure plan for at least 50 years or for the duration of the alternative timeframe approved by the Director.” 40 C.F.R. § 146.93(b)(1). “At the Director’s discretion, the Director may

approve, in consultation with EPA, an alternative post-injection site care timeframe other than the 50-year default, if an owner or operator can demonstrate during the permitting process that an alternative post-injection site care timeframe is appropriate and ensures non-endangerment of USDWs.” *Id.* § 146.93(c). The UIC regulations also require the owner or operator to “demonstrate and maintain financial responsibility” by providing a financial instrument that is, among other requirements, “sufficient to cover the cost of . . . [p]ost injection site care and site closure (that meets the requirements of § 146.93).” 40 C.F.R. § 146.85(a)(2)(iii).

EPA’s consolidated permitting regulations specifically exempt certain permitting actions, including the issuance of UIC permits, from NEPA. *See* 40 C.F.R. § 124.9(b)(6) (“UIC . . . permits are not subject to the environmental impact statement provisions of section 102(2)(C) of the National Environmental Policy Act, 42 U.S.C. 4321.”).

III. Factual Background

A. WCS’s and WVR’s Path-Breaking CCUS Project

The Permittee, WCS, is a subsidiary of Wabash Valley Resources (WVR). WVR is developing a facility in West Terre Haute, Indiana, to manufacture ammonia and thereby create a significant supply of domestic fertilizer. This will reduce the Nation’s dependency on imported fertilizer, the price of which has skyrocketed due to geopolitical issues, impacting food security.² WVR’s domestic production shall be done in an environmentally sustainable manner by permanently sequestering the carbon dioxide that results from the manufacturing process. *See generally* Wabash Valley Resources, <https://www.wvresc.com/> (last visited Apr. 22, 2024). In carbon capture and storage, carbon dioxide is captured and liquefied at the generating facility and

² *See* Douglas Broom, *This is how war in Europe is disrupting fertilizer supplies and threatening global food security*, WORLD ECONOMIC FORUM (Mar. 1, 2023), <https://www.weforum.org/agenda/2023/03/ukraine-fertilizer-food-security> (last visited Apr. 22, 2024).

transported to injection wells, so that it can be injected deep underground through wells.

“Geologic sequestration” or “carbon sequestration” of this sort is a means of reducing emissions of carbon dioxide to the atmosphere. EPA, *Public Comments Sought on Class VI UIC Injection Well Carbon Storage Draft Permits* at 1 (July 2023) (Public Notice), Attachment 3.

For this project, carbon dioxide that otherwise would be emitted from the plant’s manufacturing process will be captured and provided to WCS for underground sequestration in the Oneonta and Potosi formations of the Illinois Basin, approximately one mile below ground surface. *Id.* at 3. WCS plans to safely inject 1.67 million metric tons per year of carbon dioxide into two injection wells, which were sited based upon extensive scientific research and planning, over a 12-year injection period. *Id.* at 1. As a result of the proposed carbon sequestration, the nearby WVR facility will be a near zero-carbon intensity ammonia production facility. *See generally* Wabash Valley Resources, <https://www.wvresc.com/> (last visited Apr. 22, 2024).

Deep injection wells of the sort permitted here have a lengthy history of safe operation. As the Region noted in its Response to Comments (RTC), “[a]lthough the injection of carbon dioxide is relatively new, the technologies employed are well established, and the science and engineering is proven.” EPA Region 5, Response to Comments, Underground Injection Control Class VI Underground Injection Permits IN-165-6A-0001 (Vermillion County) and IN-167-6A-0001 (Vigo County), Indiana, Wabash Carbon Services, LLC at 25 (Jan. 19, 2024), Attachment 4. In developing the application for the Class VI UIC permit, WCS conducted extensive analysis based on available data, as well as additional sampling and modeling to characterize the site as required by the Class VI regulations. *See* Public Notice. WCS will utilize two information monitoring wells to monitor the pressure and temperature of the injection zone and take samples to track the carbon dioxide plume movement and investigate any abnormalities that may arise.

Permits Attachment C at 16-17. Ten groundwater wells will also be installed to monitor the quality of drinking water to ensure carbon dioxide sequestration operations do not adversely impact local water supplies. *Id.* at 11. WCS will study and monitor the wells during the twelve years of the proposed carbon dioxide injection and for at least ten years thereafter (a period which EPA has reserved the right to extend if conditions warrant). *See* Public Notice at 1; RTC at 18.

B. The Region’s Careful Evaluation of WCS’s UIC Permit Application and Grant of the Permits

In May 2021, WCS submitted a Class VI UIC permit application to develop two wells for the injection of carbon dioxide for geologic sequestration, CCS-1 in Vermillion County, Indiana, and CCS-2 in Vigo County, Indiana. RTC at 24. On July 7, 2023, following more than two years of collaboration between the Region and WCS, and the Region’s completion of a detailed technical review of the permit application, the Region issued two draft UIC permits to WCS for geologic sequestration of carbon at the two proposed well sites. The Region invited public comment on the Draft Permits for 45 days, ending on August 21, 2023. *Id.* at 1. In addition to accepting written comments, the Region held a public meeting and hearing in Terre Haute, Indiana on August 10, 2023, during which participants were invited to provide oral testimony. *Id.* Those comments were recorded and transcribed by a court reporter.

On January 24, 2024, the Region issued final versions of the Permits, authorizing WCS to construct facilities for the injection of carbon dioxide generated by WVR’s facility and, following confirmation that conditions are consistent with permitting assumptions, to inject carbon dioxide at depths between 3,970 and 5,162 feet below ground surface. Permits at 1.³ The

³ Because the two Permits contain nearly identical permit terms, they are addressed collectively in this response.

Region also provided a comprehensive RTC document, responding to issues raised during the comment period.

The Region considered a number of factors in its review of the Permits, including siting, geology, well construction, and testing and monitoring. RTC at 25. Based on its review, the Region determined that the proposed injection is safe and that USDWs will not be endangered. *Id.* The Permits set forth specific terms, conditions, and restrictions to ensure pre-injection, injection, monitoring, and closure activities do not pose risks to underground sources of drinking water and do not otherwise endanger surrounding communities. Injection will not commence until WCS receives written authorization from the Director of the Water Division of EPA Region 5. Permits at 1.

The Petitioners raise three challenges to the Region's issuance of the Permits to WCS, contending: (1) that Region's decision violates NEPA, 42 U.S.C. §§ 4321, *et. seq.*, purportedly because the Region failed to take the requisite "hard look" at cumulative impacts or alternatives (and that the "functional equivalence" doctrine does not exempt the Region from NEPA's procedural requirements); (2) that the Region's decision approving a shorter-than-default time period for post injection site care violates the SDWA, 42 U.S.C. §§ 300f, *et seq.*, and its implementing regulations, and (3) that the Region's decision violates the APA, 5 U.S.C. §§ 500, *et seq.*, because the Region acted arbitrarily and capriciously in failing to comply with NEPA and the SDWA.

IV. The Board Should Deny Review of Petitioners' Claims

A. The Board's Review Is Appropriately Narrow: It Considers Only Issues That Were Properly Presented to EPA, and Does Not Second-Guess Agency Judgments on Technical Matters.

Before turning to the substance of the Petition for Review, it is useful to summarize the well-known standards that govern this Board's review. The Board's consideration of petitions

for review of UIC permits is guided by the principles that “the Board’s power of review ‘should be only sparingly exercised’ and that ‘most permit conditions should be finally determined at the [permit issuer’s] level.’” *In re Env’t Disposal Sys., Inc.*, 12 E.A.D. 254, 263-64 (EAB 2005) (quoting 45 Fed. Reg. 33,290, 33,412 (May 19, 1980)). Further, “the burden of demonstrating that review is warranted rests with the petitioner.” *Id.* at 264 (citing 40 C.F.R. § 124.19(a)).

As a threshold matter, a petition must show that each issue has been preserved for review, by identifying the contested permit condition or other specific challenge to the permit. 40 C.F.R. § 124.19(a)(4). A petitioner bears the burden of demonstrating that each issue and argument it seeks to raise on appeal were raised in comments submitted on the draft permit or at a public hearing. *In re Ariz. Pub. Serv. Co.*, 18 E.A.D. 245, 250 (EAB 2020) (citing *In re Gen. Elec. Co.*, 17 E.A.D. 434, 445 (EAB 2018)). The Petitioner “must demonstrate, by providing *specific citation* to the administrative record, *including the document name and page number*, that each issue being raised in the petition was raised during the public comment period (including any public hearing).” 40 C.F.R. § 124.19(a)(4)(ii) (emphases added).

A petitioner also bears the burden of demonstrating “that each challenge to the permit decision is based on . . . [a] finding of fact or conclusion of law that is clearly erroneous.” 40 C.F.R. § 124.19(a)(4)(i)(A). To satisfy that standard, the Petition must clearly set forth, with legal and factual support, the Petitioner’s contentions for why the issue raised is clearly erroneous or otherwise warrants review. *Id.*; *Ariz. Pub. Serv.*, 18 E.A.D. at 251. “[M]ere allegations of error” are not enough to warrant review, *see In re City of Attleboro, MA Wastewater Treatment Plant*, 14 E.A.D. 398, 422, 431, 443 (EAB 2009), and “it is not enough for a petitioner to merely cite or reiterate comments previously submitted on the draft permit.” *Ariz. Pub. Serv.*, 18 E.A.D. at 251 (citing *In re City of Taunton Dep’t of Pub. Works*, 17 E.A.D.

105, 111 (EAB 2016), *aff'd*, 895 F.3d 120 (1st Cir. 2018), *cert. denied*, 139 S. Ct. 1240 (2019)).

Where issues have been addressed in the Region's RTC, "the[] petitioner must provide a citation to the relevant comment and response and explain why the Regional Administrator's response to the comment was clearly erroneous or otherwise warrants review." 40 C.F.R. § 124.19(a)(4)(ii); *see In re Certainteed Corp.*, NPDES Appeal No. 15-01, 2015 WL 10091224, at *10 (EAB May 7, 2015) (denying review of petition that fails to "provide a record citation to the comment and response and also must *explain why* the permit issuer's previous response to those comments was clearly erroneous or otherwise warrants review.").

Objections to UIC permits must be based on the SDWA and EPA's UIC regulations. *In re Brine Disposal Well, Montmorency Cnty., Mich.*, 4 E.A.D. 736, 742 (EAB 1993). Challenges to UIC permits must "pertain exclusively to the UIC program and its focus on protecting underground sources of drinking water from possible harm caused by underground injection activities." *In re Jordan Dev. Co.*, 18 E.A.D. 1, 11 (EAB 2019). "The Board does not find clear error simply because the petitioner presents a difference of opinion or alternative theory regarding a technical matter." *Ariz. Pub. Serv.*, 18 E.A.D. at 251. On matters that are fundamentally technical in nature, "the Board typically defers to a permit issuer's technical expertise and experience, as long as the permit issuer has adequately explained its rationale and supported its reasoning in the administrative record." *Id.*

These standards, properly applied, are fatal to Petitioners' case. As discussed more fully below, Petitioners fail to identify where the issues they raise on appeal were raised during the public comment period and the Petition therefore does not meet the threshold procedural requirement for Board review. The Petition also fails to demonstrate that the Region's issuance of the Permits, or any of the Permits' specific terms and conditions, are clearly erroneous or

otherwise warrant review. The Region appropriately accounted for concerns raised during the public comment period that were within the scope of its authority under the UIC program, and reasonably set the terms and conditions of the Permits consistent with the UIC regulations.

Accordingly, WCS respectfully requests that the Board deny the Petition for Review.

B. Petitioners Fail to Demonstrate That Their Claims Were Raised During the Comment Period.

As an initial matter, Petitioners do not meet the critical, jurisdictional prerequisite for Board review because Petitioners fail to demonstrate that the issues raised in the Petition were properly raised during the public comment period.

1. Petitioners Fail to Show That Their NEPA Claims Were Raised During the Comment Period.

First, the Petition fails to “provid[e] specific citation to the administrative record” to show that the NEPA issues set out in the Petition were “raised during the public comment period,” as required by the Board’s regulations. 40 C.F.R. § 124.19(a)(4)(ii). Issues must be clearly raised during the comment period in order to be preserved for a later challenge, because where issues are not clearly raised “the permitting authority is provided no opportunity to address the issue specifically prior to permit issuance.” *Ariz. Pub. Serv.*, 18 E.A.D. at 277 (quoting *In re BP Cherry Point*, 12 E.A.D. 209, 219) (EAB 2005)). Petitioners argue that the Region’s permitting action is not exempt from NEPA compliance under the functional equivalence doctrine, and therefore that the Region was required to consider cumulative impacts, alternatives, and take a “hard look” at environmental impacts consistent with NEPA requirements. Petition at 7-12 (Docket Index #1). Petitioners do not, however, provide references or citations to any public comments that raise these specific issues. Indeed, none of the comment letters submitted by Petitioners and attached to the Petition address NEPA or even mention the functional equivalence doctrine, cumulative impacts analysis, alternatives analysis,

or the “hard look” requirement. Comment Letters from Andrew Lenderman (Docket Index #1-Attachment #1), Benjamin Lenderman (Docket Index #1-Attachment #2), Floyd Lenderman (Docket Index #1-Attachment #3), and Jessie Lenderman (Docket Index #1-Attachment #4). Nor do Petitioners point to any other public comments asserting that the Region was required, but failed, to conduct a proper NEPA analysis.

Taking each NEPA argument in turn, Petitioners first argue that EPA’s permit review was not the “functional equivalent” of the analyses required by NEPA, but the Petition offers no specific citation or reference to where this argument is raised in the administrative record. Petition at 7-8. Second, Petitioners argue the Region failed to adequately consider cumulative impacts as required by NEPA. *Id.* at 8-10. Petitioners assert that the Region failed to consider certain categories of comments as “out-of-scope,” and that many of these comments “plainly include concerns” that implicate cumulative impacts, *id.* at 9, but offer no specific citation or reference to any comment indicating the Region did not sufficiently consider cumulative impacts or that such consideration is required under NEPA.

Third, Petitioners argue the Region failed to evaluate alternatives under NEPA, pointing to a statement in the RTC that comments asserting “there are better alternatives to address carbon dioxide in the atmosphere than sequestration” were “out-of-scope” for the Agency’s review. *Id.* at 10. Again, this statement offers no specific citation or reference to a comment asserting the Region was required to analyze alternatives under NEPA. Reference to comments with similar themes to the arguments raised in the Petition—such as those Petitioners attempt to cite with respect to cumulative effects and alternatives—are not sufficiently specific to preserve these arguments for review. Nor are such references sufficient to flag the issues for the Region during the permit process. As the Board has previously stated, an issue must be “specifically raised”

so that “the Region is not forced to ‘guess the meaning behind imprecise comments.’” *Ariz. Pub. Serv.*, 18 E.A.D. at 277 (quoting *In re Maui Elec. Co.*, 8 E.A.D. 1, 9 (EAB 2001)); *In re Westborough*, 10 E.A.D. 297, 304 (EAB 2002)).⁴

Last, the Petition argues the Region failed to take a “hard look” at the environmental impacts resulting from the action as required by NEPA. Petition at 11-12. It cites to Comment #14 as an example of where this was raised, which expressed concern that “‘well stimulation would cause caverns to develop and cause well failure and breach of the confining units.’” *Id.*; RTC at 21. Again, the Petition offers no citation or reference to any comment regarding the NEPA “hard look” requirement. The comments cited by Petitioners are too imprecise and unrelated to the Petitioners’ NEPA challenges to necessitate the Region addressing those issues in its RTC. *See, e.g., In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 230 (EAB 2000) (Board declined to reach the merits of an issue “not presented . . . during the public comment period with sufficient clarity to enable a meaningful response.”); *Westborough*, 10 E.A.D. at 304 (“The Board has repeatedly found objections raised only in a general manner during the comment period insufficient to support review of more specific objections in the petition.”).

The Petition plainly fails to preserve each of the NEPA arguments for review by failing to provide citations or references demonstrating that specific arguments were raised during the public comment period, 40 C.F.R. § 124.19(a)(4)(ii), and the Board should therefore decline review with respect to the NEPA-related claims.

⁴ Such a conclusory suggestion of “better alternatives” is also insufficient to articulate a valid objection under controlling NEPA precedent, which requires participants to “alert[] the agency” to their “position and contentions,” and which does not allow agency decisions to be countermanded by a “cryptic and obscure reference to matters that ‘ought to be’ considered.” *Vt. Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 553-54 (1978).

2. Nor Have Petitioners Shown That Their SDWA Claims Were Raised During the Comment Period.

Likewise, Petitioners' SDWA claims are not properly before the Board because the Petition does not sufficiently identify citations to the administrative record demonstrating these arguments were adequately raised in public comments as is required by 40 C.F.R. § 124.19(a)(4)(ii). While Petitioners allege that the Region did not adequately consider the information required under 40 C.F.R. § 146.93 to approve a shorter PISC timeframe, and that as a result the Region also violated its financial responsibility obligations under 40 C.F.R. § 146.85, these arguments appear nowhere in any of the Petitioners' four comment letters. *See* Petition Attachments 1-4 (Docket Index #1). The Petition also fails to cite to concerns from other commenters raising the specific issues of the Region's approval of a shorter PISC period and its acceptance of financial assurance for that shorter period.

While other commenters appear to have commented generally on the PISC period as addressed by the RTC, the Petition did not cite to those comments in the administrative record to show where specific arguments were "specific[ally] . . . raised" raised, as required by 40 C.F.R. § 124.19(a)(4)(ii); *Ariz. Pub. Serv.*, 18 E.A.D. at 277. Similarly, although the RTC states there were comments regarding "inadequacy of the amount of financial assurance," RTC at 15, it is not clear whether the comments related specifically to financial obligations specifically for PISC, or for other financial assurance obligations required under the Permits, or were broad, unspecified, and undeveloped complaints about financial assurance more broadly.⁵ Nonetheless, the Region took the opportunity to address how *all* requirements for financial assurance have been satisfied, including for PISC. *See id.* at 15-16.

⁵ For example, financial assurance is also required to guarantee performance of any necessary corrective action, *see* 40 C.F.R. § 146.84; for injection well plugging, *see id.* § 146.92; and for emergency and remedial response, *see id.* § 146.94.

In consequence, the Board need not even devote time and attention to evaluating Petitioners' substantive arguments, and may deny the Petition on procedural grounds alone. But even if Petitioners had satisfied the threshold procedural requirements for Board review, it does them no good, because Petitioners' claims are also unsustainable on the merits.

C. Because the Permitting Process Under SDWA UIC Regulations Is the Functional Equivalent of NEPA Review, Formal NEPA Compliance Is Not Required, and the Board Should Deny Review of Petitioners' NEPA Claims.

Even if Petitioners' NEPA claims were properly before the Board, the Board should deny review of Petitioners' claims that the Region violated NEPA or the NEPA functional equivalence doctrine by not formally addressing specific NEPA requirements, because it is well settled that the SDWA and the UIC permit program are the functional equivalent of NEPA, and the Region was not required to complete specific NEPA requirements, such as a NEPA alternatives analysis or NEPA cumulative effects review.

1. The Review Required under the SWDA and Class VI Regulations is the Functional Equivalent of NEPA Review.

Certain EPA actions—including UIC permitting under the SDWA—are not subject to NEPA's procedural requirements, through application of the "functional equivalence" doctrine; courts have reasoned that EPA actions under these statutes are functionally equivalent to the review required under NEPA because EPA review considers environmental impacts from the action and provides an opportunity for public comment. *See* 72 Fed. Reg. 53,652, 53,654 (Sept. 19, 2007) (citing *Env't Def. Fund v. EPA*, 489 F.2d 1247 (D.C. Cir. 1973) (Federal Insecticide, Fungicide, and Rodenticide Act); *Alabama ex rel. Siegelman v. EPA*, 911 F.2d 499 (11th Cir. 1990) (Resource Conservation and Recovery Act (RCRA)); *Warren Cnty. v. North Carolina*, 528 F. Supp. 276 (E.D.N.C. 1981) (Toxic Substances Control Act); *W. Neb. Res. Council v. U.S.*

EPA, 943 F.2d 867 (8th Cir. 1991) (SDWA); *Maryland v. Train*, 415 F. Supp. 116 (D. Md. 1976) (Marine Protection, Research and Sanctuaries Act)).

EPA has long taken the position, and courts have consistently confirmed, that the permitting procedures under the SDWA and the UIC program qualify as the functional equivalent of NEPA, and that formal NEPA compliance is therefore not required when EPA acts pursuant to the SDWA. *See W. Neb. Res. Council*, 943 F.2d at 871-72 (internal citation omitted) (“We agree with the many circuits that have held that EPA does not need to comply with the formal requirements of NEPA in performing its environmental protection functions under ‘organic legislation [that] mandates specific procedures for considering the environment that are functional equivalents of the impact statement process.’ . . . We further agree that SDWA is such legislation . . .”). Petitioners fail to cite, let alone discuss this key precedent, which is fatal to their claim.

EPA’s consolidated permit regulations specifically codify the functional equivalence doctrine for purposes of UIC permitting, exempting UIC permits from NEPA compliance obligations. 40 C.F.R. § 124.9(b)(6) (“UIC . . . permits are not subject to the environmental impact statement provisions of section 102(2)(C) of the National Environmental Policy Act”). The Board has previously concluded that this regulation is dispositive on the question of the UIC permit program’s functional equivalence to NEPA, and under the plain language of the provision, “‘formal compliance with NEPA is not necessary.’” *In re Am. Soda, LLP*, 9 E.A.D. 280, 290-92 (EAB 2000) (citation omitted); *see also In re Beeland Grp., LLC*, 14 E.A.D. 189, 205-06 (EAB 2008); *In re Windfall Oil & Gas, Inc.*, 16 E.A.D. 769, 811 (EAB 2015).

Petitioners’ sole effort to deal with this preclusive body of law, and a regulation that explicitly drives a stake through the heart of their claim, is their contention (in a footnote) that 40

C.F.R. § 124.9(b)(6) merely relieves EPA of the obligation to prepare a separate environmental impact statement (EIS) document, but still requires EPA to do everything else that NEPA requires, and to do so explicitly. *See* Petition at 7 n.1. This argument is inconsistent with Board precedent and common sense. On the prior occasions when the Board has considered and addressed this issue, it did not distinguish preparation of an EIS from other NEPA requirements in the fashion Petitioners attempt here, nor did it suggest that EPA would have to make a separate case for “functional equivalence” each time it issues a UIC permit. Instead, the Board made a finding consistent with longstanding case law that NEPA compliance is not required for EPA issuance of UIC permits. *See Am. Soda*, 9 E.A.D. at 290-92; *Beeland Grp.*, 14 E.A.D. at 205-06; *Windfall Oil & Gas*, 16 E.A.D. at 811. Petitioners’ argument also reflects a misunderstanding of the applicable regulatory structure: the NEPA requirements on which Petitioners base their argument—including cumulative effects analysis and alternatives analysis—are not stand-alone NEPA analyses, independent of an EIS, but rather are part and parcel of the EIS requirements set out in the NEPA regulations. In particular, 40 C.F.R. Part 1502 sets forth the EIS requirement, which is to include a discussion of alternatives and effects as part of the EIS. 40 C.F.R. §§ 1502.10, 1502.14, 1502.16. In other words, the NEPA regulations place the formal requirement to conduct these analyses within the requirement to prepare an EIS—a requirement that EPA need not independently satisfy when it performs its regulatory duties in issuing permits under the SWDA or UIC program.⁶ Consequently,

⁶ *Am. Soda*, 9 E.A.D. at 489; *In re Chem. Waste Mgmt., Inc.*, 2 E.A.D. 575, 578 (Adm’r 1988), *aff’d sub nom. Alabama ex rel. Siegelman v. EPA*, 911 F.2d 499 (11th Cir. 1990) (In evaluating functional equivalence for a RCRA treatment storage and disposal permit, the Administrator determined that in order to show functional equivalency to NEPA, EPA need not demonstrate that it has addressed all five elements of an EIS, but rather “NEPA is fulfilled where the federal action has been taken by an agency with recognized environmental expertise and whose

Petitioners point to no sound basis in law or logic for the Board to parse the UIC program's functional equivalence provision in 40 C.F.R. § 124.9(b)(6) and exempt the Region from *only* the requirement to prepare an EIS, while still requiring the Region to document all of the individual components of an EIS analysis.

In short, Petitioners wrongly suggest that, in spite of the regulations at 40 C.F.R. § 124.9(b)(6) and judicial precedent upholding the application of the functional equivalence doctrine to UIC permitting, EPA must effectively go through the same procedural process as is required under NEPA (with the exception of preparing an EIS) in order for the review to be satisfactory as the “functional equivalent” of NEPA. Petition at 7. But, because SDWA actions are explicitly exempt from formal NEPA review, EPA is not obligated to provide a cumulative effects review, an alternatives analysis, or take a “hard look” at impacts from the permitting decision under NEPA.

2. In Any Event, the Record Shows That Petitioners' Criticisms Are Misplaced, and That the Region Properly Evaluated the Permits' Potential Effects.

Even if the Board were inclined to overlook the controlling regulations and precedents (which of course it cannot), there is no justification on this record for the Board to overturn the Region's decision based on Petitioners' NEPA claims. Although the Region was not required to conduct a formal NEPA process, the Region appropriately provided opportunities for public involvement and evaluated environmental impacts, consistent with its authority and obligations under the SDWA and the UIC program, to ensure the proposed injection and sequestration of carbon dioxide is carried out in a manner that protects USDWs. As detailed in the RTC, the Region evaluated alternative locations for the injection wells within the area, and then

procedures ensure extensive consideration of environmental concerns, public participation, and judicial review.”).

methodically considered and analyzed the data provided to ensure that at each step of the process—from pre-injection testing to site closure—safeguards will be in place to prevent impacts to USDWs and to surrounding communities. *See* RTC at 4-6 (detailing the Region’s consideration of the suitability of the geology of the area for carbon sequestration and the manner in which the injection well locations were chosen); *id.* at 6 (describing the Region’s evaluation of the location and depth of coal mines in the proposed area of review (AoR) and safety of constructing injection wells within the AoR); *id.* at 13 (addressing concerns related to the health and safety of residents from carbon dioxide exposure); *id.* at 19, 21-22 (discussing the Region’s approach to evaluating potential groundwater and surface water contamination); *id.* at 26 (addressing impacts to farmland). The Region also considered potential environmental and community impacts in developing the Permits’ terms and conditions in line with its obligations under the UIC regulations. *See* Permits at 7-8 (terms for well siting, construction, and materials to prevent movement of fluid among USDWs and to ensure continuous monitoring); *id.* at 9-11 (terms for pre-injection testing to verify the geology of the well sites and ensure wells meet operational requirements to protect USDWs); *id.* at 12-15 (terms to ensure wells maintain mechanical integrity so as not to allow significant leaks and to require corrective action); *id.* at 16-19 (terms requiring extensive monitoring of the carbon dioxide stream, plume, pressure front, and mechanical integrity during operation); *id.* at 23-26 (terms for well plugging and closure to ensure there are no impacts to USDWs after the operational life of the wells); *id.* at 26 (terms for emergency and remedial response to ensure the permittee has plans in place to address movement of fluids that may cause endangerment to a USDW). The Region has demonstrated through the RTC and the terms of the Permits that it has met its obligations to consider

environmental impacts under the UIC regulations, satisfying any obligation to assess impacts in a manner “functionally equivalent” to NEPA review.

Petitioners erroneously criticize the Region for not providing specific responses to ““out-of-scope”” comments, including a number of comments that Petitioners suggest “plainly include concerns” that fall within the Council for Environmental Quality’s (CEQ’s) definition of “cumulative impacts” for NEPA purposes. *See* Petition at 9-10. In fact, the Region appropriately limited its review to the considerations outlined in the UIC regulations at 40 C.F.R. Parts 124, 144, and 146. “The Board has on several occasions stated that the SDWA . . . and the UIC regulations . . . establish the *only* criteria that EPA may use in deciding whether to grant or deny an application for a UIC permit, and in establishing the conditions under which deep well injection is authorized.” *Am. Soda*, 9 E.A.D. at 285 (internal citations omitted); *In re Envotech, L.P.*, 6 E.A.D. 260 (EAB 1996). The Board’s review of EPA’s UIC permitting decisions is likewise limited. *See Am. Soda*, 9 E.A.D. at 286 (“[T]he SDWA and the UIC regulations authorize the Board to review UIC permitting decisions only as they affect a well’s compliance with the SDWA and applicable UIC regulations.”). The broad definition of cumulative impacts in CEQ’s NEPA regulations does not expand EPA’s authority to consider issues that go beyond the criteria set forth in the SDWA and UIC regulations. The SDWA and the UIC regulations are designed to protect underground sources of drinking water. They do not authorize the Region to regulate other activities, such as other sources of carbon dioxide, past uses of the plant site, the disposal of coal ash there, or existing non-carbon dioxide pipelines in the area. *See id.* (The

SDWA and UIC regulations do not authorize EPA to regulate solution-mining activities apart from their impacts on USDWs).⁷

Likewise, Petitioners complain that the Region declined to evaluate whether “there are better alternatives to address carbon dioxide in the atmosphere than sequestration,” Petition at 10 (quoting RTC at 3), but this type of policy evaluation would go well beyond the Region’s (and the Board’s) purview in this permitting action, which is limited to evaluation of the proposed injection wells to ensure protection of USDWs based on the factors specified at 40 C.F.R. Parts 124, 144, and 146. See *In re FutureGen Indus. All., Inc.*, 16 E.A.D. 717, 725 (EAB 2015), *pet. for review dismissed as moot sub nom. DJL Farm LLC v. EPA*, 813 F.3d 1048 (7th Cir. 2016) (per curiam) (“[T]he Board will not review the policy considerations underlying the duly promulgated Class VI regulations . . .”).⁸

Finally, Petitioners incorrectly assert that the Region’s structuring of the Permits, consistent with 40 C.F.R. § 146.91(d)(2), to provide for approval of well stimulation programs

⁷ Many of the issues Petitioners suggest the Region should have considered are beyond even the broad scope of cumulative impacts under NEPA, which is limited to effects with a “reasonably close causal relationship” to the agency’s action. *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767-70 (2004) (“hold[ing] that where an agency has no ability to prevent a certain effect due to its limited statutory authority over the relevant actions, the agency cannot be considered a legally relevant ‘cause’ of the effect”). For example, many of the issues Petitioners cite relate not to the construction or operation of the injection wells governed by the Permits, but rather raise concerns about the condition or operation of WVR’s manufacturing facility (which would not depend on whether carbon dioxide is injected for permanent sequestration or released into the atmosphere), or relate to other facilities entirely.

⁸ Indeed, such an evaluation would go even beyond the scope of an agency’s NEPA alternatives analysis, which is limited to “a reasonable range of alternatives . . . that are technically and economically feasible, and meet the purpose and need of the proposal.” 42 U.S.C. § 4332(2)(C)(iii); *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991) (agency’s alternatives analysis must “take into account the needs and goals” of the applicant and agency may not “frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish those goals and the project would collapse under the weight of the possibilities.”).

prior to initiation somehow indicates that the agency failed to take a “hard look” at “the environmental impacts resulting from UIC permits.” Petition at 11-12. Insofar as Petitioners object to the approach contemplated in the UIC regulations, that argument is not properly before the Board. *See FutureGen Indus. All.*, 16 E.A.D. at 724 (“To the extent that Petitioners are dissatisfied with the structure of the regulations, which provide for an iterative permitting process and give broad discretion to the permitting authority, or the policy judgments underlying those regulations, a petition for review to this Board is not the appropriate forum.”). As explained above, the Region conducted a thorough evaluation of environmental impacts consistent with its obligations under the UIC regulations that would satisfy even NEPA’s “hard look” standard. *See supra* at 16-17 (summarizing the Region’s analysis, and demonstrating how it thoroughly examined potential impacts and amply justified its decision to issue the Permits in light of that evaluation); *see also Sierra Club v. U.S. Army Corps of Eng’rs*, 295 F.3d 1209 (11th Cir. 2002) (“An agency has met its ‘hard look’ requirement if it has examined the relevant data and articulated a satisfactory explanation for its action including a rational connection between the facts found and the choice made.”) (cleaned up)).

For all these reasons, the Board should deny review of Petitioners’ NEPA claims.

D. The Board Should Deny Review of the SDWA Claims Because the Region Reasonably Determined That an Alternative Timeframe for Post-Injection Site Care is Appropriate and That Financial Assurances Were Adequate.

The Region reasonably determined that the PISC plan is consistent with the UIC regulations, and Petitioners fail to show that the Region’s determination is clearly erroneous. Consistent with the UIC regulations, the Region appropriately established a PISC period of 10 years post-injection, which may be extended by the Region if circumstances warrant, and that associated financial assurances were adequate. *See RTC* at 16, 18 (citing Permits section P(6)(d)).

The Board should defer to the Region’s technical determinations supporting the approval of an alternative timeframe for PISC and site closure, which are adequately explained in the Permits and RTC. *Ariz. Pub. Serv.*, 18 E.A.D. at 251 (citing *Gen. Elec.*, 17 E.A.D. at 514-15) (“On matters that are fundamentally technical or scientific in nature, the Board typically defers to a permit issuer’s technical expertise and experience, as long as the permit issuer has adequately explained its rationale and supported its reasoning in the administrative record.”). The Board should not “second-guess the Region’s technical determinations based on a Petitioners’ bald assertion.” *FutureGen Indus. All.*, 16 E.A.D. at 739, 743.

The regulations require the owner or operator to “conduct monitoring as specified in the Director-approved post-injection site care and site closure plan for at least 50 years or for the duration of the alternative timeframe approved by the Director.” 40 C.F.R. § 146.93(b)(1). “At the Director’s discretion, the Director may approve, in consultation with EPA, an alternative post-injection site care timeframe other than the 50-year default, **if an owner or operator can demonstrate during the permitting process that an alternative post-injection site care timeframe is appropriate and ensures non-endangerment of USDWs.**” *Id.* § 146.93(c) (emphasis added). The owner or operator’s demonstration for an alternative post-injection site care timeframe must include “consideration and documentation of” a list of ten enumerated types of information (plus any additional factors that EPA deems appropriate). *Id.* § 146.93(c)(1). These regulations contemplate that the owner or operator will make the demonstration that a shorter PISC timeframe is appropriate, which must be approved by EPA. That is exactly what happened here.

Petitioners incorrectly aver that “there is no indication in the administrative record that all the information gathering and analyses required by 40 C.F.R. § 146.93(c) were performed,” that

“EPA’s decision to modify the default 50-year PISC period is unsupported by the administrative record,” and that the Region has only considered one of the ten required types of information (“results of computational modeling”). Petition at 13, 16. Here, consistent with § 146.93(c), the permit application provided the information supporting the demonstration of alternative post-injection site care timeframe, and shows that WCS, as the owner or operator, satisfied its regulatory obligation to justify a shorter period of post-injection site care. WCS submitted a PISC and Site Closure Plan that provided the requisite “consideration and documentation” for each of the types of information listed at § 146.93(c)(1)(i) through § 146.93(c)(1)(xi), **including an explanation of how these types of information are accounted for in the development of the computational model and/or shown in the modeling results.** WCS, Post-Injection Site Care and Site Closure Plan, 40 CFR 146.93(a), Wabash CCS Project (Plan revision date 9/14/2020) (redacted), Attachment 5.⁹

Consistent with the regulations, based on WCS’s demonstration that an alternative post-injection site care timeframe is appropriate and ensures non-endangerment of USDWs, the Region reasonably approved an alternative timeframe. The Region’s RTC appropriately summarizes its approval of an alternate post-injection site care timeframe based on a number of factors, including the computational modeling results and the Region’s determination based on the modeling that the “carbon dioxide plume and pressure front will become stable vertically and horizontally 10 year’s post injection.” RTC at 18. Contrary to Petitioners’ suggestion, EPA’s Class VI regulations do not require the Region to conduct its own separate information-gathering exercise, and certainly do not compel the Region to engage in the meaningless formality of

⁹ The WCS PISC and Site Closure Plan references information from the Project Narratives section of the application, provided as Attachment 6 (redacted).

ticking through and individually discussing in its RTC each of the items listed in 40 C.F.R. § 146.93(c). *Cf. FutureGen Indus. All.*, 16 E.A.D. at 725, 728 (holding Region 5 was not required to “conduct’ its own independent modeling and review of the area of review” where “EPA’s regulations require the owner or operator of a Class VI permit to delineate the area of review.”).

Indeed, a review of the RTC demonstrates that the Region properly evaluated WCS’s showing on the appropriateness of a ten-year PISC period, and sufficiently explains its reasoning in approving WCS’s request:

40 C.F.R. § 146.93(c) allows for applicants to propose a PISC period of less than 50 years provided it is supported by data or modeling and demonstrates non-endangerment of USDWs.

The results of the computational modeling demonstrate that the WCS carbon dioxide plume and pressure front will become stable vertically and horizontally 10 years post injection. Therefore, EPA has established an alternate PISC period of 10 years post injection. The permits require collection of shallow ground water samples, lowermost USDW samples, and injection zone pressure readings (collected continuously) during the PISC period. The PISC period may be extended by EPA as provided in permit section P(6)(d).

A total of 10 (Pennsylvanian System) ground water monitoring wells will be sampled throughout the PISC period to detect any intrusion of fluids that could have been caused by injection activities. In the unlikely event that impacts to the ground water are detected, corrective actions must be implemented.

Based on these factors, EPA has determined that the alternate PISC period and the post injection monitoring plan are appropriate and will be protective of USDWs.

RTC at 18.

The three-dimensional computational model is discussed in more detail in response to Comment #4 in the RTC:

WCS outlined the model domain in the permit application and listed the variables used for the mathematical computations. Site specific geologic data was used for most of the variable inputs to dynamically simulate the behavior and extent (vertical and horizontal) of the carbon dioxide plume and pressure front during the

operating period of the injection wells, as well as their behavior in a 50-year post injection period scenario. The model simulates the growth of the carbon dioxide plume and pressure front over time. . . .

EPA reviewed the model. EPA agrees with its inputs, outputs, variables, and assumptions. EPA believes that the model accurately characterizes the projected behavior of the carbon dioxide plume and pressure front.

Id. at 12-13. In short, the Region confirms that computational modeling for both the operating period of injection as well as post-injection takes into account site-specific data about the plume and pressure front. The Region further confirms that it has reviewed and agrees with the “inputs, outputs, variables, and assumptions” of the model. *Id.* at 13. As such, the record for the Permits shows that WCS provided the requisite information to make a demonstration under § 146.93(c) for an alternative PISC timeframe, and that the Region reasonably approved the alternative PISC timeframe based on its review of the information provided. The Board should defer to the Region’s well-supported technical determination. *See FutureGen Indus. All.*, 16 E.A.D. at 733 (“Decisions regarding computational modeling and the prediction of projected plumes is inherently and highly technical” and “involves precisely the kind of technical judgment to which the Board typically defers to the Region’s expertise.”).

In addition, the Region explains in the RTC how the Permits’ terms and conditions will ensure USDWs are protected under the approved PISC plan by “require[ing] collection of shallow ground water samples, lowermost USDW samples, and injection zone pressure readings (collected continuously) during the PISC period” and sampling of ten “ground water monitoring wells . . . throughout the PISC period to detect any intrusion of fluids that could have been caused by injection activities.” RTC at 18. Should the monitoring reveal any indication that USDWs are endangered, “[t]he PISC period may be extended by EPA as provided in permit section P(6)(d).” *Id.* Also, as provided in 40 C.F.R. § 146.93(b), monitoring and reporting to

EPA will continue until WCS has demonstrated to EPA that the project no longer poses a risk of endangerment to USDWs, regardless of the approved PISC timeframe.

Based on this information, the Region reasonably approved an alternative PSIC timeframe consistent with 40 C.F.R. § 146.93, and Petitioners have not demonstrated that the PISC permit condition is based on a clearly erroneous finding of fact or conclusion of law.

The Board should also determine it was reasonable for the Region to accept financial assurance sufficient for a 10-year PISC (that may be extended by the Region as appropriate as provided in Permits section P(6)(d)) as opposed to the default 50-year PISC plan. The UIC regulations require that “[t]he qualifying instrument(s) must be sufficient to cover the cost of . . . [p]ost injection site care and site closure (that meets the requirements of § 146.93).” 40 C.F.R. § 146.85(a)(2)(iii). Because the approved PISC plan in the Permits is consistent with the requirements of § 146.93, as detailed above, its financial assurance documentation by definition meets the requirements of § 146.85. Further, as the Region explained, the Permits require that, during the life of the Permits, cost estimates and financial assurances must be adjusted for any changes made to project plans, including the PISC and Site Closure Plan. *See* RTC 16; Permits Section H(2) at 6. In addition, as the Region notes in response to Comment #8, “EPA retains the authority to require [WCS] to mitigate any environmental issues after the PISC period ends.” RTC at 16. Petitioner has not demonstrated that the Region’s determination regarding the sufficiency of financial assurance for the project or related RTC explanation is based on a clearly erroneous finding of fact or conclusion of law.

E. For the Same Reasons, the Board Should Deny Review of Petitioners’ Thinly-Reasoned APA Claims.

The Petition closes with a brief, unsupported assertion that the Region’s decision violates the APA because its alleged violations of NEPA and the SDWA are arbitrary and capricious

under the APA. Petition at 17. This issue is not properly before the Board because generalized, vague arguments are insufficient to warrant review by the Board. *See, e.g., In re City of Moscow, Idaho*, 10 E.A.D. 135, 172 (EAB 2001) (The Board “has often denied granting review of arguments that are vague and unsubstantiated.”). Petitioner does not identify any specific failure by the Region to comply with the APA, and does not provide a citation or reference to public comments to show where the relevant issues were raised during the public comment period. 40 C.F.R. § 124.19(a)(4). Petitioner also does not comply with its obligation to include an “argument, with factual and legal support, as to why the permit condition or other challenge warrants review by the Board, including an explanation as to why the Region’s response to comment on the issue raised, if any, was clearly erroneous or otherwise warrants review.” *In re Seneca Res. Corp.*, 16 E.A.D. 411, 413 (EAD 2014).

Further, Petitioners’ attempted invocation of the APA is premature. The APA provides for judicial review of certain agency decisions, but under 40 C.F.R. Part 124, which governs the Board’s jurisdiction to review appeals from EPA permit decisions, Petitioners must exhaust their administrative remedies before seeking judicial review of the permit decision. A petition to the EAB for review of an EPA-issued UIC permit “is . . . a prerequisite to seeking judicial review of the final agency action” under the APA’s judicial review provision at 5 U.S.C. § 704. 40 C.F.R. § 124.19(l)(1). Even if the APA argument were not premature and was properly preserved for review, it is without merit: Petitioners’ three-sentence discussion of its APA claim is merely an incorporation by reference of its preceding NEPA and SWDA claims, and thus fails on its merits for the same reasons, as discussed above. Therefore, the Board should deny review of Petitioners’ APA claims.

V. Conclusion

Petitioners fail to meet the Board's procedural requirements and have failed to demonstrate the Region's permit decisions are clearly erroneous or otherwise warrant review. Accordingly, WCS respectfully requests that the Board deny the Petition for Review.

Respectfully submitted

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Dated: April 22, 2024

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This response brief complies with the 14,000 word limitation found at 40 C.F.R.

§ 124.19(d)(3). *See* 40 C.F.R. § 124.19(d)(1)(iv).

Dated: April 22, 2024

/s/ Kerry L. McGrath
Kerry L. McGrath

TABLE OF ATTACHMENTS

Attachment	Document
1	U.S. EPA Region 5, United States Environmental Protection Agency, Underground Injection Control Permit: Class VI, Permit Number: IN-165-6A-0001, Facility Name: WVCCS#1, Wabash Carbon Services, LLC, of West Terre Haute, Indiana [Vermillion County] (Jan. 19, 2024, issued Jan. 24, 2024)
2	U.S. EPA Region 5, United States Environmental Protection Agency, Underground Injection Control Permit: Class VI, Permit Number: IN-167-6A-0001, Facility Name: WVCCS#2, Wabash Carbon Services, LLC, of West Terre Haute, Indiana [Vigo County] (Jan. 19, 2024, issued Jan. 24, 2024)
3	U.S. EPA, <i>Public Comments Sought on Class VI UIC Injection Well Carbon Storage Draft Permits</i> , Wabash Carbon Services, Class VI UIC Injection Wells, Vermillion (IN-165-6A-0001) and Vigo (IN-167-6A-0001) Counties, Indiana (July 2023)
4	U.S. EPA Region 5, Response to Comments, U.S. Environmental Protection Agency Underground Injection Control Class VI Underground Injection Permits IN-165-6A-0001 (Vermillion County) and IN-167-6A-0001 (Vigo County), Indiana, Wabash Carbon Services, LLC (Jan. 19, 2024)
5	Wabash Carbon Services, LLC, Post-Injection Site Care and Site Closure Plan, 40 CFR 146.93(a), Wabash CCS Project (Plan revision date 9/14/2020) (redacted)
6	Wabash Carbon Services, LLC, Class VI Permit Application Narrative, 40 CFR 146.82(a), Wabash CCA Project (redacted)

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Response of Wabash Carbon Services, LLC to Petition for Review was served via e-mail this 22nd day of April, 2024, upon the persons listed below:

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Respectfully submitted,

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