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

In re:	)	
	)	
Muskegon Development Company	)	UIC Appeal No. 18-05
Mount Pleasant, Michigan	)	
Holcomb 1–22 Facility	)	
	)	
Underground Injection Control	)	
Permit No.: MI-035-2R-0034	)	
	)	

EPA RESPONSE TO PETITION FOR REVIEW

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Environmental Appeals Board Cases

Federal Statutes

Federal Regulations

Federal Cases

TABLE OF ATTACHMENTS

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This 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).

I. INTRODUCTION

The U.S. Environmental Protection Agency ("EPA"), Region 5 ("Region"), hereby responds to the Petition for Review filed on August 10, 2018 ("Petition") with the Environmental Appeals Board ("EAB" or "Board") by Emerson Joseph Addison III ("Petitioner"). The Petition challenges the issuance of Permit No. MI-035-2R-0034 by the Region. The Region issued the Permit to Muskegon Development Company ("MDC") on July 3, 2018, pursuant to the Underground Injection Control ("UIC") Program under Part C of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. §§ 300h *et seq.* For the reasons set forth below, EPA respectfully requests that the Board deny the six claims of the Petition, because the claims fail to meet the threshold procedural requirements of 40 C.F.R. § 124.19(a)(4)(ii) and/or lack merit.

II. 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." 43 U.S.C. § 300h(b). Part C of the SDWA, 42 U.S.C. §§ 300h to 300h-8, is designed to protect underground sources of drinking water ("USDWs") from contamination caused by the underground injection of fluids. Among other things, the SDWA directed EPA to promulgate permit regulations containing minimum requirements for State UIC programs. 42 U.S.C. § 300h. EPA's regulations implementing the UIC program are contained in 40 C.F.R. Parts 144-147. Part 144 establishes the regulatory framework, including permitting requirements, for EPA-administered UIC programs. Part 146 sets out technical criteria and standards that must be met in permits. Procedural requirements applicable to UIC permits are found in 40 C.F.R. Part 124.

The UIC regulations classify wells into six classes. *See* 40 CFR §§ 144.6 and 146.5. The permit at issue in this appeal is for a Class II well. A "Class II" well is defined as:

> "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." *Id.*

In states without an approved UIC program, EPA directly implements the UIC regulations and issues permits. The State of Michigan has not received approval to implement the UIC Class II program; therefore, the Region is the permitting authority for Class II wells in Michigan. *See* 40 C.F.R. §§ 147.1150 – 147.1155.

III. FACTUAL AND PROCEDURAL BACKGROUND

On February 10, 2017, EPA issued for public comment the draft UIC Class II permit MI-035-2R-0034 ("Permit") for the MDC facility at Holcomb 1-22, Clare County, Michigan, for the operation of a Class II well for injection of fresh water for purpose of enhanced oil recovery. The well is referred to as Holcomb 1-22.

The initial public comment period for the draft permit ended on March 15, 2017. As a result of comments and requests received by EPA, a public meeting and public hearing were held at Clare High School, in Clare, Michigan, on July 25, 2017. EPA further extended the July 28, 2017 deadline for receipt of comments until August 18, 2017.

On August 8, 2017, Petitioner submitted comments on the draft Permit to EPA. Petition, pp. 3, 15. On July 3, 2018, EPA issued the Permit. Along with the Permit, EPA issued a Response to Comments (RtC), which provided EPA's responses to all significant public comments received

on the draft Permit during the hearing and two comment periods (a copy of the RtC is provided as Attachment 1).

EPA electronically mailed the notice of the issuance of the Permit, and the RtC, to MDC and the Petitioner on July 12, 2018. EPA posted a public notice of the issuance of the Permit and the RtC to all commenters on July 19, 2018.

The Region conducted a full review of the Permit application in reaching its decision. This review included an evaluation of the geology of the injection and confining zones. Further, the Region reviewed and considered the documents submitted by the permittee – including the well construction, proposed operation and monitoring plan for the well; plugging and abandonment plan; and financial assurance information. The Region made its Permit decision after determining that the permittee's application satisfied the regulatory requirements for Class II wells. *See* Statement of Basis for Permit Number MI-035-2R-0034 ("Statement of Basis"), pp.1-3.

In reaching its permit decision, the Region established permit conditions through its technical evaluation that were designed to prevent the injection operations from endangering USDWs, as required by the SDWA. *See* 42 U.S.C. § 300h(b)(1)(B); 40 C.F.R. § 144.12. These conditions include the limiting of injection for enhanced oil recovery to the interval between 4948 and 5010 feet below ground surface. This injection zone is described as the Richfield Formation of the Detroit River Group, and it is separated from the lowermost USDW by approximately 4484 feet of rock strata. Statement of Basis, p. 2. The Permit also directs that the construction of the well comply with the federal UIC requirements of 40 C.F.R. § 146.22, which states that all such wells be sited so that they inject into a formation which is separate from any USDW by a confining zone free of known open faults or fractures within the Area of Review ("AOR"). Id. And, specifically, the Permit limits the permittee to injection of only fresh water;

no chemicals, brine waste or other substances are authorized for injection. See, RtC (Response #5, #8), pp. 5-6. The Permit also includes a limitation on the maximum injection pressure (MIP) to 3,238 pounds per square inch gauge (psig), which ensures that the pressure during the injection process at the well does not initiate fractures in the injection zone. See, RtC Administrative Record at Document 1, p. A-1; and, Statement of Basis, p. 2. The Permit also includes all monitoring and reporting requirements of 40 C.F.R. §§ 144.54 and 146.23. As noted in the February 2017 Statement of Basis:

> "[T]he applicant will be responsible for observing and recording injection pressure, flow rate, annular pressure, and cumulative volume on a weekly basis and reporting this to EPA on a monthly basis. The applicant will also be responsible for observing, recording and reporting annulus liquid loss on a quarterly basis. An analysis of the injected fluid must be submitted on an annual basis." *See*, Statement of Basis, p. 2.

On August 3, 2018, Petitioner filed the Petition with the Board. The Petitioner's objections can be summarized as follows: (1) EPA failed to specifically address RtC comments numbered 25, 26, and 27 ("Claim 1"); (2) EPA's Environmental Justice (EJ) screening failed to properly consider the poverty and social demographics regarding the affected community of Clare County, Michigan ("Claim 2"); (3) EPA failed to properly address "Pre-Existing Risks to Drinking Water" ("Claim 3") ; (4) EPA failed to address the risk of contamination to aquifers resulting from groundwater withdrawals ("Claim 4"); (5) EPA failed to address the risk of seismicity to USDWs ("Claim 5"); and, (6) EPA failed to address certain comments that EPA had determined to be "Out of Scope" ("Claim 6").

The Clerk of the Board received the Petition on August 13, 2018. See Board docket for this matter.

IV. STANDARD OF REVIEW

In considering any petition filed under 40 C.F.R. § 124.19(a), the Board first evaluates whether the petitioner has met threshold procedural requirements. *See* 40 C.F.R. § 124.19(a)(2) - (4); *see also In re MHA Nation Clean Fuels Refinery (Consolidated)*, 15 E.A.D. 648, 652 (EAB 2012) (citing *In re Beeland Group, LLC*, 14 E.A.D. 189, 194-195 (EAB 2008)). If the Board concludes that a petitioner satisfies all threshold pleading obligations, only then does the Board evaluate the merits of the petition for review. *In re Seneca Resources Corp.*, 16 E.A.D. 411, 412 (EAB 2014) (Order Denying Review) (citing *In re Indeck-Elwood, LLC*, 13 E.A.D. 126, 143 (EAB 2006)). If a petitioner fails to meet a threshold requirement, the Board typically denies or dismisses the petition for review. *See, e.g., In re Cherry Berry B1-25 SWD*, UIC Appeal No. 09-02 at 3 (EAB 2010) (Order Denying Review) (concluding petition did not articulate any specific permit conditions for review); *In re Russell City Energy Ctr. LLC*, 15 E.A.D. 1, 7 (EAB 2010); *In re Presidium Energy, LC*, UIC Appeal No. 09-01 at 5 (EAB 2009) (Order Denying Review) (concluding petition lacked required specificity); *In re Beeland,* 197-200 (concluding that petitions lacked specificity); *In re Sammy Mar, LLC,* 17 E.A.D. 88, 92-93 (EAB 2016); and, *see also In re Envotech, LP*, 6 E.A.D. 260, 265-69 (EAB 1996) (dismissing multiple petitions on threshold grounds including specificity).

In any appeal from a permit decision issued under Part 124, the petitioner bears the burden of demonstrating that review is warranted. 40 C.F.R. § 124.19(a)(4). The petitioner bears that burden even when the petitioner is unrepresented by counsel (or pro se), as in the case here. *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*, 15 E.A.D. 470, 478 (EAB 2012) (citing *In re Sutter Power Plant*, 8 E.A.D. 680, 687 & n.9 (EAB 1999). While the Board "does not expect such petitions to contain sophisticated legal arguments or to employ precise technical or legal terms,"

the Board nevertheless "does expect such petitions to provide sufficient specificity to apprise the Board of the issues being raised." *In re Sutter*, 8 E.A.D. at 687-88; *accord In re Puerto Rico Electric Power Authority*, 6 E.A.D. 253, 255 (EAB 1995).

To the extent a petitioner challenges an issue the permit issuer addressed in its response to comments, the petitioner must 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. *See* 40 C.F.R. § 124.19(a)(4); *Cherry Berry* at 5 (citing eight Board decisions); *see also In re Sierra Pacific Industries*, 16 E.A.D. 1 (EAB 2013).

The Board has consistently denied review of petitions that merely cite, attach, incorporate, or reiterate comments previously submitted on the draft permit. *See, e.g., In re City of Pittsfield*, NPDES Appeal No. 08-19 (EAB 2009) (Order Denying Review) *aff'd*, 614 F.3d 7, 11-13 (1st Cir. 2010); *In re Knauf Fiber Glass, GmbH,* 9 E.A.D. 1, 5 (EAB 2000) ("Petitions for review may not simply repeat objections made during the comment period; instead they must demonstrate why the permitting authority's response to those objections warrants review."); *In re Pennsylvania General Energy Co., LLC,* 16 E.A.D. 498 (EAB 2014); *In re Beeland* at 195-6.[1]

On permit decisions, the Board generally defers to the permit issuer. *In re Puna Geothermal Venture*, 9 E.A.D. 243, 246 (EAB 2000) (As the Board has stated on numerous occasions, the Board's power of review should be 'sparingly exercised.' (citations omitted)); *In re FutureGen Industrial Alliance, Inc.*, 16 E.A.D. 717, 720 (EAB 2015) (In considering whether to grant or deny review of a permit decision, the Board is guided by the preamble to the regulations

[1] In *Seneca Resources,* at 416 fn. 4, the Board stated that "Federal circuit courts of appeal have consistently upheld the Board's threshold requirement[s]...including the requirement that a petitioner must substantively confront the permit issuer's response to the petitioner's previous objections," and provides numerous case citations.

authorizing appeal under Part 124, in which the Agency stated that the Board's power to grant review "should be only sparingly exercised," and that most permit conditions should be finally determined at the [permit issuer's] level." (citations omitted)).

"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 his or her 'considered judgment.'" *In re West Bay Exploration Co.*, UIC Appeal No. 15-03 at 6 (EAB July 26, 2016); *See, e.g., In re Steel Dynamics, Inc.*, 9 E.A.D. 165, 191, 224-25 (EAB 2000); *In re Ash Grove Cement Co.*, 7 E.A.D. 387, 417-18 (EAB 1997). "The permit issuer must articulate with reasonable clarity the reasons supporting its conclusion and the significance of the crucial facts it relied on when reaching the conclusions. 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.'" *West Bay* at 6 (citations omitted). The Board will uphold a permitting authority's reasonable exercise of discretion if that decision is "cogently explained and supported in the record." *FutureGen* at 5-6 (citations omitted).

V. ARGUMENT

As discussed below, Petitioner has failed to meet the threshold procedural requirements with respect to several claims. In addition, the Petition has not demonstrated that the Region's decisions were based on clear error of law or fact or raise exercise of discretion or important policy considerations that merit Board review. The Board should therefore deny review of the Petition.

Claim 1 – Failure to Address Comments 25, 26, and 27

Petitioner's first claim asserts that EPA failed to "issue responses to Comments #25, #26, and #27", in violation of 40 C.F.R. § 124.17(a) – (c). Petition, pp. 3-4. Petitioner requests that

the Permit be "sent back" for a second response to comments, if not completely denied. Petition, p. 4.

EPA disagrees with Petitioner's assertion that EPA failed to respond to these comments. Although EPA did not specifically identify these comments by number (an editing omission), the RtC reflects that EPA did consider and respond to the substance of the Comments identified at #s 25 ('Structural failures inside injection wells are common'); 26 ('Please protect the water supply'); and 27 ('There is insufficient information in the permit application to support a permit decision'). RtC, p. 3.

Under 40 C.F.R. § 124.17(a)(2), EPA is required to "[b]riefly describe and respond to all significant comments on the draft permit or the permit application…raised during the public comment period, or during any hearing." As described below, in its July 3, 2018 RtC, EPA did address the substantive legal and/or technical issues raised in Comments #25, #26, and #27, as part of its overall RtC. Although EPA did not specifically refer to these comment numbers in the RtC, there is nothing in the regulations that requires such specific numeration – as long as EPA meets the regulatory requirement to respond to all significant comments. While EPA acknowledges that it can be helpful to reference specific comment numbers in the RtC, there is simply no requirement to do so.

EPA addressed the substance of Comment #25 ("Structural failures inside injection wells are common") in its Responses to Comments #10, #12, and, #23. RtC, pp. 7-8, 15-16. In EPA's Response to Comment #10 ("Well design and construction inadequate to protect USDW's"), EPA noted that "…technical review of the permit application included analysis of the engineering design of the injection well and cement plugs, evaluation of the site geology to determine the depth of the USDW and the suitability of the rock formation(s) for injection,

calculation of the maximum injection pressure, and a search for and evaluation of any operating or plugged wells within the Area of Review (AOR) that penetrate the injection zone, to assure that USDWs are protected." RtC, p. 7. In EPA's Response to Comment #12 ("Surface casing is not deep enough to protect USDW's"), EPA noted that "...[T]he surface casing and surface casing cement of the proposed injection well extends from the surface to 792 feet deep, which is 328 feet deeper than the bottom of the USDW, far exceeding 100 feet below the deepest USDW...[U]nderground injection wells are designed with multiple safeguards to prevent leaks from the well. Injection wells are constructed with multiple steel casings (pipe) cemented into place. Injection takes place through tubing located at the center of the innermost steel casing. A device called a packer seals off the bottom of the tubing, and the space between the innermost steel casing and tubing (annulus) is filled with a fluid containing a corrosion inhibitor. To assure that no leaking occurs in the well, the annulus space is tested after the well is completed and then re-tested periodically." RtC, p. 8. And, in EPA's Response to Comment #23 ("Injection well failure rate"), EPA noted that, "...[T]he permit requires that 'the permittee must establish (prior to receiving authorization to inject), and shall maintain mechanical integrity of this well, in accordance with 40 C.F.R. § 146.8,' and specifies monitoring requirements designed to detect conditions that indicate possible loss of mechanical integrity, and procedures for restoring mechanical integrity." RtC, pp. 15-16. All of these responses address the concern raised in Petitioner's Comment #25 regarding the occurrence of structural failures and the need to detect and remedy any failure in injection wells, explaining how permit requirements and conditions have been included to protect against any such structural failure with respect to the permitted well.

EPA addressed the substance of Comment #26 ('Please protect the water supply') in its Responses to Comments #5, #6, and #21. RtC, pp. 5-6, and 14. In EPA's Response to Comment #5 ("Ground water contamination"), EPA noted that "[T]he proposed permit allows only for the injection of fresh water for enhanced oil recovery; injections of any wastes for disposal is prohibited. The proposed injection well will have multiple safeguards to prevent any leaks: multiple well casings (steel pipe), annulus fluid (surrounding the injection tubing), cement between the well casings, and a packer to seal off the well annulus. A thick (over 900 feet for this well) confining zone of impermeable rock lies above the injection zone. In the event of a well leak (loss of mechanical integrity), the permit specifies that Muskegon Development Company must cease injection to the well, and notify EPA within 24 hours of the incident. After repair of the leak(s), Muskegon Development Company must pressure test the well, pass a mechanical integrity test, [and] transmit the test results to and request permission from EPA for written authorization to resume injection." RtC, p. 5. At EPA's Responses to Comment #5 ("Ground water contamination") and #6 ("Leak accident response"), EPA noted the same points in reference to protection of the freshwater supply potentially affected by a well leak as noted in Response to Comment #5. "The Proposed Permit allows only the injection of fresh water for enhanced oil recovery." (emphasis added.) RtC, p. 5. And, at EPA's Response to Comment #21 ("Risk of water pollution at well"), EPA specifically noted that, "Based upon EPA's technical review of the permit application, the well and plugging design, site geology, and endangered species review, the well will be protective of Underground Sources of Drinking Water (USDWs) and the environment, including surface water." RtC, p. 14.

EPA addressed the substance of Comment #27 ('There is insufficient information in the permit application to support a permit decision') in its Response to Comment #24. RtC, p. 16.

At EPA's Response to Comment #24 ("There is insufficient information in the permit application to support a permit decision"), EPA noted that "EPA has reviewed the technical information of record, and the comments received during the two public comment periods, and determined the permit application to be complete, with enough data and information to support a permit decision. The basis of the permit decision relies primarily upon assessment of the local geology, well design and the plugging and abandonment plan of the existing well. EPA considers the impact of other wells within the ¼ mile radius area of review that are deep enough to penetrate the proposed injection zone. Please see the responses to comments 1 – 4 for information about the process for public participation on the draft permit decision." RtC, p. 16. (At EPA's Responses to Comments #1 – 4, EPA addressed comments regarding the public notice, public meeting, and overall draft permit application review process. RtC, pp. 3-4. None of these specific comments were raised on appeal by Petitioner.)

As explained above, Comments #25, #26, and #27 were fully addressed by EPA, and Petitioner has failed to demonstrate that omission of the specific comment numbers in the RtC amounts to "clear error or an abuse of discretion." *See*, *In re Archer Daniels Midland Company*, 17 E.A.D. 380, at 402 (EAB 2017).

Claim 2 – Environmental Justice Screening

Petitioner's second claim asserts that EPA's "EJ screening was in error." Petition, pp. 4-6. This claim must fail on procedural grounds because Petitioner simply reiterates certain EJ concerns raised in its comments, failing to meet its burden to demonstrate with specificity why EPA's response to such comment was clearly erroneous or otherwise warrants review. In addition, the Petition raises new issues with respect to the Region's EJ screening not previously raised in its comments on the draft Permit, thus failing to meet the threshold procedural

requirement to demonstrate that each issue raised in the petition was raised in the public comment period. Finally, this claim must fail on its merits, for the reasons discussed below.

The Petition reiterates certain EJ concerns raised in the Petitioner's comments on the draft Permit – specifically, EJ concerns regarding impacts to low-income communities – without citing to or addressing EPA's response to such comments. At RtC Response to Comments #20, EPA noted that, "EPA considers a number of factors in review of a permit application, including environmental justice screening to identify areas where people are most vulnerable or may be exposed to different types of pollution, in order to assure that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies. One of those EJ screening factors identified by EPA was that 56% of the local population were in the low income level." RtC, p. 13.

Because the Region's response to comment indicates that the Region specifically considered low-income population analysis in its EJ screening, and the Petition fails to cite to such response, let alone demonstrate with specificity why such response was clearly erroneous or otherwise warrants review, the Petition should be denied for failure to meet the threshold procedural requirement at 40 CFR § 124.19(a)(4)(B)(ii).

Petitioner also attempts to support this claim by asserting that the Region should have considered additional factors in its EJ screening – e.g., veterans status; education level; and disability – none of which were raised in Petitioner's comments on the draft Permit. Accordingly, Petitioner fails to meet the threshold procedural requirement to demonstrate that each issue raised in the Petition was raised in public comments, and thus the Board should deny review of Petitioner's EJ claims regarding such additional factors.

Finally, even if the Board should find that the procedural thresholds are met, the Board should deny Claim 2 on substantive grounds. EPA's RtC Response to Comment #20, and the underlying EJ Screen within the RtC Administrative Record at Document #1 detail EPA's consideration of EJ factors in issuing the Permit. The Petitioner has failed to carry its burden of showing that EPA's EJ screening was clearly erroneous or otherwise warrants review. *See* 40 C.F.R. § 124.19(a)(4)(i)(A)-(B); *see, e.g., In re La Paloma Energy Center, LLC*, 16 E.A.D. 267, 269 (EAB 2014); and, *In re Archer Daniels Midland Company*, 383. In *Envotech, LP*, 6 E.A.D. 260, in a similar challenge to the EPA EJ assessment in a UIC permitting matter, the Board held that EPA has no authority to deny or condition a permit where the permittee has demonstrated full compliance with the statutory and regulatory requirements. Further, the Board held that where such requirements are met, "the Agency *must* issue the permit, regardless of racial or socio-economic composition of the surrounding community and regardless of the economic effect of the facility on the surrounding community." *Id.*, at 280-281. In light of this limited discretion, Petitioner has not met its burden to demonstrate that the Region's EJ screening was clearly erroneous. *See In re Archer Daniels Midland Co.*, 17 E.A.D., at 381, *citing In re Guam Waterworks Auth.*, 15 E.A.D. 437, 443 n.7 (EAB 2011) (in reviewing the permit issuer's exercise of its discretion, the Board will apply an abuse of discretion standard).

Claim 3 – "Pre-Existing Risks to Drinking Water"

Petitioner's Claim 3 – that EPA erred in failing to consider "pre-existing risks to drinking water" – also must fail on procedural grounds. First, Petitioner fails to demonstrate, as required by 40 C.F.R. § 124.19(a)(4)(B)(ii), that such issues were raised in comments on the draft Permit. The section of the Petition discussing this Claim does not point to any comments that raise the issue of "pre-existing risks to drinking water," nor has EPA identified in its own

review any comments that appear to use the same terminology or clearly raise the same issues. Moreover, to the extent that Petitioner has raised such issues in its previous comments, he has not done so with the reasonable degree of certainty to ensure that the Agency need not guess at the meaning of imprecise comments; the Region is not obligated to speculate about possible concerns not articulated. *See In re Teck Cominco Alaska, Inc.*, 11 EAD 457, at 494-495 (EAB 2004). Finally, even if Petitioner did raise such comments regarding "pre-existing risks to drinking water" in its previous comments, Petitioner has failed to demonstrate that EPA's Response to Comments failed to sufficiently address such comments. For example, to the extent that "pre-existing risks to drinking water" include risks posed by orphaned wells, EPA explained that the Region did consider such wells to ensure no endangerment to USDWs. (*See* RTC, p. 12-13). *See* also EPA's Response to Comments, p. 12 (addressing comment regarding "existing permitted and unmonitored injection wells"). Similarly, to the extent that Claim 3 raises environmental justice concerns, see response to Claim 2 above.

Claim 4: "In-Scope Remarks": Risks to USDWs From Water Withdrawal

In the section of the Petition titled "In-Scope Remarks," Petitioner appears to be arguing that EPA failed to consider the reliance of the affected populace on underground drinking water sources (aquifers), in particular the potential risk to these aquifers posed by water *withdrawals* from these aquifers for oil and gas development. *See* Petition, p. 6-7 ("Because the injected fresh water will be drawn from the area, there is a serious risk of draining the aquifer.") In other words, Petitioner's Claim 4 appears to be about the effects on nearby aquifers from which water is withdrawn for use in the injection well being permitted – not on impacts on the USDW resulting from the injection itself. As explained below, because the Petition fails to explain why

[EPA's] response to this comment was clearly erroneous or otherwise warrants review, as required by 40 C.F.R. § 124.19(a)(4)(ii), the Board should deny review of Claim 4.

At RtC Response #13, the Region explained that EPA's authority under the SDWA is limited to protecting against endangerment to USDWs from underground injection. *See* RtC, p. 9. ("There is no prohibition in the Safe Drinking Water Act (SDWA) or UIC regulations to use fresh water or ground water for injection to enhance recovery of oil or natural gas. The SDWA does not restrict the withdrawal of fresh water from an aquifer. The State of Michigan regulates ground water and the volume or rate of ground water withdrawal."). Petitioner's cursory dismissal of this response as "inadequate" (Petition, p. 8) does not meet its procedural burden to explain why the Region's response to the comment was clearly erroneous or otherwise warrants review.

Under the SDWA and within the ambit of the UIC Program, EPA's authority is to protect USDWs from risks regarding potential injection. The Board has consistently upheld this principle. See, *In re Envotech, LP*, 6 E.A.D. 260, 264 (EAB 1996), "[T]he 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." (emphasis in original). In *In re American Soda, LLP*, 9 E.A.D. 280, 289 (EAB 2000), the Board held that in a Class III permit appeal, the Agency had properly declined to review whether the NEPA statute required an Environmental Impact Study prior to issuing a permit, citing to the limits set by the SDWA and the UIC regulations; and, in *In re Cherry Berry* at 3, fn 4, in a UIC Class II permit appeal, the Board held that only the SDWA and the UIC regulations may be followed in the Agency's permit determination.

The UIC regulations are designed to prevent endangerment from underground injection of the aquifers into or through which the permitted injection activity will take place. EPA's UIC

regulations do not authorize permit conditions to address risks posed to other sources of drinking water as a result of water withdrawal. Correspondingly, the Board's authority to review UIC permit decisions extends only to the UIC program requirements and its focus on protection of USDWs from endangerment due to injection into or through those USDWs. *See In re Sunoco Partners Marketing & Terminals, LP,* UIC Appeal No. 05-01 at 10 (EAB 2006) (Order Denying review in Part and Remanding in Part) (citations omitted). The Board provided extensive discussion of this principle at *In re Environmental Disposal Systems, Inc.*, 12 E.A.D. 254 at 266-268 (EAB 2005). The Board has ruled that it "does not have authority to consider issues raised by petitioners concerning matters that are exclusively within the State's power to regulate," *In re Envotech*, 6 E.A.D. at 275-276. *See also In re Windfall Oil & Gas, Inc.*, 16 E.A.D. 269 (EAB 2015) (denying review in a UIC permit appeal of an issue of subsurface mineral rights in the area surrounding the well).[2] Thus, Petitioner's Claim 4 must fail.

EPA's decision to not include State drinking water or ground water rights provisions in this UIC permit was correct and appropriately within the reasoned discretion of the Agency. The decision reflects due consideration of the comments, and is not clearly erroneous. Thus, the Board should deny review of the claim.

Claim 5 – "In Scope Remarks": Seismicity Risks

In the section of the Petition titled "In-Scope Remarks," Petitioner also seeks to challenge the Permit based on an assertion that EPA failed to consider issues related to the seismicity of the well area in question. EPA fully considered the seismic and geological factors

[2] The Permittee must, of course, still comply with all applicable state and local laws and regulations. The Permit provides that "[i]ssuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations." Muskegon Development Co. Permit, Part I(A), p. 2 (No. MI-035-2R-0034), July 3, 2018.

related to the Permit application, as indicated in the RtC Administrative Record, Document #23 ("Seismic risk impact regarding well project (memo to file)"); and, RtC #s 15, 16, and 17, pp. 10-11. EPA specifically reviewed, and responded at length to "In Scope' comments regarding: "Excessive injection into wells can cause earthquakes"; "Injection wells can drain the aquifer and cause earthquakes"; and, "Earthquake hazards from injection wells." The Board should reject Petitioner's claims of insufficiency of EPA's response to matters involving seismicity.

At EPA's Response to Comment #15 (regarding the potential threat of "unlimited injection of ground water" into a Class II well), EPA notes that, "The UIC permit limits the injection pressure that can be used. According to historical data compiled by the U.S. Geological Survey (USGS), the Clare County area is considered a low risk area regarding earthquakes, with no instances of property damage or fatalities due to earthquakes. Of the five historic earthquakes cited by USGS in their web site report on Michigan earthquake history, none were located in Clare County. An earthquake in Michigan registered a Richter magnitude of 4.2 on May 2, 2015, but the epicenter was located 9 miles southeast of Kalamazoo, about 125 miles away from Hamilton Township, Clare County, Michigan, where the site of the proposed Holcomb 1-22 well is located. The depths of the earthquakes were determined by geologists to be more than 19,000 feet below ground, far deeper than any existing Class II injection wells. Based upon this data, and using the EPA Injection-Induced Seismicity Decision Model flow chart, no seismicity concerns related to proposed injection into the Holcomb 1-22 well were identified." See, RtC, p. 10; and, RtC Administrative Record, Document 23.

At EPA's response to Comment #16 (regarding the potential threat that "injection wells can drain the aquifer and cause earthquakes," and, the only one concerning seismicity raised by Petitioner), EPA notes that, "EPA considered seismic risk as part of its technical review of the

permit application. The May 2, 2015 earthquake epicenter was located about 125 miles away near Galesburg, Michigan, in Kalamazoo County with a Richter Magnitude of 4.2. News reports of surface damage were minimal. Upon technical review, no seismicity concerns related to proposed injection into the Holcomb 1-22 well were identified."

"Studies have documented that certain injection wells in Oklahoma can cause earthquakes. However, there are a number of prerequisite factors that must exist: 1) excessively high injection pressures and fluid volumes, and 2) the existence of fault zones. The injection pressure and fluid volume for the proposed Holcomb 1-22 well, combined with the general lack of fault zones in the area, are an unlikely scenario for injection-induced earthquakes. Also, the geology of Michigan is very different from that of Oklahoma, and the studies from Oklahoma cannot reasonably be extrapolated to the proposed well site in Michigan." See, RtC, p. 11.

At EPA's Response to Comment #17 (regarding the assertion that "Earthquakes in Michigan were felt in the past few years" and demands for a study of the entirety of Michigan's "existing oil and gas wells and injection wells"), EPA notes that the previously mentioned factors and objective criteria support its determination (See, RtC #s 15-16). EPA also notes that, "Under Part I 10(c) of the proposed permit, Muskegon Development (permittee) cannot commence injection in the well until they demonstrate mechanical integrity, submit a report for EPA review, and receive written authorization to inject from EPA." RtC, p. 11. EPA reviewed the Permit application and calculated a Maximum Injection Pressure of 3238 psi for the UIC permit in question, to ensure that the confining formation does not fracture. Statement of Basis, p. 2; RtC, Response #9; and, RtC Administrative Record, Document #13.

As demonstrated above, EPA's response to comments properly considered each comment raised regarding seismicity, and articulated EPA's reasons for accepting or rejecting

the comments. The Board has repeatedly held that if EPA meets this standard, then there is no requirement for remand or denial of the Permit. *See, In re West Bay Exploration Company*, 17 E.A.D. 204 (EAB 2016), *citing, In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 585 (EAB 2004), and *In re NE Hub Partners L.P.*, 7 E.A.D. 561, 583 (EAB 1998), (review denied) 185 F. 3d 862 (3d Cir. 1999).

Petitioner acknowledges that EPA has responded to Comments #s 5, 10, 11, 13, 16, 20, 21, 23, and 24. Petition, pp. 7-11. Petitioner asserts dissatisfaction with EPA's responses, but fails to meet its burden to demonstrate why such responses warrant review. The Board should reject Petitioner's Claim 5.

Claim 6 – Out of Scope Remarks

In the section of the Petition titled "Out of Scope Remarks," Petitioner asserts that EPA failed to properly consider certain comments relating to aquifer levels and ground water protection. Petition, pp. 11-12. Specifically, the comments raise concerns about the *withdrawal* of fresh water from surrounding USDWs for use in the injection well being permitted, asserting that such withdrawal will result in depletion and concentration of toxins in such surrounding aquifers. This appears to be the same argument Petitioner is raising in Claim 4 above – risks to USDWs from water withdrawals – and should be denied for the reasons identified above.

To the extent that Petitioner is challenging EPA's failure to consider other comments identified in the RTC as "Out of Scope," the Petition fails to identify specific comments that he believes EPA should have addressed, and how such comments relate to any terms and conditions of the Permit, and thus such claim should be denied.

VI. CONCLUSION

For the reasons set forth above, EPA respectfully requests that the Board deny the six claims raised in this Petition.

Respectfully submitted,

Thomas Turner
Associate Regional Counsel
U.S. EPA, Region 5
77 W. Jackson Blvd. (C-14J)
Chicago, IL 60604
Tel. (312) 886-6613
Email: turner.thomas@epa.gov

Of counsel:

Pooja Parikh, Esq.
U.S. Environmental Protection Agency
Office of General Counsel
Washington, D.C.

CERTIFICATE OF SERVICE

I certify that the foregoing "EPA Region 5's Response To Petition For Review" was sent to the following persons, in the manner specified, on the date below:

By electronic filing to:
Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
1200 Pennsylvania Avenue, NW
Mail Code 1103M
Washington, DC 20460-0001

By electronic mail to:
Mr. Emerson Joseph Addison III
17210 Maple Hill Drive
Northville, MI 48168
emerson.addison@gmail.com

By electronic mail to:
Muskegon Development Company
c/o: Gina A. Bozer, Esq.
Joseph E. Quandt, Esq.
Kuhn Rogers PLC
412 South Union Street
Traverse City, MI 49684
gabozzer@krlawtc.com
jequandt@krlawtc.com

DATED: October 18, 2018

Thomas P. Turner
Assoc. Regional Counsel
EPA – Region 5