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

In re:		)	
		)	UIC Appeal No(s): 14-68, 14-69, 14-70 & 14-71
FutureGen Industrial Alliance, Inc.		)	
		)	
UIC Permit Nos.:	IL-137-6A-001	)	
	IL-137-6A-002	)	
	IL-137-6A-003	)	
	IL-137-6A-004	)	
		)	

PERMITEE FUTUREGEN INDUSTRIAL ALLIANCE, INC.'S CONSOLIDATED SURREPLY TO PETITIONS FOR REVIEW

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INTRODUCTION

On December 15th, the Environmental Appeals Board ("Board") granted the FutureGen Industrial Alliance, Inc. ("Alliance") Motion for Leave to File a Surreply. This Surreply clarifies and corrects substantive and technical inaccuracies in the arguments presented by Petitioners in their Reply Brief.[1]

ARGUMENT

Petitioners' Reply materially misstates the facts and the record and mischaracterizes the Alliance's arguments in an apparent attempt to mislead the Board. Petitioners challenge policy choices and discretionary decisions made by the U.S. Environmental Protection Agency ("EPA") on technical issues. Petitioners are required, however, to document more than a difference of opinion or alternative theory of the case to merit discretionary review by the Board. *In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 567-68 (EAB 1998) ("When issues raised on appeal challenge a Region's technical judgments, clear error or reviewable exercise of discretion is not established simply because petitioners document a difference of opinion or an alternative theory regarding a technical matter.").

I. The Area of Review ("AoR") and Plume Size are Based on Site Specific and Appropriately Conservative Data.

Petitioners patently misconstrue the technical data in the record regarding the AoR and the related CO_2 plume size. First, Petitioners rely heavily on an extra-record, expert report ("Schnaar Report") and argue that the Alliance model disregards the "thin leading edge" of the CO_2 plume, which is incorrect. The Alliance model predicts a "thin leading edge" at the periphery of the CO_2 plume. *See Permit Application* at Fig. 3.22 and Fig. 3.23, p. 3.32-3.35 (AR

[1] Petitioners have alleged that the Alliance has failed to substantively address certain issues, and therefore "concedes" them. The Alliance has not conceded anything. Further, this charge is unfounded in Board precedent. *See Petitioners' Consolidated Reply in Support of Their Petition for Review* (hereinafter, "Reply") at 6, fn. 2.

2). In this way, the model accounts for the complex, heterogeneous reservoir and geology underlying the Project site. *Id*.

Next, Petitioners argue that the Alliance should have used different permeability values in its model. *Reply* at 13. The Petitioners suggested approach is inappropriate because: (1) it would result in a smaller predicted plume area,[2] and (2) it would only allow for a small variance in permeability over the Upper Mt. Simon formation. Instead, the Alliance's approach uses a reasonably conservative, base-case permeability distribution that relies on calibrated and scaled data from field-scale test results. *See Permit Application* at 3.15-3.19 (AR # 2). This base-case distribution was then scaled to cover the range of permeability variation included in the preliminary sensitivity analysis (+25%) conducted by the Alliance on its model. *Id*.

The Alliance's base case model also considered capillary pressure and residual water saturation, using data it collected. *See Permit Application* at 3.2-3.3, 3.15-3.19, and 3.41-3.43 (AR # 2). This model was then tested against pertinent parameters found in the literature. *Id*; *see also 2nd Request for Additional Information* at App. D, pp. 30-31. Adopting the approach proposed by Petitioners—i.e., selectively including only the highest possible values—contradicts the Alliance's base case modeling approach and is less reliable. *See id* at 3.15 (AR # 2), *see also* Draft AoR Plan at 17 (AR # 156), *Evaluation of AoR Delineation* at 17 (AR # 296).

Again relying on the Schnaar Report, Petitioners mistakenly assert that the CO_2 plume is "125% larger than presented in the Permits." *Reply* at 8 (citing the Schnaar Report, which states, "[EPA's] modeling indicated a final plume of 6.96 mi^2, compared to 5.56 mi^2 (or 125%

[2] The Alliance model predicts that the majority of the CO_2 plume will remain in the Upper Mt. Simon formation. S*ee Permit Application* at Fig. 3.23, p. 3.34-3.35 (showing that the current model predicts the majority of the CO_2 to remain near the confining zone) (AR # 2); *see also Second Request for Additional Information* at Appendix C, pp. 16-28 (AR # 90). Using higher permeability values for the Lower Mt. Simon formation, as Petitioners suggest, would cause the Alliance model to predict more CO_2 in this lower formation, resulting in a more even distribution of CO_2 and thus, a smaller lateral extent of the plume.

larger)...”). Thus, Petitioners are both incorrect in their basic modeling of the plume size, which overstates the plume size by 25%, and inaccurately represent the difference between a plume of 5.56 mi^2 and 6.96 mi^2 as an increase of 125%, when in fact, the difference is 25%.[3]

Finally, Petitioners make the false assertion that “Respondents are asking the EAB to simply trust that [100% of the CO_2] was in fact modeled.” *Petitioners’ Reply* at 11-12. This argument ignores statements in the Alliance permit application and the stated conclusion of Petitioners’ own expert. *See Permit Application* at 3.7, 3.41, 3.43 (AR # 2); *Schnaar Report* at 7 (stating that “One hundred percent of the CO_2 was modeled…”).

II. The Monitoring Well Network is Adequately Documented in the Testing and Monitoring Plan.

Petitioners also present confusing and misleading statements regarding documentation of the Project monitoring well network. *Reply* at 14-15. First, Petitioners complain that they must “wade through approximately 600 documents in the Record to determine which page might explain [EPA’s] decision.” *Id*. at 15. However, Petitioners acknowledge that Respondents identified 38 of these documents as the technical foundation for the monitoring well network. *Id*.

Petitioners also reject seven of the nine monitoring wells as ineffective for early detection. However, the first page of the Testing and Monitoring plan notes, “The monitoring network (Figure 1) is a *comprehensive network designed to detect unforeseen CO_2 and brine leakage* out of the injection zone and *for protection of USDWs*.” *See [UIC] Permit – Att. C: Testing and Monitoring Plan* at C1 (AR # 594) (emphasis added). Further, this plan indicates that the deeper “RAT” wells serve as the earliest detection method for potential CO_2 leakage through the confining zone, which is a prerequisite to any potential endangerment to USDWs. *See Id*. at C19-20. The EPA determined that the monitoring network was sufficient, and as

[3] Petitioners made a comparable mathematical error where they discuss permeability values varying by a factor of 4 and equate this to a 400% difference, which is similarly incorrect. *Reply* at 13.

project development proceeds, EPA may also require additional monitoring wells based upon new site specific information.

III. The Alliance Complied with Class VI Well Regulations when Identifying Wells.

That the Alliance well identification process complied with the Class VI well regulations is supported by the administrative record. Petitioners arguments, however, choose to ignore a portion of the Class VI well regulations allowing for EPA discretion in the well identification process. *Reply* at 16 (citing 40 C.F.R. § 146.84(d), but omitting the portion that states, "Using methods approved by the Director…"). The record demonstrates that EPA evaluated well identification data and related materials submitted by the Alliance (AR # 245), and upon its own investigation (AR # 538), required the Alliance to provide further well identification information (AR # 278). Such evidence demonstrates EPA's reasoned exercise of its regulatory discretion.

Petitioners falsely claim the Alliance sought to impose an "affirmative obligation" on the Critchelow family to provide expensive, scientific studies regarding its well. *Reply* at 27. Rather, the Alliance indicated that, had it received timely notice and obtained the opportunity to perform an investigation, it would have conducted its own investigation. See *Alliance Response* at 21 (noting that the Alliance provided a notice, monitoring, and investigation program to many landowners, particularly those with existing wells identified in the permit records).

IV. Financial Assurance Established in the Permits is More than Adequate to Comply with the Class VI Well Regulations

Petitioners misconstrue the Alliance's financial assurance rationale, as described in the Response. *See Alliance Response* at 22-29. The record demonstrates that the Alliance began working on a trust fund as early as May, 2013. *See Permit Application* at 9.2-9.7 (AR # 2); *see also RAI #1 Responses* at 4 (AR # 75). Similarly, the Permit Application included detailed estimates for emergency and remedial response ("E&RR") costs. *Id*. However, because of

issues obtaining insurance coverage, as further described below, the Respondents agreed to add the E&RR costs to the existing trust fund. *See E-mails* (AR #'s 312-318). In this way, establishing a trust fund for E&RR costs was not hasty, as Petitioners suggest.

Petitioners also concede, and the record clearly demonstrates, that the Alliance was unable to obtain insurance that satisfied EPA requirements. *Reply* at 30 (citing six documents); *see also Alliance Response* at 23-24 (identifying five documents that verify the Alliance's inability to obtain adequate insurance). Petitioners must also acknowledge that the regulations and record allow use of alternative financial mechanisms, including a trust fund, given that insurance was not an option for the Alliance Project at the time of the permit application. The inability to obtain insurance is not unusual where, as here, insurance coverage limits and periods were found to be insufficient. Instead, in these cases, insurance serves as only one financial option among several potential financial assurance options. *See* 40 C.F.R. § 146.85(a)(1).

Petitioners also allege that the cost estimates provided by Patrick Engineering for E&RR actions were rejected as "outdated, unreliable, and too low." *See Reply* at 31. To the contrary, EPA accepted these engineering estimates as within the range of values produced by EPA's cost tool, except that its tool used different assumptions for E&RR and, as a result, required these values to be increased. *Summary of Financial Responsibility Estimates* (AR # 320).

CONCLUSION

For the reasons set forth in the Respondents' Reply Brief, Surreply Brief, and the record documenting these permit proceedings, Petitioners have failed to demonstrate either a clearly erroneous basis for EPA issuance of the Alliance Permits or the existence of a public policy or exercise of discretion that warrants the Board's exercise of its limited discretionary review. As such, the Alliance requests that the Board dismiss the Petition without further delay.

Respectfully submitted,

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Counsel for FutureGen Industrial Alliance, Inc.

Date: December 17, 2014

CERTIFICATE OF SERVICE

I hereby certify that I filed the original electronically with the Environmental Appeals Board. In addition, I filed one copy of the FutureGen Industrial Alliance, Inc.'s Consolidated Surreply to Petitions for Review (the "Alliance's Surreply") by Next Day UPS with the Clerk of the Environmental Appeals Board at:

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I also certify that I delivered a copy of the foregoing Alliance's Surreply on the date specified below, by electronic mail and certified mail, return receipt requested to:

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[SIGNATURE FOLLOWS]

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