IN RE BEELAND GROUP, LLC, BEELAND DISPOSAL WELL #1

UIC Appeal No. 08-02

ORDER DENYING REVIEW

Decided October 3, 2008

Syllabus

Star Township, Antrim County, and Friends of the Jordan River (together, "FJR") petitioned the Environmental Appeals Board ("EAB" or "Board") to review the U.S. Environmental Protection Agency ("EPA" or "Agency"), Region 5 ("Region") decision to issue an Underground Injection Control ("UIC") permit to Beeland Group, LLC ("Beeland"). The permit authorizes Beeland to construct a Class I non-hazardous waste injection well in Antrim County, Michigan, for injection into the Dundee Limestone and Detroit River Group formation. Under the permit, the Region will determine, in a subsequent decision, whether ultimate operation of the well is appropriate.

On appeal, FJR argues that the Region's decision to issue the construction permit is deficient in seven respects. First, FJR disputes the Region's conclusion that the Bell Shale formation, which lies above the injection zone, will be a confining layer. Second, FJR challenges the Region's characterization of the proposed injection fluid as non-hazardous. Third, FJR contends that Beeland's permit application lacked sufficient data concerning the proposed injection fluid, existing reservoir conditions, and effect of the injection fluid on the Dundee Limestone formation. Fourth, FJR alleges that the Region's decisionmaking process was deficient because it violated certain aspects of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. §§ 300h-300h-8, that serve as functional equivalents to the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4307f. Fifth, FJR asserts that the Region's Response to Comments document is clearly erroneous. Sixth, FJR argues that the Region failed to perform an environmental justice analysis consistent with Executive Order 12,898. Finally, FJR contends that the Region should have held evidentiary hearings prior to issuing the permit.

Held: The permeability of the Bell Shale formation and, consequently, whether it will serve as a confining layer is a technical matter that relies significantly on the Region's expertise and experience; the Board generally defers to the Region's judgment in such cases. The Response to Comments document sufficiently details the bases for the Region's conclusion that the Bell Shale formation overlying the proposed well will be protective of underground sources of drinking water, and FJR's generalized concerns on this issue fail to demonstrate that the Region's conclusion was clearly erroneous. Accordingly, the Board declines review of this issue.

With respect to the allegation that the Region erroneously characterized the proposed injection fluid as non-hazardous, the Board finds that the permit's terms, including

the safeguards more fully described in the Response to Comments, refute FJR's arguments. These safeguards include: a permit requirement for treatment of the proposed injection fluid prior to injection; sampling results of past injections into the Dundee Limestone formation of fluid identical to the proposed injection fluid; sampling data of the injection fluid; and State agency manifest requirements for trucks transporting the proposed injection fluid. Moreover, the characterization of the proposed injection fluid as hazardous or non-hazardous is a technical issue, and the Board defers to the Region's expertise, particularly here where FJR fails to mount a case for clear error. The Board declines to review this issue.

The Board further declines to review FJR's assertions that the permit application lacked sufficient data concerning the following: the proposed injectate, the existing reservoir conditions, and the effect of the injectate on the Dundee Limestone formation. FJR failed to identify the permit conditions it challenged, as well as the comments it alleged were in error. As a result, FJR's argument concerning deficient data in the application lacked the requisite specificity for review.

As to FJR's claim that the Region's failure to prepare an environmental impact statement was a violation of certain aspects of the SDWA that serve as functional equivalents to NEPA, the Board holds that the Part 124 permitting regulations codify the functional equivalence doctrine and exempt UIC permit actions from NEPA's environmental impact statement requirement. Therefore, the lack of an environmental impact statement for this permit action does not reflect the existence of either clear error or policy reasons that warrant permit review.

In addition, the Board denies review of FJR's allegation that certain Responses to Comments, stated as a list by number and by page, are clearly erroneous. FJR fails to explain with sufficient specificity why the responses are deficient and fails to demonstrate – beyond reiteration of earlier statements made during the comment period – how the Region's responses were clearly erroneous or otherwise warrant review. FJR also does not identify any allegedly deficient permit conditions that rely on the Region's responses. As a result, FJR failed to meet the threshold requirements for the Board's review of this issue.

The Board denies review of the adequacy of the Region's environmental justice assessment of the permit decision. FJR's allegation that the proposed well will disproportionately affect the poor rural community in which the well will be located is unsupported, and the Region explained that it conducted a screening level assessment of the socioeconomic data of populations within .5-mile, 1-mile and 2-mile radii of the well. FJR failed to show that the Region's explanation that "for any of these radii, the percent of minority and percent of people below the poverty level [were] at or below the state-level percentages and [were] comparable to county-level percentages" is clearly erroneous or otherwise warrants review; accordingly, review is denied as to this issue.

Finally, the Board denies review of the issue of whether the Region was required to hold evidentiary hearings prior to permit issuance. The Part 124 permitting regulations do not provide for evidentiary hearings during the UIC permitting process, and the Board's review of the regulatory history of evidentiary hearings in the permitting process reveals the Agency's intent to resolve evidentiary disputes informally, through public comment and public hearing, prior to final permit issuance.

Before Environmental Appeals Judges Edward E. Reich, Kathie A. Stein, and Anna L. Wolgast.

Opinion of the Board by Judge Wolgast:

On February 9, 2008, the U.S. Environmental Protection Agency ("EPA" or "Agency"), Region 5 ("Region") issued an Underground Injection Control ("UIC") permit to Beeland Group, LLC ("Beeland"), pursuant to Part C of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. §§ 300h – 300h-8, and EPA's implementing regulations at 40 C.F.R. parts 124 and 144-148. UIC permit number MI-009-1I-0001 ("Permit") authorizes Beeland to construct and operate a Class I non-hazardous injection well[1] in Antrim County, Michigan, for injection into the Dundee Limestone and Detroit River Group formation between the depths of approximately 2150 and 2450 feet. On March 11, 2008, Star Township, Antrim County, and Friends of the Jordan River (together, "FJR") filed with the Environmental Appeals Board ("EAB" or "Board") a petition for review of the Permit, requesting on a variety of grounds that the Permit be remanded to the Region for further consideration ("Petition"). For the reasons set forth below, the Board denies review of the Petition.

I. *BACKGROUND*

A. *Statutory and Regulatory Background*

Under SDWA section 1421, 42 U.S.C. § 300h, the EPA Administrator is required to promulgate regulations for state UIC programs to protect underground sources of drinking water ("USDW"s).[2] The EPA has promulgated such implementing regulations, which are found at 40 C.F.R. parts 144 through 148. The protections the SDWA and the UIC regulations establish focus exclusively on

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[1] Under 40 C.F.R. § 144.6, injection wells fall into five classes depending on the material being disposed of in the well. Industrial and municipal Class I wells are used to inject fluids beneath the lowermost formation containing an underground source of drinking water ("USDW") within one-quarter mile of the well. 40 C.F.R. § 144.6(a)(1).

[2] The UIC regulations define the term "USDW" as:

> [A]n aquifer or its portion:
> (a)(1) Which supplies any public water system; or
> (2) Which contains a sufficient quantity of ground water to supply a public water system; and
> (i) Currently supplies drinking water for human consumption; or
> (ii) Contains fewer than 10,000 mg/l total dissolved solids; and
> (b) Which is not an exempt aquifer.

40 C.F.R. § 144.3.

groundwater that is or may be a source of drinking water. EPA administers the UIC program in those states that, like Michigan, are not yet authorized to administer their own programs. *See* 40 C.F.R. §§ 144.1(e), 147.1151. The UIC permit application procedures are set forth in section 144.31, which provides: "all injection activities including construction of an injection well are prohibited until the owner or operator is authorized by permit." 40 C.F.R. § 144.31(a).

B. *Factual Background*

Under the terms of the Permit, Beeland is authorized to construct and operate a newly drilled Class I non-hazardous injection well in Antrim County, Michigan. Permit at 1. However, injection cannot begin until Beeland performs tests and presents data to the Region showing that the well site is in fact suitable for injection and that the well demonstrates mechanical integrity. *Id.* at 11, pt. I.J. The "injection zone"[3] for the well is the Dundee Limestone and Detroit River Group formation at a depth of approximately 2150 to 2450 feet. *Id.* at 1; Response to Comments on UIC Draft Permit No. MI-009-1I-0001 (Feb. 7, 2008) ("RTC") at 1. The "confining zone"[4] of the well consists of approximately 100 feet of the Bell Shale formation located between approximately 2050 to 2150 feet below ground surface. RTC at 19 (Monitoring and legal issues, cmt. 15). The base of the lowermost USDW is at a depth of approximately 900 feet; therefore, approximately 1150 feet of sedimentary rock separate the top of the Bell Shale confining zone from the base of the lowermost USDW. *Id.* at 2 (Background), 19 (Monitoring and legal issues, cmt. 15).

The Permit is based on Beeland's proposal to inject a daily average of 135,000 gallons of wastewater that ranges in pH level from 7.0 to 10.0. U.S. EPA Region 5's Response to Petition for Review ("EPA Br.") at 9. The proposed wastewater is "surface runoff and leachate seeps collected near piles of cement kiln dust (CKD) at an on-going cleanup of a former cement facility * * * ." EPA Br. at 9; *see* Permit at F-1-2, pts. III.F.1-2; Permit Application, *available at* EPA Ex. 1, tab 5, at 2-58.

After issuing the draft permit, the Region received comments from the public from April 12 to July 27, 2007. RTC at 3 (Background). The Region and the Michigan Department of Environmental Quality ("MDEQ") held a joint public

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[3] The "injection zone" is "a geological 'formation', group of formations, or part of a formation receiving fluids through a well." 40 C.F.R. § 146.3.

[4] The confining zone is "a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone." 40 C.F.R. § 146.3. The confining zone serves as "a relatively impermeable barrier" between the injection zone and USDWs. Water Programs; Consolidated Permit Regulations and Technical Criteria and Standards; State Underground Injection Control Programs, 45 Fed. Reg. 42,472, 42,483 (June 24, 1980).

hearing on June 13, 2007, in Alba, Michigan. *Id*. Approximately 190 persons attended the hearing. *Id*. Star Township provided written comments to the Region by letter dated July 23, 2007, and Friends of the Jordan submitted its written comments by electronic mail and a letter, both dated July 12, 2007. Petition at 7; FJR Exs. B, D; EPA Ex. 1, tab 5. Antrim County's written comments, dated June 18, 2007, consisted of the Antrim County Board of Commissioners adoption of Resolution #20-07 on June 14, 2007. FJR Ex. C; EPA Ex. 1, tab 5; Petition at 7.

The public comments the Region received did not alter its basis for issuing the Permit; however, the Region did revise a subsection of the Approved Waste Analysis Plan at Attachment F of the Permit regarding the frequency of monitoring requirements. RTC at 3; Permit at F-2, pt. III.F.2B (reflecting monthly monitoring requirements). On February 7, 2008, the Region issued the Permit along with the Region's Response to Comments. The effective date of the Permit was March 12, 2008. Permit at 1.

C. *Procedural Background*

The Board received three petitions for review of the Region's Permit decision, filed by the following: Allen and Trisha Freize, designated as UIC Petition No. 08-01, on March 6, 2008; FJR, designated as Petition No. 08-02, on March 11, 2008; and Dr. John W. Richter, President, Friends of the Jordan River Watershed, Inc., and Heidi S. Lang, Antrim Conservation District,[5] designated as UIC Petition No. 08-03, on March 11, 2008. After the Board granted Beeland's motion to intervene in this proceeding, Beeland filed a response seeking summary disposition of all three petitions. *In re Beeland Group, LLC*, UIC Appeal Nos. 08-01 through 08-03 (EAB Mar. 28, 2008) (Order Consolidating Cases, Granting Motion to Intervene, and Granting Extension of Time); Beeland's Response to Petition Nos. 08-01, 08-02, and 08-03 (Apr. 11, 2008). FJR filed a reply on April 28, 2008, opposing summary disposition. The Board considered Beeland's response and FJR's reply and summarily denied UIC Petition Nos. 08-01 and 08-03. *In re Beeland Group, LLC*, UIC Appeal Nos. 08-01, 08-03 (EAB May 23, 2008) (Order Denying Review).

As to UIC Petition No. 08-02, the Board determined that summary disposition was not appropriate at that time and sought additional briefing on the merits of the issues raised in the Petition. *In re Beeland Group, LLC*, UIC Appeal No. 08-02 (EAB May 23, 2008) (Order Establishing Briefing Schedule). The Region

[5] Dr. Richter and Ms. Lang filed separate letters that the Board designated as a single petition for review. In a subsequent filing, Dr. Richter stated that Petition No. 08-03 "represents a collective petition comprising comments from a broad coalition of individuals, governmental agencies and [non-profit organizations] * * *." Letter from Dr. John W. Richter to Eurika Durr, Clerk of the EAB, U.S. EPA (Apr. 26, 2008).

and Beeland filed their briefs responding to the merits of the Petition on June 13, 2008, and June 20, 2008, respectively. By motion dated June 27, 2008, FJR requested leave to file a reply to the Region's response. FJR Motion for Leave to File Reply Brief (June 27, 2008). The Region indicated that it did not "believe any new issues ha[d] been raised that warrant[ed] a response" to FJR's proposed reply brief. U.S. EPA Region 5 Response to the Petitioners' Reply Brief (July 10, 2008). The Region further stated that it "st[ood] by its existing filings, which explain why the Petition for Review did not raise any issue of fact, law or policy meriting the Board's review." *Id.* By motion dated July 17, 2008, approximately one month after Beeland filed its response, FJR requested leave to file a reply to Beeland's response to the merits of the Petition. FJR Motion for Leave to File Reply Brief (July 17, 2008). On August 25, 2008, Beeland opposed FJR's July 17, 2008 motion.

The Board now grants FJR's motion for leave to file a reply to the Region's response and accepts for filing FJR's Reply to Region's Response to Petition for Review. Further, the Board denies FJR's motion for leave to file a reply to Beeland's response.[6] The case now stands ready for decision by the Board.

II. *DISCUSSION*

A. *Preliminary Requirements*

When determining whether to grant a petition for review of a UIC permit, the Board first considers whether the threshold procedural requirements for permit appeals are met. 40 C.F.R. § 124.19. These threshold requirements include timeliness, standing, preservation of issues for review, and articulation of the chal-

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[6] "After the permitting authority's response has been filed, the Board does not normally require further briefing before issuing a decision whether to grant review." Environmental Appeals Board, U.S. EPA, *Practice Manual* 36 (June 2004). Upon motion explaining why a reply brief is necessary, the Board may grant leave to file a reply. However, the Part 124 rules do not provide for a reply, and consequently, a filing deadline for such motions for leave is not established. "[M]otions for leave to file a reply brief should be filed as soon as possible upon receipt of the permitting authority's response, since the timeliness of the motion may be a factor in the Board's consideration of whether to grant it." *Id.*

In denying FJR's motion for leave to file a reply to Beeland's response, we note that neither the Part 124 rules nor the Board's practice manual sets forth or describes procedures for a petitioner to reply to an intervenor's brief responding to the Petition. Further, approximately four weeks lapsed between the filing of Beeland's brief and the filing of FJR's request to reply to Beeland's brief. Because of the delay between the filing of Beeland's brief and the filing of FJR's request, and because the brief would not materially assist in our deliberations, we deny FJR's motion.

lenged permit condition with sufficient specificity.[7]

The regulations that govern appeals of permit decisions require petitioners to have standing to appeal. In order to achieve standing to appeal, a petitioner must have participated in the public review process either by filing written comments or participating in a public hearing. 40 C.F.R. § 124.19(a). If a petitioner did not participate in the public review process, he or she may only appeal issues pertaining to changes from the draft to the final permit. *Id.*; *e.g.*, *In re Envotech, L.P.*, 6 E.A.D. 260, 266 (EAB 1996) (citing *In re Beckman Prod. Servs.*, 5 E.A.D. 10, 16 (EAB 1994)).

In addition to establishing that the petitioner has standing to appeal, the petition for review must demonstrate that any issues or arguments raised on appeal were previously raised during the public comment period (including the public hearing) on the draft permit, or were not reasonably ascertainable at that time. 40 C.F.R. §§ 124.13, .19(a); *e.g.*, *In re Shell Offshore, Inc.*, 13 E.A.D. 357, 394 n.55 (EAB 2007); *In re Hecla Mining Co. Lucky Friday Mine*, 13 E.A.D. 216, 223 (EAB 2006); *In re Westborough*, 10 E.A.D. 297, 304 (EAB 2002). The petitioner bears the burden of demonstrating that an issue was raised during the comment period, and "[i]t is not incumbent upon the Board to scour the record to determine whether an issue was properly raised below." *In re Encogen Cogeneration Facility*, 8 E.A.D. 244, 250 n.10 (EAB 1999).

Finally, assuming the issues raised have been preserved, the petition must meet the standard of specificity for review and, at a minimum, contain "two essential components: (1) clear identification of the conditions of the permit that [are at] issue, and (2) argument that the conditions warrant review." *In re Puna Geothermal Venture*, 9 E.A.D. 243, 274 (EAB 2000) (quoting *Beckman*, 5 E.A.D. at 18) (alteration in original). "[I]t is not enough for a petitioner to rely on previous statements of its objections, such as comments on a draft permit * * * ." *In re LCP Chems. – N.Y.*, 4 E.A.D. 661, 664 (EAB 1993); *see In re Knauf Fiber Glass, GmbH*, 9 E.A.D. 1, 5 (EAB 2000).

B. *Standard of Review*

The Board may grant review of a UIC permit decision if it is based on a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review. 40 C.F.R.§ 124.19(a). This power of review is to be used sparingly, as "most per-

[7] In its May 23, 2008 Order Denying Review, the Board dismissed UIC Petition Nos. 08-01 and 08-03 for failure to establish standing and for failure to meet the minimum standard of specificity for review. *In re Beeland Group, LLC*, UIC Appeal Nos. 08-01, 08-03, at 4, 11-12 (EAB May 23, 2008) (Order Denying Review).

mit conditions should be finally determined at the [permit issuer's] level." Consolidated Permit Regulations, 45 Fed. Reg. 33,290, 33,412 (May 19, 1980). "The burden of demonstrating that review is warranted rests with the petitioner, who must enunciate objections to the permit and explain why the permit issuer's response to those objections is clearly erroneous or otherwise warrants review." *In re Envtl. Disposal Sys., Inc.*, 12 E.A.D. 254, 264 (EAB 2005); *see also In re Hecla Mining Co. Lucky Friday Mine*, 13 E.A.D. 357, 394 (EAB 2006); *In re LCP Chems. – N.Y.*, 4 E.A.D. 661, 664 (EAB 1993).

C. *Analysis*

1. *Protection of Drinking Water*

The purpose of the UIC program is to protect underground water that "supplies or can reasonably be expected to supply any public water system * * * ." SDWA § 1421(d)(2), 42 U.S.C. § 300h(d)(2); *see In re NE Hub Partners, L.P.*, 7 E.A.D. 561, 566 (EAB 1998), *review denied sub nom. Penn Fuel Gas, Inc. v. U.S. EPA*, 185 F.3d 862 (3d Cir. 1999); *In re Envotech, L.P.*, 6 E.A.D. 260, 264 (EAB 1996); *In re Brine Disposal Well*, 4 E.A.D. 736, 742 (EAB 1993) ("[T]he Agency's UIC regulations are oriented exclusively toward the statutory objective of protecting drinking water sources."). It its Petition, FJR argues that the permit conditions do not adequately protect drinking water. By doing so, FJR essentially challenges the Region's assessment of the suitability of the site for non-hazardous waste injection. FJR asserts that the information Beeland submitted in support of its Permit application is inadequate with respect to the geological assessment and flawed with respect to the waste characterization, and therefore, cannot support the Region's permit decision. Petition at 8-16.

We first note that the Permit does not authorize injection, and the Region's ultimate decision on whether the site is suitable for non-hazardous waste injection will be determined only after test results and monitoring reports are submitted to the Region. Permit at 12, pt. I.J. The Board generally defers to the Region with respect to permit issues that rely heavily on the Region's technical expertise and experience, particularly when "the Region is only authorizing the permittee to drill, construct, and test the wells." *Envotech*, 6 E.A.D. at 284. Accordingly, the Board will decline review of the Region's technical determination that the proposed site is "geologically suitable" for drilling, construction and testing of the well unless FJR demonstrates that the Region's determination was "obvious[ly] flawed[.]" *Id.* FJR's objections to the Region's technical analyses are discussed separately below.

a. *Impermeability of the Bell Shale Formation*

FJR disputes the Region's conclusion that the Bell Shale formation, which lies above the injection zone, will be a confining layer. Petition at 9. We construe

this as a challenge to the Permit's condition that any injection subsequently authorized shall occur in the Dundee Limestone formation at depths between 2150 feet and 2450 feet below surface level. *See* Permit at 14, pt. II.A.1 (incorporating Permit at 1). According to FJR, the Region's conclusion that the Bell Shale formation is an adequate confining layer lacks evidentiary support and is merely an assumption because the Permit application allegedly does not contain supporting documentation or data. Petition at 9. FJR argues that the following portions of the Response to Comments are clearly erroneous for having found that "the Dundee Formation will act as a confining zone":[8] the Background Section appearing on page 2 of the Response to Comments, Comment 15 on page 19, Comment 25 on page 22, Comment 31 on pages 23-24, and "Comments 11, 19, 21, 22, 35, and 36" (presumably on pages 29, 31, 32, 34, and 35, respectively).[9] *Id.*

FJR does not specifically identify the allegedly erroneous aspects of each of the comments listed above; nevertheless, FJR argues that each response to the comments identified above is clearly erroneous because "[n]ot all shale formations are impermeable and the permeability of the Bell Shale in the area of the Injection Site has not been definitively determined, therefore, it cannot be considered a 'cap' rock or seal." *Id.* at 10. FJR contends that the Permit application was deficient because it did "not address fractures or the information contained in the *Report by Barnes and Harrison on the Fractured Reservoirs in Carbonate Rocks: The Michigan Basin*." *Id.* FJR concludes that the Region's Response to Comments failed to address fracturing, and "there has been no evidence submitted that the [Bell Shale] formation in that area is not fractured or faulted." *Id.*

FJR states that above the Bell Shale formation lies the Antrim Shale formation, "a highly fractured, porous and permeable gas[-]producing shale[,]" according to FJR. *Id.* FJR's argument is that the Region has not ensured that the Bell Shale formation is impermeable, and should it fail as a "cap" rock or confining layer, the highly fractured and permeable sedimentary rock above the Bell Shale formation and closer to the USDW could allow migration of the injected liquid into the USDW. *Id.* at 10-11.

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[8] Although FJR refers to the Dundee Limestone formation as the confining zone, we note that the Region identifies the Dundee Limestone formation as the *injection* zone, and the Bell Shale formation as the confining zone or layer. EPA Br. at 11; RTC at 2 (Background), 19 (Monitoring and legal issues, cmt. 15), 32 (Geology/Watershed and other technical issues, cmt. 22). Similarly, FJR states that the Bell Shale formation is the lowest member of the Traverse Group, which FJR characterizes as "porous and permeable[,]" while the Permit application states that "[t]he Traverse Group occurs above the Bell [S]hale [formation]." *Compare* Petition at 9 *with* Permit Application at 2-28.

[9] The Response to Comments is organized in eleven different topic-specific sections, and the numbering of the comments in each section begins with 1. Consequently, we identify the comments by also adding the pages on which they appear.

The Region contends that FJR's technical arguments are flawed in that they are "based on an extrapolation from a study of the higher (closer to the ground surface) Antrim Shale formation in [an] adjacent * * * [c]ounty" rather than the Bell Shale formation that will serve as the geological confining layer.[10] EPA Br. at 16. Accordingly, the Region argues that FJR has failed to meet its burden in showing that Region 5's decision constitutes clear error. The Region argues that the Response to Comments "demonstrates that the Region carefully considered and evaluated existing geological records for this area, data developed through the drilling and operation of existing wells in the area, and all of the comments and concerns expressed by the public." *Id.*; *see also* RTC at 7 (Issues related to Bay Harbor, cmt. 19), 22 (Monitoring and legal issues, cmt. 25), 35-36 (Geology/Watershed and other technical issues, cmt. 37) ("Information has been generated for many years from near-by [sic] wells injecting brine waters with contaminant levels similar to the proposed Beeland Group well into the same injection zone"). The Region also states that in reaching its decision, it considered "the permeability of other formations that exist between the top of the Dundee Limestone formation * * * and the lowest [USDW] * * * ." EPA Br. at 16 (citing RTC).

In response to a comment regarding whether the Region had "thoroughly ascertained the absence of permeable fracture[s] in the Bell [S]hale[,]" the Region stated:

> The presence of fractures in a confining zone does not automatically disqualify it as an adequate confining zone. A fracture must be long enough vertically to allow fluid to move through the formation. The proposed confining zone for this site is the Bell Shale, which is approximately 100 feet thick, and the injection zone (Dundee Limestone) is approximately 2,150 feet below the surface. For a fracture to allow injection fluid movement, it would have to extend 1,250 feet from the injection zone to the base of the lowermost underground source of drinking water, and injection would have to take place at a sufficient pressure

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[10] FJR relies on its expert, Dr. James McClurg, and a position paper he authored concerning the Antrim Shale formation. The Region argues that Dr. McClurg's statements and conclusions regarding the porosity of the Antrim Shale formation actually support, rather than refute, the Region's decision. *See* EPA Br. at 18 n.12. In his position paper, Dr. McClurg offered that "most shales [are] impermeable[,] which allows for them to be the cap rock over oil and gas reservoirs in many parts of the world." Dr. James McClurg, The Antrim Shale – A Position Paper 4 (undated), *available at* FJR Ex. H (emphasis omitted). In a cover letter to MDEQ and the Region, Dr. McClurg summarized his position paper and noted that the Antrim Shale formation, which overlies the Bell Shale formation, is an "unconventional play" in that it is "a non-typical shale. It is brittle[,] and as a result, [it] is highly fractured, * * * rendering the shale highly permeable." *Id.* at 1. In short, FJR's expert merely concludes that the Antrim Shale formation, unlike typical shale formations presumably including the Bell Shale formation, is uncharacteristically fractured and permeable.

> to keep the fracture open. The likelihood of such a pressure being generated, much less maintained, is extremely remote, and is not considered to be a factor at this site. The injection pressure for this site will be monitored and limited to 150 psig to assure no possibility of fracturing.

RTC at 32 (Geology/Watershed and other technical issues, cmt. 22). The Region also relied on data from other wells drilled in the Dundee Limestone formation. Specifically, the Region reviewed and considered the effects of injecting the same fluid proposed for injection into the Beeland well into an already existing commercial non-hazardous well "that uses the Dundee Limestone formation as a part of [its] injection zone." *Id.* at 36 (Geology/Watershed and other technical issues, cmt. 39). The Region stated in its Response to Comments that this well, known as Davis 1-19, "has not seen any adverse reactions from disposal of the Bay Harbor waste. The Agency does not anticipate any adverse reactions between the injection zone and the injectate." *Id.*

The permeability of the Bell Shale formation is a technical issue that relies significantly on the Region's expertise and experience, and in such cases, the Board generally defers to the Region's judgment. *Envotech*, 6 E.A.D. at 284. In this case, the Region explained that "the best geological information at the point of the proposed Beeland well location is available only by reviewing the drilling logs and core samples obtained from an actual well formation test at the Beeland well site." EPA Br. at 17. "[T]he [P]ermit contains on-going operating, monitoring, testing and reporting conditions to ensure that the Bell Shale formation remains a good confining layer * * * ." *Id.*; *see* Permit at 14-15, pts. II.B-D (providing operational limits and requirements, monitoring requirements and reporting requirements). We view the Region's determination that the Bell Shale is sufficiently impermeable to protect overlying USDWs as a technical issue that warrants the Board's deference to the Region. In this case, the Region's approach is based on what was currently known about the impermeability of the Bell Shale formation at the time of the permitting decision, specifically upon geologic data and upon data from other wells located in the underlying Dundee Limestone formation that receive injection fluids with contaminant levels similar to the injection fluids for the proposed well, as well as the Permit's testing and reporting conditions. RTC at 7 (Issues related to Bay Harbor, cmt. 19), 22 (Monitoring and legal issues, cmt. 25). Further, the Permit provides for testing and reporting requirements during and after drilling at the site to monitor the presence of fractures and their potential threat to USDWs. Permit at 6, 9-20, 12-13, 16, pts. I.E.10, I.G.2, I.J, II.C (providing for periodic mechanical integrity testing and monitoring requirements, and requiring formation testing, mechanical testing, and ambient monitoring prior to injection); *see* RTC at 16, 17, 18, 22, 25 (Monitoring and legal issues, cmts. 2, 6, 11, 25, 33). The Response to Comments sufficiently details the bases for the Region's conclusion that the overlying geologic formation to the proposed 2150-foot deep injection zone is protective of drinking water sources.

FJR's generalized concerns about fractures is not sufficient to demonstrate that the Region clearly erred in determining that the Bell Shale formation will serve as a confining zone or that the Region's decision to allow construction and site-specific testing is clearly erroneous. General statements, rather than specific arguments as to why the Region's responses are erroneous or an abuse of discretion, do not meet the prerequisites for review. 40 C.F.R. § 124.19; *In re Puna Geothermal Venture*, 9 E.A.D. 243, 274 (EAB 2000). Further, because this is a technical issue and the Region's reasoning is not obviously flawed, we defer to the Region on these technical issues and decline review. *Envotech*, 6 E.A.D. at 284.

b. *Adequacy of Waste Characterization*

FJR challenges the Region's characterization of the injection fluid as non-hazardous. Specifically, FJR questions the lack of analyses "submitted on the effect of the other constituents in the leachate" and argues that because the waste will require treatment to reduce its pH level, it is hazardous by characteristic. Petition at 15. Additionally, FJR asserts that the Permit is deficient because it "does not require the removal of chlorinated organics, or any of the metals, such as arsenic, nickel, lead, silver, mercury, and copper." *Id.* We construe FJR's arguments alleging the Region's failure to consider the waste characterization and effects of the leachate as a challenge to the Permit conditions that prohibit hazardous waste injection and are "designed to control corrosivity." *Id.* at 15-16; Permit at 1 (prohibiting injection of hazardous waste).

FJR asserts that "[d]uring the public comment period, a number of participants pointed out how the wastestream may be hazardous." Reply to the Region's Response ("FJR Reply to Region") at 3. In support of this assertion, FJR cites public comments that raise concerns about the corrosivity of the waste and the presence of mercury, lead, and other heavy metals in the leachate.[11] *Id.* at 4. FJR also argues that the Region's permitting decision "failed to consider data in determining whether the proposed wastestream will be hazardous." *Id.* at 3.

[11] Although FJR did not comment on this issue, it cites generally to comments that allegedly support its concern: a letter from the Tip of the Mitt Watershed Council contending that the waste characterization was based on "minimal samples"; Mr. Peter Vellenga's comment during the June 13, 2007 public hearing that "leachate from CKD piles often contains elevated levels of mercury, arsenic, cadmium, lead, zinc and more"; and letters from Dr. Patricia Patterson to EPA and MDEQ expressing concern about the "[m]inimum monitoring of injection fluid * * * not includ[ing] monitoring for lead, previously identified as a contaminant from the source site." FJR Reply to Region at 3-4; Letter from Jennifer McKay, Policy Specialist, Tip of the Mitt Watershed Council to William Bates, UIC Branch, EPA Region 5 (June 13, 2007); Letter from Dr. Patricia Patterson to William Bates, EPA Region 5 (July 21, 2007); Letter from Dr. Patricia Patterson to Ray Vugrinovich, MDEQ (July 27, 2007); Public Hearing Tr. (June 13, 2007) at 55.

The Region contends that FJR does not identify which Permit conditions it challenges; however, the Region notes that "[t]he only [P]ermit condition relating to these challenges is the permit condition that prohibits Beeland from injecting into the well any hazardous fluid, as defined in 40 C.F.R. Part 261."[12] EPA Br. at 22-23; Permit at 1. Assuming that this is the condition FJR challenges, the Region argues that the Response to Comments supports the Region's conclusion that, apart from the Permit's express prohibition on injecting into the well any fluid defined as hazardous, other safeguards included in the Permit ensure that only non-hazardous waste will be injected into the well. *Id.* at 23. The Region also contends that FJR's argument is a permutation of its argument that there is insufficient data on the quality of injected fluids, existing reservoir conditions and effect of the injection fluids on the Dundee Limestone formation, which is discussed separately at Part C.1.c, *infra.* *Id.* at 22.

The Region addresses the record, sampling data, the results of past injections of the same fluid into the Dundee Limestone formation, several safeguards included in the Permit, the decisionmaking process, and State agency requirements in arguing that the injection fluid is adequately characterized and is not hazardous. First, the Region obtained test results of the proposed injection fluid demonstrating that the fluid was not hazardous. Based on the analyses of injection fluid samples, the Region stated that "[w]hile there is some variability in the concentrations of the analytes, none of the constituents are at concentrations that EPA would deem hazardous" and that it was "not aware of any basis to characterize this wastestream as anything other than non-hazardous." RTC at 31, 36 (Geology/Watershed and other technical issues, cmts. 19, 39); EPA Br. at 19 (citing Letter from Petrotek to U.S. EPA, tbl. 7B (Jan. 24, 2007), *available at* EPA Ex. 1, tab 4) (summarizing analytical results indicating that the pH level of samples ranged from 7.5 to 8.2).[13] Given the source of the injection fluid – surface runoff and leachate seeps near piles of cement kiln dust at a cleanup site – the Region had anticipated the principal concern to be elevated levels of acidity in the fluid,

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[12] Part 261 includes the criteria for identifying characteristic hazardous waste, and for listing hazardous waste pursuant to the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901-6992k.

[13] The Region cites and provides "Table 7B of letter, from Petrotek to U.S. EPA, dated January 24, 2007" and suggests that it is a part of the administrative record, and presumably, made available to the public. We note that the Region provided the Board only with page 6 of the letter, which consists of Table 7B, and the only document on the administrative record index that the Region provided to the Board with the Region's response brief that is dated January 24, 2007, is a document in "Permit Folder Organization File 1 of 5," number 3.5. This document is described as an "E[-]mail from Ken Cooper to William Bates, Petrotek, re deficiency notice dated 01/24/07[.]" Thus, it is unclear whether Table 7B is a part of the administrative record. However, given the remaining safeguards discussed in this Part, this deficiency is not fatal to the Region's argument.

rather than the presence of heavy metals, for example.[14] EPA Br. at 9. Even as to this substance, the samples did not reflect acidity at levels that would render the injection fluid "hazardous" under the applicable regulations. Under the applicable Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901-6992k, regulations, waste with an acidic content is deemed to be a hazardous waste if its pH level is 12.5 or higher, and in this case, based on sampling, the Region stated that "the wastewater's pH level 'is typically expected to range from 7.0 to 10.0.'" *Id.* (quoting Permit Application at 2-40-41, pt. 2.H, tbl. H-2); 40 C.F.R. § 261.22.

Second, the Region's Response to Comments provides that "[t]he wastewaters will be neutralized as necessary to ensure that the injectate will have a pH that is non-hazardous." RTC at 32 (Geology/Watershed and other technical issues, cmt. 23); *see also id.* at 33 (Geology/Watershed and other technical issues, cmt. 30) ("The waste proposed for the Beeland Group well is non-hazardous."). The Region explained that the injection fluid, which is from a cleanup site, will be treated to reduce the pH level so that the fluid is non-hazardous prior to leaving the site. *Id.* at 32-34 (Geology/Watershed and other technical issues, cmts. 23, 29, 30); *see also id.* at 4 (Issues related to Bay Harbor, cmt. 3) ("If the pH [is] at a hazardous level (pH = 12.5), the waste stream is treated to lower the pH to a non-hazardous level."). Accordingly, even if the untreated injection fluid is deemed hazardous, which it is not expected to be, injection fluid treated in the manner described in the RTC would not be hazardous at the time it is injected into the well.

Finally, the Region's Response to Comments states that the Michigan Department of Transportation requires trucks transporting the injection fluid from the cleanup site to the well to maintain manifests, and this requirement will also ensure that hazardous waste is not injected into the well. The Region explains:

> The manifests from trucks that will be shipping the liquid waste will be submitted to EPA for review. In addition, the company is required to submit monthly monitoring reports to the EPA. These monthly reports will include pH measurements and the measurement of other analytes to

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[14] The Region explained in the Response to Comments that the monitoring plan for the injection fluid did not include lead because the fluid analyses Beeland submitted as part of the application indicated that the lead levels were below the maximum contamination level for drinking water standards: "Beeland Group submitted four analyses that were taken over three months * * * . The highest value that was obtained from the analyses was 5.5 parts per billion, which is less than the maximum contamination levels set in the [applicable] drinking water standards, 15 parts per billion." RTC at 31 (Geology/Watershed and other technical issues, cmt. 20); *see also* 40 C.F.R. § 141.80(c)(1) (stating that lead action level is exceeded if concentration of lead in more than ten percent of samples collected during a monitoring period is greater than 0.015 milligrams per liter.).

> determine if the waste is hazardous. The reports will have to be certified by the company manager as accurate.

Id. at 33 (Geology/Watershed and other technical issues, cmt. 25) (referring to Michigan requirement).

Accordingly, our review of the record indicates that the Region's Response to Comments adequately describes the safeguards for ensuring that hazardous waste is not injected in the well, and FJR's arguments have not persuaded us that the Region's Response to Comments is clearly erroneous. 40 C.F.R. § 124.19(a); *In re Hecla Mining Co. Lucky Friday Mine*, 13 E.A.D. 357, 394 (EAB 2006). Because FJR has failed to demonstrate any clear error or abuse of discretion, we defer to the Region's determination on this technical issue and decline review. *Envotech*, 6 E.A.D. at 284.

c. *Challenges to the Permit Application*

FJR asserts that Beeland's Permit application lacked sufficient data concerning the proposed injectate, existing reservoir conditions, and effect of the injectate on the Dundee Limestone formation. According to FJR, thirteen Responses to Comments are allegedly "unsupported or erroneous" because they fail to address perceived deficiencies in the Permit application. Petition at 11. FJR contends that the Permit application lacks eighteen items, and in five additional instances, the Permit application does not include adequate analyses, models, and maps, consisting of the following: (1) the choice of critical pressure model and use of single parameter values; (2) the choice of spreading model; (3) the adequacy of the scale on the map; (4) the proposal of how Beeland will confirm the formation that contains the lowermost USDW; and (5) the assertion that there will be no drilling through bedded salt deposits. *Id.* at 13-14. FJR does not identify the Permit conditions it challenges, and for the five analyses, models and map, FJR fails to identify any responses to comments that are alleged to be clearly erroneous. *Id.* Similarly, for the eighteen listed items that are allegedly missing from the application, FJR does not elaborate as to how they are connected with the thirteen Responses to Comments FJR has listed. *See id.* at 12. As explained below, the assertions of alleged deficiencies fail to satisfy the requisite standard for review.

First, the Region argues that FJR failed to raise this issue during the public comment period. EPA Br. at 20. No references to the eighteen items allegedly missing from the application were included in FJR's comments. The Region managed to identify potentially relevant Responses to Comments that may correlate with nine of the eighteen items that FJR alleges are missing from the applica-

tion.[15] However, individuals or organizations other than FJR authored these comments,[16]and the Region stated that these "comments from other individuals * * * may have some connection to nine of the Petitioners' items." *Id.* at 21. The Region argues that none of these comments alleged clear error as to any permit condition. *Id.* at 22. The Region contends that the remaining nine listed items were not raised at all during the public comment period, and thus FJR lacks standing to appeal those issues. *Id.* at 21.

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[15] The nine application items that FJR alleges were missing and that the Region was able to connect with comments made by individuals or organizations other than FJR are:

Item FJR alleges is missing	Comment(s) the Region has identified
a. A discussion of the effect of the injection on the present and potential mineral resources in the area	RTC at 32 (Geology/Watershed and other technical issues, cmt. 30), 44 (General issues, cmt. 33)
b. The identification of the hazardous wastes in the [cement kiln dust] leachate;	RTC at 30, 33, 38 (Geology/Watershed and other technical issues, cmts. 15, 30, 39), 26 (Monitoring and legal issues, cmt. 38)
d. A spill prevention and spill control plan	RTC at 42 (General issues, cmt. 19)
h. The occurrence and extent of natural fractures and/or solution features within the area of influence	RTC at 32 (Geology/Watershed and other technical issues, cmt. 22)
i. The chemical and physical characteristics of the fluids contained in the injection fluids contained in the injection zone and fluid saturations	RTC at 36 (Geology/Watershed and other technical issues, cmt. 39)
k. The [f]ormation fracture pressure, the methods used to determine fracture pressure and the expected direction of fracture propagation	RTC at 34 (Geology/Watershed and other technical issues, cmt. 35)
l. The vertical distance between the top of the injection zone from the base of the lowest fresh water strata	RTC at 28 (Geology/Watershed and other technical issues, cmt. 9
m. The impact of injection	RTC at 34, 36, 37 (Geology/Watershed and other technical issues, cmts. 35, 38, 41)
r. A federal spill prevention contamination counter measure plan (SPCC pursuant to 40 CFR part 112)	RTC at 42 (General issues, cmt. 19)

Petition at 12-13; EPA Br. at 21-22.

[16] That someone other than FJR authored these comments is not fatal to FJR's petition for review because those comments made by other commenters during the public participation period became part of the administrative record and are preserved for review. *In re Kawaihae Cogeneration Project*, 7 E.A.D. 107, 127 n.27 (EAB 1997) ("To preserve an issue for review, it is not necessary that *petitioners* have personally raised the issue, only that the issue have [sic] been raised by someone during the public comment period.").

We observe that it is unclear whether the connection between the nine alleged application deficiencies and the Responses to Comments the Region identified constitute the nexus that FJR intended because, among other things, FJR itself has not indicated the corresponding response(s) for each alleged application deficiency. Therefore, even if it were apparent which Permit conditions FJR challenges, we decline to speculate as to which factual findings and legal conclusions FJR contends are clearly erroneous.[17] Finally, even if the Region has correctly identified the challenged permit conditions and corresponding comments, FJR has not demonstrated that the Region's responses to these comments are clearly erroneous. *In re LCP Chems. – N.Y.*, 4 E.A.D. 661, 664 (EAB 1993).

In short, there is a lack of the requisite specificity for review, which is fatal to FJR's arguments that the Region's legal conclusions and factual findings are clearly erroneous due to allegedly inadequate analyses, models and maps in the Permit application and the absence of eighteen items in the Permit application. *E.g.*, *Hecla*, 13 E.A.D. 357, 394. Accordingly, the Board declines review of the aforementioned issues.

2. *Documentation and Analysis of Environmental Consequences and Potential for Adverse Effects*

FJR argues that the Region violated certain aspects of the SDWA that serve as functional equivalents to the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4370f, because the Region did not analyze "the environmental consequences of the proposed permit action, including the potential for adverse environmental and human health effects or impacts from the proposed UIC well." Petition at 17 (citing *W. Neb. Res. Council v. U.S. EPA*, 943 F.2d 867 (8th Cir. 1991)). According to FJR, the Region violated the SDWA and NEPA because it did not provide "documentation to support the lack of permeability of the Bell Shale and the effects of the leachate on the surrounding materials" and failed to analyze the following: (1) the environmental consequences of the wastewater on the Dundee Limestone formation; (2) the adequacy of the Bell Shale formation to act as a confining zone; and (3) the formation pressures and cone of influence. *Id.*

NEPA requires federal agencies to prepare an environmental impact statement ("EIS") for any proposed action that constitutes a "major Federal action significantly affecting the quality of the human environment * * * ." NEPA § 102(C); 42 U.S.C. § 4332(C). However, "[f]ederal regulatory action taken by an agency with recognized environmental expertise, when circumscribed by extensive procedures, including public participation for evaluation of environmental is-

[17] Because we decline to review all eighteen items based on our determination that FJR's argument lacks specificity, it is not necessary to consider whether half of the items were preserved for appeal.

sues, constitutes the functional equivalent of NEPA's requirements." *In re Am. Soda*, 9 E.A.D. 280, 291 (EAB 2000) (quoting *In re IT Corp.*, 1 E.A.D. 777, 778 (Adm'r 1983)) (internal quotations omitted). The Part 124 permitting regulations codify the functional equivalence doctrine and exempt UIC permit actions from NEPA's environmental impact statement requirement. 40 C.F.R. § 124.9(b)(6). This regulation is "dispositive on the question of the UIC permit program's functional equivalence to NEPA[,]" and an environmental impact statement is not required for UIC permit issuance. *Am. Soda*, 9 E.A.D. at 291. Therefore, to the extent that FJR is arguing that the Region failed to develop an environmental impact statement containing "documentation to support the lack of permeability of the Bell Shale and the effects of the leachate on the surrounding materials" and "other analysis relating to formation pressures and cone of influence[,]" we disagree that an environmental impact statement, as defined in the NEPA implementing regulations codified at 40 C.F.R. part 1502, was required in this case. As to FJR's substantive complaint that potentially adverse consequences of the well were not sufficiently analyzed, we disagree for the reasons stated in Part C.1.b, *supra*.

Moreover, we note that FJR fails to identify – and consequently challenge – specific Permit conditions in connection with the allegation that the Region was required to develop an environmental impact statement. Petition at 17. As the Board has stated in the past, "generalized concerns that are not tied to particular permit terms are not suitable for Board review." *Am. Soda*, 9 E.A.D. at 295 n.17 (citing *In re Envtl. Disposal Sys., Inc.*, 8 E.A.D. 23, 35 (EAB 1995)). Accordingly, we decline to review this issue.

3. *General Allegations of Clear Error in the Response to Comments*

With respect to FJR's claim that the Region's Response to Comments is clearly erroneous, FJR states:

> For the reasons set forth in Section B of this Brief, and as demonstrated by the attached Exhibits, the following EPA Responses to Comments are clearly erroneous:
>
> *Background Section*, p 2;
>
> *Issues Related to Bay Harbor*, Comment 1, p 7[;]
>
> *Monitoring and Legal Issues*, Comments [sic] 8, pp17-18[;] Comment 15, p19[;]Comment 18, p20[;] [Comment] 25, p22[;] Comment 31, pp23-24;

> *Geology/Watershed Issues*, Comments 5, 6, 11, 15, 19, 21, 22, 35, 36, 39, and 41.

Petition at 18. This argument cross-references – and relies on – arguments made in an earlier section, B, of FJR's brief. We addressed this argument in Part II.C.2, *supra*. In that Part, we discussed FJR's allegations that the Region had violated the SDWA and NEPA by failing to conduct an adequate analysis of the environmental consequences of issuing the Permit and did not provide for adequate public participation. Part II.C.2, *supra*.

Due to procedural shortcomings inherent in FJR's abbreviated method of arguing that the listed Responses to Comments are clearly erroneous, we decline review of this issue. The Region states that it is "unable to discern from [FJR's] challenge what specific fact or facts [it] claim[s] as error within the comment, or any basis for such a claim." EPA Br. at 25. By merely listing – by number and by page – the Region's Responses to Comments that are alleged to be clearly erroneous and referencing an unrelated section of its own brief, FJR fails to explain with sufficient specificity why the Region's responses were clearly erroneous. Moreover, FJR does not identify any allegedly deficient Permit conditions that rely on these factual findings and legal conclusions. Even if FJR had identified the nexus between the responses, the Permit conditions, and the factual findings and legal conclusions, FJR does not indicate what aspect of the responses it challenges. Based on FJR's list, we are left to assume that the entire response to the identified comments are allegedly clearly erroneous. Without more, such an approach is too broad.[18]

Finally, even assuming FJR identified the Permit conditions it contends are based on clearly erroneous factual findings or legal conclusions in the Response to Comments, FJR does not rebut any of the Region's factual findings or legal conclusions. We previously stated that "it is not enough for a petitioner to rely on previous statements of its objections, such as comments on a draft permit; a petitioner must demonstrate why the Region's response to those objections (the Region's basis for its decision) is clearly erroneous or otherwise warrants review." *In re LCP Chems. – N.Y.*, 4 E.A.D. 661, 664 (EAB 1993). By merely listing the Responses to Comments it alleges are clearly erroneous, FJR is essentially relying on its earlier statements. Without more, FJR fails to persuade the Board that the Region clearly erred in its legal conclusions and factual findings, and the Board declines review of this issue.

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[18] For instance, FJR identifies "*Background Section*, p 2" as being clearly erroneous. Petition at 18. This section of the Response to Comments spans nearly two double-spaced pages and consists of seven paragraphs. RTC at 2-3. It generally discusses the legal requirements for issuing UIC permits and describes the proposed siting and construction of the Beeland well. *Id.* at 2. The background section also provides a cursory overview of the technical and reporting requirements of the Permit and concludes with a summary of the public participation process. *Id.* at 3.

4. *Policy Considerations*

FJR argues that the Permit should be remanded so that the Region may consider two policy issues that warrant review. First, FJR alleges that the Permit and Response to Comments are inconsistent with Executive Order No. 12,898 ("EO 12,898"), which mandates federal agencies to "achiev[e] environmental justice as part of [their] mission[s]." Petition at 18 (citing RTC at 10 (Environmental Justice, cmt. 1) and Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 16, 1994)). Second, FJR asserts that there are several issues for which the Region should have, as a matter of policy, conducted an evidentiary hearing and received testimony from experts. *Id.* at 19.

a. *Environmental Justice Concerns*

FJR asserts that the Region failed to perform an adequate environmental justice analysis under EO 12,898, entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." *Id.*; *see* 59 Fed. Reg. 7629. EO 12,898 instructs federal agencies to address, as appropriate, "disproportionately high and adverse human health and environmental effects of [their] programs, policies, and activities on minority and low-income populations * * * ." 59 Fed. Reg. at 7629. *In re Envotech, L.P.*, 6 E.A.D. 260 (EAB 1996), sets forth the parameters of the Region's duty to conduct an environmental justice analysis when "a superficially plausible claim that a proposed underground injection well will disproportionately impact the drinking water of a minority or a low-income segment of the community in which the well is located" is raised during the comment period. 6 E.A.D. at 282. Accordingly, "the Region should, as a matter of policy, exercise its discretion * * * to include within its assessment of the proposed well an analysis focusing particularly on the minority or low-income community whose drinking water is alleged to be threatened." *Id.*

FJR argues that it is an "undisputed fact" that the well is located in a "poor rural community" and will be receiving waste from "an extremely affluent subdivision." Petition at 19. Therefore, FJR contends that the Region's permitting decision should have included an analysis that "particularly focus[ed]" on these "low-income demographics." *Id.* (emphasis omitted).

In response to comments regarding the influence of the local community's economic status on the permitting decision, the Region stated that it conducted an "Environmental Justice Screening Evaluation," which is appended to the Response to Comments.[19] RTC at 10-11 (Environmental Justice, cmt. 1). The Region con-

[19] The Agency's *Toolkit for Assessing Potential Allegations of Environmental Injustice* serves as a reference guide and provides a methodology for Agency personnel to assess potential allegations
Continued

cluded that "the economic status of the population surrounding the proposed UIC well is comparable to that of Antrim County and of Michigan." *Id.* at 11, 51. Thus, the Region's environmental justice screening analysis did not find that a "low-income segment of the community" existed at the well site. The Region also stated that its "review of compliance, human health, and environmental indicators did not reveal any potential for disproportionately high and adverse impacts on the community surrounding the well." *Id.* at 11. As to data collection and methodology, the Region collected sociodemographic data for the well area and considered the populations within .5-mile, 1-mile, and 2-mile radii of the well. *Id.* at 41. Using data obtained from EPA's "Environmental Justice Geographic Assessment Tool," the Region found that "for any of these radii, the percent of minority and percent of people below the poverty level are at or below the state-level percentages[] and are comparable to county-level percentages." *Id.* at 49.

FJR also argues that the Region's Response to Comments did not provide details explaining the Region's conclusions, rendering the responses "vague and therefore inadequate." FJR Reply to Region at 4. However, FJR's allegation that the "[i]njection [s]ite is in a poor rural community" is also unsupported and does not demonstrate that the Region's Response to Comments on the issue of environmental justice was clearly erroneous or otherwise warrants review. Accordingly, the Board denies review on this ground.

b. *Lack of Evidentiary Hearings*

FJR contends that as a matter of policy, the Region should have held evidentiary hearings prior to issuing the Permit because "[s]ound science and the mandates of the SDWA and UIC [regulations] compel[led] further study and investigation" on issues related to the permeability of the Bell Shale formation, the characterization of the leachate and its effects on the materials and fluids in the injection zone, the formation pressures, and the "cone of influence." Petition at 19. According to FJR, the Permit was "based on assumptions and unsupported theories" and "[t]here is no harm holding evidentiary hearings to insure that the assumptions are sound and the theories can find support." *Id.*

FJR does not identify the source of the Region's alleged authority to conduct an evidentiary hearing in this case, nor does FJR cite any precedent where the Region has held an evidentiary hearing as part of a UIC permit decision. Fur-

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(continued)
of environmental injustice. Office of Environmental Justice, U.S. EPA, EPA 300-R-04-002, *Toolkit for Assessing Potential Allegations of Environmental Injustice* (Nov. 3, 2004) ("*Toolkit*"). The methodology consists of a "Screening-Level Assessment," and should the screening assessment indicate a possible environmental justice concern, a "Refined Assessment." *Id.* at 15. The Region's Environmental Justice Screening Evaluation in connection with the Permit generally followed the *Toolkit* framework. RTC at 48.

ther, the regulations at 40 C.F.R. part 124 do not provide for evidentiary hearings during the UIC permitting process. *See*, *e.g.*, Amendments to Streamline the National Pollutant Discharge Elimination System Program Regulations, 61 Fed. Reg. 65,268, 65,276 (proposed Dec. 11, 1996) (providing that "[t]here is no provision for formal adjudicatory hearings " for permits issued under the UIC program). We observe that where the EPA permitting regulations authorized evidentiary hearings in the past, they applied to challenges of National Pollutant Discharge Elimination System ("NPDES") permits, RCRA section 3005 permit terminations, and those UIC and RCRA permit conditions that are closely linked to NPDES permit conditions for which an evidentiary hearing had been granted, following issuance of a final permit decision and as a prerequisite to EAB review. *Id.*; *see also* 40 C.F.R. § 124.21; *In re City of Phoenix, Ariz.*, 9 E.A.D. 515, 525 n.14 (EAB 2000). Thus, the Agency's earlier practice, abandoned in 2000, of holding evidentiary hearings for challenges to NPDES permits did not apply to the type of UIC permit at issue here.[20] 40 C.F.R. § 124.21(b); Amendments to Streamline the NPDES Regulations, 65 Fed. Reg. 30,886, 30,912 (May 15, 2000) (removing 40 C.F.R. pt. 124, subpt. E).

Our review of the regulatory history of evidentiary hearings in the permitting process reveals the Agency's intent to resolve disputes informally, through public comment and public hearings, prior to final permit issuance. Accordingly, FJR's argument that policy considerations warranted an evidentiary hearing in this case fails, and we decline to remand the Permit on this ground.

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[20] Even as to NPDES permits, the Agency determined that evidentiary hearings were unnecessary and amended the applicable regulations to call for a more streamlined record-based process. Amendments to Streamline the NPDES Regulations, 65 Fed. Reg. 30,886, 30,912 (May 15, 2000); *see also In re US Gen New England, Inc. Brayton Point Station*, 11 E.A.D. 525, 544-47 (EAB 2004) (construing final rule removing evidentiary hearing requirement), *appeal dismissed sub nom.*, *Dominion Energy Brayton Point, LLC v. Leavitt*, No. 04-12225 (June 13, 2005) (Bench Order on Motion to Dismiss), *aff'd*, 443 F.3d 12 (1st Cir. 2006). The Agency reasoned that the factual issues likely to arise in an NPDES permit hearing would be technical and would:

> [I]nvolve wideranging and complex facts that are more susceptible to a full documentary record than through examination and cross-examination of witnesses. The goal then should be to compile a full and fair documentary record upon which EPA can base its decision.

61 Fed. Reg. at 65,277. This approach would allow the Region to "resolve the [factual] dispute through analysis of written affidavits and arguments of the parties' technical experts." *Id.* at 65,277-78. The Agency also noted that "the existing process for RCRA, UIC, and PSD permits ha[d] proven effective in resolving all factual legal, and policy issues, providing for adequate public participation, and ensuring that permit issues are resolved in a relatively short time frame." *Id.* at 65,279. Consequently, the Agency placed NPDES permits under the same system, and evidentiary hearings are no longer a part of the permitting process. *Id.*; *see also* 40 C.F.R. § 124.21(b); 65 Fed. Reg. at 30,912.

III. *CONCLUSION*

For the foregoing reasons, the Board denies the petition to review UIC Permit No. MI-009-1I-0001.

So ordered.