IN RE ENVOTECH, L.P.

UIC Appeal Nos. 95-2 through 95-37

ORDER DENYING REVIEW IN PART AND REMANDING IN PART

Decided February 15, 1996

Syllabus

Thirty-six petitioners challenge U.S. EPA Region V's decision to issue two Class I Underground Injection Control (UIC) permits to Envotech Limited Partnership ("Envotech"), pursuant to Safe Drinking Water Act Sections 1421(b) and 1422(c), 42 U.S.C. §§ 300h(b) and 300h-1(c). The permits authorize Envotech to drill, construct, test and operate two hazardous waste injection wells in Washtenaw County, Michigan. The purpose of the wells is to dispose of hazardous leachate from a landfill being remediated by Envotech pursuant to Michigan law. The petitions raise the following allegations as grounds for review of the Region's decision: underground injection is an "unsafe and unproven" technology; the local community strongly opposes the permits; Envotech allegedly has a poor history of environmental compliance; Envotech has not received all state and local approvals necessary to operate the wells; the wells will allegedly interfere with private property rights; considerations of "environmental justice" require denial of the permits; the Region's geological assessment of the proposed wells is allegedly flawed in several respects; the Region erred in characterizing the leachate as hazardous waste code "F006" under 40 C.F.R. § 261.31(a); the permits, if issued, should include the wastestream from a new hazardous waste disposal facility proposed to be built by Envotech; the wells as permitted provide "excess capacity" in light of the volume of leachate to be disposed of in the wells; the pH limits in the permits are inadequate; and Envotech failed to provide the waste minimization certification required under 40 C.F.R. § 146.70(d)(1).

Held: The Board concludes that four of the petitions for review are untimely, and must be dismissed. The Board further concludes that six of the petitioners who filed timely petitions lack standing to pursue appeals, and their petitions for review must also be dismissed. In addition, four petitions are so lacking in specificity that they have provided the Board with no basis for considering them on their merits; review of those petitions is therefore denied. With respect to the issues raised in the remaining petitions, the Board finds that, except for one issue, the petitioners have not met the stringent standards necessary to invoke Board review of the Region's decision, and thus review must be denied. The Board does, however, find that the permits must be remanded for inclusion of the "waste minimization" certification required by 40 C.F.R. § 146.70(d)(1).

Before Environmental Appeals Judges Ronald L. McCallum and Edward E. Reich.

Opinion of the Board by Judge Reich:

I. INTRODUCTION

We have consolidated for decision thirty-six petitions seeking review of U.S. EPA Region V's decision to grant to Envotech Limited Partnership ("Envotech") two Class I Underground Injection Control (UIC) permits, issued pursuant to Sections 1421(b) and 1422(c) of the Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300h(b) and 300h-1(c).[1] The permits were issued March 30, 1995, and authorize Envotech to drill, construct, test, and operate two hazardous waste injection wells, located in Washtenaw County, Michigan. The Region granted the permits over considerable local opposition. Most of the petitioners are Michigan residents and nearby municipalities who strongly object to the siting of the hazardous waste disposal wells in Washtenaw County.

The Board has carefully considered the arguments raised in the petitions for review, the responses of the Region and Envotech to the petitions, and the relevant portions of the administrative record underlying the Region's decision to grant the permits at issue. On the basis of the record before it, the Board concludes that, with the exception of one issue, the petitioners have not met the stringent standards necessary to invoke Board review of the Region's decision. The Board finds that the permits must be remanded for inclusion of the "waste minimization" certification required to be made by the permittee under 40 C.F.R. § 146.70(d)(1). In all other respects, the Board must deny the petitions for review of the Region's decision.[2]

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[1] In alphabetical order, the petitioners are: "AMY Group" (comprised of the towns of Augusta, Milan, and York, Michigan) (No. 95-16),Jim Berryman (No. 95-14), Elizabeth Brater (No. 95-32), Don Broderick (No. 95-36), Gloria Copeland (No. 95-26), Douglas Darling (No. 95-29), Patricia Dignan (No. 95-37), James Duffy (No. 95-27), Leroy Duke (No. 95-15), Sally Edwards (No. 95-11), Joseph Fanto (No. 95-31), Leslie Feret (No. 95-35), Julie Griess (No. 95-2), Rodney Hill (Michigan Citizens Against Toxic Substances) (No. 95-24), Gordon Hongisto (No. 95-28), Ann Hubbell (No. 95-7), Gray Jarvis (No. 95-22), Judith Jones (No. 95-6), Michael Jones (No. 95-5), Rollo Juckette (No. 95-8), Donald & Emily Keene (No. 95-4), Lake Erie Alliance (No. 95-23), David Monforton (No. 95-10), Gita Posselt (No. 95-33), Kirk Profit (No. 95-25), Alice Salley (No. 95-20), Daniel Salley (No. 95-19), Mary Schroer (No. 95-13), James Spas (No. 95-34), Arthur & Linda Squires (No. 95-3), William Tobler (No. 95-18), Thomas Tuer (No. 95-30), Elizabeth Waffle (No. 95-17), Daniel & Marilyn Wisner (No. 95-9), UAW Region 1A Toxic Waste Squad (No. 95-21), Washtenaw County (No. 95-12).

[2] Petitioners AMY Group (No. 95-16) and Gray Jarvis (No. 95-22) filed separate motions for leave to reply to Region V's and Envotech's responses to the petition for review. Because the issues have been extensively briefed, the Board concludes that further briefing is unnecessary. Therefore, the motions are hereby denied.

II. *BACKGROUND*

Envotech is engaged in cleanup activities at the abandoned Arkona Road Landfill ("ARL") in Washtenaw County, Michigan. The cleanup of the landfill is being conducted under the authority of the Michigan Department of Natural Resources ("MDNR"), pursuant to Michigan's Environmental Response Act ("Act 307"). In connection with the cleanup, Envotech sought federal permits to construct and operate injection wells to dispose of hazardous leachate from the ARL.[3] Federal permits are necessary because U.S. EPA, rather than the State, administers the UIC program in Michigan.[4] EPA's role in administering the UIC program is to determine whether the wells, as proposed by the applicant, comply with the SDWA and applicable UIC regulations, and therefore will not pose a danger to underground sources of drinking water ("USDWs"). The proposed wells in this case are "Class I" hazardous waste injection wells.[5]

In addition to its cleanup activities at the ARL, Envotech has applied to the MDNR for a permit to construct and operate a new hazardous waste landfill adjacent to the proposed injection well site. The permits at issue, however, would only authorize injection of ARL leachate in the wells. No waste from any other source may be disposed in the wells, and if Envotech in the future wishes to dispose of waste from the new landfill in the wells, it must apply for a modification of these permits as well as an exemption from land disposal restrictions.

Under the terms of the proposed permits, the "injection zone"[6] which will receive the injectate is the Franconia, Dresbach, Eau Claire

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[3] The SDWA and its implementing regulations prohibit any unauthorized underground injection. SDWA § 1421(b), 42 U.S.C. § 300h(b); 40 C.F.R. § 144.11. A new underground injection well may not be constructed unless a permit is obtained. 40 C.F.R. § 144.11.

[4] U.S. EPA can grant a state primacy to administer all or part of its UIC program once the state UIC program is approved by EPA. *See* SDWA 1422(b)(2) (if Administrator approves state program, state shall have primary enforcement responsibility for UIC program). Michigan has not received authorization to administer its own UIC program. *See* 40 C.F.R. § 147.1150.

[5] The UIC regulations group injection wells into five "classes" depending upon the substance to be disposed in the well. 40 C.F.R. § 144.6. The proposed wells in this case are "Class I" hazardous waste injection wells. *Id.* § 144.6(a)(1). Hazardous waste injection wells are subject to stricter permitting criteria than other types of wells. *Compare* 40 C.F.R. Part 146, Subpart B (technical standards applicable to Class I nonhazardous wells) *with* 40 C.F.R. Part 146, Subpart G (technical standards applicable to Class I hazardous waste wells) and 40 C.F.R. Part 144, Subpart F (financial responsibility requirements uniquely applicable to Class I hazardous waste wells).

[6] "Injection zone" refers to the "geological formation, group of formations, or part of a formation receiving fluids through a well." 40 C.F.R. § 146.3.

and Mt. Simon members of the Munising Formation, at a depth of approximately 3680 to 4400 feet. The designated "confining zone"[7] for the wells is comprised of the Utica Shale, the Trenton, Black River and Prairie du Chien Groups, and the Trempealeau Formation located between approximately 2312 and 3680 feet. The permits establish detailed well construction specifications, and impose detailed operating, monitoring and reporting requirements on Envotech. Under the terms of the permits, hazardous waste injection cannot begin until Envotech performs additional tests and presents data to the Region showing that the well sites are in fact suitable for injection, and that the wells demonstrate mechanical integrity.

The Region gave public notice of the draft permits in July 1994. Because of the substantial local interest in the permits, the Region decided to convene a public hearing, in accordance with 40 C.F.R. § 124.12(a). The hearing was held in two sessions on August 15, 1994, in Ypsilanti, Michigan. According to the transcripts of the hearing sessions, fifty persons provided oral comment on the draft permits; all but one spoke in opposition to issuance of the permits. In addition, the Region accepted written comments on the draft permits through September 30, 1994. Following review of the comments, the Region issued its response to comments and final decision granting the permits on March 30, 1995. These appeals followed.

III. *DISCUSSION*

A. *Statutory and Regulatory Framework*

Congress conferred upon EPA the authority to regulate deep well injection in Part C of the SDWA, as amended, 42 U.S.C. §§ 300h through 300h-7. Section 1422(c) of the SDWA requires EPA to issue regulations setting forth "minimum requirements for effective programs to prevent underground injection which endangers drinking water sources," to be implemented by EPA in states that are not yet authorized to administer their own UIC programs.

In accordance with the mandate of Congress, EPA has issued regulations designed to protect USDWs from contamination as a result of deep well injection. These regulations are set forth at 40 C.F.R. Parts 144, 146, and 147. The Board has previously explained that:

> [T]he Agency's UIC regulations are oriented exclusively toward the statutory objective of protecting drinking

[7] "Confining zone" refers to the "geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone." *Id.*

> water sources. It has therefore repeatedly been held that parties objecting to a federally issued UIC permit must base their objections on the criteria set forth in the Safe Drinking Water Act and its implementing regulations.

In re Brine Disposal Well (Montmorency County, MI), 4 E.A.D. 736, 742 (EAB 1993). The Board has further explained that:

> The Safe Drinking Water Act and implementing criteria and standards are designed to assure that no contaminant in an underground source of drinking water causes a violation of a primary drinking water regulation or otherwise affects the health of persons. * * * *A permit condition or denial is appropriate only as necessary to implement these statutory and regulatory requirements* * * *.

In re Terra Energy Ltd., 4 E.A.D. 159, 161 n.6 (EAB 1992) (citations omitted) (emphasis added). Thus, the SDWA, as enacted by Congress, and the UIC regulations promulgated by EPA pursuant to Congress' mandate, establish the *only* criteria that EPA may use in deciding whether to grant or deny an application for a UIC permit, and in establishing the conditions under which deep well injection is authorized. Neither the SDWA nor the UIC regulations authorize EPA to review a permit applicant's decision to use underground injection as a disposal method, or its selection of a proposed well site, except as these decisions may affect a well's compliance with the SDWA and applicable UIC regulations. *See id.*

In addition to defining the substantive criteria that must be used to develop permit conditions, the regulations governing the issuance and review of permits establish strict procedural requirements for challenging a Region's permit decision. The regulations require a petitioner to file his or her petition for review with the Board within the deadline established by the regulations, and to demonstrate that the petitioner has "standing" to challenge the decision. The aim of the rules is to ensure that the Region has the first opportunity to address any objections to the permit, and that the permit process will have some finality. Accordingly, the rules provide that "[w]ithin 30 days after a * * * UIC * * * permit decision * * * has been issued * * * any person *who filed comments on the draft permit or participated in the public hearing* may petition the Environmental Appeals Board to review any condition of the permit decision." 40 C.F.R. § 124.19(a) (emphasis added). In addition, "[t]he 30-day period within which a person may request review under this section begins with the service

of notice of the Regional Administrator's action *unless a later date is specified in that notice.*" *Id.* (emphasis added).

Moreover, under the regulations that govern the Board's review of EPA permit decisions, a UIC permit decision will ordinarily *not* be reviewed unless it is based on either 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). The preamble to § 124.19 states that the Board's power of review "should be only sparingly exercised," and that "most permit conditions should be finally determined at the Regional level * * *." 45 Fed. Reg. 33,412 (May 19, 1980). The burden of demonstrating that review is warranted rests with the petitioner who challenges the Region's permit decision or the conditions contained in the permit. *See* 40 C.F.R. § 124.19(a); *In re Beckman Production Services*, 5 E.A.D. 10, 14 (EAB 1994).

The regulatory scheme outlined above provides the yardstick against which the Board must measure the petitions for review filed in this matter. On the basis of these rules, the Board finds that ten of the petitions are either untimely or fail to meet the threshold standing requirements of 40 C.F.R. § 124.19(a); those petitions must therefore be dismissed. With respect to the remaining petitions, the Board concludes that one issue (certification under 40 C.F.R. § 146.70(d)(1)) warrants a remand to the Region for further action. As to the other issues raised by these petitions, they are either too vague to be sustained, or otherwise fail to establish that review is warranted under 40 C.F.R. § 124.19. Therefore, except as to the issue being remanded, review of the other issues in the remaining petitions for review must be denied.

B. *Threshold Requirements*

1. *Timeliness*

As noted above, the rules provide that a petition for review must be received by the Board within thirty days after a UIC permit decision has been issued. 40 C.F.R. § 124.19(a). When the Region serves a final permit decision by mail, service is usually deemed to occur upon mailing of the decision, and the date of mailing usually commences the calculation of the 30-day appeal period. *Beckman Production Services*, 5 E.A.D. 10, 15 (EAB 1994). In addition, when the decision is served by mail, three days are added to the thirty-day filing period, giving the petitioner a total of thirty-three days from the date of mailing to file an appeal with the Board. 40 C.F.R. § 124.20(d). However, the rules allow the Region to specify a later deadline for the filing of petitions. *See id.* § 124.19(a). In this instance, the Region served notice of its decision by mail on March 30, 1995. The Region's Response to

Comments contained in the notice expressly stated that petitions for review by the Board "must arrive at the Board's office" no later than May 9, 1995.[8] Response to Comments at 28. Thus, the Region allowed prospective petitioners more than thirty-three days within which to file their appeals. Nevertheless, the following four petitioners did not submit their petitions to the Board on or before May 9, 1995: Gita Posselt (No. 95-33, received May 11, 1995); James Spas (No. 95-34, received May 12, 1995); Leslie Feret (No. 95-35, received May 11, 1995); Don Broderick (No. 95-36, received May 15, 1995).[9] Accordingly, these petitions must be dismissed as untimely.[10] *See* 40 C.F.R. § 124.19(a); *Beckman Production Services*, 5 E.A.D. at 15-16.

2. *Standing*

The Board has explained that:

> Even if a petition for review has been timely filed, the merits of the petition may not be considered by the Board unless the petitioner has "standing" to assert the issues raised in the petition. * * * [A] petitioner has "standing" to pursue an appeal of the conditions of a final permit that are identical to the conditions of the draft permit only if the petitioner filed timely comments on the draft permit or participated in the public hearing on the draft permit. * * * A petitioner who failed to file timely comments on a draft permit or participate in the public hearing will only have standing to pursue an appeal to the extent that the conditions in the draft permit are changed in the final permit. * * * This requirement is imposed in order to "ensure that the Region has an opportunity to address potential problems with the draft permit before the permit becomes final."

[8] A copy of 40 C.F.R. § 124.19 was appended to the Region's Response to Comments.

[9] It is unclear whether the petitions of Kirk Profit (No. 95-25), Thomas Tuer (No. 95-30), and Joseph Fanto (No. 95-31) were received by May 9, 1995; the EPA mailroom date-stamp on those petitions is indistinct. The Board is therefore treating those petitions as timely. Further, as explained below, petitioner Leslie Feret also fails to meet the threshold standing requirement of 40 C.F.R. § 124.19(a), and that petition must also be denied on that basis.

[10] We note that to the extent these petitions raise any substantive issues for review, the issues raised are addressed herein in connection with our consideration of the other petitions.

Beckman Production Services at 16 (quoting *Brine Disposal Well*, 4 E.A.D. 736 at 740, and *In re Renkiewicz SWD-18*, 4 E.A.D. 61, 64 (EAB 1992)) (citations omitted).

Based on the record, it appears that seven petitioners lack standing to pursue an appeal because they neither submitted written comments on the draft permit, nor participated in the public hearing by offering comments on the record in that forum.[11] The petitioners who lack standing to appeal are: Donald & Emily Keene (No. 95-4); Judith Jones (No. 95-6); Mary Schroer (No. 95-13); Leroy Duke (No. 95-15); Gordon Hongisto (No. 95-28); Joseph Fanto (No. 95-31); and Leslie Feret (No. 95-35). These petitions do not raise issues concerning any changes between the draft and final permits. Accordingly, they must be dismissed for lack of standing. *Beckman Production Services* at 16-17; *In re Avery Lake Property Owners Ass'n*, 4 E.A.D. 251, 254 (EAB 1992).[12]

3. *Lack of Specificity*

The Board has stated that "[i]n addition to being timely filed and demonstrating that a petitioner has standing to pursue an appeal, a petition for review must contain certain fundamental information in order to justify consideration on its merits." *Beckman Production Services* at 18. In *Beckman* the Board explained that:

> In order to establish that review of a permit is warranted, § 124.19 requires a petitioner to include in his petition for review "a statement of the reasons sup-

[11] We agree with Envotech that mere attendance at a public hearing is insufficient to confer standing to appeal. While a previous decision of the Board used the term "attendance" in discussing standing, that term was used in the context of differentiating between providing written comments and participating in a hearing as the two means of gaining standing to appeal. *See Beckman Production Services* at 17 n.11. Simply attending a public hearing, but not participating in the proceedings, does not provide the Region with an opportunity to consider and respond to a petitioner's specific comments on a draft permit, which is the purpose of the standing requirements of 40 C.F.R. § 124.19(a). The Region's representative at the public hearing made clear that only persons who either submitted a written comment during the comment period or made an "oral statement" on the record during the public hearing would have the right to appeal the Region's decision. Public Hearing Transcript at 6, 124 (Aug. 15, 1994).

[12] The Region contends that petitioner Daniel Salley (No. 95-19) lacks standing to appeal. However, a review of the administrative record shows that Daniel Salley did submit a written comment during the public comment period, and thereby acquired standing to appeal. Envotech contends that petitioners Arthur and Linda Squires (No. 95-3) and Rollo Juckette (No. 95-8) lack standing to appeal, but those petitioners also submitted written comments during the public comment period, and thereby acquired standing to appeal.

> porting review, including * * * a showing that the condition in question is based on" either a clearly erroneous finding of fact or conclusion of law or on a policy or exercise of discretion warranting review. [Thus a petition must contain]: (1) clear identification of the conditions in the permit at issue, and (2) argument that the conditions warrant review.

Id. (citing *In re LCP Chemicals — New York*, 4 E.A.D. 661, 664 (EAB 1993); *In re Genesee Power Station L.P.*, 4 E.A.D. 832, 866 (EAB 1993); *In re Terra Energy Ltd.*, 4 E.A.D. 159, 161 (EAB 1992)). Further, "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." *LCP Chemicals* at 664.

While the Board endeavors to construe petitions broadly, particularly when they are filed by persons unrepresented by legal counsel, some of the petitions filed in this matter are so lacking in specificity that the petitioners have simply provided the Board with no basis for review. *See Beckman Production Services* at 19.[13] The petitions of William Tobler (No. 95-18); Daniel Salley (No. 95-19) and Alice Salley (No. 95-20) consist solely of copies of the comments submitted by Mr. Tobler and the Salleys to Region V in August 1994 during the public comment period. They provide no discussion whatsoever as to why the Region's response to those objections is erroneous or otherwise warrants review; accordingly those petitions must be dismissed.[14] *See LCP Chemicals* at 664. The petition of Patricia Dignan (No. 95-37)[15]

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[13] In *Beckman* the Board explained that:

> The Board generally tries to construe petitions filed by persons unrepresented by counsel in a light most favorable to the petitioners. While the Board does not expect or demand that such petitions will necessarily conform to exacting and technical pleading requirements, a petitioner must nevertheless comply with the minimal pleading standards and articulate *some* supportable reason why the Region erred in its permit decision in order for the petitioner's concerns to be meaningfully addressed by the Board.

Beckman at 19.

[14] In any event, to the extent the Tobler and Salley comments raised any substantive issues for review, those issues are addressed herein in the discussion of the merits of the remaining petitions.

[15] This petition was timely filed, but because of an administrative oversight was not dock-

Continued

consists solely of a discussion of the legal doctrine of strict liability. The petition appears to be a summary of a longer paper on strict liability submitted to Region V in August 1994 as a comment on the proposed permits. The petition does not explain what permit conditions are implicated by the doctrine of strict liability, or how the doctrine of strict liability establishes that the Region erred in granting the permits. That petition must also be dismissed. *See Beckman Production Services* at 18-19.[16]

C. *The Merits*

The remaining petitions for review collectively raise numerous particular objections to Region V's decision to issue the Class I permits to Envotech. We will address the issues raised in the remaining petitions in an order approximating the frequency with which each issue is raised.

1. *Safety of Underground Injection Technology*

Some petitioners contend that underground injection is an unsafe and unproven technology.[17] The petitioners who raise the general issue of the safety of underground injection wells fail to identify any specific conditions in the Envotech permits that allegedly create a risk of well failure, nor do they explain how the Region may have allegedly failed to comply with the regulatory standards applicable to these permits. The Board has explained that "parties objecting to a federally-issued UIC permit must base their objections on the criteria set

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eted by the Board until after the Region's and Envotech's responses to the other petitions for review were received. Because we determined that the petition fails to meet the threshold prerequisites for review, it was unnecessary for the Board to solicit a response to the petition.

[16] It does not appear that the Region specifically addressed the legal doctrine of strict liability in its response to comments. Petitioner has made no allegation that the Region erred by not addressing strict liability, and because the paper did not comment on the terms and conditions of the Envotech permits, we find no error in the Region's failure to respond to the paper.

[17] Some petitioners cite an injection well "failure rate" of 20% as a basis for denying the petition. *E.g.* Petition of Rollo Juckette (No. 95-8); Petition of James J. Duffy (No. 95-27). The derivation of the 20% figure is unclear from these petitions. According to the Region's Response to Comments, that figure stems from a 1989 GAO report concerning cases of drinking water contamination from Class II wells. Region's Response to Comments at 18-19. Class II wells are used in connection with oil and gas production, and are different from the Class I wells at issue in this case. *See* 40 C.F.R. § 144.6. The Region noted that the construction and testing requirements for Class I wells are more stringent than those for Class II wells. Region's Response to Comments at 18-19; *see supra* n.5. The Region further noted that a 1993 report submitted to Congressman John Dingell identified four cases of waste migration from among over 500 Class I wells in the U.S., but that there has been no case of drinking water contamination from a Class I well. *Id.* at 19.

forth in the Safe Drinking Water Act and its implementing regulations." *In re Brine Disposal Well*, 4 E.A.D. 736, at 742; *see also Beckman*, at 23 ("EPA's inquiry in issuing a UIC permit is limited solely to whether the permit applicant has demonstrated that it has complied with the federal regulatory standards for issuance of the permit."). Petitioners' general allegations that underground injection is not a safe disposal technology do not meet this standard. Petitioners' allegations instead appear to suggest that the UIC regulations or the policy judgments underlying the SDWA and the UIC program are flawed to the extent that they permit underground injection under any circumstances. This is not, however, a forum in which such challenges may be raised. *See Suckla Farms*, 4 E.A.D. 686, 698, 699-700 (EAB 1993) (40 C.F.R. § 124.19 does not empower Board to entertain challenges to validity of regulations or policy judgments underlying the structure of the UIC program).

We emphasize that the overarching purpose of the SDWA and the UIC regulations is to protect USDWs from contamination. To that end, the permits set forth detailed well construction and operating requirements as provided for in 40 C.F.R. Parts 144 and 146. For example, the permits expressly prohibit injection "into a formation which is, or is above, the lowermost formation containing, within one quarter mile of the well bore, an underground source of drinking water." Permit Part II.A. The wells must be cased and cemented in order to prevent the movement of fluids into or between USDWs for the lives of the wells. The permits provide that "[i]n no case shall injection pressure initiate fractures or propagate existing fractures in the injection zone or confining zone or cause the movement of injection or formation fluids into a USDW." Permit Part II.B. No substances other than the approved leachate from the ARL may be injected. *Id.* The permits require Envotech to install automatic warning and shutoff systems in order to stop injection when well pressure monitors indicate possible deficiencies in mechanical integrity, or prescribed pressure limits are reached. *Id.* Pressure must be maintained on the wells in order to prevent return of injection fluid to the surface, and the permit specifies additional precautions to safeguard against well blowouts. *Id.* Envotech must install continuous monitoring devices to monitor injection pressure, injection volume, flow rate and pressure on the annulus between the tubing and the long-string casing. Permit Part II.C. Envotech is required to submit monthly reports to EPA including such data as analyses of the injection fluid, information concerning injection pressure and injectate pH, graphs representing continuous monitoring results, a statement of the volumes of fluid injected, and any noncompliance with any permit conditions. Permit Part II.D. EPA has the right to enter the facility to inspect the wells, inspect and copy Envotech's records, and conduct its

own sampling or monitoring to assure permit compliance. Permit Part I.E.8. The Region explained that:

> The UIC program's active field inspection program contracts full-time field inspectors in the State of Michigan. For Class I hazardous waste injection facilities, scheduled inspections occur quarterly and unscheduled inspections can occur without prior notice. These inspections ensure that the injection wells are constructed and operated properly. If any non-compliance is noted, the UIC program takes appropriate action to ensure that the well returns to compliance with UIC regulations. Injection wells are also tracked and monitored for compliance with permit conditions through the review of monthly, quarterly and annual reports submitted by the operators. In addition, the State of Michigan has an inspection program, and refers possible non-compliance to the USEPA for appropriate enforcement action.

Response to Comments at 17.

Because petitioners have not explained how the permit conditions described above (or any other permit conditions) are inconsistent with the regulatory standards, or how the permit conditions allegedly create a risk of failure of the proposed wells, we must deny review on the basis of this issue.

2. *Local Opposition to the Permits*

There is no doubt that the citizens and municipalities who provided comments on the draft permits and who pursue these appeals vehemently oppose the siting of the wells in their community. Many petitioners argue that the extent of local opposition is an appropriate basis upon which to deny the permits. The petition of Michigan Citizens Against Toxic Substances ("MCATS") (No. 95-24) is illustrative:

> MCATS wishes the [Board] to consider the depth and totality of the community's opposition to these wells and Envotech's further plans to construct a hazardous waste landfill. We view these wells, as does Envotech, as a necessary first step in their larger plans. This process is coercive, with the government, in this case the USEPA and later the [MDNR], allowing siting of hazardous waste disposal facilities with little regard for community wishes or laws.

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> The people's right not to have these wells in their community should be respected. The people of Augusta, Milan, and York all pay higher taxes, voluntarily, in order to oppose Envotech. Augusta Township has passed ordinances against this type of facility * * * [O]pposition to Envotech is widespread throughout the southeast Michigan area. Their simple message to the government: "Envotech cannot be trusted to operate this safely; the new landfill and the deep injection wells are not needed; WE DO NOT WANT THESE PERMITS ISSUED!"

Petition of MCATS at 2 (emphasis in original).

We respect the petitioners' right to voice their objections to the siting of the wells in their community, and we appreciate the obvious efforts of MCATS and other petitioners to provide the Board with information concerning the reasons for their opposition to the Region's decision. However, the Region has a narrow and clearly defined responsibility in this matter. It is charged with implementing the UIC regulations promulgated by EPA in accordance with the mandate of Congress in the Safe Drinking Water Act, and local opposition alone is simply not a factor that the Region may consider in its permit decision. *See Beckman* at 23 ("EPA's inquiry in issuing a UIC permit is limited solely to whether the permit applicant has demonstrated that it has complied with the federal regulatory standards for issuance of the permit."). More fundamental issues, such as siting of the wells, are a matter of state or local jurisdiction rather than a legitimate inquiry for EPA (except to the extent that a petitioner can show that a well cannot be sited at its proposed location without necessarily resulting in violations of the SDWA or UIC regulations). Apart from concerns that are specific to Envotech (discussed below), MCATS and other petitioners' objections are for the most part directed to the existence of a UIC program in general, and the fact that Michigan allows injection wells to be sited in that State. However, since the Region and the Board are obligated to implement and apply existing laws and regulations, this permit proceeding does not provide a forum in which petitioners' more general issues may be resolved. Accordingly, review of the Region's decision on the basis of local opposition to the permits must be denied.[18]

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[18] Moreover, as explained in more detail *infra*, Part III.C.4., the issuance of a UIC permit does not authorize "any infringement of state or local law or regulations." 40 C.F.R. § 144.35(c). Thus, issuance of these permits in no way abrogates any state or local laws regarding siting of facilities or any rights petitioners may have to pursue any remedies available to them for violations of state or local laws.

3. *Envotech's Record of Environmental Compliance*

Many petitioners contend that the Region erred in issuing the permits to Envotech because Envotech-affiliated companies allegedly have a poor record of environmental compliance. This alleged noncompliance is also a factor underlying local opposition to the permits.

The Region acknowledged in its response to comments that:

> USEPA agrees that Envotech's sister companies['] record of compliance with environmental regulations is poor, [but] USEPA does not have the authority to deny the permits on the basis of those companies['] compliance performance at non-UIC sites. As Envotech develops a UIC compliance history through their construction and possible operation of injection wells at this site, USEPA will fully consider that compliance history in any future UIC permit decisions regarding Envotech.

Response to Comments at 9. One petitioner (AMY Group, No. 95-16), submitted a large exhibit with its petition containing documents which, in its view, evidence violations of environmental laws by the Envotech-affiliated companies (Envotech/EQ, Augusta Development Corporation, Wayne Disposal, Inc., Michigan Disposal, Inc., and Michigan Recovery Systems).

The compliance records of Envotech's sister companies are not, in and of themselves, relevant to the Region's decision to grant the Class I UIC permits to Envotech L.P. Further, the Board has no jurisdictional basis to review a permit based solely on a company's past compliance history. The Board has held that:

> Petitioners' generalized concerns regarding [the permittee's] past [regulatory] violations do not, without more, establish a link to a "condition" of the present permit modification, and thus do not provide a jurisdictional basis for the Board to grant review. *See* 40 C.F.R. § 124.19(a) (only "condition[s] of the permit decision" are reviewable on appeal to the Board) * * *. Of course, we would expect that [the Region] would act responsibly with respect to its oversight of the final permit and, in its discretion, initiate enforcement actions or a permit revocation proceeding should violations arise.

In re Laidlaw Envtl. Serv., 4 E.A.D. 870, 882-83 (EAB 1993); *see also Beckman* at 22. While the information submitted concerning the past practices of Envotech's affiliated companies may be of general concern, it simply does not present a link to a condition of the UIC permits at issue here sufficient to invoke the Board's authority to review the permit decision. To deny a permit because of past practices, it would be necessary for the petitioners to show that, no matter what conditions or terms are put into the permit, compliance with the permit cannot ensure protection of USDWs. *Cf. In re Marine Shale Processors*, 5 E.A.D. 751, 796 n.64 (EAB 1995). Petitioners have not made such a showing. The Board must therefore deny review of this issue.[19]

4. *State and Local Requirements and Property Rights*

Several petitioners argue that the Region should not have issued the permits to Envotech until Envotech demonstrated that it has received all other state and local permits and approvals necessary to operate the wells. Many of these petitioners further assert that issuance of the permits is inconsistent with state and local laws. One petitioner contends that the Region's failure to deny the permits on this basis raises an important policy issue that should be reviewed by the Board, specifically the federalism concerns implicated by potentially conflicting federal and state and local requirements. Petition of AMY Group (95-16) at 11. According to this petitioner, "basic principles of federalism and state-federal comity demand that U.S. EPA adopt a 'hands-off' policy with respect to final UIC permit issuance decisions until an applicant demonstrates that it has received the necessary state and/or local approvals for its proposed UIC operation." *Id.* at 11-12.

The Board disagrees that the decision to issue the permits in this instance implicates federalism concerns. Quite the contrary. The reg-

[19] We note that the Region has ample authority to take enforcement action for any violations of the permit conditions at issue in this proceeding, should Envotech L.P. in fact fail to comply with its permits. As set forth in section I.E.1. of each permit, a violation of *any* permit condition is a potential ground for an EPA enforcement action or an action to terminate the permit. SDWA § 1423, 42 U.S.C. § 300h-2; 40 C.F.R. § 144.40(a)(1). EPA can also sue for injunctive relief if Envotech violates its permit or any other underground injection control regulation. *See* SDWA § 1423(b), 42 U.S.C. § 300h-2(b). Even without a permit violation, EPA has authority to take emergency measures or terminate a permit, if appropriate. *See* SDWA § 1431, 42 U.S.C. § 300i (whenever "contaminant * * * is likely to enter [a USDW and] may present an imminent and substantial endangerment to the health * * * EPA may issue an emergency order as may be necessary to protect public health"). EPA can also terminate a permit without any permit violation if a permittee has misrepresented any relevant facts or if the permitted activity endangers human health and the environment and can be regulated acceptably only by permit modification or termination. 40 C.F.R. § 144.40(a)(2) & (3).

ulations governing UIC permits could not be more clear on this issue: issuance of a UIC permit "does not convey any property rights of any sort, or any exclusive privilege," nor does it "authorize any injury to persons or property or invasion of other private rights, *or any infringement of state or local law or regulations.*" 40 C.F.R. § 144.35(c) (emphasis added). This means that even if Envotech "has met all federal requirements for issuance of a UIC permit, it is not by virtue of its federal UIC permit shielded from compliance with any valid state or local regulations governing its operations." *Beckman Production Services* at 23.[20] The regulations therefore reflect just the sort of federal-state comity in the permitting process urged by petitioners.[21]

By the same token, the Board does not have the authority to consider issues raised by petitioners concerning matters that are exclusively within the State's power to regulate. For example, some petitioners contend that Envotech has not complied with the State's remediation plan for the ARL, or that the remediation plan itself is inadequate in some respects.[22] Because the remediation plan is being conducted under state law, it is beyond the scope of the federal UIC program and the Board has no jurisdiction to address such issues. For the same reason, the Board cannot address issues concerning regulation of the surface facilities at the ARL, because that authority is vested in the State and does not fall within the ambit of the UIC program.[23] *See Brine Disposal Well* at 742 (permit condition or denial is appropriate only as necessary to implement the requirements of the SDWA and UIC regulations) (citing *Terra Energy* at 161 n.6).

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[20] The permits each expressly provide in Part I.A. that:

> Issuance 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 law or regulations. Nothing in this permit shall be construed to relieve the permittee of any duties under applicable regulations.

[21] Indeed, as Envotech correctly suggests, federalism concerns are more likely to arise if EPA is required to make judgments concerning whether an applicant for a federal permit has received all necessary state and local approvals. *See* Envotech's Response to Petitions at 26.

[22] *See, e.g.*, Petition of Washtenaw County (No. 95-12), in which petitioner argues that shallow wells should be drilled under the ARL in order to intercept groundwater; Petition of Gray Jarvis (No. 95-22), in which petitioner contends that a complete hydrology study should be performed on the ARL before a remediation plan is established. Issues relating to the ARL remediation are within the scope of State authority. Further, the Region asserts that past investigations show that there is no hydrologic connection between the ARL and the proposed deep wells.

[23] *See, e.g.*, Petition of AMY Group (No. 95-16), Attachment C at 10-11.

Some petitioners contend that the permits will result in interference with private property rights (such as mineral rights), because the wells will cause a subsurface "trespass" on neighboring property, or will otherwise diminish private property values. One petitioner contends that the permits should be denied because Envotech has not complied with the terms of leases with that petitioner (Elizabeth Waffle, No. 95-17). Because the regulations make clear that issuance of a UIC permit does not implicate private property rights, these arguments are beyond the scope of the permitting process and Board review. *Brine Disposal Well at* 741; *In re Suckla Farms, Inc.*, 4 E.A.D. 686, 695 (EAB 1993). The Board has explained that:

> EPA is simply not the correct forum for litigating contract- or property-law disputes that may happen to arise in the context of waste disposal activity for which a federal permit is required. These disputes properly belong in a court of competent jurisdiction.

Brine Disposal Well at 741.

Accordingly, review of the Region's decision on the grounds of federalism or private property issues must be denied.

5. *Environmental Justice Concerns*

Various petitioners contend that considerations of "environmental justice," and in particular the President's Executive Order on Environmental Justice (Executive Order 12898), dictate that the permits should be denied because the area surrounding the site is already host to numerous burdensome land uses. Attachment B to the petition of the AMY Group (No. 95-16) contends that:

> The proper [environmental justice] inquiry is how burdened the area already is with existing undesirable land uses and with land uses which may not be viewed as undesirable now but which, over time, will place a burden on the community due to toxic air emissions or toxic leaks (such as industrial sites). People of this area have hosted more than their share of society's less attractive and healthful features: state and federal prisons, leaking toxic waste dumps, belching smokestacks, and seeping gas tanks.

* * * * * * *

> The proper definition of undesirable land uses is anything which currently places, or in the future is likely to place, an economic, sociological, or health burden on its neighbors[.]

AMY Group Petition, Attachment B.[24]

In its response to public comments, the Region stated that it responded to environmental justice concerns by expanding the opportunity for public input into the permitting decision by way of its two-day public hearing. The Region also stated that it imposed particularly stringent monitoring requirements on the permits, including "daily sampling of the wastestream during the first 90 days of operation and weekly sampling thereafter, expanded monthly and annual sample constituent lists and a full RCRA Appendix IX analysis prior to commencing injection." Response to Comments at 10. In addition, the Region conducted a demographic analysis for the two-mile radius surrounding the sites, and concluded that:

> The demographic analysis revealed that 0-20% of the population within a two mile radius of the facility is minority. Also, 0-10% of the population are at or below the poverty level and 0-20% of the households are below $20,000 annual income within the two mile radius. There are no Federal or State Superfund sites other than the ARL within a two mile radius of the facility. The demographic analysis shows that the impact of the Envotech UIC permit decisions on minority or low income populations, if any, is minimal.

Id.

Petitioner AMY Group argues that the Region's response is inadequate, because the area analyzed (a two-mile radius) is too small to allow for proper evaluation of the sociological, health, and financial impacts. Petitioner argues for use of a ten-mile radius, and argues that impacts should be analyzed by census tracts, rather than for the area as a whole. Further, AMY Group contends that the permit decision

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[24] Petitioners Auddie Shelby and John Blair (No. 95-21), on behalf of the United Auto Workers Region 1A Toxic Waste Squad, make similar arguments concerning the cumulative negative economic impact of waste disposal and industrial facilities on the region, which petitioners describe as being comprised of "lower level white collar workers and blue collar laborers" and "largely ethnic and racially based neighborhoods." Petition No. 95-21 at 1. Petitioners urge the Board to "[d]eny this permit as an unwarranted burden on the people." *Id.* at 3.

should be stayed pending the Agency's adoption of a comprehensive plan to implement the Executive Order. Finally, petitioner states that "[EPA's] ability to ignore the applicant's hazardous waste compliance history in granting the permit is the ultimate environmental injustice." AMY Group Petition, Attachment B at 6.

Petitioner's concern regarding Envotech's environmental compliance history, while raised again as part of petitioner's environmental justice discussion, is not uniquely an issue of environmental justice. As explained above, Envotech's allegedly poor environmental compliance history must be rejected as a basis for reviewing the Region's permit decision. With respect to petitioner's remaining environmental justice arguments, we note that the Board recently addressed environmental justice issues at length in the permitting context in *In re Chemical Waste Management of Indiana, Inc.*, 6 E.A.D. 66 (EAB 1995) (hereafter "*CWM*"). While that case involved a permit under the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6901 *et seq.*, rather than the Safe Drinking Water Act, the principles articulated in *CWM* are nonetheless instructive here since both statutes use similar permitting processes.

In *CWM*, the Board described the effect of Executive Order 12898 on the permitting process as follows:

> "Environmental Justice," at least as that term is used in the Executive Order, involves "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of [Agency] programs, policies, and activities on minority populations and low-income populations * * *." 59 Fed. Reg. at 7629.
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> * * * * * * *
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> At the outset, it is important to determine how (if at all) the Executive Order changes the way a Region processes a permit application under RCRA. * * * [W]e conclude that the Executive Order does not purport to, and does not have the effect of, changing the substantive requirements for issuance of a permit under RCRA and its implementing regulations. We conclude, nevertheless, that there are areas where the Region has discretion to act within the constraints of the RCRA regulations and, in such areas, as a matter of policy, the Region should exercise that discretion to

> implement the Executive Order to the greatest extent practicable.

CWM at 70-72. In its analysis, the Board first explained that there were "substantial limitations" on implementation of the Executive Order in the RCRA permitting context. The Executive Order by its express terms may be implemented only in a "manner that is consistent with existing law." *Id.* at 72. Under RCRA, the Agency is *required* to issue a permit to an applicant who meets the requirements of the statute and its implementing regulations. *Id.* at 72-73 (citing RCRA § 3005(c)(1)). Thus, the Board concluded that:

> If a permit applicant meets the requirements of RCRA and its implementing regulations, the Agency *must* issue the permit, regardless of the racial or socio-economic composition of the surrounding community and regardless of the economic effect of the facility on the surrounding community.

Id. at 73 (emphasis in original). Despite this important constraint, the Board went on to identify two areas in the RCRA permitting process where the Region has the necessary discretionary authority within the constraints of RCRA to implement the mandates of the Executive Order: the "public participation" procedures of 40 C.F.R. Part 124, and the RCRA "omnibus clause," RCRA § 3005(c)(3), which gives the Regions broad authority to craft permit terms and conditions as necessary to protect human health and the environment. *Id.* at 73-74. With respect to public participation, the Board noted that the Agency's strategy for implementing the Executive Order expressly calls for "'early and ongoing public participation in permitting and siting decisions.'" *Id.* at 73 (quoting EPA memorandum entitled "Environmental Justice Strategy: Executive Order 12898," EPA/200-R-95-002, at 8 (April 1995)). The Board stated that:

> Part 124 already provides procedures for ensuring that the public is afforded an opportunity to participate in the processing of a permit application. The procedures required under part 124, however, do not preclude a Region from providing other opportunities for public involvement beyond those required under part 124. * * * We hold, therefore, that when the Region has a basis to believe that operation of the facility may have a disproportionate impact on a minority or low-income segment of the affected community, the Region should, as a matter of policy, exercise its discretion to assure

> early and ongoing opportunities for public involvement in the permitting process.

Id. at 73-74.

With respect to analysis of environmental justice concerns under the RCRA omnibus clause, the Board emphasized that the Executive Order and the omnibus clause limit the Region's analysis to issues implicating health and environmental considerations. The Board stated that "[t]he Region would not have discretion to redress impacts that are unrelated or only tenuously related to human health and the environment, *such as disproportionate impacts on the economic well-being of a minority or low-income community.*" *Id.* at 75 (emphasis added). With that qualification, the Board held that:

> [W]hen a commenter submits at least a superficially plausible claim that operation of the facility will have a disproportionate impact on a minority or low-income segment of the affected community, the Region should, as a matter of policy, exercise its discretion under section 3005(c)(3) to include within its health and environmental impacts assessment an analysis focusing particularly on the minority or low-income community whose health or environment is alleged to be threatened by the facility. In this fashion, the Region may implement the Executive Order within the constraints of RCRA and its implementing regulations.

Id.

Both the opportunities for, and limitations on, implementation of the Executive Order in the UIC permitting context are essentially the same as we articulated in *CWM.* We have consistently interpreted the Agency's permitting role under the UIC program as being limited to implementing the requirements of the SDWA and the UIC regulations promulgated under the SDWA. Thus, the Agency has no authority to deny or condition a permit where the permittee has demonstrated full compliance with the statutory and regulatory requirements. *See Beckman* at 23 ("EPA's inquiry in issuing a UIC permit is limited solely to whether the permit applicant has demonstrated that it has complied with the federal regulatory standards for issuance of the permit."); *Brine Disposal Well,* at 742 ("'A permit condition or denial is appropriate only as necessary to implement these statutory and regulatory requirements * * *.'") (quoting *Terra Energy* at 161, n.6). Accordingly, if a UIC permit applicant meets the requirements of the

SDWA and UIC regulations, the "Agency *must* issue the permit, regardless of the racial or socio-economic composition of the surrounding community and regardless of the economic effect of the facility on the surrounding community." *CWM* at 73 (emphasis in original).

However, as in *CWM*, there are two areas in the UIC permitting scheme in which the Region has the necessary discretion to implement the mandates of the Executive Order. *See CWM* at 73-74. The first area is public participation. Because the public participation requirements of Part 124 apply to UIC permits as well as RCRA permits, the reasoning of *CWM* with respect to expanded public participation under the Executive Order applies with equal force in the UIC program. We therefore hold that if a Region has a basis to believe that a proposed underground injection well may somehow pose a disproportionately adverse effect on the drinking water of a minority or low-income population, the Region should, as a matter of policy, exercise its discretion to assure early and ongoing opportunities for public involvement in the permitting process. *See Id.*

The second area is the UIC regulatory "omnibus authority" contained in 40 C.F.R. § 144.52(a)(9). Under that section, the Agency has the broad authority under the UIC program to impose, on a case-by-case basis, permit conditions "necessary to prevent migration of fluids into underground sources of drinking water." *Id.*[25] The SDWA proscribes *all* "underground injection which endangers drinking water sources," regardless of the composition of the community surrounding the proposed injection site. SDWA § 1421(b)(1). Thus, the UIC omnibus authority applies even where no disparate impact has been alleged. Nevertheless, there is nothing in the omnibus authority that prevents a Region from performing a disparate impacts analysis when there is an allegation that the drinking water of minority or low-income communities may be particularly threatened by a proposed underground injection well. *See CWM* at 74. However, as with the RCRA omnibus clause, any exercise of discretion under the UIC omnibus authority is "limited by the constraints that are inherent in the language" of the authority. *CWM* at 75. Thus, in response to an environmental justice claim, the Region is limited to ensuring the protection of the USDWs upon which the minority or low-income community may rely. *Id.* The Region would not have the authority to

[25] The Board has stated that this authority could, for example, arguably extend to the imposition of more-stringent financial responsibility requirements than are generally prescribed for UIC permittees. *Brine Disposal Well* at 743, n.8.

redress impacts unrelated to the protection of underground sources of drinking water, such as alleged negative economic impacts on the community, diminution in property values, or alleged proliferation of local undesirable land uses. With that important qualification, we hold that when a commenter submits at least a superficially plausible claim that a proposed underground injection well will disproportionately impact the drinking water of a minority or low-income segment of the community in which the well is located, the Region should, as a matter of policy, exercise its discretion under 40 C.F.R. § 144.52(a)(9) to include within its assessment of the proposed well an analysis focusing particularly on the minority or low-income community whose drinking water is alleged to be threatened. In this way, the Region may implement the Executive Order within the constraints of the SDWA and the UIC regulations. *See CWM* at 75.

With this as a framework, we now turn to the actions the Region took in this permit proceeding. As discussed below, we conclude that the Region took adequate steps to implement the Executive Order by ensuring the participation of the community in the permitting process, and by conducting an analysis of any impact of the proposed wells on the minority and low-income segments of the community in which the wells are located.

In recognition of the significant public interest in these permits, the Region convened a two-day informal hearing in order to ensure that the views of the communities surrounding the sites were received and considered. The Region has explained that:

> Elected officials, environmental groups and the general public were invited to express their concerns and views regarding all aspects of the Envotech UIC applications, including environmental justice issues. Further, in an attempt to inform the public, the UIC program has also issued press releases and contacted the media in an effort to disseminate information regarding the Envotech UIC permits as widely as possible.

Region's Response to Petitions at 58.

As to the merits of petitioners' contentions, the Region's demographic analysis of a two-mile area surrounding the sites showed that minority or low-income populations were only minimally, if at all, affected by the permits. Response to Petitions at 56-57. We reject petitioner's assertion that the two-mile area in which the Region con-

ducted its demographic analysis was too small.[26] As we explained in *CWM*:

> The proper scope of a demographic study to consider such impacts is an issue calling for a highly technical judgment as to the probable dispersion of pollutants through various media into the surrounding community. This is precisely the kind of issue that the Region, with its technical expertise and experience, is best suited to decide.

Id. at 80 (citations omitted). Petitioner has made no showing that the permit will not protect the drinking water sources of populations within two miles of the well sites, or that citizens at a distance greater than two miles will not be protected. Accordingly, review on the basis of this issue must be denied.[27]

6. *Challenges to the Region's Geological Assessment*

Several petitioners challenge the Region's preliminary conclusion (pending evaluation of data gathered during drilling and testing) that the sites proposed for the wells are "geologically suitable" for hazardous waste injection, as that term is used in 40 C.F.R. § 146.62(b), and contend that the geological information submitted by Envotech in support of its applications is inadequate or otherwise too flawed to

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[26] The Region has explained that the two-mile area was chosen not because of the two-mile "area of review" required in evaluating a proposed underground injection well, *see* 40 C.F.R. § 146.63 (as the AMY Group had supposed), but because of "the nature of injection well operations and the effect it has on the surrounding community." Response to Petitions at 55. More particularly, the potential effects considered by the Region (apart from effect on USDWs) included odors, pollution, noise and increased vehicular traffic. The Region determined that the proposed wells (being non-commercial, with dedicated pipelines and a dedicated wastestream) had little potential to generate any such effects in the area immediately surrounding the wells, let alone greater than two miles from the well. *See* Response to Petitions at 56.

[27] As explained above, to the extent that the petitions for review seek redress for such impacts that are unrelated to the protection of USDWs, review must be denied. *See, e.g.*, Petition of AMY Group (No. 95-16), Attachment B (alleging that wells will have negative effect on region, in light of cumulative impact of existing heavy industry, state and federal prisons, waste disposal facilities, and similar "undesirable land uses").We also reject the AMY Group's contention that the Region's decision should have been stayed pending adoption by the Agency of a comprehensive environmental justice plan. Petition of AMY Group (No. 95-16), Attachment B. We previously rejected a similar argument in *CWM* because the petitioners did not demonstrate how the absence of such a strategy led to an erroneous permit decision. *CWM* at 78. No such demonstration has been made here. Further, the Agency issued its environmental justice strategy in April 1995. *See* "Environmental Justice Strategy: Executive Order 12898" EPA/200-R-95-002 (April 1995). There is no inconsistency between the strategy and the Region's decision in this case, let alone one that warrants review.

support the Region's decision. We note at the outset that petitioners who challenge a Region's technical decision must carry a significant burden in order to demonstrate that the Region's decision is in error. In general, absent compelling circumstances, the Board will defer to a Region's determination of issues that depend heavily upon the Region's technical expertise and experience. *See CWM* at 80 (citing *In re General Electric Co.*, 4 E.A.D. 358, 375 (EAB 1992)). This approach is particularly appropriate where, as here, the Region is only authorizing the permittee to drill, construct, and test the wells. The Region has stated that it will analyze detailed site-specific data gathered during drilling, construction, and testing, and then make a final determination as to whether the site is actually suitable for hazardous waste injection. If the site proves to be in fact unsuitable, the Region has stated that it will order the wells plugged and abandoned in accordance with the permits' Closure Plan. Region's Response to Comments at 6; Region's Response to Petitions for Review at 51-52. This is the approach contemplated by the regulations, which provide that prior to granting approval for the operation of a Class I well, the Region shall consider geological and other data gathered during construction and testing of the well, as well as a demonstration of the well's mechanical integrity. *See* 40 C.F.R. § 146.14(b). In light of the foregoing, absent obvious flaws in the Region's technical judgment that the site is "geologically suitable" for drilling, construction, and further testing, the Region's decision will be upheld. The objections to the Region's technical analysis are discussed separately below.

a. *Adequacy of Maps and Cross-Sections*

The regulations require the Region to consider certain site information that the permit applicant is required to submit, including "[m]aps and cross-sections detailing the geologic structure of the local area," and "[m]aps and cross-sections illustrating the regional geologic setting." 40 C.F.R. § 146.70(a)(6) & (7). Petitioner AMY Group (No. 95-16) contends that the geological material submitted by Envotech is insufficiently detailed. In particular, petitioner[28] contends that geologic maps should have been prepared at scales larger than 1 in. = 200 ft., and that geologic information from wells drilled as part of quarry operations should have been transferred to maps and interpreted. Petition of AMY Group, Attachment A. Petitioner argues that the maps

[28] The AMY Group petition consists of different sections prepared by both counsel for the AMY Group and by individual volunteers. AMY Group Petition at 4. The section of the petition relating to the Region's geological assessment was prepared by Dr. Donald Stierman, a geologist and geophysicist. *Id.* Attachment A. "Petitioner" as used in this section refers to the AMY Group, including the individuals who prepared various parts of the petition.

and cross-sections do not fit the "technical definition" of "detailed" as set forth in an authoritative geological treatise. *Id.*

The Region concluded that the maps and cross-sections were commensurate with those routinely used in reviewing UIC permit applications, and were sufficiently detailed to satisfy it that the sites are geologically appropriate, pending review of additional data obtained during drilling and construction. Region's Response to Petitions at 41; *see also* Region's Response to Comments at 26. The regulations do not set forth any definition of what constitutes "detailed" maps and cross-sections, and the Region therefore did not clearly err by declining to adopt the definition proposed by the petitioner. Further, petitioner has not demonstrated that maps and cross-sections meeting its definition of "detailed" would have led the Region to a different conclusion at this stage of the process. Accordingly, we must deny review on the basis of this issue.

Petitioner further contends that the maps and cross-sections reviewed by the Region do not accurately illustrate the geological setting of the region. In particular, petitioner contends that "[f]aults are suspected in the area of review but were not included on any map as required by the USEPA." *Id.* at 4. Petitioner contends that "proprietary geophysical data" from seismic reflection records from a line extending about one and one-half to three and one-quarter miles beyond the edge of the area of review (AOR)[29] show "clear, indisputable and compelling evidence of numerous vertical to near-vertical faults cutting and offsetting rock formations that make up the purported confining zone." *Id.* Petitioner contends that the pattern of faulting demonstrated by these data suggest that faulting extends into the AOR.[30]

Even assuming that the petitioner is correct that "proprietary" seismic reflection surveys suggest faulting near the well sites,[31] that fact does not demonstrate that the Region clearly erred by granting

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[29] The regulations provide that "[t]he area of review for Class I hazardous waste injection wells shall be a 2-mile radius around the well bore," although the Region can specify a larger area. 40 C.F.R. § 146.63. The AOR determines the scope of the maps and cross-sections which must be submitted by an applicant for a UIC permit. *See* 40 C.F.R. § 146.70. A two-mile AOR was utilized in evaluating these permits.

[30] According to petitioner, these data were obtained by Mr. Mark Dixon of Dixon Exploration, Inc., in Toledo, Ohio, and the Region was advised of the existence of the data by way of a letter from Mr. Dixon.

[31] The regulations provide that the map submitted by the applicant showing the proposed well and the area of review "should also show faults, if known or suspected," but that "[o]nly *information of public record* is required to be included on this map." 40 C.F.R. § 146.14(a)(2).

authorization to drill and conduct further tests designed to confirm or negate the existence of transmissive faults or fractures.[32] In its response to comments, the Region expressed its technical judgment that seismic reflection surveys cannot be used to determine whether a fault or fracture has sufficient permeability to be "transmissive", *i.e.*, allows fluids to move between formations and thereby potentially threatens underground sources of drinking water. *See* Response to Comments at 6-7; 40 C.F.R. § 146.62(c)(2)(I). The Region expressed a preference for other test methods (such as stress tests) designed to show whether transmissive faults or fractures exist close enough to the wells to raise concerns for drinking water contamination, and whether, even if such faults or fractures exist, a maximum operating pressure can be established that will nevertheless prevent the injectate from leaving the injection zone. Response to Comments at 7. Petitioner has presented nothing in its petition to show that this approach is unsound. *See LCP Chemicals*, 4 E.A.D. at 664 (petitioner must demonstrate why the Region's response to comments is clearly erroneous). Accordingly, review on the basis of this issue must be denied.[33]

Petitioner further contends that a structure contour map and cross sections furnished by Envotech as part of the permit applications do not show faults that appear on maps in the published literature, and that kinks in contours on Envotech's map should be interpreted as suspected faults that may extend within the AOR. Petitioner states that the Region's conclusion that there are no faults within the AOR is in error, and that "it appears the USEPA simply failed to examine and properly interpret the available evidence[.]" AMY Group Petition Attachment A, at 7-8. The Region concluded after its review of geological information that no faults exist within the AOR, but that if drilling or testing disclosed faults, appropriate measures would be taken to ensure that waste does not migrate. Region's Response to Comments at 20. Petitioner's different interpretation of the technical data does not persuade us that the Region clearly erred in authorizing

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[32] The Region asserts that while the petitioner suspects that faults exist in the AOR, "it has not been demonstrated that this opinion is the consensus of independent seismic experts. * * * It is accepted in the petroleum industry that the interpretation of seismic data is not an exact science. Often, geophysicists looking at the same seismic line can come to differing interpretations." Region's Response to Petitions at 42.

[33] Petitioner also challenges the Region's response to comments wherein the Region states that "the only way to gather enough data is to drill a well to collect data and conduct the necessary tests." Response to Comments at 6. Petitioner contends that "[a]lthough drilling a well is surely necessary," other data must be interpreted, such as data from other wells and geological and geophysical data. The record indicates that the Region did properly consider existing data in deciding to allow drilling and testing.

drilling, construction, and testing of the wells. Accordingly, review on the basis of this issue must be denied.[34]

One petitioner argues that the cross-sections submitted by Envotech are not accurate because they do not show four deep wells in Washtenaw County drilled between 4000 and 6410 feet. Petition of Washtenaw County, Michigan (No. 95-12), at 2-3. Petitioner contends that these wells did not indicate the presence of formations designated in the Envotech permits as part of the injection zone (specifically, the Eau Claire and Mt. Simon formations), thus calling into question whether these formations exist as described in the permits. This petitioner also contends that the Region reviewed data from an injection well in Romulus, Michigan, but that the Region did not address why the data from the Romulus well were not included in Envotech's permit application.

In addressing the comment that some deep wells were not included in the geologic cross-sections contained in the permit applications, the Region expressed its technical judgment that the cross-sections "provided sufficient information" for it to determine that the site was suitable for deep injection. Region's Response to Comments at 26. Petitioner Washtenaw County's mere reiteration of its previous comment does not demonstrate that the Region's technical judgment was clearly erroneous. *See LCP Chemicals* at 664. Further, the Region has explained in its response to this petition that because of the location of the wells referenced in the petition (northwest of the Envotech sites, where the formations comprising the confining zone are deeper), the wells were not sufficiently deep to determine whether the Mt. Simon formation was missing. Region's Response to Petitions at 32. Therefore, review on the basis of this issue must be denied.

With respect to the data from the Romulus well, both the Region and Envotech state that the data from that well were not generated until after Envotech submitted its permit applications. The Region therefore did not err by not requiring Envotech to submit the data with its applications. In any event, the Region did consider data from the Romulus well in reaching the permit decisions at issue here. *See* Region's Response to Comments at 7-8. Accordingly, review on the basis of this issue must be denied.

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[34] Moreover, in its response to this petition, Envotech points out that the map provided as part of its permit application does in fact depict the same regional faults on the map relied upon by petitioner. Envotech's Response to Petitions at 29. Envotech notes that "both maps place the nearest fault more than 10 miles away from the Envotech site." *Id.* at 30. Envotech included both maps with its response.

b. *Fracture System in Shallow Bedrock*

Petitioner AMY Group contends that the Region erred in concluding that although a fracture system in the shallow bedrock exists, there is no evidence that the fracture system extends into the confining zone described in the permits. AMY Group Petition Attachment A at 8. Petitioner further argues that the Region erred in concluding that "several anhydrite units between the base of the Dundee formation and the top of the confining zone * * * tend to deform under pressure and not maintain open fractures at depth." Region's Response to Comments at 20. According to petitioner, the acknowledged fracturing is the result of faults that extend upward through the Precambrian basement, and as a result the fractures probably extend through the confining zone. Petitioner states that the published literature indicates that lithostatic pressure has not closed faults and fractures in the same formations that will make up the confining zone for the Envotech wells. AMY Group Petition Attachment A at 11-13.

The Region stated in its response to comments that:

> Envotech is * * * required to run a fracture identification log on the well during construction in order to determine whether any faults or fractures intercept the well bore. Formation pressure surveys, formation fluid recovery and pressure transient tests will be performed during construction that can indicate if there are transmissive faults or fractures in the injection or confining zones. If, at any time during construction or operation of the wells, USEPA becomes aware of transmissive faults or fractures which may provide a pathway for injectate to leave the injection zone, appropriate measures will be taken such as requiring additional tests, requiring closure of the wells or requiring corrective action.

Region's Response to Comments at 7, *see also* Response to Comments at 20 ("[s]everal tests are run during the drilling and testing of the wells, such as drill stem tests, long-spaced sonic logs and fracture finder logs, which can indicate if any open fractures exist at the wellbore."). The Region's approach is thus expressly aimed at identifying the presence of transmissive faults and fractures at the proposed well sites, and analyzing whether faults or fractures would pose a threat to USDWs. Therefore, even if petitioner's view of the geological data is correct, that fact does not establish that the Region's decision to allow construction and site-specific testing is

clearly erroneous.[35] Further, the Region has confirmed that if any transmissive faults are discovered within the AOR, the wells will be ordered plugged and abandoned in accordance with the permits' Closure Plan. Region's Response to Petitions at 51-52.[36] Accordingly, review on the basis of this issue must be denied.

c. *Presence of Hydrogen Sulfide in Water*

Petitioner contends that the Region erred in its response to comments by stating that the presence of hydrogen sulfide in water is not an adequate demonstration that a fault exists in the AOR, and that the presence of hydrogen sulfide is more likely the result of the dissolution of gypsum. Response to Comments at 8. Petitioner contends instead that the hydrogen sulfide present in groundwater within the AOR is the result of transmissive faults that allow natural gas or oil to seep upward where bacteria can feed, thus producing the reaction that releases hydrogen sulfide. Petitioner's alternative theory for the presence of hydrogen sulfide does not establish that the Region's approach for identifying transmissive faults (explained earlier) is clearly erroneous. We therefore deny review of this issue.

d. *Induced Seismicity*

Petitioners AMY Group (No. 95-16) and Thomas Tuer (No. 95-30) contend that the Region inadequately considered the potential for induced seismicity resulting from the wells' operation. In its response to comments, the Region observed that the Michigan Basin is ranked as an area of "minor seismic risk" based on information gathered by the National Earthquake Information Center. The Region also reviewed a 1991 study in which the authors reported only four to eight seismic events in Michigan in 120 years, none of which were attributable to underground injection. *See* Response to Comments at 20; Region's Response to Petitions at 52. Petitioner AMY Group argues that the Region's response to comments fails to consider that if an

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[35] In its response to this petition, the Region states that there may be other explanations for the fractures apart from faulting, including "flexure during isostatic rebound as a result of deglaciation of the area * * * [or] dissolution of the carbonate material in the Dundee Limestone." Region's Response to Petitions at 45.

[36] The Region confirmed this point because petitioner believed that the Region would attempt to prove that any fault discovered was not transmissive, or that the Region would "plug up" any fault found. The Region had stated in its response to comment 41 that "[i]f a fault should be discovered during the drilling or testing of the wells, appropriate measures will be taken to ensure that the fault is not transmissive and will not provide a pathway for injectate to leave the confining zone." Region's Response to Comments at 20. The Region has clarified its position that the wells will be ordered plugged and abandoned if transmissive faults are discovered.

earthquake should occur near the wells, it can be assumed that the earthquake was induced by injection activity and that the Region should therefore include a permit condition voiding the permit in the event of nearby seismic activity. Petition of AMY Group, Attachment A at 20. Petitioner AMY Group also contends that:

> We have presented published measurements of the state of stress in nearby rocks, calculations demonstrating the potential for inducing seismicity, and copies of earthquake seismograms documenting events too small to be included in catalogs used to evaluate seismicity in the area. The Director has not explained why, in light of the evidence we presented, he has no reason to believe that the injection may have the capacity to cause seismic disturbances, or why, if he has no reason to believe seismic disturbances will occur in the vicinity of the injection well, he will not consider earthquakes near the injection well as evidence of fracturing and faulting and require appropriate measures be taken should earthquakes occur there.

Id. at 21. Petitioner Thomas Tuer alleges that there were thirty-four earthquake epicenters within the State of Michigan between 1872 and 1967. Petition No. 95-30 at 3.

The Region notes that the permits presently require that injection must cease if it is found that fluid migration threatens a USDW. *See* Permit Part I.J.3. The Region determined that no further special permit conditions were necessary due to the lack of evidence of induced seismicity in the area, despite the operation of numerous injection wells in the State. The Region states that it reserves the right to impose any special conditions that become necessary. Response to Petitions at 52-53.

We cannot say that the Region's determination is clearly in error. In the written comments furnished to the Region, petitioner AMY Group acknowledged that the calculations predicting induced seismicity "show that failure (induced earthquakes) will occur IF preexisting fractures of an orientation favorable to failure exist in or near the injection horizon." Comments of Donald J. Stierman at 5 (emphasis in original). The Region has explained that the permits require site-specific testing to determine the presence of fractures, and to establish safe operational parameters. The Region has explained that "[i]f data from the well drilling shows that such a fault exists, the USEPA will reevaluate the possibility of induced seismicity at this site and

take necessary actions." Region's Response to Comments at 21. Further, the Region did not clearly err by disregarding evidence of seismic events too small to be detected by the National Earthquake Information Center's seismograph network. The seismograms furnished by petitioner AMY Group, if accurate, do not provide a specific location or cause for the seismic events, and there is no basis for concluding that the events implicate issues relating to underground injection. Accordingly, review on the basis of this issue must be denied.[37]

e. *High Water Table*

Some petitioners contend that the area's "high water table" renders the site unsuitable for deep well injection. However, as the Region points out, petitioners have offered no evidence that a high water table is in fact a characteristic of the site. Further, in its response to the petitions, the Region has explained that:

> The water table aquifer, the Glacial Drift, extends from the surface to a depth of approximately 100 feet below ground surface. The proposed injection zone, the Franconia, Dresbach, Eau Claire and Mt. Simon members of the Munising Formation, extends from approximately 3680 to 4400 feet below the ground surface. There is approximately 3500 feet of sedimentary rock separating the injection zone from the water table aquifer that will serve to prevent upward migration of the injectate. The wells will be constructed with 4 strings of steel casing cemented to the surface. The integrity of the wells will be monitored continuously and numerous tests will be run during construction and annually thereafter to ensure that injectate does not leave the injection zone. U.S. EPA submits that the presence of a high water table in the area of the deep well site would not have any effect on the safe operation of the deep wells nor would the

[37] Petitioner also criticizes the Region's response to comment number 44. That comment concerned whether injection of liquids at high pressure could trigger seismic events. In its response to this comment, the Region stated that "One commentor postulated that in order to give a reasonable risk of induced seismicity, the pore pressure due to injection at the fault plane must be at least 90% of the *wellhead* pressure. Modeling of the expected pressure decay in the injection interval, using aquifer parameters for the Mt. Simon Formation taken from a nearby deep well, shows the pore pressure to decay to less than 90% of the *wellhead* pressure within 2 feet of the wellbore." Response to Comments at 21 (emphasis added). The Region has now clarified that the word "*wellbore*" should have been used instead of "wellhead." Region's Response to Petitions at 50.

> operation of the deep wells have any effect on the water table aquifer.

Region's Response to Petitions at 17. On the basis of the foregoing, we find that the Region did not err in concluding that the wells would not pose any particular threat due to the location of the water table. Review on the basis of this issue must therefore be denied.

f. *Modeling of Waste Migration*

Petitioner Lake Erie Alliance (No. 95-23) contends that "[d]espite the computer projections and simulations of flow of waste plume, the permittee and USEPA ha[ve] not adequately demonstrated that the waste will not migrate beyond the 2-mile injection zone," and contaminate Lake Erie. Petition of Lake Erie Alliance at 1. Petitioner Thomas Tuer (No. 95-30) questions the validation of the model used to analyze plume migration.

In its response to comments, the Region explained that:

> [V]olumetric models of the extent of the plume in the injection zone project the edge of the plume to reach approximately 3400 feet from the wellbore at the end of the projected operating lifetime of the wells. The groundwater flow velocity in the injection zone is on the order of 6 inches per year. Thus, 10,000 years after injection ceases, the plume will extend in the injection zone less than 2 miles from the wellbore, whereas, the site of the proposed wells is approximately 20 miles from Lake Erie.

Region's Response to Comments at 14.

The Region has also explained that the model used to predict plume migration was based on standard equations for this type of modeling drawn from a standard textbook on the subject. Region's Response to Petitions at 76. Petitioners offer no explanation as to why the migration modeling performed in connection with these permits, or the equations on which modeling was based, are inadequate, and therefore have not demonstrated that the Region erred in applying the model or in concluding that Lake Erie will not be impacted by the waste plume. Review of this issue must therefore be denied.

g. *Surface Monitoring*

Petitioner AMY Group contends that the Region failed to respond to a comment concerning surface monitoring of waste flow. The comment, in full, is set forth below:

> Technology exists to determine if the liquids injected are behaving as predicted by numerical models. The USEPA should require the Applicant to hire the appropriate consultant to install the appropriate instruments and to process and report on the measurements. This consultant should report to the USEPA and Applicant simultaneously.

Comments of Donald J. Stierman at 7. Although the Region did not address surface monitoring specifically in its response to comments, and did not include a surface monitoring requirement in the permit, we do not find its failure to do so clearly erroneous. The comment is vague, and offers no explanation as to why the "technology" referred to in the comment is necessary, especially given that the models show that the injected wastes are not expected to migrate at a rate that would bring them anywhere near the boundary of the AOR. Under such circumstances, comparisons of actual migration rates against predicted rates would only seem necessary if there is substantial reason for believing that the predictive capabilities of the models are grossly unreliable. Petitioner has given us no reason to suspect that the models are lacking to such an extent, or even approaching it. Under the circumstances, we are not persuaded that the Region's lack of response to the petitioner's comment is of sufficient gravity to warrant review of this issue. The Region need only respond to "significant comments," 40 C.F.R. § 124.17(a)(2), and in our view the petitioner's comment does not cross that threshold. Accordingly, review on the basis of this issue is denied.

h. *Existing Wells Near Area of Review*

Petitioner Douglas Darling (No. 95-29) argues that four existing oil wells near the Envotech site pose an increased risk that waste will migrate from the injection zone. The Region addressed this issue at some length in its response to comments. Based upon the Region's analysis of drilling records, the Region concluded that the wells referenced in the petition are drilled to depths that penetrate the top of the designated confining zone for the Envotech wells, but are outside the AOR.[38] The Region therefore determined that the wells would not pro-

[38] The Region does have the discretion to designate an AOR larger than two miles. 40 C.F.R. § 146.63. However, as noted above, the Region's waste migration modeling showed that the waste plume is expected to remain substantially within two miles of the wellbore (projecting only 3400 feet from the wellbore at the end of the projected operating lifetime of the wells). Therefore, the fact that oil wells exist outside the two-mile AOR does not persuade us that a larger AOR was required. *See* Region's Response to Comments at 14.

vide a pathway for waste to migrate from the Envotech wells. *See* Region's Response to Comments at 4-5. Petitioner does not explain why the Region's conclusion is erroneous; accordingly, review on the basis of this issue must be denied.

i. *Presence of Salt Formations*

Petitioner Washtenaw County (No. 95-12) contends that the Region erred by failing to respond to its comment questioning whether there is any relationship between the geological formations comprising the injection zone and salt springs near Saline in Washtenaw County. Petition of Washtenaw County at 4-5. In its response to this petition, the Region explains that the salt springs are located approximately ten miles from the proposed injection site, well beyond the AOR. Region's Response to Petitions at 33. It was therefore not error for the Region not to consider the presence of the salt springs in making its permit decisions. In any event, the Region further explains that the source of the salt is outcrops of Pennsylvanian-age Coal Members that are younger than the uppermost bedrock formation at the Envotech site, and it is therefore expected that the Pennsylvanian-age rock will not be present at the Envotech site. *Id.* Accordingly, review on the basis of this issue must be denied.

7. *Waste Characterization and Disposal Issues*

a. *Characterization of ARL Leachate*

Petitioner AMY Group contends that the Region erred in determining that the ARL leachate is properly classified as RCRA hazardous waste code "F006" under 40 C.F.R. § 261.31(a)(wastewater treatment sludges from electroplating operations). Petitioner argues that the leachate should instead be classified as "F039" hazardous waste under § 261.31(a) (leachate resulting from the disposal of more than one restricted waste classified as hazardous under RCRA). The difference is significant because F039 waste must meet more stringent treatment standards than F006 waste in order to meet RCRA land disposal restrictions. *See* 40 C.F.R. § 268.43 Table CCW. Petitioner specifically contends that the Region erred by not requiring Envotech to satisfy its "burden of proof" concerning the waste constituents of the ARL leachate by producing information which it allegedly has on waste disposal at the ARL. AMY Group Petition (No. 95-16) at 7-8. Petitioner also contends that the Region erred by imposing that burden on petitioners or by taking the burden upon itself to evaluate the nature of the ARL leachate and classify the leachate as F006 hazardous waste. *Id.*

The Region states that the ARL leachate was originally classified

as "non-hazardous" by the MDNR, which is authorized to make such determinations by virtue of the fact that it is authorized to administer the RCRA program in Michigan. Region's Response to Petitions at 38-39; *see* 40 C.F.R. § 272.1151. It is the Region's position that Envotech was entitled to rely on that determination in providing the information in its permit applications. Region's Response to Petitions at 39. The Region states that EPA decided to exercise its authority to re-examine the State's determination in response to statements made at an informal meeting with the community concerning the waste constituents, but the Region does not describe the contents of these statements in its Response. Region's Response to Petitions at 38-39. Petitioner states that it furnished information to the Region concerning the disposal of F006 waste in the ARL. AMY Group Petition at 6. Envotech represents that it provided all relevant waste documentation to the MDNR and the Washtenaw County Health Department, as well as to Augusta Township in 1991 pursuant to a civil litigation discovery request. Envotech's Response to Petitions at 23-24.

In its response to comments, the Region explained that:

> The USEPA Office of RCRA reviewed records from the Washtenaw County Health Department, the MDNR, the USEPA Superfund program and from Augusta Township regarding the source and nature of wastes contained in the ARL. The USEPA also evaluated information received in response to an information request letter sent to a corporation which disposed of waste in the ARL. As a result of USEPA Office of RCRA's evaluation of the information, the ARL leachate was characterized as listed hazardous waste, RCRA waste code F006, based on evidence of past disposal of electroplating sludge into the landfill. Given the available information, the USEPA could find no concrete evidence of other listed wastes in the landfill and therefore could not characterize the leachate as multi-source [F039] leachate.

Region's Response to Comments at 16.

Although Envotech, as the permit applicant, bears the ultimate burden of proving that it is entitled to issuance of a permit, once it has met that burden vis-a-vis the Region, it is incumbent upon the petitioners to persuade us that the Region's determination should be reviewed. *See* 40 C.F.R. § 124.19(a); *Beckman* at 14. The respective

burdens of Envotech and the petitioners are therefore distinctly different. In light of the Region's response to comments, quoted above, we cannot agree that the Region improperly allocated any burden of proof concerning the characterization of the ARL leachate. The Region evaluated the information presented in Envotech's UIC permit application, and upon receiving information (regardless of the source) that MDNR's waste classification should be more closely scrutinized, the Region properly undertook its own investigation and made its own determination of waste characterization. *See* 40 C.F.R. § 146.70 (Region required to evaluate information in order to assure that the requirements of the UIC program are met). To obtain review of that determination, the petitioners must show that the Region clearly erred. 40 C.F.R. § 124.19, *Beckman* at 14. The petitioners have not met that burden. They allege that Envotech has additional waste documentation in its possession that could lead to a different waste characterization, but have offered no evidence that such documentation exists and Envotech has denied this allegation. Petitioners have offered no additional evidence concerning the disposal of other listed hazardous wastes in the ARL. Under these circumstances, we are not persuaded that this issue should be reviewed. Review must therefore be denied.

b. *Waste from Proposed New Landfill*

Petitioner AMY Group argues that the Region erred by failing to include conditions in the permits for injection of the leachate from the new hazardous waste landfill proposed to be built by Envotech. As explained previously, Envotech has not yet received any authorization to construct the proposed new landfill. AMY Group and the Region agree (and Envotech does not deny) that if the new landfill is constructed and operated, the leachate from the landfill will be classified as F039 multi-source leachate. *See* AMY Group Petition at 9; Region's Response to Petitions at 39; Envotech's Response to Petitions at 25.

Although the Region established the injection capacity in the permits to allow for the potential injection of leachate from the proposed new landfill, it declined to include the potential F039 waste from the landfill as an approved wastestream. Region's Response to Comments at 3, 17; Region's Response to Petitions at 39. The Region has explained that it adopted this approach because "[t]he possibility exists that the application for the new landfill will be denied or that a permit will be issued that makes disposal of leachate through the injection wells not practical." Region's Response to Petitions at 39. Further, Envotech would be required to petition for and receive an

exemption from RCRA land disposal restrictions for F039 waste. *Id.*; *see* 40 C.F.R. § 268.6.[39]

Although the petitioner argues that the Region's approach is "untenable," AMY Group Petition at 10, the petitioner has identified no regulation or compelling policy consideration that suggests the Region should include in the permits a wastestream that does not presently exist. If the new landfill is constructed and Envotech petitions for an exemption from the underground injection restriction for F039 waste, that petition will be subject to full review and analysis by the Region, and will be subject to the public review and comment procedures of 40 C.F.R. Part 124. *See* 40 C.F.R. § 148.22(b). Under these circumstances, it was not error for the Region to exclude F039 waste as an approved wastestream in these permits. Review on the basis of this issue must therefore be denied.

c. *Decision to Permit Two Wells*

Petitioner AMY Group (as well as other petitioners) challenge the Region's decision to permit two wells, if the only authorized wastestream is ARL leachate. Petition of AMY Group, Attachment C. Petitioners object to the permitting of this alleged "excess capacity," and express the fear that the wells will be used for commercial hazardous waste disposal in the future. *Id.*

As explained *supra*, it is not the Agency's role to decide whether a facility will seek underground injection permits, to choose the location of proposed wells, or to determine the number of wells for which a facility will request permits. The Agency's role is limited to deciding whether the wells, as proposed in the permit applications, will comply with the SDWA and the UIC regulations. In this instance, Envotech sought permits for two wells based on the fact that they are also seeking a permit from the State to construct and operate a new hazardous waste landfill that, if approved, will also generate waste for disposal in the wells. The Region justified the additional injection capacity in the current permits on the basis that "it is reasonable to operate two wells for this project in order to accommodate lower injection rates or situations where one of the wells is undergoing testing, maintenance or repair." Region's Response to Comments at 3. In any event, the Region was not free to deny a permit based solely on allegations of "excess capacity," because there is no regulatory authority for such

[39] It is apparently assumed that the waste from the new landfill will exceed the treatment standards set forth in 40 C.F.R. § 268.43, Table CCW.

action.[40] Therefore, the Region did not clearly err by deciding to issue permits for two wells, as requested by Envotech. Review on the basis of this issue must therefore be denied.[41]

d. *pH of Wastestream*

Petitioner Washtenaw County contends that the pH limits established in the permits are inadequate to prevent corrosion of the well casing, control formation of precipitates, or prevent dissolving of the Mt. Simon sandstone formation. In its response to comments, the Region explained that the pH limits in the permit (between 2 and 12.5) are derived from the definition of corrosivity found at 40 C.F.R. § 261.22. Region's Response to Comments at 13. The permits prohibit injection of leachate that is corrosive, and require pretreating to neutralize the waste through pH adjustment. *Id.* The permits require the use of a corrosion inhibitor, microbicide, and oxygen scavenger in the annular space between the tubing and casing in order to prevent corrosion and maintain mechanical integrity of the wells. *Id.* at 13-14. Regular testing is required to ensure that corrosion has not occurred. *Id.*

Petitioner argues that materials testing performed by Envotech demonstrated that the leachate caused pitting in the steel casing. Petition of Washtenaw County at 3. The document cited by petitioner does state that the leachate caused pitting corrosion of one potential well tubing material, but it goes on to state that "[t]he pitting corrosion appears to be due to microbial action," and that "[i]t is suggested that further testing be performed to identify a bactericide or possibly a fungicide which will correct this problem." *Id.* Exhibit 2. The document concludes that "[t]hese tests indicate that all materials tested may be suitable as injection tubing material." *Id.* Although petitioner makes

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[40] We express no opinion as to whether state or local regulators might have such authority.

[41] Because the permits authorize only injection of leachate from the ARL, petitioners' concerns that these wells will be used for commercial purposes are not implicated by the present permits. If Envotech in the future seeks to modify the permits for commercial disposal, that modification request will be subject to the full review and comment procedures of 40 C.F.R. Part 124. We must therefore also reject the AMY Group's claim that special public safety concerns are implicated by the permits because of the alleged potential that a nearby federal prison would have to be evacuated in the event of a release of waste from the well sites or surrounding facilities. Petition of AMY Group, Attachment C. This fear stems from petitioner's belief that Envotech will build a new hazardous waste facility at the site, or that Envotech will operate the wells commercially. *Id.* at 8. Because concerns relating to the proposed new landfill are beyond the scope of this permit proceeding, and the permits before us do not authorize commercial operation of the wells, review on the basis of this issue must be denied.

the conclusory statement that "[t]he operating and monitoring requirements are not sufficient in the permit to protect underground sources of drinking water from the dangers of corroded casings or dissolved formation," Washtenaw County Petition at 4, the petitioner has provided no substantive basis for concluding that the conditions in the permit designed to control corrosivity (such as use of a corrosion inhibitor, microbicide and oxygen scavenger) are inadequate. Review on the basis of this issue must therefore be denied.

e. *Certifications Under 40 C.F.R. § 146.70(d)*

Petitioner AMY Group (No. 95-16) raises issues concerning two certifications required under 40 C.F.R. § 146.70(d). That section provides that:

> (d) Any permit issued for a Class I hazardous waste injection well for disposal on the premises where the waste is generated *shall* contain a certification by the owner or operator that:
>
> (1) The generator of the hazardous waste has a program to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and
>
> (2) Injection of the waste is that practicable method of disposal currently available to the generator which minimizes the present and future threat to human health and the environment.

40 C.F.R. § 146.70(d) (emphasis added).

Petitioner contends that Envotech never provided the "waste minimization" certification required by § 146.70(d)(1). Petition of AMY Group, Attachment D. Although Envotech and the Region both appear to assume that such certification was submitted (*see* Envotech's Response to Petitions at 39-40, Region's Response to Petitions at 61-63), we can find no evidence of it in the permits. The permits do contain a requirement that Envotech report annually on its waste minimization efforts. Permits Part I.E.13.

In response to the Board's request to submit the portion of the administrative record comprising the waste minimization certification, the Region submitted a one-page letter from Envotech expressing Envotech's intent to "implement an aggressive waste reduction policy to minimize the generation of hazardous wastes from the operation of

the Envotech Resource Center * * *." Letter from Jerry Fore, Envotech, to Region V (May 10, 1994). The Region has identified this letter as Envotech's "waste minimization plan," which was part of the administrative record during the permit review process. Letter from Counsel for Region V to Board (December 6, 1995). The Region has deemed the letter "adequate certification." *Id.* However, the letter contains none of the certification language required by 40 C.F.R. § 146.70(d)(1), which is much more specific than that included in the Envotech letter.

The certification requirement of § 146.70(d)(1) is plainly mandatory. The regulation clearly states that the permit "shall" contain the certification set forth in the regulation. Because the letter comprising Envotech's waste minimization plan does not contain the required certification language, and no reference to the certification is made in the permits, the permits are hereby remanded and the Region is instructed to obtain the required certification and incorporate it into the permits.[42]

Petitioner AMY Group also argues that the "risk minimization" certification submitted by Envotech under 40 C.F.R. § 146.70(d)(2) is deficient because it does not demonstrate that injection is the most practicable method of waste disposal.[43] According to petitioner, the certification should be supported by a technical and economic feasibility analysis of other available technologies. Petition of AMY Group, Attachment D, at 5. In response, Envotech argues that while the regulation requires that the certification be contained in the permit, there is no requirement or authority for reviewing the substance of the certification. We agree. The Board has explained that neither the Safe Drinking Water Act nor the UIC regulations authorize the Agency to

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[42] The Region suggests that "the issue of whether the certification was included in the permits was not raised during the public comment period." Letter from Counsel for Region V to Board (December 6, 1995). The Region adds that it "understand[s] the [petition] with regard to this issue to revolve around whether Envotech actually submitted the certification, not whether a certification appears in the Permit. Therefore, U.S. EPA has not had an opportunity to respond to this issue." *Id.* The Region is correct that petitioner contends that the certification was not provided. We have stated our agreement that the certification was not provided. There can be no reasonable dispute that the certification language does not appear in the permit, as required by the regulation. Because the permit must be remanded for the Region to obtain the required certification, we fail to see what would be gained by not also requiring the Region to comply with the plain terms of § 146.70(d)(1) and incorporate the certification into the permit.

[43] This certification was initially omitted from both of Envotech's permit applications. Region's Response to Comments at 2. Upon being notified of the omission, the Region obtained the certification covering both permits, made it available to the public, and extended the public comment period to allow time for review and comment on the certification. *Id.* The Region provided the Board with a copy of Envotech's risk minimization certification, which is incorporated in the permits by reference in Part I.E.14.

consider or require alternative disposal methods. *See Brine Disposal Well* at 744. The focus of the Agency's review is on whether the proposed wells will endanger drinking water sources. *Id.* Thus, the Board has stated that "assertion[s] regarding the availability of alternative disposal methods bear[] no apparent relation to the issue of potential endangerment or to any of the statutory or regulatory standards applicable to injection wells," and review on the basis of such issues must be denied. *Id.* at 745.

As we noted in *Brine Disposal Well*, "[t]hat is not to say, however, that the Agency seeks to inhibit the development of innovative methods for dealing with this type of waste. To the contrary * * * as a general matter 'the USEPA encourages treatment of waste as an alternative to disposal, [but] the UIC Section has no authority to require such alternative methods.'" *Id.* at 744, n.9. The concept that waste generators should be encouraged to minimize risk and consider alternative disposal methods is embodied in the certification required in 40 C.F.R. § 146.70(d)(2). That regulation does not, however, confer upon the Agency any authority to review the substance of an applicant's analysis or require other disposal methods. Review of the risk minimization certification must therefore be denied.

IV. CONCLUSION

For the foregoing reasons, the permits are hereby remanded to Region V for inclusion of the waste minimization certification required under 40 C.F.R. § 146.70(d)(1).[44] In all other respects, the petitions for review are hereby denied.

So ordered.

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[44] Although 40 C.F.R. § 124.19(c) contemplates that additional briefing will be submitted upon the grant of a petition for review, a direct remand without additional submissions is appropriate where, as here, it does not appear that further briefs on appeal would shed light on the issues to be addressed on remand. *See, e.g., In re Renkiewicz SWD-18*, 4 E.A.D. 61, 67 n.5 (EAB 1992).

Upon completion of remand proceedings, petitioner AMY Group will not be required to appeal to the Board to exhaust their administrative remedies. For purposes of judicial review, the Region's actions on remand will constitute final agency action. *See* 40 C.F.R. § 124.19(f)(1)(iii).