United States Court of Appeals,

Eleventh Circuit.

No. 95-6501.

LEGAL ENVIRONMENTAL ASSISTANCE FOUNDATION, INC., Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.

Aug. 7, 1997.

Petition for Review of an Order of the United States Environmental Protection Agency

Before BIRCH and CARNES, Circuit Judges, and MICHAEL[*], Senior District Judge.

BIRCH, Circuit Judge:

The issue in this petition for review is whether the United States Environmental Protection Agency ("EPA") is legally required to regulate hydraulic fracturing, a production enhancement technique used by the oil and gas industry, under the underground injection control ("UIC") programs established pursuant to Part C of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. §§ 300h to 300h-8. EPA determined that hydraulic fracturing does not fall within the statutory or regulatory definition of "underground injection." Because we find EPA's interpretation inconsistent with the language of the statute, we grant the petition for review and remand for further proceedings.

I. BACKGROUND

The Legal Environmental Assistance Foundation, Inc. ("LEAF") filed this petition for review of an order of the EPA, in which the agency denied LEAF's petition to promulgate a rule withdrawing approval of the Alabama UIC program. As background for our analysis, we briefly describe the statutory and regulatory framework for the UIC program, the process of hydraulic fracturing, and the procedural history of this case.

A. *Statutory and Regulatory Framework*

Part C of the SDWA establishes a regulatory program for the protection of underground

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[*]Honorable James H. Michael, Senior U.S. District Judge for the Western District of Virginia, sitting by designation.

sources of drinking water. *See* 42 U.S.C. §§ 300h to 300h-8. This program requires EPA to promulgate regulations that set forth minimum requirements for state UIC programs. *Id.* § 300h. A state must submit to EPA a proposed UIC program that meets these minimum requirements, and receive EPA approval, in order to obtain primary regulatory and enforcement responsibility for underground injection activities within that state. *Id.* § 300h-1. The state retains primary responsibility until EPA determines, by rule, that the state UIC program no longer meets the minimum requirements established under the SDWA. *Id.* § 300h-1(b)(3).[1]

The minimum requirements for state UIC programs are contained in 40 C.F.R. pt. 145. Among these requirements, the state must prohibit, in accordance with 40 C.F.R. § 144.11, any "underground injection" unless authorized by permit or rule. 40 C.F.R. § 145.11(a)(5). The statutory definition of "underground injection" is: "the subsurface emplacement of fluids by well injection." 42 U.S.C. § 300h(d)(1).[2] The state also must classify injection wells in conformance with the classification system promulgated by EPA in 40 C.F.R. § 144.6. 40 C.F.R. § 145.11(a)(2). Injection wells are thus classified for the purpose of permitting into five categories: Class I wells are wells used to dispose of hazardous, industrial, or municipal wastes beneath underground sources of drinking water. 40 C.F.R. § 144.6(a). Class II wells are "[w]ells which inject fluids: (1) [w]hich are brought to the surface in connection with ... conventional oil or natural gas production ...; (2) [f]or enhanced recovery of oil or natural gas; and (3) [f]or storage of hydrocarbons." *Id.* § 144.6(b). Class III wells are wells which inject for extraction of minerals. Class IV wells are wells used to dispose of hazardous or radioactive wastes into or above underground sources of drinking water. *Id.* § 144.6(c) and (d). Class V wells are "[i]njection wells not included in Classes I, II, III, or IV." *Id.* § 144.6(e). Technical criteria and standards for these various classes of wells are contained in 40 C.F.R. pt. 146.

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[1]The EPA directly administers the UIC program in states that do not have primary responsibility. 42 U.S.C. § 300h-1(c).

[2]The regulations define "underground injection" as "well injection," which in turn is defined as "the subsurface emplacement of "fluids' through a bored, drilled, or driven "well;' or through a dug well, where the depth of the dug well is greater than the largest surface dimension." 40 C.F.R. § 144.3.

The Alabama UIC program was approved by EPA in two parts. On August 2, 1982, EPA approved Alabama's UIC program for Class II wells, to be administered by the State Oil and Gas Board of Alabama. *See* 40 C.F.R. § 147.50. On August 23, 1983, EPA approved Alabama's UIC program for Class I, III, IV, and V wells, to be administered by the Alabama Department of Environmental Management. *See id.* § 147.51.

B. *Hydraulic Fracturing*

Hydraulic fracturing is a technique used by the oil and gas industry for enhancing the recovery of natural gas from underground formations. In Alabama, it is commonly used in connection with the extraction of natural methane gas from coal beds. Coal beds, as all underground formations, are formed of porous, sometimes fractured, materials. These coal beds contain natural gas, which can be extracted through production wells. Because of the tightness of coal bed formations and their very low permeability, the rate of production of natural gas is low in the absence of production enhancement.

> Experience has shown that coal beds must be hydraulically fractured to induce or stimulate a significant flow of gas. "Hydraulic fracturing" involves the injection of fluids and a propping agent (usually sand) into a coal bed. The application of pressure injects fluids into the coal bed thereby widening natural fractures and inducing new ones that are held open by the propping agent after the pressure is released. As a result, these fractures provide paths for gas to migrate to the wellbore, thus stimulating gas flow. It has been demonstrated that the gas flow rate from a coal bed may be increased as much as twentyfold by hydraulic fracturing.

Thomas E. Sexton & Frank Hinkle, State Oil and Gas Board, *Oil and Gas Report 8B: Alabama's Coalbed Gas Industry* 12-15 (1985), *appearing at* R1-21-24.[3]

Hydraulic fracturing results in fractures that may extend several hundred feet. The fluids used in hydraulic fracturing may contain guar gel, nitrogen or carbon dioxide gases, gelled oil, diesel oil, sodium hydroxide, hydrochloric acid, sulfuric acid, fumeric acid, as well as other additives. These fluids are pumped into methane gas production wells after the wells are constructed in order to stimulate the flow of gas. Occasionally, fluids are reinjected into the well to further fracture the

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[3]The administrative record is sequentially numbered from one to 1007. Citations to the record refer to the record volume number followed by the administrative record page number. Some documents appear at several locations in the record. Only one location is referenced.

coal bed. More often, fluids are reinjected in order to maintain previously induced fractures free of obstructions.[4] After the coal beds are hydraulically fractured, the injected fluids and groundwater are pumped out of the production well before the flow of methane gas starts. A portion of the injected fluids, however, remains in the ground.[5]

Several thousand coal bed methane gas production wells have been constructed in Alabama since 1980. Due to the large number of these wells, EPA has recognized that "there is a growing potential for contamination of drinking water aquifers," resulting primarily from the hydraulic fracturing necessary to stimulate production. *See* United States Environmental Protection Agency, *Ground Water Study Committee: Report G11—Study Well Contamination Problems; Particularly Problems Related to Coal Bed Methane* 1 (1990), *appearing at* R3-211. Hydraulic fracturing associated with methane production currently is not regulated under the Alabama UIC program. The State Oil and Gas Board of Alabama does not consider wells used for such hydraulic fracturing as Class II injection wells; the Alabama Department of Environmental Management similarly does not consider these wells as Class I, III, IV, or V injection wells.

C. *Procedural History*

On March 4, 1994, Leaf petitioned EPA to initiate proceedings to withdraw approval of the Alabama UIC program.[6] LEAF alleged that the Alabama program is deficient because it does not regulate hydraulic fracturing activities associated with methane gas production and such regulation

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[4]According to EPA, one well out of 34 wells within one mile of a well owned by LEAF members (the McMillian well) was fractured more than once. R9-928. "Maintenance" fluids were injected into eight of the 34 wells during production. R9-929.

[5]*See generally* R.M. Stahl & P.E. Clark, *Fluid Loss During the Fracturing of Coalbed Methane Wells, in The 1991 Coalbed Methane Symposium Proceedings* [hereinafter *Symposium*] 269, 269 (The University of Alabama 1991), *appearing at* R6-565. The only quantitative information contained in the record on this issue indicates a fluid loss of 20 to 30 percent. *See* I.D. Palmer et al., *Comparison between Gel-Fracture and Water-Fracture Stimulations in the Black Warrior Basin, in Symposium* 233, 237, *appearing at* R6-564.

[6]Before filing its petition with EPA, LEAF inquired of the State Oil and Gas Board of Alabama and the Alabama Department of Environmental Management whether hydraulic fracturing associated with methane gas production was regulated under the Alabama UIC program. Both agencies answered in the negative, and asserted that hydraulic fracturing did not constitute "underground injection."

is required under the SDWA. LEAF further asserted that hydraulic fracturing associated with methane gas production had resulted in a diminished quality of water drawn from a nearby drinking well owned and used by two of LEAF's members, Ruben DeVaughn and Cynthia Ann McMillian. On May 5, 1995, EPA denied the petition because it determined that hydraulic fracturing does not fall within the regulatory definition of "underground injection." EPA interprets that definition as encompassing only those wells whose "principal function" is the underground emplacement of fluids. EPA decided that methane gas production wells which are also used for hydraulic fracturing are not required to be regulated under the UIC programs because the principal function of these wells is not the underground emplacement of fluids; their principal function is methane gas production. EPA also disputed LEAF's assertion that the quality of water drawn from the McMillians' water well had diminished as a result of nearby hydraulic fracturing activity.[7]

LEAF brought this petition for review of EPA's order on June 19, 1995. LEAF contends that EPA's interpretation of the regulations must fall because this interpretation renders the regulations inconsistent with the statute.[8]

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[7]The factual dispute about whether the McMillians' well actually suffered diminished quality due to nearby hydraulic fracturing activity is not on review here. In its response to LEAF's petition, EPA referenced its finding of no actual harm to the McMillians' well only in connection with EPA's decision not to pursue emergency enforcement relief under 42 U.S.C. § 300i (authorizing EPA to act against imminent and substantial endangerment to health), relief which LEAF did not expressly request. The thrust of LEAF's petition for review is that EPA's decision not to initiate proceedings to withdraw approval of the Alabama UIC program relied on an error of law, namely an erroneous interpretation of the regulations and/or statute.

> Significantly, EPA does not challenge LEAF's standing to bring this petition. EPA concedes that LEAF members (i.e., the McMillians) are " "interested persons' in the administrative process, who petitioned EPA to redress a particularized threat of harm." EPA Brief at 31 n. 14 (citing 5 U.S.C. § 553(c); *Sierra Club v. Morton,* 405 U.S. 727, 734-35, 740-41, 92 S.Ct. 1361, 1366, 1368-69, 31 L.Ed.2d 636 (1972)). In light of EPA's recognition that hydraulic fracturing activity does pose a potential threat to water quality in nearby aquifers, and the proximity of the McMillians' well to such activity, we are satisfied that LEAF has standing to bring this petition because LEAF and its members have shown an "injury or threat of injury [that is] both "real and immediate,' not "conjectural' or "hypothetical,' " *City of Los Angeles v. Lyons,* 461 U.S. 95, 102, 103 S.Ct. 1660, 1665, 75 L.Ed.2d 675 (1983).

[8]Alternatively, LEAF argues that EPA's interpretation of the regulations is inconsistent with the plain language of the regulations. *See Thomas Jefferson Univ. v. Shalala,* 512 U.S. 504, 512, 114 S.Ct. 2381, 2386, 129 L.Ed.2d 405 (1994) ("[W]e must defer to the [agency's] interpretation unless an "alternative reading is compelled by the regulation's plain language....' ") (quoting

II. DISCUSSION

A. *Jurisdiction*

EPA's order denying LEAF's petition for withdrawing approval of the Alabama UIC program is final agency action. LEAF filed this petition for review within forty-five days of EPA's final action. We have jurisdiction to review EPA's order pursuant to 42 U.S.C. § 300j-7(a)(2).

EPA suggests that we have no jurisdiction to entertain LEAF's contention that the regulations are inconsistent with the statute because this contention constitutes a direct challenge to regulations promulgated several years before this petition for review was filed; EPA argues that such a direct challenge should have been brought within forty-five days of the promulgation of the regulations and is now time-barred pursuant to § 300j-7(a)(2). For this proposition, EPA cites *Natural Resources Defense Council v. Nuclear Regulatory Comm'n,* 666 F.2d 595 (D.C.Cir.1981) ("*NRDC v. NRC* "), in which the D.C. Circuit held, according to EPA, that statutory time periods for filing petitions for review are "jurisdictional in nature, and may not be enlarged or altered by the courts," *id.* at 602.

EPA neglects to mention in its brief, however, that this partial holding in *NRDC v. NRC* was expressly limited to "untimely *procedural* challenges" to a regulation. *See id.* (emphasis added). In other words, the court held in *NRDC v. NRC* that a statutory time-bar provision, similar to the one raised by EPA in this case, precluded the petitioner from challenging a regulation on the basis that it was promulgated without notice and comment by later bringing a petition for rulemaking to rescind the regulation and then filing for review of the denial of that petition in the court of appeals. The court distinguished substantive challenges to the regulation, however, and in fact took

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Gardebring v. Jenkins, 485 U.S. 415, 430, 108 S.Ct. 1306, 1314, 99 L.Ed.2d 515 (1988)). LEAF has advanced strong arguments in support of this contention. EPA has countered, however, with a lengthy analysis of the history of the development of the regulations, arguing that this history supports its position and that EPA's position is entitled to "controlling weight" because it embodies the agency's interpretation of its own regulations. *See id.* We need not decide this issue because our holding that EPA's interpretation of the regulations renders the regulations inconsistent with the statute itself is dispositive of the case. Thus, in this opinion, we assume without deciding that the regulatory definition of "underground injection" limits the regulatory reach of the UIC program to wells whose principal function is the subsurface emplacement of fluids and thus excludes from regulation hydraulic fracturing associated with methane gas production wells.

jurisdiction over such a challenge in *NRDC v. NRC.* *See id.* at 602-03; *cf. id.* at 602 & n. 47 (collecting cases in which the court "scrutinized regulations immune from direct review by reviewing the denial of a subsequent rulemaking petition which challenged the regulations on demonstrable grounds for *substantive* invalidity"); *see also NLRB Union v. Federal Labor Relations Auth.,* 834 F.2d 191, 194-97 (D.C.Cir.1987) (discussing the jurisdiction of the court of appeals to entertain various types of regulatory challenges outside a statute's judicial review time-bar period); *Advance Transp. Co. v. United States,* 884 F.2d 303, 305 (7th Cir.1989) (adopting the D.C. Circuit's analysis).

LEAF's contention that the regulations at issue in this case, as interpreted by EPA, are invalid because they are inconsistent with the SDWA constitutes a substantive challenge to these regulations. In essence, LEAF contends that EPA cannot rely on these regulations to deny LEAF's petition because EPA acted outside its statutory authority in promulgating the regulations. As the Supreme Court has admonished:

> "The power of an administrative [agency] to administer a federal statute and to prescribe rules and regulations to that end is not the power to make law ... but the power to adopt regulations to carry into effect the will of Congress as expressed by the statute. A regulation which does not do this, but operates to create a rule out of harmony with the statute, is a mere nullity."

Dixon v. United States, 381 U.S. 68, 74, 85 S.Ct. 1301, 1305, 14 L.Ed.2d 223 (1965) (quoting *Manhattan Gen. Equip. Co. v. Commissioner,* 297 U.S. 129, 134, 56 S.Ct. 397, 400, 80 L.Ed. 528 (1936)); *see also United States v. Larionoff,* 431 U.S. 864, 873, 97 S.Ct. 2150, 2156, 53 L.Ed.2d 48 (1977) ("[R]egulations, in order to be valid must be consistent with the statute under which they are promulgated."). Therefore, if the UIC regulations are inconsistent with the statute, as LEAF contends, these regulations are void *ab initio* and cannot be relied upon by EPA to deny LEAF's petition for withdrawal of the Alabama program. Accordingly, we conclude—as the D.C. Circuit did in similar circumstances—that, in the course of reviewing EPA's order denying LEAF's petition, over which our jurisdiction is not questioned, we also have jurisdiction to entertain LEAF's contention that the regulations upon which EPA relies are contrary to statute and therefore invalid, regardless of the fact that LEAF's challenge is brought outside the statutory period for a direct

challenge of the regulations. *See NLRB Union,* 834 F.2d at 196-97.

B. *Standard of Review*

Our review of EPA's action in this case is governed by the scope and standard of review set forth in the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 551-559, 701-706. Under the APA, we "hold unlawful and set aside agency action, findings, and conclusions found to be ... arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id.* § 706(2). LEAF contends that EPA's denial of its petition in this case is "not in accordance with law" because it rests on an erroneous interpretation of the SDWA.

In reviewing an agency's interpretation of a statute, the administration of which is entrusted to the agency, we are guided by the framework of analysis set out by the Supreme Court in *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). "First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842-43, 104 S.Ct. at 2781. If Congress did not express its intent unambiguously, we defer to the agency's interpretation if it "is based on a permissible construction of the statute." *Id.* at 843, 104 S.Ct. at 2782.

C. *Analysis*

EPA interprets the UIC regulations as covering only those wells whose "principal function" is the injection of fluids into the ground. EPA contends that the regulations, so interpreted, are consistent with Congress's intent, as expressed in the SDWA. EPA reaches this conclusion by asserting that (1) the statutory definition of "underground injection" is ambiguous, (2) Congress intended to exclude wells whose principal function is not the injection of fluids from the UIC regulatory scheme, and, therefore, (3) EPA's regulations are a permissible interpretation of the statutory language.

The first step in the *Chevron* framework requires that we ascertain whether Congress clearly expressed its intent in the statute. "In a statutory construction case, the beginning point must be the

language of the statute, and when the statute speaks with clarity to an issue judicial inquiry into the statute's meaning, in all but the most extraordinary circumstance, is finished." *Estate of Cowart v. Nicklos Drilling Co.,* 505 U.S. 469, 475, 112 S.Ct. 2589, 2594, 120 L.Ed.2d 379 (1992) (citing *Demarest v. Manspeaker,* 498 U.S. 184, 190, 111 S.Ct. 599, 603, 112 L.Ed.2d 608 (1991)). "In ascertaining the plain meaning of the statute, the court must look to the particular statutory language at issue, as well as the language and design of the statute as a whole." *K Mart Corp. v. Cartier, Inc.,* 486 U.S. 281, 291, 108 S.Ct. 1811, 1818, 100 L.Ed.2d 313 (1988).

To achieve the statutory purpose of "prevent[ing] underground injection which endangers drinking water sources," 42 U.S.C. § 300h(b)(1), Congress chose the regulatory strategy of requiring that state programs approved under the UIC regulations "shall prohibit ... *any* underground injection in such State which is not authorized by a permit issued by the State (except that the regulations may permit a State to authorize underground injection by rule)." *Id.* § 300h(b)(1)(A) (emphasis added). Thus, it is clear that Congress dictated that *all* underground injection be regulated under the UIC programs. An applicant may receive a permit to conduct underground injection activity if the applicant "satisf[ies] the State that the underground injection will not endanger drinking water sources." *Id.* § 300h(b)(1)(B). Whether a particular activity, such as hydraulic fracturing in this case, must be regulated under the UIC programs therefore turns solely on whether such activity falls within the statutory definition of "underground injection." This statutory definition is as follows: "The term "underground injection' means the subsurface emplacement of fluids by well injection. Such term does not include the underground injection of natural gas for purposes of storage." 42 U.S.C. § 300h(d)(1). EPA contends that Congress's failure to further define the term "well injection," an ambiguous term according to EPA, means that Congress left EPA the discretion to define that term as it deems appropriate to accomplish the purpose of the SDWA. We disagree.

Contrary to EPA, "[w]e do not start from the premise that [the statutory] language is imprecise. Instead, we assume that in drafting legislation, Congress said what it meant." *United States v. LaBonte,* --- U.S. ----, ----, 117 S.Ct. 1673, 1677, --- L.Ed.2d ---- (1997). It is only after we have determined that words used by Congress are ambiguous, or that Congress left a gap in the

statutory language, that we turn to the agency's interpretation of these words to ascertain whether it deserves any deference. *See K Mart,* 486 U.S. at 291, 108 S.Ct. at 1817 ("The traditional deference courts pay to agency interpretation is not to be applied to alter the clearly expressed intent of Congress."). "Giving the words used their ordinary meaning," *LaBonte,* --- U.S. at ----, 117 S.Ct. at 1677 (internal quotation marks omitted), we readily find that the word "injection" means the act of "forc[ing] (a fluid) into a passage, cavity, or tissue." The Random House Dictionary of the English Language 983 (2d ed. unabridged 1987). Sensibly, therefore, "underground injection" means the subsurface emplacement of fluids by forcing them into cavities and passages in the ground through a well.[9] The process of hydraulic fracturing obviously falls within this definition, as it involves the subsurface emplacement[10] of fluids by forcing them into cracks in the ground through a well. Nothing in the statutory definition suggests that EPA has the authority to exclude from the reach of the regulations an activity (i.e., hydraulic fracturing) which unquestionably falls within the plain meaning of the definition, on the basis that the well that is used to achieve that

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[9]"Well" is defined as a "bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension." 40 C.F.R. § 146.3. There is no dispute that methane gas production wells, which are initially used for hydraulic fracturing, are "wells" within the meaning of the statute and regulations. Similarly, there is no dispute that the materials used in hydraulic fracturing are "fluids" within the meaning of the statute and regulations. *See id.*

[10]EPA does not directly dispute the fact that hydraulic fracturing involves the subsurface "emplacement" of fluids. EPA does mention in its brief, however, that the Alabama Department of Environmental Management argued in a response to inquiries by LEAF during the state administrative process that preceded this petition for review that the term "emplacement" implied a definite and permanent location for the fluids injected in the ground. EPA brief at 24 n. 12. According to the state agency, hydraulic fracturing is not underground injection because it does not result in permanent subsurface "emplacement" of the fluids, as these fluids are pumped out of the ground before methane gas is extracted out of the well. In a curiously equivocal fashion, EPA stated that "[w]hile EPA d[oes] not explicitly adopt this view ..., the Agency believes it has some merit." *Id.* We are not surprised that EPA does not adopt this view, for it is clear to us that it is untenable. First, it is undisputed that some of the fluids injected into the ground in the process of hydraulic fracturing are never recovered and are therefore permanently emplaced into the ground. *See supra* note 5 and accompanying text. Moreover, EPA does regulate under the UIC programs several activities that result in the *temporary* emplacement of fluids in the ground, most notably "[w]ells which inject fluids ... [f]or storage of hydrocarbons," and "[w]ells which inject for extraction of minerals." *See* 40 C.F.R. §§ 144.6(b)(3) (Class II wells) & (c) (Class III wells). In fact, the very purpose of these wells is to temporarily emplace fluids into the ground. Class II wells are used to store hydrocarbons in the ground and then retrieve these hydrocarbons when needed. Class III wells are used to mine minerals by injecting certain fluids into mineral-bearing formations for the purpose of dissolving these minerals and then extracting the now mineral-rich fluids out of the ground.

activity is also used—even primarily used—for another activity (i.e., methane gas production) that does not constitute underground injection. EPA's argument that a methane gas production well is not an "injection well" because it is used primarily for gas extraction is spurious. Congress directed EPA to regulate "underground injection" activities, not "injection wells." In view of clear statutory language requiring the regulation of *all* such activities, they must be regulated, regardless of the other uses of the well in which these activities occur.[11]

Perceiving that its statutory construction argument is weak, EPA relies heavily on the legislative history in defending its decision to exclude hydraulic fracturing from the reach of the UIC regulations. "Given the straightforward statutory command, [however,] there is no reason to resort to legislative history." *United States v. Gonzales,* --- U.S. ----, ----, 117 S.Ct. 1032, 1035, 137 L.Ed.2d 132 (1997). Moreover, far from evidencing a legislative intent contrary to the plain meaning of the statute, the legislative history supports it. *Cf. United States v. James,* 478 U.S. 597, 606, 106 S.Ct. 3116, 3121, 92 L.Ed.2d 483 (1986).

EPA concedes that Congress intended to cast a wide regulatory net in enacting the UIC program. The House Report accompanying the bill that eventually became the SDWA states:

> The definition of "underground injection" is intended to be broad enough to cover any contaminant which may be put below ground level and which flows or moves, whether the contaminant is in semi-solid, liquid, sludge, or any other form or state.
>
> This definition is not limited to the injection of wastes or to injection for disposal purposes; it is intended also to cover, among other contaminants, the injection of brines and the *injection of contaminants for extraction or other purposes.*

H.R.Rep. No. 93-1185, at --- (1974), *reprinted in* 1974 U.S.C.C.A.N. 6454, 6483 (emphasis added). Despite this broad language, EPA contends that Congress did not intend the scope of the UIC program to extend beyond the range of specific underground injection problems identified in the House Report:

Municipalities are increasingly engaging in underground injection of sewage, sludge, and

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[11]Thus EPA conceivably may elect to subject methane gas wells to regulation—including any monitoring and recordkeeping requirements pursuant to 42 U.S.C. § 300h(b)(1)(C)—only during the process of hydraulic fracturing and not during gas production. What EPA cannot do is to exempt hydraulic fracturing activities from regulation simply by deeming them not to be "underground injection," despite the plain language of the statute.

other wastes. Industries are injecting chemicals, byproduct, and wastes. Energy production companies are using injection techniques to increase production and to dispose of unwanted brines brought to the surface during production. Even government agencies, including the military, are getting rid of difficult to manage waste problems by underground disposal methods. Part C is intended to deal with all of the foregoing situations insofar as they may endanger underground drinking water sources.

Id. at ----, *reprinted in* 1974 U.S.C.C.A.N. at 6481. According to EPA, all of these problems involve wells whose principal function is underground injection, not gas production.[12]

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[12]LEAF disputes this assertion and points that one of the problems listed by Congress was that "[e]nergy production companies are using injection techniques to increase production." H.R.Rep. No. 93-1185, at ----, *reprinted in* 1974 U.S.C.C.A.N. at 6481. Hydraulic fracturing is a gas production enhancement technique, which therefore falls squarely within the broad concern identified by Congress in the above quote. EPA counters that Congress was in fact only concerned with secondary and tertiary recovery techniques, not hydraulic fracturing. Secondary and tertiary recovery techniques involve the injection of fluids into oil-bearing formations for the purpose of driving the oil into production wells. *See* R10-989 (brochure entitled "Injection Wells: An Introduction to Their Use, Operation and Regulation," published by the Underground Injection Practices Council in cooperation with EPA). As evidence that Congress was concerned only with underground injection related to secondary and tertiary recovery, EPA points to a statutory provision which precludes regulatory requirements that

> interfere with or impede—
>
> (A) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production ..., or
>
> (B) any underground injection for the secondary or tertiary recovery of oil or natural gas,
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> unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection.

42 U.S.C. § 300h(b)(2).

We need not resolve this dispute regarding the meaning of "injection techniques to enhance production" in the House Report because it is not necessary for the resolution of this case. We have already determined that hydraulic fracturing falls within the plain language of the statutory definition of "underground injection." Therefore, we are canvassing the legislative history, at the urging of EPA, "to determine only whether there is "clearly expressed legislative intention' contrary to that language, which would require us to question the strong presumption that Congress expresses its intent through the language it chooses." *Immigration and Naturalization Serv. v. Cardoza-Fonseca,* 480 U.S. 421, 432 n. 12, 107 S.Ct. 1207, 1213 n. 12, 94 L.Ed.2d 434 (1987) (quoting *United States v. James,* 478 U.S. 597, 606, 106 S.Ct. 3116, 3121, 92 L.Ed.2d 483 (1986)); *but see id.* at 452, 107 S.Ct. at 1224 (Scalia, J., concurring in the judgment) (criticizing the majority for this "ill-advised deviation from the venerable principle that if the language of a statute is clear, that language must be given effect—at least in the absence of a patent absurdity"). In other words, the relevant evidence is whether there is "clearly expressed legislative intent" to exclude hydraulic fracturing from regulation. Even if EPA's interpretation of the legislative history were correct, it would only mean that Congress

EPA argues that a colloquy during the House debate supports its reading of congressional intent. In this colloquy, Representative Pickle asked Representative Rogers, the chairman of the House Subcommittee on Public Health and the Environment, which originally reported the bill that became the SDWA, "whether it was the intent of the Congress that the Administrator propose such regulations that will require every person, whether he is drilling for an oil well or a water well, to obtain certification from the EPA that he is not guilty of pollution." 120 Cong.Rec. 36,380 (1974). Representative Rogers responded that the regulations "are not concerned so much with drilling as with the injection of waste into the ground." *Id.* EPA gleans from this brief exchange that Congress was aware that certain drilling techniques may have the potential of adversely affecting groundwater, but chose not to regulate the drilling of wells under the UIC program. According to EPA, hydraulic fracturing is one of those "drilling techniques," which Congress did not intend to regulate. We are unpersuaded for the rather simple reason that hydraulic fracturing is not a "drilling technique." As we have described in part I.B of this opinion, hydraulic fracturing involves the injection of fluids into the ground *after* the well has been constructed for the purpose of inducing cracks in the ground, cracks which sometimes extend hundreds of feet away from the well. Although hydraulic fracturing is often conducted once immediately after the well is constructed and before gas production commences, it is occasionally repeated later. Moreover, maintenance fluids are sometimes injected into the previously-induced fractures after initial gas production has commenced to maintain these fractures in good condition and to stimulate gas flow further. EPA cannot remove these processes which plainly involve "underground injection" out of the reach of the statute by arbitrarily labeling them "drilling techniques" and then pointing to the Pickle/Rogers

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did not explicitly include hydraulic fracturing within its list of problems that prompted Congress to enact the UIC program, not that it clearly intended to exclude hydraulic fracturing from regulation. For example, Congress did not include hydrocarbon storage wells or mineral extraction wells within the list of problems, yet EPA regulates such wells as Class II and Class III wells, respectively. It is clear to us that the list of problems which are mentioned in the House Report and which apparently provided the main incentive for congressional action is not meant to be an exclusive list of injection activities subject to the UIC program.

colloquy on the House floor as support for its action.[13]

Finally, EPA contends that its interpretation of the statutory language as excluding hydraulic fracturing from the reach of the regulations is entitled to special deference because it is long-standing and has been consistent over a long time period. *See, e.g., Thomas Jefferson University v. Shalala,* 512 U.S. 504, 515, 114 S.Ct. 2381, 2388, 129 L.Ed.2d 405 (1994) (noting that an agency interpretation of statute or regulations that conflicts with a prior interpretation is entitled to considerably less deference than consistent interpretations). Moreover, EPA asserts that Congress ratified that interpretation because Congress amended the SDWA in 1986, several years after EPA promulgated its definition of "well injection." *See United States v. Hill,* 506 U.S. 546, 553-54, 113 S.Ct. 941, 947, 122 L.Ed.2d 330 (1993) (where regulatory definitions of the terms "mineral deposit" and "mineral enterprise" were well established at the time Congress amended the statute, it was reasonable to assume that Congress relied on the accepted distinction between the two terms when it referenced "mineral deposit" in the statute). We reject both arguments. "[N]o deference is due to agency interpretations at odds with the plain language of the statute itself. Even contemporaneous and longstanding agency interpretations must fall to the extent they conflict with statutory language." *Public Employees Retirement Sys. v. Betts,* 492 U.S. 158, 171, 109 S.Ct. 2854, 2863, 106 L.Ed.2d 134 (1989). As to the ratification argument, EPA has made no showing that Congress was aware that EPA's interpretation of "well injection" excluded hydraulic fracturing from the reach of

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[13]EPA asserts in its brief that, if hydraulic fracturing activities fall within the UIC program, then well drilling techniques which might result in incidental emplacement of fluids into the ground, such as the use of drilling mud to lubricate the drilling bit and for other purposes during well construction, must be regulated. Since the use of drilling mud is a common drilling technique, EPA presents the alarmist scenario where hundreds of thousands of gas and water wells would have to be regulated under the UIC program merely because of the technique used to drill them. We are unpersuaded. The use of drilling mud for the construction of gas and water wells is quite obviously the type of drilling technique that Congress did not intend to regulate under the UIC program, as confirmed in the Pickle/Rogers colloquy. That some of the drilling mud might remain in the ground in the vicinity of the well is incidental to the construction of the well, not a result of an operation specifically designed to inject fluids into the ground through an already constructed well, as is hydraulic fracturing. In other words, drilling mud that may remain in the ground is not "underground injection" because it is not emplaced by "well injection." *See* 42 U.S.C. § 300h(d)(1). It is emplaced by well construction. In contrast, hydraulic fracturing involves the "subsurface emplacement of fluids by well injection," *id.,* and thus falls squarely within the statutory definition of "underground injection," as we have explained.

the UIC regulations when Congress reenacted the SDWA in 1986. Where "the record of congressional discussion preceding reenactment makes no reference to the ... regulation [at issue], and there is no other evidence to suggest that Congress was even aware of the [agency's] interpretive position[,] "... we consider the ... reenactment to be without significance.' " *Brown v. Gardner,* 513 U.S. 115, 121, 115 S.Ct. 552, 556-57, 130 L.Ed.2d 462 (1994) (quoting *United States v. Calamaro,* 354 U.S. 351, 359, 77 S.Ct. 1138, 1144, 1 L.Ed.2d 1394 (1957)) (last omission in original). Moreover, " "[w]here the law is plain, subsequent reenactment does not constitute an adoption of a previous administrative construction.' " *Id.* at 121, 115 S.Ct. at 556 (quoting *Demarest,* 498 U.S. at 190, 111 S.Ct. at 603-04) (alteration in original).

In sum, we conclude that hydraulic fracturing activities constitute "underground injection" under Part C of the SDWA. EPA's contrary interpretation cannot be squared with the plain language of the statute and thus must fall. "[T]hat is the end of the matter." *Chevron,* 467 U.S. at 843, 104 S.Ct. at 2781. Broad as EPA's discretion in formulating regulatory policy within the framework of the SDWA may be, "it must bow to the specific directives of Congress." *LaBonte,* --- U.S. at ----, 117 S.Ct. at 1677.

III. CONCLUSION

LEAF petitioned EPA to initiate proceedings for the withdrawal of Alabama's UIC program because Alabama does not regulate hydraulic fracturing associated with methane gas production. EPA denied the petition on the ground that hydraulic fracturing does not fall within the regulatory definition of "underground injection." Because we find that EPA's interpretation of its regulations is inconsistent with the statute, we GRANT the petition for review and REMAND for further proceedings consistent with this opinion.