INDIANA-CARBON MONOXIDE

Designated Areas	Designation		Classification	
	Date[1]	Type	Date[1]	Type
East Chicago Area:				
Lake County (part)	February 18, 2000	Attainment.		
Part of City of East Chicago (area bounded by Columbus Drive on the north, the Indiana Harbor Canal on the west, 148th St. if extended, on the south, and Euclid Ave, on the east..				
Indianapolis Area:				
Marion County (part)	February 18, 2000	Attainment.		
Part of City of Indianapolis (area bounded by 11th St, on the north, Capital on the west, Georgia St. on the south, and Delaware on the east)..				
Lake County (part):				
The remainder of East Chicago and Lake County.		Unclassifiable/Attainment.		
Marion County (part)				
The remainder of Indianapolis and Marion County.		Unclassifiable/Attainment.		
* * * * * *				

[1] This date is November 15, 1990, unless otherwise noted.

[FR Doc. 00–726 Filed 1–18–00; 8:45 am]
BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 147

[FRL–6516–7]

State of Alabama; Underground Injection Control (UIC) Program Revision; Approval of Alabama's Class II UIC Program Revision

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA announces a final rule regarding approval of Alabama's Class II Underground Injection Control (UIC) Program Revision to regulate as ''underground injection'' hydraulic fracturing of coal beds associated with methane gas production. This rule finalizes the Agency's decision to approve the revision to Alabama's Class II UIC program administered by the State Oil and Gas Board of Alabama (the Board). This action determines that the State has an effective program regulating hydraulic fracturing associated with methane gas production as underground injection pursuant to an EPA approved underground injection control program. This action also allows EPA to conclude all withdrawal proceedings initiated by EPA concerning Alabama's Class II UIC program.The Administrator approved the revision to Alabama's Class II UIC program administered by the Board to regulate hydraulic fracturing of coal beds as underground injection on December 22, 1999.

DATES: Pursuant to the ''good cause'' provision of 5 U.S.C. 553(d)(3), this final rule is effective January 19, 2000.

The incorporation by reference of certain publications listed in this regulation was approved by the Director of the **Federal Register** as of January 19, 2000.

ADDRESSES: Copies of the public comments received, EPA responses, and all other supporting documents regarding this action are available for review and copying between 8:30 a.m. and 4:00 p.m. Monday through Friday at the Environmental Protection Agency, Region 4, Water Management Division, Ground Water/Drinking Water Branch, Ground Water & UIC Section, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, S.W., Room 15-T53 Atlanta, GA 30303–8960, PH: (404) 562–9474.

FOR FURTHER INFORMATION CONTACT: Mr. Larry Cole, at (404) 562–9474 or at the address above.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background Information

A. Introduction

On August 2, 1982, EPA granted primary enforcement responsibility (primacy) for the Class II Underground Injection Control (UIC) Program under Section 1425 of the Safe Drinking Water Act (SDWA) to the State of Alabama. The SDWA allows EPA to delegate primary enforcement responsibility to an effective in-place State UIC Program to protect Underground Sources of Drinking Water (USDW) from endangerment that could result from the improper injection of fluids associated with, among other things, oil and gas production. On May 3, 1994, the Legal Environmental Assistance Foundation, Inc. (LEAF) submitted a petition to EPA to withdraw Alabama's UIC Program asserting that the State was not regulating activities associated with coal bed methane gas production wells. Following the Agency's May 5, 1995, denial of the petition, LEAF sought review of this decision by the United States Court of Appeals for the Eleventh Circuit. On August 7, 1997, in *LEAF* v. *EPA,* 118 F. 3d 1467 (11th Cir. 1997), the Court held as follows: ''* * * hydraulic fracturing activities constitute ''underground injection'' under Part C of the Safe Drinking Water Act, id. at 1478; all underground injection is required to be regulated (by permit or rule), *id.* at 1474; and hydraulic fracturing associated with coal bed methane gas production is not currently regulated under Alabama's UIC Program, *id.* at 1471.'' On February 18, 1999, the Eleventh Circuit issued a Writ of Mandamus that directed EPA to enforce the Court's August 1997 decision. The writ established a schedule for EPA to follow to determine whether, in light of the Court's ruling regarding hydraulic fracturing, EPA should withdraw approval of Alabama's UIC Program. The writ also stated that once hydraulic fracturing associated with methane gas production is regulated as underground injection by the State of Alabama and the program revision is approved by EPA, withdrawal proceedings could cease. If the State of Alabama's program revision correcting the deficiencies was not approved by EPA through rulemaking and the withdrawal proceeding were not formally concluded by December 22, 1999, the Writ of Mandamus directed EPA to withdraw approval of Alabama's UIC Program.

B. Withdrawal Activities

Section 1425 of the SDWA and subsequently published EPA guidance documents do not contain express procedures for the withdrawal of a Section 1425 Program. EPA has promulgated procedures in 40 CFR 145.34(b) for withdrawing a Section 1422 Program. In light of the Court's Writ of Mandamus, which essentially tracks the withdrawal procedures in 40 CFR 145.34(b), EPA followed these procedures in proposing to withdraw Alabama's Section 1425 Program.

On March 19, 1999, the Regional Administrator of EPA Region 4 notified the Supervisor of the Board of EPA's decision to initiate the process to withdraw approval of the Alabama UIC Program. The Regional Administrator's notice to the Supervisor of the Board constituted the first step in the withdrawal process. According to the procedures established in 40 CFR 145.34(b) and the Writ of Mandamus, the State was given 30 days after the notice to demonstrate that its UIC Program was in compliance with the SDWA and 40 CFR Part 145 (*i.e.,* that hydraulic fracturing associated with methane gas production was regulated as ''underground injection,'' by permit or rule, pursuant to the EPA approved Underground Injection Control Program). The Supervisor of the Board, in a letter dated April 15, 1999, responded to the Regional Administrator's letter indicating that on March 5, 1999, Alabama promulgated rules regulating hydraulic fracturing of coal bed methane gas wells by rule authorization. These new regulations were added as an Emergency Order and sent to the Alabama Legislative Reference Service under Section 41–22–5 of the Code of Alabama (1975). The regulations became effective on March 11, 1999, for a period of no longer than 120 days, and indicated that the Board rule would be made permanent prior to the expiration of the Emergency Order. The regulations were made permanent on November 5, 1999.

By letter dated May 18, 1999, the Regional Administrator notified the Supervisor of the Board that the Board was not yet in compliance with the requirements of the SDWA. In order to comply with the Court's decision and the SDWA, the regulation of hydraulic fracturing for coal bed methane had to become part of an EPA approved UIC program. Accordingly, Alabama had to submit a revised UIC program package containing new regulations to EPA for review and approval. That action constituted the second step in the withdrawal process set out in 40 CFR 145.34(b) and the Writ of Mandamus.

On May 21, 1999, Region 4 announced in the **Federal Register** a public hearing in the Tuscaloosa Public Library on July 28, 1999, giving the public the opportunity to comment on withdrawal of Alabama's Class II Underground Injection Control Program. Region 4 received written and oral comments at the hearing, but the hearing was canceled prior to its conclusion by the Tuscaloosa City Fire Marshall due to overcrowding. In the August 10, 1999, **Federal Register**, Region 4 rescheduled the July 28, 1999, public hearing for September 9, 1999, and extended the public comment period until September 16, 1999, allowing the public the opportunity to make comments concerning withdrawal of Alabama's Class II UIC program. At the September 9, 1999, public hearing, Region 4 received numerous comments from concerned citizens, environmental groups, industry representatives, and State agency representatives. Comments obtained at both of these public hearings, as well as written comments received by close of business on September 16, 1999, were considered by EPA.

Following conclusion of the public hearing, on September 23, 1999, the Regional Administrator of Region 4 notified the Supervisor of the Board of the continuing program deficiencies and the need for remedial action before the Class II UIC program could be approved by EPA. That action constituted the third step in the withdrawal process set out in 40 CFR 145.34(b) and was necessary because, as of that date, hydraulic fracturing associated with methane gas production was still not regulated as part of Alabama's EPA-approved UIC program. If the State of Alabama's program revision correcting the deficiencies was not approved by EPA through rulemaking and the withdrawal proceedings were not formally concluded by December 22, 1999, the Writ of Mandamus directed EPA to withdraw approval of Alabama's UIC Program. EPA has followed the Writ of Mandamus withdrawal schedule. In order to avoid withdrawal of its Class II UIC program, the State Oil and Gas Board submitted a revised program for approval by EPA. The process for EPA's review of the program revision is detailed in the next section.

EPA has determined that Alabama's Class II UIC program now regulates hydraulic fracturing associated with coal bed methane production consistent with the requirements of the SDWA and the *LEAF* Court mandate. EPA, therefore is concluding its withdrawal proceedings against the State on December 22, 1999.

C. Alabama Class II UIC Program Revision

The Alabama Oil and Gas Board has held primary enforcement authority for

the Class II UIC program since the program was originally approved by EPA on August 2, 1982, pursuant to Section 1425 of the SDWA. Alabama has now revised its program to address the deficiencies outlined in the Regional Administrator's letter of September 23, 1999. The Board submitted an application for program revision on October 6, 1999, requesting that EPA approve the program revision for primary administrative and enforcement authority for the regulation of hydraulic fracturing of coal beds on all lands subject to the State's police power and taxing authority and on all lands owned or under the jurisdiction of the United States, except those wells located on Indian lands as defined in 40 CFR 144.3. The application includes a program description, copies of all applicable rules and forms, a statement of legal authority and appropriate memoranda of agreement. After a comprehensive review of the application package, on October 22, 1999, EPA published in the **Federal Register** a notice of proposed rulemaking, a public hearing and a public comment period relative to EPA approval of Alabama's Class II UIC program. EPA received comments both at the public hearing held on November 22, 1999, and up to November 29, 1999, the extended deadline for comments. EPA is approving Alabama's revision to its Class II UIC program on December 22, 1999.

II. Environmental Impact of Hydraulic Fracturing of Coals Beds

Many written and oral comments were received by the Agency concerning the environmental impact of hydraulic fracturing of coal beds. Several commentors stated that there was a long history of hydraulic fracturing in Alabama with no recorded associated environmental or public health problems. Other commentors, however, provided information regarding problems with private water supplies allegedly impacted by hydraulic fracturing. EPA has responded to these and all other comments received in a separate Response to Comments document which has been placed in the docket for this rulemaking. See Section IV. C. of this preamble below.

When considering the regulation of hydraulic fracturing of coals beds, or more specifically the approval of Alabama's program revision incorporating such regulation, the Safe Drinking Water Act Section 1421(b) and Section 1425(b) directs EPA to judge any regulatory approach on its ability to prevent underground injection which endangers drinking water sources. Cases of past endangerment caused by hydraulic fracturing of coal beds are hard to substantiate. However, it is certainly possible to conclude that underground injection of hydraulic fluids might endanger underground drinking water sources if conducted without proper safeguards. This is especially so considering the proximity of fracturing to USDWs, the volumes of fluids injected, and the pressure at which these fluids are injected. Therefore, EPA believes that hydraulic fracturing of coals beds is appropriate for regulation by Alabama under the SDWA even though a thorough review has not been conducted to substantiate the impact of such injection.

III. Hydraulic Fracturing of Coal Beds and the UIC Regulatory Structure

A. Safe Drinking Water Act

Section 1421(b) of the Safe Drinking Water Act states: ''Regulations under subsection (a) of this section for State underground injection programs shall contain minimum requirements for effective programs to prevent underground injection which endangers drinking water sources within the meaning of subsection (d)(2) of this section.'' Subsection (d)(2), otherwise known as the ''endangerment standard,'' states: ''Underground injection endangers drinking water sources if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons.'' This is the standard by which underground injection, including hydraulic fracturing, is generally regulated under the SDWA.

EPA has not promulgated Federal regulations which specifically cover hydraulic fracturing activities. However, pursuant to Section 1422(b), each State is required to have an EPA-approved or EPA-run program meeting the requirements of the SDWA, including the requirements that underground injection not endanger USDWs. In the *LEAF* case, as discussed above, the Eleventh Circuit Court of Appeals held that hydraulic fracturing of coal beds in association with methane gas production was underground injection for purposes of the SDWA and is required to be regulated (by permit or rule). Consistent with that decision and the Court's subsequently issued Writ of Mandamus, EPA has worked with Alabama to review its Class II UIC program pursuant to the SDWA and the Court's decision.

In reference to underground injection associated with oil and gas production, the Act states under Section 1421(b)(2): ''Regulations of the Administrator under this section for State underground injection control programs may not prescribe requirements which 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 natural gas storage operations, or (B) any underground injection for the secondary or tertiary recovery of oil or natural gas, unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection.''

The specific language of this section allows EPA to impose, through regulations, requirements that are essential to assure that underground sources of drinking water will not be endangered. In Alabama, hydraulic fracturing of coal beds generally occurs by injecting fluids directly into underground sources of drinking water. Alabama's rule regulating hydraulic fracturing is designed, among other things, to assure that USDWs are not endangered. Because EPA believes that the revised Alabama UIC program covering hydraulic fracturing does not contain any requirements which interfere or impede with oil and gas production which are not essential to prevent endangerment of USDWs, EPA believes that its approval of the Alabama revision is not in conflict with Section 1421(b)(2) of the Safe Drinking Water Act.

B. Well Classification and Regulation

The classification system of underground injection wells was established in the original promulgation of UIC regulations in 1979. Injection wells are classified as either Class I, II, III, IV, or V. (40 CFR 144.6; 146.5) Classes I through IV are each specifically defined by EPA regulation, and Class V is defined as any well that is not Class I, II, III, or IV.

40 CFR 144.6(b) defines Class II wells as follows: ''Wells which inject fluids: (1) Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with waste waters from gas plants which are integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection; (2) For enhanced recovery of oil or natural gas; and (3) For storage of hydrocarbons which are liquid at standard

temperature and pressure.'' Hydraulic fracturing of coal beds is a temporary and intermittent process in which fluids are injected underground at high pressures to create fractures in the coals seam that enhance the recovery of methane gas by creating pathways for the gas to flow to the surface.

When the regulations in 40 CFR parts 144 and 146, including the well classifications, were promulgated, it was not EPA's intent to regulate hydraulic fracturing of coal beds. Accordingly, the well classification systems found in 40 CFR 144.6 and 146.5 do not expressly include hydraulic fracturing injection activities. Also, the various permitting, construction and other requirements found in Parts 144 and 146 do not specifically address hydraulic fracturing.

When the Eleventh Circuit determined that EPA must include hydraulic fracturing of coal bed seams as underground injection under the SDWA, the Agency reviewed its well classification definition to determine how to incorporate hydraulic fracturing within the context of its existing regulations. Of the five ''classes'' of injection wells defined in 40 CFR 144.6, hydraulic fracturing of coal beds to produce methane appeared most closely related to Class II, especially that part of the Class II definition covering wells which inject fluids ''for enhanced recovery of oil or natural gas.'' (40 CFR 144.6(b)(2)) It is certainly possible to view the emplacement of fracturing fluids through these methane production wells as designed to enhance the recovery of natural gas by creating fractures through which the methane might flow to the well and up to the surface. However, since the injection of fracture fluids through these wells is often a one-time exercise of extremely limited duration (fracture injections generally last no more than two hours) ancillary to the well's principal function of producing methane, it did not seem entirely appropriate to ascribe Class II status to such wells, for all regulatory purposes, merely due to the fact that, prior to commencing production, they had been fractured. Instead, EPA believes it is reasonable to view hydraulic fracturing of these production wells as a Class II—like underground injection activity which, by itself, does not turn these methane production wells into Class II injection wells for purposes of complying with all of the Class II regulatory requirements in Parts 144 and 146. We believe such a decision is consistent with the Court's mandate that EPA treat hydraulic fracturing of coal beds for methane production as underground injection, while at the same time allowing Alabama the flexibility to fashion an approvable regulatory program addressing hydraulic fracturing which need not mirror all existing requirements in Parts 144 and 146 for Class II wells.

Given that there are currently no Federal regulations specifically addressing hydraulic fracturing of coal beds, the general requirements applicable to all classes of wells provide the minimum Federal regulatory requirements for hydraulic fracturing of coal beds. The key requirement is the ''endangerment standard'' found at 40 CFR 144.12(a) which provides: ''No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons.'' As discussed in Part IV below, EPA has determined that Alabama's revised Class II program meets the applicable requirements of the SDWA and EPA's regulations, including 40 CFR 144.12(a). This determination does not preclude another State from regulating hydraulic fracturing of coal beds in an alternate UIC regulatory scheme.

C. Aquifer Exemptions

EPA's UIC regulations at 40 CFR 146.4 set forth criteria for determining whether an aquifer which meets the definition of a USDW may be determined to be an ''exempted aquifer'' pursuant to 40 CFR part 144. This final rule approving the State program revision does not, in any way, alter the aquifer exemption options provided by Federal regulations under 40 CFR 144.7 and 146.4. If submitted by the State, the Agency would consider any aquifer exemption petition on its own merits. However, exempting any aquifers into which hydraulic fracturing fluids are injected would not remove the requirement that hydraulic fracturing of coal beds generally be regulated by Alabama as underground injection. Therefore, the current action approving Alabama's program revision is separate from an aquifer exemption determination, and, in the future, any such State program revisions exempting aquifers would still be required to be approved by EPA to ensure that the State program remains effective at preventing underground injection that endangers drinking water sources.

IV. Approval of Program Revision

A. Approval Under SDWA Section 1422 Versus Section 1425

As discussed above, Section 1422(b) of the SDWA sets forth criteria for EPA to apply when deciding whether to approve a State's UIC program or program revision. Section 1422(b)(1)(A) requires that an approvable State application program: (1) Meet the requirements of regulations in effect under Section 1421; and (2), keep such records and make such reports as the Administrator may require by regulation. Section 1425 allows an optional demonstration for approving ''that portion of any State underground injection control program which relates to—(1) The underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production or natural gas storage operations, or (2) any underground injection for the secondary or tertiary recovery of oil or natural gas.''

Although language in Section 1425 of the SDWA does not specifically refer to hydraulic fracturing for methane production, it is reasonable to assume that Congress would have intended that approval of State underground injection programs relating to this type of activity would fall within the more flexible approval standards Congress established in Section 1425. In creating an alternative demonstration for ''secondary or tertiary recovery''-related injection under Section 1425, it is unlikely that Congress meant to leave behind another undefined, yet analogous, category of oil- and gas-related injection activities, like hydraulic fracturing of coal beds, for approval exclusively pursuant to Section 1422. Congress' use of the terms ''secondary or tertiary recovery'' in Section 1425 is broad enough to cover analogous oil- and gas-related injection activities. These activities are like those covered by the *LEAF* decision and Alabama's rule whose purpose, like secondary and tertiary recovery, is to enhance oil or gas production. To conclude otherwise would require States to seek approval for similar parts of their oil- and gas-related UIC program under *both* Section 1425 *and* 1422. This would be both inefficient and inconsistent with Congress' expressed admonition that EPA not prescribe unnecessary requirements related to oil- and gas-related injection (42 U.S.C. 300h(b)(2)). Therefore, EPA interprets Section 1425 broadly as establishing an alternative method (in lieu of the showing required by Section 1422(b)(1)(A)) for a State to obtain

primary enforcement responsibility for those portions of its UIC program related to hydraulic fracturing of coal bed seams for methane production.

Section 1422 (b)(1)(A) requires the State to demonstrate that it ''(i) has adopted after reasonable notice and public hearings, and will implement, an underground injection control program which meets the requirements of regulations in effect under section [1421] of this title; and (ii) will keep such records and make such report with respect to its activities under its underground injection control program as the Administrator may require by regulation.'' As already discussed, there are no specific Federal regulations addressing hydraulic fracturing of coal beds. Therefore, if EPA were to apply Section 1422 to the Alabama program to regulate hydraulic fracturing of coal beds, the Federal regulations in effect under Section 1421 would be those regulations in Parts 144 and 146, like 40 CFR 144.11, 144.12(a) and 144.26, which apply to all classes of wells (see Part III. B. Well Classification and Regulation of this preamble). Section 144.11 is satisfied because the Alabama hydraulic fracturing regulations prohibit any fracturing activities unless written approval of the Supervisor is obtained. [See State Rule 400–4–5–.04(4)] As we demonstrate later, the ''endangerment'' standard, 40 CFR 144.12(a), has essentially been adopted by the State at 400–4–5–.04(2) for the regulation of hydraulic fracturing of coal beds. Moreover, the inventory requirements in 40 CFR 144.26 are also met by State Rule 400–4–5–.04(4).

Section 1425 provides an alternative standard of approval for State UIC programs relating to oil and natural gas. Section 1425 provides that for purposes of EPA approval under Section 1422, in lieu of the showing required under Section 1422(b)(1)(A), the State may show that its program ''meets the requirements of subparagraphs (A) through (D) of section [1421(b)(1)] of this title and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources.'' Section 1425 allows the State to adopt and implement a program that prevents, in the judgement of EPA, underground injection which endangers drinking water sources, not simply adopt and implement a program that is no less stringent than EPA's Section 1421 regulations. Since EPA does not have any specific permitting or construction regulations designed to prevent hydraulic fracturing of coal beds from endangering drinking water sources, a State program revision approved under Section 1422 might not have been as preventative in nature as one approved under Section 1425. The requirement applicable to all classes of wells under 40 CFR 144.12(a) is a general prohibition against injection that endangers drinking water sources. It does not establish technical criteria or standards on operators to demonstrate that their injection will not endanger drinking water sources prior to obtaining authorization for injection.

Under Section 1425, however, a State is required to demonstrate that its program will be ''effective'' in preventing endangerment of drinking water sources. Therefore, in addition to containing a 40 CFR 144.12(a)-type requirement prohibiting ''endangerment,'' under Section 1425 the State must demonstrate that its program will be effective in preventing such endangerment. Alabama has, as we demonstrate below, done that through the regulatory system it has adopted addressing coal bed fracturing activities.

Therefore, it is EPA's determination that: (1) Approval under Section 1425 provides for potentially greater protection of underground sources of drinking water with respect to the regulation of hydraulic fracturing of coal beds than Section 1422 since it requires ''effective'' preventative measures, and (2) the Alabama program revision includes regulations that are more stringent than existing Federal regulations for hydraulic fracturing and meets the standards of Section 1425.

B. SDWA Section 1425 Approval Justification

By this notice and final rule, EPA is approving Alabama's UIC program revision in which the State is regulating hydraulic fracturing of coal beds pursuant to Section 1425 of the SDWA. Section 1425 provides that EPA may approve that portion of a State's UIC program which relates to ''any underground injection for the secondary or tertiary recovery of oil or natural gas'' if the program meets certain requirements of Section 1421 and ''represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources.''

Pursuant to the State of Alabama's authority under Section 9–17–6(c)(3) and (13) of the Code of Alabama, and in accordance with the Eleventh Circuit's *LEAF* decision, the Board adopted on August 20, 1999, a rule to regulate hydraulic fracturing of coal beds. This rule, and a minor definition revision rule, submitted to EPA as part of Alabama's Class II UIC program revision package, embodied the State's requirements for such fracturing activities. In summary, the new rule (Rule 400–4–5–.04) establishes standards and procedures the Board will apply when evaluating proposals to hydraulically fracture coal beds. Among other things, Rule 400–4–5–.04(1) and (2) of the Board Administrative Code specifically provides that coal beds shall be hydraulically fractured so as not to endanger any underground source of drinking water (USDW). In addition, coal beds shall not be hydraulically fractured in a manner that allows the movement of fluid containing any contaminant into a USDW if the presence of that contaminant may cause a violation of any applicable primary drinking water regulation under 40 CFR Part 141 or, otherwise, adversely affect the health of persons. It is EPA's interpretation that these requirements satisfy the prohibition against endangerment in Part C of the Safe Drinking Water Act.

Section 400–4–5.04(3) of the Alabama rule also establishes requirements that, should hydraulic fracturing of coal bed operations occur in a USDW, the operator must certify that the injectate does not exceed maximum contaminant levels (MCLs) before approval for injection can be obtained. Additional requirements pertaining to the depth of the hydraulic fracturing operation and geologic confining strata were established to prevent impacts on private and public drinking water supplies. For example, under Section 400–4–5–.04(5)(B) of the rule, hydraulic fracturing of coal beds is prohibited at depths of less than 300 feet from the surface. Fracturing at lower depths also requires additional demonstrations, including delineation of drinking water use around the fracturing operation and assurances for the prevention of upward movement of fluids. For every proposal to hydraulically fracture a coal bed, written approval from the Oil and Gas Supervisor must be obtained before the operation can commence.

SDWA Section 1425 requires a State to demonstrate that its Underground Injection Control (UIC) Program meets the requirements of Section 1421(b)(1)(A) through (D) and ''represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources.'' Accordingly, Section 1425 requires that a State, in order to receive approval under the optional demonstration, make a successful showing that its program meets the following five conditions: (1) Section

1421(b)(1)(A) requires that an approvable State program prohibit any underground injection in such State which is not authorized by permit or rule. (2) Section 1421(b)(1)(B) requires that an approvable State program shall require that: (i) The applicant for a permit ''must satisfy the State that the underground injection will not endanger drinking water sources;'' and (ii) ''no rule may be promulgated which authorizes any underground injection which endangers drinking water sources.'' (3) Section 1421(b)(1)(C) requires that an approvable State program ''include inspection, monitoring, recordkeeping, and reporting requirements.'' (4) Section 1421(b)(1)(D) requires that an approvable State program apply to: (i) ''Underground injections by Federal agencies, and (ii) to underground injections by any other person, whether or not occurring on property owned or leased by the United States.'' (5) Section 1425(a) requires that an approvable State program represent an ''effective program * * * to prevent underground injection which endangers drinking water sources.''

EPA has concluded that Rule 400–4–5–.04 (Protection of Underground Sources of Drinking Water during the Hydraulic Fracturing of Coal Beds), along with the rest of Alabama's revision package, satisfies the above five conditions of Section 1425 for approving a State's program. The basis for our conclusion for each condition is as follows:

(1) Rule 400–4–5–.04(4) states: ''Coal beds shall not be hydraulically fractured until the written approval of the Supervisor is obtained.'' This satisfies the requirement of Section 1421(b)(1)(A). The Alabama rule established conditions, including written approval, under which hydraulic fracturing may take place. Without the Supervisor's written approval signifying that those conditions are met, hydraulic fracturing may not occur.

(2) Section 1421(b)(1)(B)(i) is satisfied because, while the Alabama regulation does not establish a permit requirement, Rule 400–4–5–.04(4) states: ''Coal beds shall not be hydraulically fractured until the written approval of the Supervisor is obtained.'' Section 1421(b)(1)(B)(ii) is also satisfied because Rule 400–4–5–.04(2) states: ''Coal beds shall not be hydraulically fractured in a manner that allows the movement of fluid containing any contaminant into a USDW, if the presence of that contaminant may: (a) Cause a violation of any applicable primary drinking water regulation under 40 CFR § 141; or (b) otherwise adversely affect the health of persons.''

(3) Section 1421(b)(1)(C) is satisfied because Rule 400–4–5–.04 includes inspection, monitoring, recordkeeping and reporting requirements. The State rule provides adequate inspection of a hydraulic fracturing operation in accordance with Section 1421(b)(1)(C). The last sentence of Rule 400–4–5–.04(4) states that: ''In accordance with Rule 400–4–3–.01(2), the Supervisor may send a duly authorized representative to witness the fracturing operation.'' Additionally, Rule 400–4–5–.04(5)(c)(3), which covers coal beds in the depth interval of 300 to 749 feet, states that: ''A representative of the Board shall conduct a field reconnaissance within a ¼-mile radius of the coal bed methane gas well to determine the location of any additional fresh-water supply wells that may not be identified in the previously described documents.''

The Alabama rule also provides for adequate monitoring of fracturing operations. Rule 400–4–5–.04(3) states that: ''The operator shall certify in writing to the Supervisor that the proposed fracturing operation will not occur in a USDW,'' and provide evidence supporting how the determination was made. Otherwise, if the proposed fracturing occurs in a USDW, ''the operator shall certify in writing to the Supervisor that the mixture of fluids to be used to hydraulically fracture the coal beds does not exceed the maximum contaminant levels contained in 40 CFR. § 141, Subparts B and G.'' EPA believes these requirements of the Alabama rule are adequate in lieu of monitoring requirements because they will ensure USDWs are not endangered, thereby rendering monitoring requirements unnecessary.

The rule provides for adequate reporting requirements. In addition to Rule 400–4–5–.04(3) mentioned above, Rule 400–4–5–.04(5)(a)(3) requires the submittal of Form OGB–7 (Well Record and Completion or Recompletion Report), covering casing and cementing specifications. ''[I]f the coal bed methane gas well is in a state of completion or recompletion, and Form OGB–7 is not required to be filed with the Board prior to the fracturing operation, then the Supervisor shall require the operator to submit a wellbore schematic showing the specifications of the casing and cementing program.''

The rule also provides for adequate recordkeeping. Rule 400–4–5–.04(7) requires that operators ''maintain all records associated with each proposal approved by the Supervisor and implemented by the operator to hydraulically fracture coal beds. Such records shall be maintained until such time that the coalbed methane gas well has been plugged for permanent abandonment, but not less than three (3) years following completion of the fracturing operation.''

(4) Section 1421(b)(1)(D) is satisfied since the State's Rule and Alabama's existing UIC Program applies to all relevant entities. The Alabama Oil and Gas Board has the authority to regulate operators who hydraulically fracture coal beds. Rule 400–1–1.03(32) defines operator as ''any person who, duly authorized, is in charge of the development of a lease or the operation of a producing well, and, in addition, for the purpose of assigning responsibility, may also be the person indicated as operator by the most current records of the Board.'' Rule 400–1–1–.03(34) defines person as ''any natural person, firm, corporation, association, partnership, joint venture, receiver, trustee, guardian, executor, administrator, fiduciary, representative of any kind, or any other group acting as a unit, and the plural as well as the singular number.'' Therefore, this program revision applies to underground injection by Federal agencies and underground injection by any other person, whether or not occurring on property owned or leased by the United States.

(5) Finally, the requirement of section 1425 is met because the current revision application package and Rule 400–4–5–.04 represent an effective program that prevents underground injection which endangers drinking water sources. State Rule 400–4–5–.04(2) states: ''Coal beds shall not be hydraulically fractured in a manner that allows the movement of fluid containing any contaminant into a USDW, if the presence of that contaminant may: (a) Cause a violation of any applicable primary drinking water regulation under 40 CFR § 141; or (b) otherwise adversely affect the health of persons.'' This statement embodies the ''endangerment'' standard in Section 1421(d)(2) of the SDWA and provides the basic prohibition against hydraulic fracturing which endangers drinking water sources.

The State has also adopted additional regulatory provisions preventing underground injection which endangers drinking water sources. State Rule 400–4–5–.04(3) states: ''The operator shall certify in writing to the Supervisor that the proposed fracturing operation will not occur in a USDW. Evidence that supports how the determination was made shall accompany such

certification and be acceptable to the Supervisor. Otherwise, the operator shall certify in writing to the Supervisor that the mixture of fluids to be used to hydraulically fracture the coal beds does not exceed the maximum contaminant levels contained in 40 CFR § 141 Subparts B and G.'' This provision requires a certification that fracturing fluids will not be injected into a USDW or establishes specifications for the quality of the injectate should the injection occur into the USDW. Specifically, it states that the injectate must meet drinking water standards. Therefore, EPA concludes that adequate provisions have been established to prevent endangerment of drinking water sources from hydraulic fracturing operations.

State Rule 400–4–5–.04(5)(a)5 also states: ''A geophysical log, or gamma ray log, shall be evaluated to determine the type and thickness of strata overlying the uppermost coal bed to be fractured. Impervious strata, such as shale, must overlie the uppermost coal bed and be of sufficient thickness and consistency to serve as a barrier to the upward movement of fluids. Otherwise, a fracturing proposal will be denied.'' This provision ensures that underground injection will not cause movement of fluids from the fracturing zone, which may be of lesser quality, into upper underground sources of drinking water. Should injection occur below the USDW where injectate quality is not addressed by State Rule 400–4–5–.04(3), this provision prohibits the upward movement of injectate and other formation fluids into the USDW. The quality of aquifers (measured as total dissolved solids) in the formations where hydraulic fracturing of coal beds occurs generally decreases as depth of the aquifer increases. In other words, if injection does not occur in a USDW, such injection is probably taking place below the lowermost USDW. Therefore, injection occurring below the USDW is prevented from moving upwards into the USDW, and downward movement would not be in the direction of a USDW. EPA concludes that adequate provisions have been established to prevent endangerment from movement of injection fluids and formation fluids into a USDW.

Additional protection is afforded because under 400–4–5–.04(5) operators will be required to follow the requirements of Rule 400–4–3–.02 (Casing Requirements), which will be evaluated by the Supervisor to ensure compliance. Hydraulic fracturing will not be allowed unless the coal bed methane well is constructed in accordance with Rule 400–4–3–.02. Rule 400–4–3.02 provides requirements to ensure the integrity of the surface casing and provides minimum criteria for cased hole and open-hole completion of coal beds methane wells. In accordance with Rule 400–4–5.04(5), ''[A]ny coalbed methane gas well that is not constructed in accordance with Rule 400–4–3.02 shall not be allowed to produce and may be required to be immediately plugged and abandoned.'' Therefore, EPA concludes that adequate provisions have been established to prevent endangerment during hydraulic fracturing caused by well integrity failure.

Additionally, Rule 400–4–5.04(5)(b) requires that a Cement Bond Log, if available, shall be evaluated for coal bed proposals in the 750–1000 feet depth range. Such a log is required in 400–4–5–.04(5)(c) for coal bed proposals in the 300–749 feet depth range to ascertain the top of cement and degree of bonding above the upper most coal bed to be fractured. Rule 400–4–5–.04(5)(c) also requires that ''[R]ecords of fresh-water supply wells located within a ¼ mile radius of the coalbed methane gas well shall be used in delineating the construction and completion depth of such supply wells.'' Moreover, ''a field reconnaissance within a ¼ mile radius * * * to determine the location of any additional fresh-water supply wells'' shall be conducted by a representative of the Board. Fracturing operations shall not be allowed ''if the Supervisor determines that any fresh-water supply well located within ¼ mile radius of the coal bed methane gas well could be adversely impacted in the manner described in section (2) of this rule as a result of the fracturing operation.'' All of these provisions provide additional assurances that underground injection does not endanger drinking water sources.

Rule 400–1–1.06, referenced in Alabama's revision package, requires operators to allow and assist State agents in making any and all inspections that may be required by the Board. The agents are to have access to all records and shall be permitted to come upon any property at all times to make such inspections. This ensures an adequate surveillance program is in place to determine compliance with the requirements of Rule 400–4–5.04 and State regulations and provides an effective means to enforce against violators.

For all these reasons, EPA concludes that Alabama's UIC revision application satisfies Section 1425(a) which requires that an approvable State program represents an effective program to prevent underground injection which endangers drinking water sources. Pursuant to the ''good cause'' provision of 5 U.S.C. 553(d)(3), this final rule is effective January 19, 2000. EPA has determined that there is good cause to make this rule effective January 19, 2000 because that will minimize the gap in the enforceability of these regulations that would result from a 30-day delay in their effectiveness.

C. Response to Comments on Revision Package

Numerous comments were received on EPA's proposals to approve and withdraw Alabama's UIC program to cover hydraulic fracturing associated with coal bed methane production. EPA has considered all comments received on both actions. A written response to each individual comment received is included in the Response to Comments Document, located at the EPA Regional Office, 61 Forsyth Street, SW, Room 15–T53, Atlanta, GA 30303–8960. This Response to Comment Document is included as part of the administrative record for this approval action. If you would like a copy of the Response to Comment Document, contact Larry Cole in Region 4, at (404) 562–9474 at the address provided in the **ADDRESSES** section of this preamble.

V. Regulatory Impact

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is ''significant'' and, therefore, subject to OMB review and the requirements of the Executive Order. The Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

a. Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

b. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

c. Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

d. Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a ''significant regulatory action'' under the terms of Executive Order

12866 and is therefore not subject to OMB review.

B. Executive Order 13045: Children's Health Protection

Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to Executive Order 13045 because it is not ''economically significant'' as defined in Executive Order 12866. This rule merely approves regulations adopted by the State of Alabama and effective as a matter of State law.

C. Paperwork Reduction Act

EPA has determined that the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, does not apply to this final rule since no information collection requirements are established by this rule. This rule does not create any new requirements but merely approves regulations adopted by the State of Alabama and effective as a matter of State law.

D. Regulatory Flexibility Act

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This rule will not impose any requirements on small entities. This rule does not create any new requirements for anyone but merely approves regulations adopted by the State of Alabama and effective as a matter of State law. Accordingly, the rule imposes no additional requirements on small entities beyond those already imposed under Alabama law and, therefore, would have no economic impact on such entities.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999) requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

Under Section 6 of Executive Order 13132, EPA may not issue a regulation that has Federalism implication, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law, unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. Today's rule would not create a mandate on State, local or tribal governments. The rule would not impose any enforceable duties on these entities. The rule would merely approve regulations adopted by the State of Alabama to ensure that hydraulic fracturing of coal bed seams in connection with methane gas production will not endanger underground sources of drinking water. Thus, the requirements of Section 6 of Executive Order 13132 do not apply to this rule.

F. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under Section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, Section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of Section 205 do not apply when they are inconsistent with applicable law. Moreover, Section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under Section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

EPA has determined that this final rule does not contain a Federal mandate (under the regulatory provisions of Title II of UMRA) for State, local, and tribal governments, or the private sector. Today's rule would merely approve requirements already in place in the State of Alabama. The rule would impose no additional enforceable duty on any State, local or tribal governments or the private sector. Thus, today's rule is not subject to the requirements of Sections 202 and 205 of the UMRA. EPA has also determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. Thus, today's rule is not subject to the requirements of Section 203 of UMRA.

G. National Technology Transfer and Advancement Act

As noted in the proposed rule, Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), directs EPA to

use voluntary consensus standards in its regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices, *etc.*) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through the Office of Management and Budget, an explanation when the Agency decides not to use available and applicable voluntary consensus standards. This final rule does not involve technical standards. It merely approves regulations adopted by the State of Alabama. Therefore, EPA did not consider the use of any voluntary consensus standards.

H. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified Section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.''

Today's final rule would not significantly or uniquely affect Alabama's communities of Indian tribal governments, since the rule does not apply to them. Accordingly, the requirements of Section 3(b) of Executive Order 13084 do not apply to this rule.

I. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804 (2). This rule will be effective January 19, 2000.

List of Subjects in 40 CFR Part 147

Environmental protection, Incorporation by reference, Intergovernmental relations, Water supply.

Dated: December 22, 1999.

Carol M. Browner,

Administrator.

For the reasons set out in the preamble, 40 CFR part 147 is amended as follows:

PART 147—[AMENDED]

1. The authority citation for part 147 continues to read as follows:

Authority: 42 U.S.C. 300h; and 42 U.S.C. 6901 *et seq.*

Subpart B—Alabama

2. Section 147.52 is added to Subpart B to read as follows:

§ 147.52 State-administered program—Hydraulic Fracturing of Coal Beds.

The UIC program for hydraulic fracturing of coal beds in the State of Alabama, except those on Indian lands, is the program administered by the State Oil and Gas Board of Alabama, approved by EPA pursuant to Section 1425 of the SDWA on December 22, 1999 and effective on January 19, 2000. The Alabama program consists of the following elements, as submitted to EPA in the State's program application:

(a) *Incorporation by reference.* The requirements set forth in State Oil and Gas Board of Alabama Rule 400–4–1–.02, Definitions, and Rule 400–4–5–.04, Protection of Underground Sources of Drinking Water during the Hydraulic Fracturing of Coal Beds, are hereby incorporated by reference and made a part of the applicable UIC program under the SDWA for the State of Alabama. This incorporation by reference was approved by the Director of the Federal Register on January 19, 2000 in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained at the State Oil and Gas Board of Alabama, 420 Hackberry Lane, Tuscaloosa, AL 35489–9780. Copies may be inspected at the Environmental Protection Agency, Region 4, Water Management Division, Ground Water/ Drinking Water Branch, Ground Water & UIC Section, Sam Nunn Atlanta Federal Center, 61 Forsyth Street, S.W., Room15–T53, Atlanta, GA 30303-8960, or at the Office of the Federal Register, 800 N. Capitol Street NW, Suite 700, Washington, DC.

(b) Addendum One, Underground Injection Control Program, Memorandum of Agreement Between the State of Alabama and the USEPA Region 4, signed by the Supervisor, Alabama State Oil and Gas Board on December 10, 1999, and the Regional Administrator, U.S. Environmental Protection Agency Region 4, on December 13, 1999.

(c) *Statement of Legal Authority.* ''I hereby certify, pursuant to my authority as Attorney General for the State of Alabama and for reasons set forth in this statement, that in my opinion, the laws of the State of Alabama provide the State Oil and Gas Board (hereinafter referred to as ''the Board'') adequate authority to carry out an Underground Injection Program for the control of underground injection activity related to the hydraulic fracturing of coal beds.'' Opinion by Alabama's Attorney General Office, extracted from Letter from R. Craig Kneisel, Chief, Environmental Division, Office of the Attorney General, dated October 8, 1999, to Dr. Donald F. Oltz, Supervisor, State Oil and Gas Board of Alabama, Subject: Attorney General's Statement for Final Authorization of Alabama Class II Underground injection Control Program.

(d) The Program Description for the Regulation of Hydraulic Fracturing of Coal Beds As required by 40 CFR 145.23—State Oil and Gas Board of Alabama, including Appendices A through F.

[FR Doc. 00–622 Filed 1–18–00; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 271

[FRL–6525–5]

North Dakota: Final Authorization of State Hazardous Waste Management Program Revision

AGENCY: Environmental Protection Agency (EPA).