HISTORY OF LITIGATION CONCERNING HYDRAULIC FRACTURING TO PRODUCE COALBED METHANE

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LEAF AND THE HYDRAULIC FRACTURING DECISIONS

INTRODUCTION

Congresswoman Dianna DeGette of Colorado recently introduced legislation that would again place hydraulic fracturing under the federal Safe Drinking water Act and thereby under the jurisdiction of the U.S. EPA. (House Bill H.R. 7231) Further, the issue of hydraulic fracturing is again receiving publicity. The November 2008 edition of *Business Week* addresses hydraulic fracturing. The State of Alabama and the IOGCC have addressed the issue extensively. In this paper, we will review the history of litigation concerning hydraulic fracturing.

I. LEAF Petitions EPA to Withdraw Primacy—1994

In 1994, an organization known as Legal Environmental Assistance Foundation (hereinafter referred to as "LEAF") petitioned EPA to initiate proceedings to withdraw approval of the Alabama UIC program[1]. LEAF alleged that the Alabama program was deficient because it did not regulate hydraulic fracturing activities associated with coalbed methane gas production and the federal Safe Drinking Water Act (hereinafter referred to as "SDWA"). LEAF further alleged that the SDWA required regulation under federal guidelines over hydraulic fracturing operations. In 1995, EPA denied the petition because it determined that hydraulic fracturing did not fall within the definition of "underground injection" under the SDWA. EPA had concluded that methane gas production wells, which are also used for hydraulic fracturing of the coalbeds, are not required to be regulated under the SDWA because the principal function of these wells is not the underground emplacement of fluids; their principal function is to produce coalbed methane gas.

LEAF then petitioned the Eleventh Circuit Court of Appeals for a review of EPA's order. LEAF contended that EPA's interpretation of the regulations was inconsistent with the SDWA. No other party intervened or filed amicus curiae briefs.

[1] Under the federal Safe Drinking Water Act, a state may request US EPA to allow the state to have primary responsibility or "primacy" over underground injection operations.

II. Decision of Eleventh Circuit Court of Appeals; Legal Environmental Assistance Foundation v. U.S. EPA, 118 F.3d 1467 (11th Cir. 1997)[2]

The Court issued the decision of the LEAF v. U.S. EPA in 1997. The Eleventh Circuit agreed with LEAF and concluded that hydraulic fracturing activities constituted "underground injection" under the SDWA. Under the decision, hydraulic fracturing of coalbeds came under the jurisdiction of the federal SDWA.

The State Oil and Gas Board, the State of Louisiana, and others filed amicus curiae briefs requesting rehearing. The Court denied rehearing.

III. Revised Underground Injection Control Programs of State Oil and Gas Board of Alabama

Under the direction of EPA in 1999, the State Oil and Gas Board of Alabama promulgated detailed regulations addressing hydraulic fracturing of coalbeds. The new regulations constituted a revision of Alabama's underground injection control program.

IV. Appeal by LEAF

EPA approved Alabama's revised regulations relating to hydraulic fracturing in January 2000. LEAF appealed the Board's new regulations to the U.S. 11th Circuit Court of Appeals. The Alabama State Oil and Gas Board intervened in the case. The Court allowed two amicus curiae briefs to be filed—one brief filed by IOGCC and a second brief by various industry groups. American Petroleum Institute, Halliburton, Alabama Coalbed Methane Association, Independent Producers Association of America, and The River Gas Corporation (now HighMount Black Warrior Basin, LLC) joined in the industry brief. The case raised a number of issues, which clearly affected the oil and gas industry.

V. Issues

A. **LEAF.**—In the EPA order under appeal, EPA had ruled that the Alabama program addressing hydraulic fracturing was approved under Section 1425 of the federal Safe Drinking Water Act. Section 1425 allows the States discretion and flexibility in

[2] Prior to the LEAF decision, each state oil and gas commission regulated underground injection related to enhanced recovery operations and salt water disposal under federal guidelines. Further, states have "primary responsibility" or "primacy" to regulate the underground injection related to enhanced operations and salt-water disposals under the SDWA. The effect of the LEAF decision was to extend the SDWA to hydraulic fracturing.

regulating underground injection. LEAF argued that EPA's order was incorrect as a matter of law in approving the Alabama program under Section 1425. The statutory question before the Court was whether hydraulic fracturing is related to "secondary and tertiary recovery" of oil and gas. LEAF argued that hydraulic fracturing is not secondary and tertiary recovery; hydraulic fracturing is a technique for primary operations, not secondary and tertiary recovery. LEAF further argued that even if Section 1425 applies, the Alabama program failed because the Alabama program does not prevent endangerment of the underground sources of drinking water. LEAF's final argument was that the SDWA bans any injection (hydraulic fracturing) into USDW.

B. **EPA.**—EPA argued that the SDWA placed EPA in a quandary. The SDWA requires that EPA not issue orders that impede oil and gas, yet the 1997 *LEAF* decision required hydraulic fracturing to be regulated under the SDWA. EPA argued its interpretation of the SDWA is reasonable and should be affirmed.

C. **Board.**—In briefing the case, the Board cited these statements by Dr. Oltz, Alabama State Geologist:

(1) There is no substantiated case where hydraulic fracturing has contaminated underground sources of drinking water.

(2) Alabama has the strictest regulations in the country.

(3) Almost all hydraulic fracturing fluid is recovered to the surface after a hydraulic fracturing operation.

Under Section 1425, the factual question for consideration was whether the Alabama program for regulating hydraulic fracturing constitutes an "effective program to prevent endangerment of underground sources of drinking water."

The Board argued that the Alabama program is strict and complies with Section 1425. The following is a summary of the program:

- provides for detailed review by the Board's administrative staff

- requires a review of logs to ensure the fracture fluid remains in the coalbed fractured
- ensures the coalbed fractured is beneath an impervious stratum
- requires a water well survey
- bans hydraulic fracturing shallower than 300 feet
- requires an operator to certify that the fracture fluid does not contain components that exceed federal primary drinking water standards

D. Oral Argument**.**—The Eleventh Circuit recognized the importance of its decision and granted oral argument. So, counsel for LEAF, EPA, and the State Oil and Gas Board of Alabama argued the case. During oral argument, the Board emphasized that on a practical, common-sense level, acceptance of the LEAF position could bar hydraulic fracturing, thereby preventing the development of coalbed methane resources and the degasification of coal beds for safe mining operations.

VI. Ruling on LEAF II; LEAF v. EPA, State Oil and Gas Board of Alabama, 276 F.3d 1253 (11th Cir. 2001)

On December 21, 2001, the 11th Circuit Court of Appeals ruled that Alabama's UIC program as approved by EPA complies with the Safe Drinking Water Act. 276 F.3d 1253, 1265. Specifically the Court held that (1) Section 1425 of the SDWA applies to hydraulic fracturing of coalbeds, and (2) Alabama's program to regulate hydraulic fracturing of coalbeds complies with Section 1425 of the SDWA. The Court thereby accepted the Board's and EPA's position that the Alabama program for regulating hydraulic fracturing constitutes an "effective program to prevent endangerment of underground sources of drinking water."

The ruling in favor of EPA and Alabama was a crucial ruling. The Court accepted Alabama's program and hydraulic fracturing, which is crucial to coalbed methane operations, would continue.

On a technical regulatory matter of lesser importance, the Court further ruled that EPA's determination that hydraulic fracturing is a "class-II like activity" is inconsistent with the EPA

classification schedule for injection wells. The Court remanded that portion of the case to EPA for further consideration.

On February 2, 2002, LEAF filed a Petition for Rehearing with the Court. The Court denied the Petition for Rehearing.

VII. Petition for Certiorari

On June 12, 2002, LEAF filed a Petition for Certiorari to the U.S. Supreme Court. The Supreme Court denied the Petition for Certiorari.

VIII. Legislation

Since Alabama adopted its hydraulic fracturing regulations, coalbed operators have submitted thousands of hydraulic fracturing proposals and engaged in thousands of hydraulic fracturing operations.

To administer the Alabama program on hydraulic fracturing is expensive, and the State of Alabama passed a fee of $175.00 to be charged to each operator for each coalbed group fractured.

A. **Inhoff-Sessions Bill.**—The Interstate Oil and Gas Compact Commission (hereinafter referred to as "IOGCC") and Board supported legislation amending the SDWA to state that the SDWA does not cover hydraulic fracturing. The Inhoff-Sessions bill was introduced to solve the problem, and the IOGCC adopted a Resolution supporting the bill. The bill, however, did not pass.

   The IOGCC took the position that the States have regulated hydraulic fracturing for over 50 years. State oil and gas regulatory and conservation agencies have experience and personnel to regulate effectively hydraulic fracturing. So, the States are the proper entity to regulate hydraulic fracturing. Coalbed methane resources and oil and gas resources are too valuable to this country to be burdened by unnecessary environmental laws that prevent oil and gas production. Nevertheless, the Inhoff-Sessions Bill did not pass.

B. **2003 Energy Bill.**—The Energy Bill debated in 2003 included provisions amending the SDWA to state that the SDWA would not cover hydraulic fracturing. Although it came close, Congress did not enact the Energy Bill.

IX. EPA Study

In June 2004, EPA conducted and released an extensive study of hydraulic fracturing. The study addressed "the potential for contamination of underground sources of drinking water from the injection of hydraulic fracturing fluids into coalbed methane wells." In the Executive Summary, the report stated: "Based on the information collected and reviewed, EPA has concluded that the injection of hydraulic fracturing fluids into coalbed methane wells poses little threat to USDW." Executive Summary, page ES-1. The report noted that, "the threat posed to USDW by the introduction of some fracturing fluid constituents is reduced significantly by the removal of large quantities of ground water (and injected fracturing fluids) soon after a well has been hydraulically fractured. In fact, coalbed methane production is dependent on the removal of large quantities of ground water. EPA believes that this ground water production, combined with the mitigating effects of dilution and dispersion, adsorption, and potentially biodegradation, minimize the possibility that chemicals included in the fracturing fluids would adversely affect USDWs." Executive Summary, page ES-17 (parenthesis in original).

X. EPA "Determination" on Remanded Issue

LEAF filed a Petition for Writ of Mandamus with the Eleventh Circuit on March 15, 2004. EPA responded by stating that it intended to follow a schedule to issue a "determination" on the issue remanded to EPA. The schedule provided that EPA would issue a preliminary "determination" on April 8, 2004; parties would be provided 30 days for comment and EPA would issue its final "determination" by July 16, 2004.

On April 8, 2004, EPA issued its "determination." EPA ruled that Alabama's compliance with Section 1425 constitutes compliance with the requirements for Class II Wells[3]. The "determination" by EPA was based in part on the study of hydraulic fracturing conducted by EPA in which EPA determined that there is no evidence that hydraulic fracturing poses a threat to drinking water .

[3] EPA stated: SDWA gives Alabama more flexibility in developing a section 1425-approvable Class II program for the hydraulic fracturing of coal beds to produce methane than if it were developing the same program for approval under the criteria in section 1422. Similarly, EPA has more discretion to approve Alabama's revised Class II program relating to coal bed methane production under the criteria in section 1425, because that program does not have to "track" or be "as stringent as" each of the Class II-related requirements of 40 CFR parts 124, 144, 145, and 146. See *40 CFR 145.11(b)(1)*. Because Alabama made a satisfactory demonstration pursuant to section 1425 that its coal bed methane-related hydraulic fracturing program warranted approval, it did all that was required to demonstrate that its program complies with the requirements for Class II wells.

Alabama submitted an Affidavit by Dr. Nick Tew, State Geologist, and a study by Dr. Jack Pashin. Alabama supported the EPA "determination" and stated that extensive hydraulic fracturing of coalbeds has continued without any contamination.

The IOGCC submitted an Affidavit by Christine Hansen and a survey of all oil and gas states indicating that hydraulic fracturing had caused no harm.

An industry coalition submitted a comment stating that regulations should not unnecessarily impede oil and gas production. The coalition comment noted that 85% of natural gas needs are supplied from domestic production with demand increasing, and continued production of natural gas through processes such as hydraulic fracturing ensure the nation's energy security.

On July 16, 2004, EPA issued its final "determination," stating the same as the preliminary determination that Alabama's compliance with Section 1425 constitutes compliance with the requirements for Class II wells.

LEAF did not appeal, bringing the case to a close.

XI. Energy Policy Act of 2005 Exempts Hydraulic Fracturing

In the Energy Policy Act of 2005, Congress finally amended the Safe Drinking Water Act changing the definition of "underground injection" to "exclude . . . the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations." The effect of the amendment is to exempt hydraulic fracturing from federal law and to place jurisdiction and authority over hydraulic fracturing operations in the states, and the states' oil and gas conservation commission. Hydraulic fracturing operations in Alabama, therefore, are under the jurisdiction and authority of the State Oil and Gas Board of Alabama. Until and unless Congress amends the SDWA, the 2005 Act of Congress exclusion of hydraulic fracturing for the federal SDWA remains the law of the land.