



CALIFORNIA ENACTS WIDE-RANGING HYDRAULIC FRACTURING LAW

by Kevin Haroff and Adam Orford

California recently passed SB 4, the state's first law to specifically address hydraulic fracturing (commonly called "fracking"). The law was sponsored by State Senator Fran Pavley, the primary author of California's vehicle emissions and cap-and-trade laws, AB 1493 and AB 32.

SB 4 does not just cover hydraulic fracturing—the high pressure injection of water, "proppant" (typically sand or man-made ceramic materials), and chemicals into a wellbore to break open impermeable hydrocarbon-bearing geological strata. It also addresses other "well stimulation treatments," such as "acid well stimulation treatment" and so-called "acid fracs" (where acid is pumped into a well bore to eat away or breakup geological formations), that are being developed to address California's particularly challenging geological conditions. The law amounts to the most comprehensive regulation yet enacted by any state to address the perceived risks of fracking and other advanced well stimulation techniques.

BACKGROUND

California's Monterey and Santos shale formations, stretching from just north of Los Angeles to just south of San Francisco, are estimated to contain 64 percent of the known undeveloped but technically recoverable shale oil resources in the contiguous United States. This is four times the amount of oil recoverable from the Bakken Shale formation in North Dakota, the development of which has turned that state into the fastest growing regional economy in the nation. Yet the hydraulic fracturing debate, which has been national news for several years, largely bypassed California until last year.

SB 4, as initially proposed, garnered wide support from environmental interests, but last minute amendments to the bill caused those interests to withdraw their support or remain neutral on the final language. This has resulted in a continuing effort to obtain a statewide moratorium on hydraulic fracturing and acidization—not unlike the situation in New York, where a legislative ban was vetoed in favor of an executive moratorium pending further study. The oil and gas industry, on the other hand, now seems prepared to move forward under the state's new regulatory regime(s), albeit reluctantly.

Kevin Haroff is a partner in the San Francisco office of Marten Law PLLC and **Adam Orford** is an associate in the firm's Portland office.

STUDY BUT NO BAN

Under the final language of SB 4, the California Natural Resources Agency is required to conduct “an independent scientific study on well stimulation treatments . . . evaluat[ing] the . . . potential hazards and risks that well stimulation treatments pose to natural resources and public, occupational, and environmental safety.” Public Resources Code § 3160(a). In its broad forms, the California requirement appears to track what the U.S. Environmental Protection Agency (EPA) has been examining since 2009: additive and water transportation; mixing and handling of chemicals onsite; flowback handling storage, and disposal; chemical toxicities; and groundwater contamination risks. It expands on the EPA plan, however, in several significant respects. First, any study must evaluate “acid matrix stimulation treatments, including the range of acid volumes applied per treated foot and total acid volumes used in treatments, types of acids, acid concentration, and other chemicals and use in treatments.” This likely will be the first comprehensive government study of the type of “acidization” practices that may be more important in California than hydraulic fracturing. Second, the study must include air emissions, wildlife and native plant impacts (including habitat fragmentation), noise pollution, induced seismicity, and occupational and environmental exposure parameters not included in EPA’s study. The California study is due by January 1, 2015.

While this study is in development, the state Department of Conservation’s Division of Oil, Gas, and Geothermal Resources (“DOGGR”) will continue to allow hydraulic fracturing and acid well stimulation treatments, provided certain conditions are met. Public Resources Code § 3161. Among other things, well developers must certify compliance with the bill’s disclosure, neighbor notification, and public notification requirements (discussed below). At the same time, DOGGR must complete an environmental impact report under the California Environmental Quality Act (“CEQA”) on statewide use of hydraulic fracturing and acid development techniques. How this CEQA review requirement could constrain the use of otherwise allowed development techniques is not clear and may ultimately have to be resolved by the courts.

FULL DISCLOSURE

As with virtually every other state regulation on hydraulic fracturing, a core component of California’s new law is fluid chemical disclosure—in this case, incorporating both hydraulic fracturing and acidization. California agencies are required to draft regulations before January 1, 2015, requiring “full disclosure of the composition and disposition of well stimulation fluids, including, but not limited to hydraulic fracturing fluids, acid well stimulation fluids, and flowback fluids.” Public Resources Code § 3160(b)(1). This disclosure must include, at a minimum, the date of the well treatment, and detailed information on every chemical used in the well stimulation process (including unique chemical identifiers, the trade name, supplier, concentration, and purpose of the additive, and the total volume of each chemical). Public Resources Code § 3160(b)(2).

Of special interest, California’s chemical disclosure regulations require the public disclosure of chemical information even where trade secret protection is claimed. While public disclosure of trade secrets is supposed to be governed by the California Evidence Code and Uniform Trade Secrets Act, SB 4 excludes from trade secret protection the identities of any chemicals used in well

stimulation, the concentrations of these chemicals in treatment fluids, health and safety information related to these chemicals, air and other pollution monitoring data, and the chemical composition of any flowback fluid. Public Resources Code § 3160(j)(2). Complex provisions of the law purportedly protect trade secrets not covered by these exclusions, but the exclusions in this case appear to overwhelm the rule itself. Most of the trade secret battles in other states have been over exactly the same information that California has excluded from trade secret protection.

STATEWIDE GROUNDWATER MONITORING

Section 7 of the new law, adding Water Code § 10783, lays out a statewide program for monitoring the groundwater around California's oil and gas fields. Parties sensitive to potential groundwater impacts, from environmental interests to agriculture, appear generally pleased with the new provision, although they are concerned with its lengthy lead-in time. Industry may actually benefit from the program, as information developed on baseline groundwater conditions around oil fields may protect them from future lawsuits, and periodic monitoring may identify problems before they become unmanageable.

The core of the program is new Water Code § 10783, which directs the California State Water Resources Control Board to “develop model groundwater monitoring criteria to be implemented either on a well-by-well basis for a well subject to well stimulation treatment, or on a regional scale” by July 1, 2015 (i.e., almost two years after the bill's passage). These model “criteria” must include, at a minimum, a determination of where, when, and how frequently monitoring should and should not occur; which chemicals should be monitored; the necessary location, depth, and number of wells at spatial scales ranging from a single well to a regional groundwater basin; how to determine which scale to employ; data collection protocols; and public access mechanisms.

The monitoring program will go into effect by January 1, 2016. Prior to that, well owners and operators are free to “develop and implement an area-specific groundwater monitoring program based upon the developed criteria . . . subject to approval by the state or regional board, if applicable, and that meets the requirements of this section.” It is unclear what the incentive will be to seek prior regulatory approval, however, nor is it clear whether this provision will capture all voluntary monitoring, or simply some special subset of “area-wide” monitoring.

REGULATION, PERMITTING, NOTIFICATION, AND OVERSIGHT

In addition to disclosure regulations, DOGGR is required to develop a permitting program for well stimulation treatment activities. Under the language of the new law, well operators must apply for a permit to perform hydraulic fracturing or acidization. Public Resource Code § 3160(d). The application requirements include information now typical for such permits in other states, such as the location and estimated time period during which stimulation will occur; a water management plan including an estimate of the water to be used, the anticipated source of that water, and the intended disposal method for recovered flowback; names of chemical constituents to be used; planned dimensions of the well and estimated volume of fractured geology, including the identification of any existing wells that could be impacted; a groundwater monitoring plan, including

(when possible) compliance with the criteria developed for such monitoring as discussed above; and a waste treatment plan. *Id.* The permits remain in effect for one year.

Once a permit is approved, the new law's notification requirements must be met. The operator must provide surface owners within a 1,500 foot radius of the wellhead, and within 500 feet from the horizontal projection of the subsurface well boring, with a copy of the permit. The operator must then wait thirty days—presumably to allow those notified to raise objections and challenges to the permit—before commencing operations. Notified property owners may also request baseline and follow-up groundwater sampling at the operator's expense. Finally, the operator must notify DOGGR 72 hours in advance of stimulation treatment “in order for the division to witness the treatment” should it so desire. All information generated during the drilling process shall be provided to DOGGR within 30 days of cession of well stimulation treatment, and posted to the Internet 30 days thereafter.

CONCLUSION

The greatest uncertainty regarding SB 4 is the status of drilling in California while the new regulations and programs are developed and implemented. The law seems to contemplate such activity, but anti-drilling interests may find support for seeking a court injunction until specific actions, such as a programmatic CEQA review, are performed to a court's satisfaction. In the meantime, environmental interests have vowed to keep fighting in the courts and, even in the face of poor odds, lobbying the Governor for an executive moratorium. SB 4 does not fully resolve the future of oil and gas drilling in California using advanced well stimulation techniques like hydraulic fracturing and acidization; but it does set parameters within which future battles are likely to be fought, and appears to provide a path forward for what is likely to continue to be a hotly contested issue.