



# HYDRAULIC FRACTURING & TSCA: EPA'S SURPRISING MOVE AND ITS SWEEPING IMPLICATIONS

by  
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On November 23, 2011, the U.S. Environmental Protection Agency (EPA or the Agency) surprised most everyone by partially granting Earthjustice's Section 21 petition under the Toxic Substances Control Act (TSCA). The impending TSCA rulemaking will force further disclosure of chemical substances and mixtures used in oil and gas hydraulic fracturing (fracking) operations. This was surprising not because EPA again ceded to the desires of the major environmental groups, or because chemical disclosure is not a needed improvement in oil and gas regulation, but because most thought EPA would, at least, wait for the results of its much touted fracking study before taking formal regulatory action.

Placed in context, the TSCA petition is yet another sign that the Obama Administration is using the nascent controversy over an old technology (fracking) as its window to usher in potentially sweeping new federal regulations. The first step in such regulation—the TSCA rulemaking—threatens to be inherently duplicative of the long-standing, robust, and developing state-based regulatory structure. Overlapping federal oversight promises to cause unnecessary confusion and significant regulatory uncertainty. EPA's actions also are at odds with the President's commitments to the increased development of domestic shale gas and oil resources.<sup>1</sup>

This LEGAL BACKGROUNDER discusses Earthjustice's TSCA petition and the rulemaking standards, EPA's partial grant of the request for fracking chemical data reporting, and some of the foreseeable problems the rulemaking promises to bring. It also argues that EPA should leave the regulation of the oil and gas sector, including the disclosure of fracking chemicals, where it has resided for decades—the states.

## *Earthjustice's Petition: A Call for Sweeping New Federal Regulation*

Earthjustice along with over one hundred other environmental groups submitted a petition on August 4, 2011, requesting that EPA initiate rulemakings under TSCA Sections 4 and 8. For both requests, the petition broadly called on manufacturers and processors of fracking chemicals (not necessarily oil and gas companies) to test for toxicity and comply with various reporting obligations for substances and mixtures used in *all* oil and gas exploration and production (E&P) (not just chemicals and substances used in the fracking process).

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<sup>1</sup>During the most recent State of the Union address, President Obama made unconventional natural gas recovery a cornerstone of his broader push for further development of domestic energy supplies, positing that the United States is sitting on a 100-year supply of natural gas; *see also* President Obama's "Blue Print for a Secure Energy Future," calling shale gas "critical" to the development of domestic energy resources in the coming decades (available at [http://www.whitehouse.gov/sites/default/files/blueprint\\_secure\\_energy\\_future.pdf](http://www.whitehouse.gov/sites/default/files/blueprint_secure_energy_future.pdf), at 9).

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The petition is grounded in perceived “regulatory gaps.” Earthjustice asserts that federal agencies have extremely limited authority to regulate E&P Chemicals. Citing to exemptions in the Safe Drinking Water Act (SDWA), the Resource Conservation and Recovery Act (RCRA), and several other federal programs, the petition maintains that new EPA oversight is necessary to plug the gaps. *See Citizen Petition under Toxic Substances Control Act Regarding the Chemical Substances and Mixtures Used in Oil and Gas Exploration and Production Petition*, August 4, 2011 (Petition) at 5. The petition ignores EPA’s role in the underground injection control program, as well as the Agency’s other oversight authority, most notably under the Clean Air Act (CAA) and the Clean Water Act (CWA).

The petition also argues that “[m]ost states do not routinely disclose to the public information they receive about E&P Chemicals . . . .” Of course, this argument began eroding as soon as the petition was filed, largely due to the success of FracFocus,<sup>2</sup> and it has been further diminished over the past several months, as nearly all the major oil and gas states have passed, or are pursuing, comprehensive disclosure laws.<sup>3</sup>

Taken in sum, the petition is most appropriately seen as a call for new and comprehensive federal regulation over the oil and gas industry. TSCA is a “gateway” statute—that is, one EPA uses to collect information to inform and justify additional regulations across the other programs it administers. While TSCA may be the first step, Earthjustice is essentially making the case that EPA needs to rescue this industry from a lack of oversight.<sup>4</sup>

### ***TSCA Rulemaking Standards Under Section 8 and Section 4***

**Section 8.** EPA partially granted the petitioners’ TSCA Section 8(a) and 8(d) requests, stating “[w]e believe there is value in initiating a proposed rulemaking process using TSCA authorities to obtain data on chemical substances and mixtures used in hydraulic fracturing.” *See* Nov. 23, 2011 letter from Stephen A. Owens to Deborah Goldberg, at 1. Regarding the serious potential for conflict with state regulation, EPA summarily dismissed the notion, asserting that “[t]his would not duplicate, but instead complement, the well-by-well disclosure programs of states.”

Section 8(a) of TSCA requires broad and detailed reporting on all aspects of chemical *and chemical mixture* manufacture and use. Information subject to reporting requirements includes the common name, chemical identity, molecular structure, categories of use, quantity manufactured or processed, descriptions of the byproducts resulting from manufacture or processing, existing health effects data, the number of individuals exposed or estimates of individuals that will be exposed, and the manner or method of disposal. *See* 15 U.S.C. § 2607(a)(2)(A).

Section 8(d) requires manufacturers and processors to submit all existing health and safety studies known to, initiated, or reasonably ascertainable by, them for any substance or mixture subject to the rule. *See id.* at § 2607(d).

**Section 4.** The Section 4 rulemaking request, the more onerous of the two actions requested, sought to require toxicity testing on named chemicals or substances. To grant a toxicity test petition, EPA must make certain findings. The Agency must find *either* (1) that the substance may present an unreasonable risk of injury (“hazard finding”) *or* (2) that it is or will be produced in substantial quantities *and* (a) may enter the environment in substantial quantities *or* (b) there may be significant or substantial human exposure (“exposure finding”). EPA also must conclude both that existing data on human health or environmental effects are insufficient *and* that testing is necessary to develop such data. *See* 15 U.S.C. § 2603(a).

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<sup>2</sup>FracFocus is an online hydraulic fracturing chemical registry, whereby companies can voluntarily submit information about the chemicals being used at each well. The program, which is a joint effort of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission, is widely acknowledged as having been a significant success in increasing transparency and public access to chemical information. The website is available at <http://fracfocus.org/>.

<sup>3</sup>In addition, presaging what is likely to be a major issue in this rulemaking—trade secrets and confidential business information—the petition claims that “blanket confidentiality claims” and abused “proprietary” claims improperly shield the public and the state and federal regulatory bodies from collecting information.

<sup>4</sup>The vast extent of the state and local regulatory scheme is beyond the scope of this paper. Nonetheless, the oil and gas industry has been, and is, regulated extensively by state and local regulatory bodies in addition to the federal statutes noted above.

EPA's Section 4 denial is notable given the relatively low burden required for a Section 4 rulemaking. For a "hazard finding," it is sufficient to show that there is some information suggesting a potential hazard and a reasonable likelihood that exposure may arise, which may be met through circumstantial evidence. *See* 45 Fed. Reg. 48,528 (1980); *CMA v. EPA*, 859 F.2d 977 (D.C. Cir. 1988). To make an "exposure finding," the burden is even lower. EPA can require testing based solely on production volume and the *potential* for significant human or environmental exposure. *See* 15 U.S.C. § 2603(a).

### ***The Many Problems with the TSCA Rulemaking***

The precise reasoning for EPA's actions is impossible to divine from the Agency's terse correspondence. With respect to the denial, however, it must be that Earthjustice did not meet the relatively low burden of showing that hydraulic fracturing may present an "unreasonable risk of injury" or an unacceptable risk through exposure, or both—notwithstanding the petition's claims of substantial production, and widespread injury and exposure. *See e.g.*, Petition at 2, n. 5. In light of this, it must be questioned whether hydraulic fracturing poses any more risk than it has since its inception sixty years ago. The answer has important implications for TSCA regulation.

TSCA is, at its core, a law based on and designed around risk—and more specifically, unreasonable risk. The congressional intent, and primary purpose, of the law is to develop adequate data for, and regulate, only those "chemical substances and mixtures which present an unreasonable risk of injury to health or the environment."<sup>5</sup> While it's not entirely irrational to use TSCA to gather data, it seems premature and unnecessary in this case.

The oil and gas industry's proven track record does not suggest that potential risks posed by fracking are unreasonable, widespread, or new. Sixty years of evidence demonstrates that hydraulic fracturing, if done correctly (including, most importantly, correct design and construction of wells), is very safe—despite the environmental outcry to the contrary. Indeed, in May the EPA Administrator testified that she was "not aware of any proven case where the fracking process itself has affected water."

Most industry engineers and well operators believe that where there is potential risk, it is almost certainly related to poor well design, casing construction, or operation management, and not the fracking process itself—a conclusion that is likely to be borne out by the facts in high profile cases involving Dimock, Pennsylvania and Pavillion, Wyoming. If this turns out to be the case, the TSCA rulemaking will have proved a red herring, focusing significant resources in the wrong direction while contributing little or no benefit in terms of actual risk reduction.

From a timing standpoint, the rulemaking makes even less sense. The Agency has just embarked on a three year comprehensive study to gain a better understanding of the potential risk profile presented by hydraulic fracturing in unconventional plays. In fact, the President's proposed 2012 budget appropriates \$45 million to the study. EPA's study is one among many, both private and public, seeking to determine whether and where hydraulic fracturing actually poses appreciable risk. At a minimum, EPA should have allowed these studies to conclude before initiating a TSCA rulemaking.

Moreover, despite EPA's assertion to the contrary, the TSCA rulemaking overlaps with, and threatens the effectiveness of, the serious and robust disclosure laws being promulgated in the states. Colorado recently adopted the most stringent requirements in the country and other key oil and gas states have passed, or are in the process of passing, similar laws.

Disclosure is important and increased transparency is a worthwhile goal, something the industry should strive to achieve. Most industry players would agree. The critical question is: how can robust disclosure and transparency be accomplished without shutting down the industry (*e.g.*, compare Pennsylvania and New York) or without embarking on burdensome rulemakings that do not contribute to any meaningful risk reduction? The answer should be to let the states continue to improve their established regulatory programs.

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<sup>5</sup>*See* 15 U.S.C. § 2601(b). Congress also mandates that EPA exercise its TSCA authority "in such a manner as not to impede unduly or create unnecessary economic barriers to technological innovation . . ." 15 U.S.C. § 2601(b)(3).

State regulators have the institutional knowledge and expertise to promulgate and implement new disclosure requirements. EPA does not—as evidenced by the emerging pitfalls in EPA’s oversight in Pavillion and Dimock. The companies are familiar with the state regulations and regulators. They will not be familiar with new EPA programs, and the significance of new federal regulatory requirements should not be discounted.

The TSCA rulemaking has begun the process of inserting EPA into the province of this well-functioning, and ever-improving state system. At best, this federal effort is duplicative. At worst, it will create the type of uncertainty—both for regulators and the regulated—that threatens to stall, or stop, one of the only robust job-creating sectors in the country.

As it stands, EPA has committed to a Section 8 rulemaking. Substantial difficulties lie ahead—just look at EPA’s nearly fifteen year ongoing struggle to collect information on high-production volume (HPV) chemicals. There are hundreds, if not thousands, of chemicals and additives used in frack fluid. These vary from company to company, and site to site across the country. Dealing with the trade secret issues in this highly competitive industry alone will be a daunting task. While EPA has committed to a public process, including the publication of an advanced notice of proposed rulemaking to “identify[] key issues for further discussion and analysis,” limiting the universe of chemicals, additives, and mixtures that actually present an “unreasonable risk” will be akin to throwing darts blindfolded.

### ***Where Is EPA Going?***

Assuming EPA can define the scope of the Section 8 rulemaking in any meaningful, workable manner, the question is what will EPA do with the data? There are two likely outcomes. EPA can use Section 8 information to trip other more substantial regulatory provisions of TSCA, or it can use the information to support other initiatives and programs that the Agency implements.

With respect to further TSCA rulemakings, the logical outgrowth of the Section 8 rulemaking is a second rulemaking focused on specific chemicals or mixtures, such as a toxicity testing rule under Section 4 or chemical/mixture-specific regulation on manufacture, processing, use, and distribution, up to and including a possible ban(s).

As for other EPA programs, the Agency already is embarking on several different fronts with respect to new fracking-related regulations, including under the CAA and the CWA. Perhaps the most dramatic impact of the TSCA initiative will be seen in RCRA. Since 1988, EPA has exempted certain E&P wastes from the RCRA Subtitle C hazardous waste management requirements. Exempted wastes include, among other things, produced water, drilling fluids and cuttings, well completion, treatment, stimulation fluids, and produced sand—all aspects of the drilling process potentially related to the hydraulic fracturing process. The exemption is justified, according to EPA, because these are large volume wastes, lower in toxicity than other wastes regulated under RCRA’s hazardous waste program. Although hydraulic fracturing was widely used in 1988 when EPA came to this conclusion, it is clear the political winds have now shifted. The TSCA rulemaking may provide ammunition for environmental groups to continue to pressure EPA to pull back parts or all of the RCRA E&P exemption.<sup>6</sup>

### ***Conclusion***

Regardless of the ultimate outcome of the TSCA rulemaking, the fact is that EPA is encroaching on the decades-old state based regulatory scheme. EPA’s involvement appears to be largely in response to media attention and anti-drilling pressure, and not the result of any credible evidence that hydraulic fracturing presents an unreasonable risk or that the states are failing to regulate. Indeed, most state standards have become substantially more strict over the past couple of years, specifically in the area of disclosure. The TSCA rulemaking threatens to conflict with these state disclosure laws, and promises to create a very uncertain regulatory environment. Moreover, it suggests a predetermined outcome for EPA’s own comprehensive study. In this context, the TSCA rule is the clearest sign yet that EPA is eager, sooner rather than later, to be in the business of comprehensively regulating the oil and gas industry.

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<sup>6</sup>The Natural Resources Defense Council petitioned EPA on September 8, 2010 to initiate a RCRA rulemaking to roll back the E&P exemption. EPA has not yet acted on the petition.