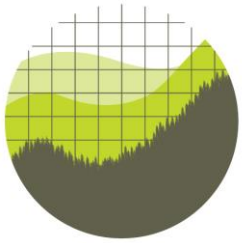

Institute *for* Policy Integrity

*new york university school of law*

# Regulatory Report: Recommendations for EPA's Cost-Benefit Analysis of Revisions to the National Oil and Hazardous Substances Pollution Contingency Plan

In January 2015, the United States Environmental Protection Agency (EPA) proposed revisions to the National Oil and Hazardous Substances Pollution Contingency Plan (Proposed Rule) by adding new listing criteria for oil dispersant ingredients, revising the efficacy and toxicity testing protocols, and clarifying the evaluation for removing products from the required schedule, among other changes.[1] The proposed regulations are designed to ensure that chemical and biological agents meet efficacy and toxicity requirements and that, through the listing process, the planning and response community and dispersant consumers have sufficient toxicity information to enable them to make informed decisions.

The Institute for Policy Integrity at New York University School of Law[2] prepared this report to assist EPA in developing its economic analysis and final Rule. Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

While the Proposed Rule has not been classified as "economically significant," EPA determined that it is still a "significant" regulatory action. As such, EPA assessed the proposal's costs and benefits in a Regulatory Impact Analysis, and submitted the proposal for review by the Office of Information and Regulatory Affairs (OIRA).[3] Following review by OIRA, the Regulatory Impact Analysis for the Proposed Rule estimates its total incremental costs, but fails to monetize or quantify any of the Proposed Rule's many benefits.[4]

Policy Integrity has several recommendations designed to strengthen EPA's cost-benefit analysis and increase transparency. First, EPA should quantify and monetize the Proposed Rule's benefits and costs to the extent feasible. For example, EPA should at least estimate the annual average amount of oil dispersed or the average avoided costs accruing from reduced oil spill cleanup as a result of the Proposed Rule. Second, EPA should more clearly describe the magnitude and importance of each unquantifiable benefit or cost, such as potential human health benefits and effects on the benthic environment. Third, EPA should cite analogous proceedings, such as hydraulic fracturing rulemakings at the state and federal level, to support its estimation of the costs of the Proposed Rule and its implicit prediction that disclosure requirements will be manageable for dispersant manufacturers. Finally, EPA should consider the potential innovation benefits that could result from these proposed disclosure reforms.[5]

---

[1] *See* National Oil and Hazardous Substances Pollution Contingency Plan, 80 Fed. Reg. 3,380, 3,413 (Jan. 22, 2015) [hereinafter EPA Proposed Rule]. Section 311(d)(2)(G) of the Clean Water Act requires a schedule that identifies dispersants, other chemicals, and other spill mitigating devices and substances, if any, that may be used in carrying out the National Oil and Hazardous Substances Pollution Contingency Plan. 33 U.S.C. § 1321(d)(2)(G).

[2] No part of this document purports to present New York University School of Law's views, if any.

[3] U.S. ENVTL. PROT. AGENCY, REGULATORY IMPACT ANALYSIS FOR PROPOSED REVISIONS TO THE NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN REGULATIONS 7 (Dec. 3, 2014) [hereinafter EPA RIA].

[4] *See generally* EPA, E.O. 12866 REVIEW – DRAFT REGULATORY IMPACT ANALYSIS FOR PROPOSED REVISIONS TO THE NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN REGULATIONS (Dec. 3, 2014) [hereinafter OMB REDLINE].

[5] *See, e.g.*, Robert G. Bone, *A New Look at Trade Secret Law*, 86 Cal. L. Rev. 241, 266-267 (1998).

## I. EPA Should Quantify and Monetize the Rule's Benefits and Costs to the Extent Feasible

The Regulatory Impact Analysis for the Proposed Rule estimates the total incremental costs to be $10,197,817 (at a 3% discount rate) or $7,796,979 (at a 7% discount rate).[6] However, EPA does not monetize or even quantify the Proposed Rule's benefits, stating that, "attempts to quantify and monetize the benefits of the rule were limited by the lack of data on actual oil spill quantities and whether a credible and measurable increase in product performance under the proposed criteria could be estimated."[7] EPA further stated, "since accurate data on the size of past oil spills is quite limited, only rudimentary forecasts of future oil spills can be made."[8]

In 2011, President Barack Obama issued an executive order directing agencies to make a reasoned determination that an action's benefits justify costs, "recognizing that some benefits and costs are difficult to quantify."[9] OMB guidance similarly states that where benefits and costs can be quantified and expressed in monetary units, a cost-benefit analysis provides decision makers with the most efficient alternative.[10] Finally, EPA's own guidance provides that benefits and costs should be reported in monetary terms when possible, and those that cannot be monetized should, if possible, be quantified.[11] Since EPA uses a cost-benefit analysis for its assessment of the Proposed Rule, OMB's Circular A-4 and EPA guidelines provide the best guidance.

In fact, EPA did monetize some of the Proposed Rule's benefits in its original Regulatory Impact Analysis submitted to OIRA.[12] These monetized benefits reflected the cost savings resulting from the increased efficacy of products used in oil spill response and cleanup activities. As the Regulatory Impact Analysis notes, stricter testing requirements are expected to produce more efficient dispersants, resulting in less spilled oil reaching shorelines, lower onshore clean-up costs, and reduced impact on shoreline ecosystems.[13] EPA had estimated that the average avoided cost of the Proposed Rule, as a result of reduced oil spill cleanup costs to the responsible party, is $40 per gallon of spilled oil.[14] Using the average amount of oil spilled each year and the predicted improvements to dispersant efficacy under the Proposed Rule,[15] EPA estimated the average amount of oil dispersed (i.e. the amount of oil prevented from reaching shorelines) to be approximately 58,000 gallons.[16] Applying the per gallon avoided cost estimate, the average annual benefits resulting from reduced onshore cleanup, primarily by the responsible parties (namely, oil companies using dispersants), were estimated to be about $2.3 million.[17]

Following OIRA's review of the proposed rule, EPA removed both the monetized estimates of these avoided costs and the underlying quantitative data from the Regulatory Impact Analysis, finding the

---

[6] EPA RIA, *supra* note 3, at 8.

[7] *Id.* at 20.

[8] *Id.* at 60.

[9] Exec. Order No. 13,563 §§ 1(b)–(c), 76 Fed. Reg. 3821 (Jan. 18, 2011).

[10] *See* OFFICE OF M BUDGET, EXEC. OFFICE OF THE PRESIDENT, CIRCULAR A-4 REGULATORY ANALYSIS,2 (Sep. 17, 2003) [hereinafter CIRCULAR A-4].

[11] *See* U.S. ENVTL. PROT. AGENCY, GUIDELINES FOR PREPARING ECONOMIC ANALYSES at 11–2 (Dec. 17, 2010) [hereinafter EPA GUIDELINES].

[12] OMB REDLINE, *supra* note 4, at 8–9, 66–67.

[13] EPA RIA, *supra* note 3, at 60.

[14] OMB REDLINE, *supra* note 4, at 8.

[15] In addition to the observed efficacy increase of 21.25%, EPA also calculated two more conservative estimates of improved dispersant efficacy to account for uncertainty in the type and location of future spills, as well as the variation in product blends. *See id.* at 66. In its estimation of average future benefits, EPA used the middle efficacy estimate of 15.94%. *Id.* at 67.

[16] *See id.* at 66.

[17] *Id.* at 8, 67.

information too uncertain and unsupported by sufficient data. However, EPA previously stated that these estimates were derived from an analysis of oil spill cleanup costs by the Pipeline and Hazardous Materials Administration (PHMSA)[18] for the Spill Prevention, Control, and Countermeasures (SPCC) 2008 and 2009 Regulatory Amendments.[19] The rule and regulatory impact analysis associated with the PHMSA's Regulatory Amendments both underwent OMB review.[20] Moreover, EPA compared the SPCC valuation to other avoided cost estimations[21] that OMB reviewed and approved in previous cost-benefit analyses,[22] and found that they supported the SPCC value.[23] It is unclear why these estimations, which were found to be appropriate in similar rulemaking contexts, were deemed inadequate here.

Similarly, in the initial Regulatory Impact Analysis submitted to OMB, EPA used the same averaging approach previously conducted by the U.S. Coast Guard to estimate annual oil spills.[24] In that analysis, the Coast Guard convened a panel of experts to overcome a data gap on oil dispersant use, which EPA initially borrowed in order to estimate the benefits of increased dispersant efficacy resulting from stricter testing requirements in this proposed rule.[25] OMB Circular A-4 and EPA's internal guidelines on conducting economic analyses state that expert elicitation can be useful in overcoming knowledge gaps;[26] yet these efforts at quantifying and monetizing the benefits of the Proposed Rule were also removed following OIRA's review.[27]

Interestingly, EPA relies upon similar data to estimate the Proposed Rule's monitoring compliance costs.[28] Recognizing that such costs can vary significantly depending upon the frequency, volume, and location of oil spills, EPA explains that, based on the Coast Guard's incident data, oil spills would result in a cost of monitoring of approximately $500,000 each year.[29] Despite facing similar limitations in data and forecasting methods for estimating future oil spills, monetization of these costs remained following OIRA review.

Executive Orders 13563 and 12866, OMB Circular A-4, and EPA's guidelines for economic analysis indicate that benefits and costs should be treated in parity, because where all benefits and costs can be quantified and expressed in monetary units, benefit-cost analysis provides decision makers with a clear indication of the most efficient alternative, that is, the alternative that generates the largest net benefits to society.[30] Further, any direct costs that are averted as a result of a regulatory action

---

[18] *Id.* at 8.

[19] Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure Rule Requirements—Amendments, 73 FR 74236 (Dec. 5, 2008) [hereinafter SPCC Amendments].

[20] *See* SPCC Amendments, *supra* note 20, at 74,295; U.S. ENVTL. PROT. AGENCY, 1 REGULATORY IMPACT ANALYSIS FOR THE FINAL AMENDMENTS TO THE OIL POLLUTION PREVENTION REGULATIONS 27 (Nov. 12, 2008).

[21] OMB REDLINE, *supra* note 4, at 67.

[22] *See OIRA Conclusion of EO 12866 Regulatory Review*, OFFICE OF INFO. AND REGULATORY AFFAIRS (Oct. 14, 2010), http://www.reginfo.gov/public/do/eoDetails?rrid=119209; *see also* BUREAU OF OCEAN ENERGY MGMT, REGULATION, AND ENFORCEMENT, BENEFIT-COST ANALYSIS FOR THE INTERIM FINAL RULE ON INCREASED SAFETY MEASURES FOR ENERGY DEVELOPMENT ON THE OUTER CONTINENTAL SHELF 18–19, 32, 56–58 (Sept. 30, 2010).

[23] OMB REDLINE, *supra* note 4, at 67.

[24] *Id.* at 62.

[25] *Id.* at 62, 65-66.

[26] *See* EPA GUIDELINES, *supra* note 12, at 11-9; CIRCULAR A-4, *supra* note 11, at 41.

[27] *See* OMB REDLINE, *supra* note 4, at 62–66.

[28] EPA RIA, *supra* note 3, at 38.

[29] *See id.*

[30] *See* Exec. Order No. 13563, 76 Fed. Reg. 3821 (Jan. 21, 2011); Exec. Order No. 12866, 58 Fed. Reg. 51735 (Oct. 4, 1993); CIRCULAR A–4, *supra* note 11, at 2; *see also* EPA GUIDELINES, *supra* note 12, at 11–2.

should be monetized wherever possible, and either added to the benefits or subtracted from the costs of that alternative.[31]

There are, of course, limitations to the analyses and estimates EPA relied upon in its original submission to OIRA, primarily resulting from a lack of data; however, best practices for cost-benefit analysis, as well as OMB guidance, suggest that the solution is not to abandon all monetization and quantification efforts, but to disclose these limitations,[32] as EPA did in the initial Regulatory Impact Analysis.[33] If EPA determines, in its professional judgment and with the advice of OIRA, that there is too much uncertainty surrounding the calculation of the aggregated monetized benefits, it should still attempt to quantify some aspects of the Proposed Rule's benefits, such as the amount of dispersants at issue, oil spill probabilities, and potential gallons of oil spilled. Quantification of certain benefits, even where the ultimate aggregation and monetization of such benefits introduces too much uncertainty, would be consistent with OMB Guidance, which states "[e]ven when a benefit or cost cannot be expressed in monetary units, [agencies] should still try to measure it in terms of its physical units."[34] Similarly, EPA internal guidance suggests, "benefits and costs that cannot be monetized should, if possible, be quantified."[35] If EPA does again include some monetization or quantification of these cost-savings, it should clearly distinguish this category of benefits to dispersant consumers as distinct from other significant, unquantifiable benefits to human health, the environment, and social welfare.

## II. EPA Should More Clearly Describe the Qualitative Costs and Benefits of the Rule

OMB and EPA's guidance on economic analysis suggest that, if monetization and quantification are impossible, agencies must explain their reasoning for such a determination, along with a description of the unquantified effects.[36] This should include the key reasons why such effects cannot be quantified, as well as the strengths and limitations of the qualitative information that the agency has.[37]

Where EPA explains that it is not feasible to quantify or monetize certain potential benefits, it should more clearly describe those benefits. OMB advises that where effects are difficult to quantify, agencies should "present any relevant quantitative information along with a description of the unquantified effects, such as ecological gains, improvements in quality of life, and aesthetic beauty," and should include an explanation of the "nature, timing, likelihood, location, and distribution of the unquantified benefits and costs."[38] EPA's internal guidance similarly requires a qualitative discussion of benefits and the importance of such effects for decisionmaking.[39] EPA further suggests several mechanisms that can assist in considering unquantifiable effects against quantified or monetized effects.[40]

EPA's analysis of the proposed rule fails to satisfy these standards for cost-benefit analysis. First, as previously discussed, EPA states that attempts to quantify and monetize avoided costs were limited

[31] CIRCULAR A–4, *supra* note 11, at 38.

[32] OMB guidance suggests multiple tools for dealing with uncertainty. For example, EPA could use a numerical sensitivity analysis to examine how results vary with plausible changes in assumptions. *See* CIRCULAR A–4, *supra* note 11, at 41.

[33] OMB REDLINE, *supra* note 4, at 67.

[34] CIRCULAR A–4, *supra* note 11, at 10.

[35] *See* EPA GUIDELINES, *supra* note 12, at 11-2.

[36] *See* CIRCULAR A–4, *supra* note 11, at 27; EPA GUIDELINES, *supra* note 12, at 7-49.

[37] CIRCULAR A–4, *supra* note 11, at 27.

[38] *See id.*

[39] EPA GUIDELINES, *supra* note 12, at 7-49.

[40] *See id.* at 7–50.

by lack of data on oil spills and oil dispersant product performance. However, EPA does not explain why extrapolations from the Coast Guard study and similar studies are not applicable. If EPA still determines that certain benefits cannot be quantified, and explains its rationale behind that decision, it should provide a qualitative description of those benefits.

Second, the language and scope of discussion on unquantifiable benefits changed significantly following OIRA's review of the Proposed Rule. For some of these benefits, the description expanded.[41] However, other descriptions were reduced or removed altogether. For example, EPA originally cited to several peer-reviewed studies that suggest non-use values, sometimes referred to as existence values, can contribute a substantial portion of benefits, despite the difficulty in monetizing those benefits.[42] This discussion was removed following OIRA's review.[43]

Similarly, following OIRA review, EPA removed most of the discussion of the potential human health and ecological benefits resulting from the Proposed Rule.[44] The reason stated for the inability to quantify the human health benefits was that available studies of the public's willingness to pay to avoid oil spill damages were outdated and do not present an adequate sample, as they focus on a remote area of Alaska.[45] However, the studies referenced in the initial Regulatory Impact Analysis were from 2003, 2006, and 2009, respectively, and were no less recent that other studies that remain in the analysis.[46] Additionally, the population samples surveyed were not limited to a remote area in Alaska.[47] If there are other legitimate reasons for excluding these studies, EPA should clearly explain why existing studies are insufficient to monetize, or at least quantify, potential human health benefits.

Third, EPA should more clearly articulate the "nature, timing, likelihood, location, and distribution of the unquantified benefits and costs."[48] As one example, its discussion of effects on water quality briefly states, "[i]mprovements in efficacy and reduced toxicity of oil spill mitigation products would reduce the potential impacts to water quality."[49] However, because dispersants do not remove oil from the ocean, but rather transfer the oil from the surface throughout the water column, there are possible negative effects to the benthic environment. Based on the limited information available, it may be difficult to monetize or quantify such effects. Still, it is important that EPA consider them at least qualitatively, and determine their significance as compared to any quantified or monetized effects.

In short, while EPA initially attempted to provide a more comprehensive picture of the Proposed Rule's effects, much of this discussion was removed following OIRA review without clear justification for doing so. Where possible, EPA should quantify or monetize potential benefits. For any benefits that are not quantifiable, EPA should more clearly describe them in accordance with the requirements of Circular A-4.

---

[41] *See e.g.*, OMB REDLINE, *supra* note 4, at 61–62.

[42] *Id.* at 67.

[43] *See id.*

[44] *See id.* at 59, 61-62.

[45] EPA RIA, *supra* note 3, at 60.

[46] *See* OMB REDLINE, supra note 4, at 61 (citing Richard T. Carson, et. al., *Contingent Valuation and Lost Passive Use Damages from the Exxon Valdez Oil Spill*, 25 ENVTL. AND RESOURCE ECON. 257 (2003); M. Dolores Garza-Gil, et. al, *Assessment of Economic Damages from the Prestige Oil Spill*, 30 MARINE POLICY 544 (2006); Mark Loureiro, *Economic Valuation of Environmental Damages due to the Prestige Oil Spill in Spain*, 44 ENVTL. AND RESOURCE ECON. 537 (2009).

[47] *See, e.g.,* Loureiro, *supra* note 46, at 538.

[48] *See* CIRCULAR A-4, *supra* note 11, at 27.

[49] EPA RIA, *supra* note 3, at 61.

## III. Companies Have Disclosed Ingredients in Analogous Regulatory Contexts, Evincing the Feasibility of Compliance in this Instance

Some oil dispersant manufacturers may oppose the Proposed Rule because it requires public disclosure of the identity of chemicals used in dispersants.[50] One likely objection is that disclosure may allow domestic and international competitors to duplicate companies' products and thereby drive them out of the market, possibly to the detriment of the U.S. economy.[51]

However, industry has made similar arguments when opposing disclosure requirements in other contexts, yet ultimately complied with such requirements without suffering ruinous effects. If dispersant manufacturers argue that EPA underestimates the costs of this rule, EPA may wish to respond in part by citing analogous proceedings that show that the costs of similar disclosure requirements have proven to be manageable. Below are analogous examples in which many industry commenters warned about the negative consequences of disclosure requirements that never materialized.

***Hydraulic Fracturing:*** Hydraulic fracturing, commonly referred to as fracking, often requires chemical treatments that are potentially hazardous to public health.[52] EPA recently issued an advanced notice of proposed rulemaking to consider the disclosure of the identity and mixture of chemicals used in fracking fluids.[53]

Some industry commenters argued that a rule requiring disclosure would chill investment and innovation, curbing economic growth.[54] Moreover, disclosure would allegedly benefit foreign competitors who mine information on chemicals.[55] Further, commenters argued that the formulations of drilling fluids are intellectual property, the protection of which is integral to fostering American innovation and competition in the energy sector, and therefore to the strength of the U.S. economy.[56]

Yet, there is little evidence that disclosure has led to adverse effects on the industry or the economy, even as increasing numbers of states enacted disclosure requirements over the last five years.[57] Many states that require disclosure of chemicals do so through the FracFocus Chemical Disclosure Registry,[58] although alternative systems exist in some states.[59] Indeed, some of the same industry groups that warned of the dangers of disclosure to the American economy also argued that EPA-

---

[50] *See* EPA Proposed Rule, *supra* note 1.

[51] *See id.* at 3,413.

[52] *See* Hydraulic Fracturing Chemicals and Mixtures Under the Toxic Substances Control Act, 79 Fed. Reg. 28,664, 28,668–69 (advance notice of proposed rulemaking May 19, 2014).

[53] *See id.* at 28,665–66.

[54] *See* Comments on EPA Advance Notice of Proposed Rulemaking from the American Fuel and Petrochemical Manufacturers, http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-1019-2036; Arkema, at 3, http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-1019-2062; Society of Chemical Manufacturers and Affiliates, at 1–2, http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-1019-2063.

[55] Comments on EPA Advance Notice of Proposed Rulemaking from Society of Chemical Manufacturers and Affiliates, at 2, http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-1019-2063.

[56] Comments on EPA Advance Notice of Proposed Rulemaking from Halliburton, at 29–32, http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-1019-2061.

[57] Examples of such states include Colorado, Texas, North Dakota, Pennsylvania, Arkansas, Montana, Wyoming, New Mexico, and West Virginia. *Chemicals & Pubic Disclosure*, FRACFOCUS CHEMICAL DISCLOSURE REGISTRY, https://fracfocus.org/chemical-use/chemicals-public-disclosure (last visited Apr. 22, 2015).

[58] *See About Us*, FRACFOCUS CHEMICAL DISCLOSURE REGISTRY, https://fracfocus.org/welcome (last visited Apr. 22, 2015).

[59] Examples of such states include Arkansas, New Mexico, and Wyoming. *See* U.S. ENVTL. PROT. AGENCY, ANALYSIS OF HYDRAULIC FRACTURING FLUID DATA FROM THE FRACFOCUS CHEMICAL DISCLOSURE REGISTRY 1.0, at 129–31 (2015), *available at* http://www2.epa.gov/sites/production/files/2015-03/documents/fracfocus_analysis_report_and_appendices_final_032015_508_0.pdf [hereinafter EPA FRACKING ANALYSIS].

mandated disclosure is unnecessary considering the many existing disclosure laws at the state level. In fact, one company noted that 72% of all wells fracked in the country are now reported in FracFocus.[60] Moreover, even in states where fracking fluid chemical disclosure is not yet mandatory, many companies have voluntarily submitted data.[61] For example, California companies made 585 unique disclosures of hydraulic fracturing fluids used at production wells between January 2011 and February 2013.[62] Disclosure became mandatory for all operators in California in January 2015.[63] Further, in Pennsylvania, which mandated fracking fluid chemical disclosure in 2011, natural gas production rose 30 percent between 2013 and 2014.[64] In North Dakota, which enacted disclosure legislation in April 2012,[65] oil production reached a new record in 2015.[66] Clearly, companies have determined that disclosing chemical information is feasible.

Some states, including Pennsylvania and Wyoming, have exceptions to their fracking fluid disclosure laws that are designed to protect "trade secrets"; however, most state regulators, such as in Wyoming and California, still have access to this information and often have the final say on whether or not an ingredient is a trade secret.[67] In fact, under a settlement agreement approved in January 2015, the Wyoming Oil & Gas Conservation Commission must adopt more rigorous policies for scrutinizing industry requests to keep the identities of fracking chemicals secret.[68] An EPA analysis of FracFocus disclosures between January 2011 and February 2013 found that operators designated 11 percent of all ingredient records as confidential business information.[69] The same analysis found that the FracFocus database contained 692 unique ingredients reported for additives, base fluids, and proppants; the median number of additive ingredients per disclosure was 14, with a range of 4 to 28 (5th to 95th percentile).[70]

In sum, while a variety of factors determine the pace and extent of oil and gas production in each state, these statistics do not reveal any devastating effects on the industry in the growing number of states in which chemical disclosure is now mandatory.

***Disclosure Requirements under TSCA & FIFRA:*** Since the 1970's with the passage of the Toxic Substances Control Act (TSCA) and amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA has regulated the registration and use of new and existing chemicals. EPA has gradually and consistently moved towards increasing transparency and disclosure of

---

[60] *See* Comments on EPA Advance Notice of Proposed Rulemaking by Jimmy D. Carlile, HSE and Regulatory Supervisor, Fasken Oil and Ranch, Ltd., Chairman, Permian Basin Petroleum Association (PBPA) (Sept. 17, 2014) (EPA ID: EPA-HQ-OPPT-2011-1019-1793), available at http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPPT-2011-1019-1793.

[61] *See* EPA FRACKING ANALYSIS, *supra* note 59, at 7.

[62] *See id.* at 34.

[63] *See* S.B. 4 (2013-14 Leg., Reg. Sess.) (Cal. 2013).

[64] John O'Connell, *State's Gas Wells Increase Production by 30 Percent*, CITIZEN'S VOICE, Feb. 18, 2015, http://citizensvoice.com/news/state-s-gas-wells-increase-production-by-30-percent-1.1834684.

[65] North Dakota requires that companies disclose fracking fluid chemicals, the date of stimulation, vertical depth, and total water volume used in each treatment on FracFocus. Hannah Wittmeyer, *North Dakota Fracking Regulations*, FRACKWIRE (July 30, 2013), http://frackwire.com/north-dakota-fracking-regulations/.

[66] Chester Dawson, *North Dakota's Oil Production Rises to New Record*, WALL ST. J., Jan. 14, 2015, http://www.wsj.com/articles/north-dakotas-oil-production-rises-to-new-record-1421275623?mg=id-wsj.

[67] *See* Scott Detrow, H*ow Pennsylvania's Fracking Chemical Disclosure Rules Stack Up Against Other States*, STATE IMPACT (Aug. 12, 2011), http://stateimpact.npr.org/pennsylvania/2011/08/12/whats-in-the-frack-how-pennsylvanias-chemical-disclosure-rules-stack-up-against-other-states/.

[68] Stipulated Settlement Agreement, Powder River Basin Resource Council, et. al. v. Wyoming Oil and Gas Conservation Comm'n, No. 94650-C (7th District of Wyo. Jan 14, 2015), *available* at http://earthjustice.org/sites/default/files/files/Filing-Wyoming%20Fracking%20Chemical%20Disclosure%20Case.pdf.

[69] *See* EPA FRACKING ANALYSIS, *supra* note 59, at 2.

[70] *See* EPA FRACKING ANALYSIS, *supra* note 59, at 2.

information relating to chemical products due to rising public concern with the health and safety effects.[71] Many industry commenters have resisted such moves towards disclosure of chemical ingredients, substance compositions, and testing data, arguing that this information could harm the competitive advantage of innovative companies.[72]

The 1978 amendments to FIFRA included what has come to be known as the "disclosure provision," which requires EPA to make data submitted in the registration process accessible to the public within 30 days.[73] Certain types of protected information may be withheld as trade secrets, unless disclosure is required to prevent an unreasonable risk to the public health or environment.[74] Additionally, EPA regulations require that pesticide products bear labels detailing lists of active ingredients and their percentage compositions.[75] Industry currently faces increased public pressure to also disclose inert ingredients on product labels, though this is not currently required by FIFRA. [76]

Under the TSCA regime, EPA has also moved towards increasing disclosure of chemical information. In 2009, EPA announced an initiative to strengthen its chemical management program, one component of which was increasing transparency and public access to TSCA-related chemical information.[77] In 2010, EPA released a notice stating that chemical identities not explicitly containing process information or revealing portions of a mixture would not be considered confidential information,[78] thereby allowing their inclusion in publicly accessible data from health and safety studies.

Industry commentators have consistently called to maintain the confidentiality of such information, ostensibly to maintain their competitive advantage and preserve returns on the large initial investment necessary to conduct health, safety and efficacy studies.[79] Despite such alarms about increased disclosure, U.S. pesticide sales continued to increase over the two decades following enactment of the FIFRA amendments, and have remained relatively constant since then.[80] Additionally, many companies, at the encouragement of EPA, have voluntarily declassified confidential business information. In response to EPA's 2011 Disclosure Challenge, nearly 1,000

---

[71] Letter from EarthJustice & Envtl. Defense Fund, to Cass Sunstein, Administrator, U.S. Office of Info. and Regulatory Affairs 26 (Mar. 1, 2011) (citing U.S. COUNCIL ON ENVVTL. QUALITY, TOXIC SUBSTANCES STRATEGY COMMITTEE, TOXIC CHEMICALS AND PUBLIC PROTECTION: A REPORT TO THE PRESIDENT 50 (1980)) [hereinafter EarthJustice Letter].

[72] *See*, *e.g.*, Peter O. Safir & Glenn E. Davis, *Disclosure of Pesticide Safety Data: A Viable Compromise At Last?*, 12 ENVTL. L. REP. 15017 (1982).

[73] *See* 7 U.S.C. § 136a(2)(A); Linda-Jo Schierow & Robert Esworthy, CONGRESSIONAL RESEARCH SERVICE, PESTICIDE LAW: A SUMMARY OF THE STATUTES 9 (2012), *available at* http://www.law.umaryland.edu/marshall/crsreports/crsdocuments/RL31921_11142012.pdf

[74] 7 U.S.C. §136h(d)(1)(A)–(C).

[75] *See* 40 C.F.R. §156.10

[76] *See* Britt E. Erickson, *Pesticide Industry Stands Firm Amid Pressure To Reveal Identity Of Inert Ingredients*, 93 CHEMICAL & ENGINEERING NEWS 22 (2015) (discussing the public movement for, and industry opposition to inert ingredient disclosure), *available at* http://cen.acs.org/articles/93/i2/Pesticide-Industry-Stands-Firm-Amid.html.

[77] *See generally*, *Increasing Transparency in TSCA*, U.S. ENVTL. PROT. AGENCY, http://www.epa.gov/oppt/existingchemicals/pubs/transparency.html (last updated Jan. 8, 2015).

[78] *See* Claims of Confidentiality of Certain Chemical Identities Contained in Health and Safety Studies and Data from Health and Safety Studies Submitted Under the Toxic Substances Control Act, 75 Fed. Reg. 29754, 29755 (May 27, 2010).

[79] *See, e.g.*, Mark N. Duvall & Christina Franz, *TSCA Protects Confidential Chemical Identities In Health and Safety Studies From Disclosure*, 36 CHEMICAL REG. REP. 335, 335 (2012) (reflecting the views of the American Chemical Council that EPA should reevaluate its policy regarding the non-confidentiality of chemical identities), *available at* http://www.bdlaw.com/assets/attachments/307.pdf; Safir & Davis, *supra* note 70 (discussing legal challenges and lobbying efforts by industry to block implementation of FIFRA disclosure requirements).

[80] *See* Arthur Grube, et. al., U.S. ENVTL. PROT. AGENCY, PESTICIDE INDUSTRY SALES AND USAGE 21 (2011), *available at* http://www.epa.gov/opp00001/pestsales/07pestsales/market_estimates2007.pdf.

documents submitted under TSCA requirements that contained previously classified chemical identities were voluntarily made public.[81] Such voluntary actions signal that disclosure of such information is not infeasible or prohibitively expensive for many companies, and undercut the strength of arguments claiming that disclosure would be devastating to continued efforts to innovate.

## IV. Increased Transparency Can Have Positive Effects on Innovation

While some industry commentators may object to disclosure because of its costs, disclosure also has potentially positive effects on innovation. One such benefit accrues to product manufacturers. The sharing of scientific and technological insights can lead to further innovation and the avoidance of pursuing an invention that has already been made.[82] Indeed, the economic benefit of sharing information in part drives the open source and open patent movements.[83] Greater transparency about chemical ingredients can therefore lead to more optimal resource allocation in manufacturers' research budgets and to greater innovation overall. While there certainly may be some costs to manufacturers and to innovation of disclosing confidential information, those costs must be balanced against—and may be more than offset by—the potential benefits.

Another benefit of disclosure may be to motivate a public response that will create market demand for safer, healthier substitutions.[84] This innovation is not merely theoretical; disclosure requirements in other contexts have led to positive, unexpected results, which highlight the resilience and innovation of American industry. For example, California passed the Safe Drinking Water and Toxic Enforcement Act[85] by voter initiative (Proposition 65) in 1986.[86] The statute requires businesses to disclose the presence of potentially hazardous chemicals on their premises and in their products.[87] This requirement led companies to reformulate a number of products—often then sold nationwide—making them safer, including lead products, playground equipment, water filters, raincoats and other plastic clothing, vitamins, and dandruff shampoos, among many others.[88] It is possible that disclosure of the chemicals in dispersants might lead to similar reformulation, inducing companies to use safer chemicals with little to no profit loss.

In fact, consumers value effectiveness and safety, and will pay more for it. For example, retailers have recognized that safer products are important for their business. Over the past year, retailers such as Wal-Mart and Target have pushed suppliers to disclose ingredients or phase-out the use of some chemicals in the products they sell, especially personal care and cleaning products.[89] And the

---

[81] *TSCA CBI Declassification Challenge*, U.S. ENVTL. PROT. AGENCY , http://www.epa.gov/oppt/existingchemicals/pubs/declassification-cbi.html (last updated Dec. 16, 2014).

[82] EarthJustice Letter, *supra* note 68, at 27.

[83] *See e.g.*, Josh Lerner & Jean Tirole, *The Economics of Technology Sharing: Open Source and Beyond* (NBER Working Paper 10956, 2004); Eric von Hippel, *Open Source Software and the "Private-Collective" Innovation Model*, 14 Organization Science (2003); Mike Masnick, *Of Course Tesla Wasn't Just Being Altruistic in Opening Up Its Patents*, TechDirt, June 23, 2014.

[84] *Id.* citing California Green Chemistry Initiative, Final Report at 1 (Dec. 2008), *available at* http://www.sehn.org/pdf/GREEN_Chem.pdf.

[85] Cal. Health & Safety Code §§ 25249.5–13 (West 1992 & Supp. 1995).

[86] Clifford Rechtschaffen & Patrick Williams, *The Continued Success of Proposition 65 in Reducing Toxic Exposures*, 35 ENVTL. L. REPORTER 10850, 10850 (2005).

[87] *See id.*

[88] *See id.* at 10851–56.

[89] Joel Makower, *State of Green Business: Chemical transparency Creates a Window of Opportunity*, GREENBIZ (Jan. 24, 2014, 5:30 AM), http://www.greenbiz.com/blog/2014/01/29/state-green-business-chemical-transparency-creates-window-opportunity.

booming organic industry shows that consumers are willing pay a premium for safer, healthier goods.[90]

Here, the Proposed Rule will provide cost savings in the form of more effective dispersants and therefore fewer resources expended on onshore cleanup. Consumer oil companies, if aware of more effective, less toxic dispersants, may very well pay more for them. Manufacturers may, therefore, be able to recoup some of their compliance costs.

## Conclusion

This report's recommendations, if adopted, will strengthen EPA's cost-benefit analysis for the final rule. Government decisionmakers and the public will better understand the choices before them if EPA monetizes and quantifies the Rule's effects to the extent feasible. A clearer explanation of each unquantifiable benefit and cost would likewise strengthen EPA's analysis and public understanding of the rule's effects. Additionally, EPA could better support its estimation of the rule's costs by citing analogous proceedings where the resulting disclosure requirements were manageable for product manufacturers. Taking these actions would be consistent with OMB and EPA guidance, as well as sound public policy.

[90] *See* Renne Shaw Hughner, et. al., *Who are Organic Food Consumers? A Compilation and Review of Why People Purchase Organic Food*, 6 J. CONSUMER BEHAV. 94, 101-03 (2007); Laura Stampler, *Organic Food Sales on the Rise*, TIME, May 13, 2014, http://www.foodnavigator-usa.com/Markets/US-retail-sales-of-organics-grew-11.5-in-2013-to-35.1bn; Elaine Watson, *Organic Trade Association: US Retail Sales of Organics Grew 11.5% to $35.1bn in 2013*, FOOD NAVIGATOR-USA, http://www.foodnavigator-usa.com/Markets/US-retail-sales-of-organics-grew-11.5-in-2013-to-35.1bn (last updated May 15, 2014).