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Human Health and the Environment Can't Wait for Reform: Current Opportunities for the Federal Government and States to Address Chemical Risks Under the Toxic Substances Control Act

Lauren Trevisan

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Human Health and the Environment Can't Wait for Reform: Current Opportunities for the Federal Government and States to Address Chemical Risks Under the Toxic Substances Control Act

Abstract

Expressing its concern about growing rates of cancer and other diseases, coupled with the lack of data about the effect of the thousands of chemicals used in U.S. society, in 1976 Congress enacted the Toxic Substances Control Act (TSCA). Congress intended for TSCA to shed new light on chemical risks and provide the U.S. Environmental Protection Agency (EPA) with a set of tools to address those risks and protect human health and the environment. In the years since TSCA's passage, the procedural hurdles and the difficult-to-meet legal standards built into the statute, along with a court decision rejecting EPA's use of its authority to ban dangerous chemicals, have impeded EPA's ability to regulate chemical use and manufacture. This Comment argues that both the EPA and state governments have the authority to act now to address the risks posed by dangerous chemicals. By utilizing certain sections of the statute in new and aggressive ways, EPA can effectively address chemical risks. Further, this Comment argues that TSCA's preemption provision affords states leeway to continue to regulate the use of chemicals within their borders. Though reform of TSCA is necessary, EPA and states can effectively protect against chemical risks in the near-term by using the full extent of their authority under the current law.

HUMAN HEALTH AND THE ENVIRONMENT CAN'T WAIT FOR REFORM: CURRENT OPPORTUNITIES FOR THE FEDERAL GOVERNMENT AND STATES TO ADDRESS CHEMICAL RISKS UNDER THE TOXIC SUBSTANCES CONTROL ACT

LAUREN TREVISAN*

Expressing its concern about growing rates of cancer and other diseases, coupled with the lack of data about the effect of the thousands of chemicals used in U.S. society, in 1976 Congress enacted the Toxic Substances Control Act (TSCA). Congress intended for TSCA to shed new light on chemical risks and provide the U.S. Environmental Protection Agency (EPA) with a set of tools to address those risks and protect human health and the environment. In the years since TSCA's passage, the procedural hurdles and the difficult-to-meet legal standards built into the statute, along with a court decision rejecting EPA's use of its authority to ban dangerous chemicals, have impeded EPA's ability to regulate chemical use and manufacture. This Comment argues that both the EPA and state governments have the authority to act now to address the risks posed by dangerous chemicals. By utilizing certain sections of the statute in new and aggressive ways, EPA can effectively address chemical risks. Further, this Comment argues that TSCA's preemption provision affords states leeway to continue to regulate the use of chemicals within their borders. Though reform of TSCA is necessary, EPA and states can effectively protect against chemical risks in the near-term by using the full extent of their authority under the current law.

* Senior Staff Member, *American University Law Review*, Volume 61; J.D. Candidate, May 2012, *American University*, Washington College of Law, B.S.B.A., 2006, *Georgetown University*. Thank you to the editors and staff of the *American University Law Review* for your time, dedication, and sincere efforts, which have made this a Comment worthy of publication. Thank you also to Professor Breen, for your time, incredibly thoughtful suggestions, and for providing the inspiration for this Comment. To TJM, my parents, Joey, AD & UW, and friends, thank you for your endless love and support.

TABLE OF CONTENTS

Introduction.....	386
I. Background	389
A. Purpose and Scope of TSCA.....	390
1. Section 4: Authority to require testing of chemicals.....	391
2. Section 5: Notice of chemical production and potential for regulation	393
3. Section 6: The authority to ban or otherwise limit chemical substances.....	396
B. Hurdles to Implementation.....	397
1. Procedural obstacles	397
2. Difficult substantive legal standards.....	398
3. Invasive judicial review: <i>Corrosion Proof Fittings v. EPA</i>	399
C. The Current Landscape	401
1. State responses to stymied federal action.....	402
2. Brief overview of House and Senate reform bills.....	403
3. The Obama EPA's aggressive new approach to its TSCA authority.....	405
II. Ways in Which EPA Can Make (and Is Making) the Most of Its Authority Under TSCA to Protect Public Health and the Environment	406
A. EPA Can Take Advantage of Relatively Broad Judicial Interpretations of Its Section 4 Authority to Fill in Information Gaps Regarding Chemical Risk	407
B. Section 5 Presents New Opportunities to Raise Public Awareness About Chemical Risks	414
C. <i>Corrosion Proof Fittings</i> Revisited: Why a Judicial Activist Decision Should Not Prevent EPA from Using Its Section 6 Authority Today	419
III. TSCA's Preemption Provision Allows States to Take Broad Action to Regulate Chemicals.....	424
Conclusion	428

INTRODUCTION

Almost thirty years after the passage of the Toxic Substances Control Act (TSCA) in 1976,¹ a study of the umbilical cords of infants born in 2004 found that they contained almost 300 manmade chemicals.² Many of the detected chemicals have been linked to

1. President Ford signed TSCA into law on October 11, 1976. See Pub. L. No. 94-469, 90 Stat. 2003 (codified as amended at 15 U.S.C. §§ 2601–92 (2006)).

2. See JANE HOULIHAN ET AL., ENVTL. WORKING GRP., BODY BURDEN: THE POLLUTION IN NEWBORNS 13 (2005), available at http://www.ewg.org/reports_content/bodyburden2/pdf/bodyburden2_final-r2.pdf (recognizing that

cancer, birth defects, and developmental abnormalities.³ Congress passed TSCA as a precautionary measure—an intended preventative regulatory scheme to address the health and environmental risks associated with the rapidly increasing presence of chemicals in Americans' daily lives.⁴ The U.S. Environmental Protection Agency (EPA) Administrator at the time, Russell E. Train, described TSCA as “a major step toward an increasingly effective preventive approach toward the ‘environmental disease’ that has been called the ‘disease of the century.’”⁵ However, three and a half decades later, Congress's attempt at chemical regulation is widely regarded as a failure.⁶ This failure has been attributed to the procedural burdens imposed on EPA by the statute itself,⁷ substantive burdens imposed by both the statute and subsequent court interpretations,⁸ and, until very recently, a lack of aggressive implementation on the part of EPA.⁹

while scientists used to believe that the placenta shielded developing babies from most chemicals, recent science has made it clear that “at this critical time when organs, vessels, membranes and systems are [formed] . . . the umbilical cord carries not only the building blocks of life, but also a steady stream of industrial chemicals, pollutants and pesticides”).

3. See *id.* at 13–14 (noting that infants are more susceptible to harm from these chemical exposures).

4. See TSCA § 2(a), 15 U.S.C. § 2601(a) (2006) (articulating the congressional findings that (1) “human beings and the environment are being exposed each year to a large number of chemical[s],” (2) “there are some [chemicals] whose manufacture . . . may present an unreasonable risk of injury to health or the environment,” and (3) “the effective regulation” of such chemicals requires regulation of both interstate and intrastate commerce); see also COUNCIL ON ENVTL. QUALITY, TOXIC SUBSTANCES 21 (1971), reprinted in H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 784 (Comm. Print 1976) (“We need no longer be limited to repairing damage after it has been done; nor should we allow the general population to be used as a laboratory for discovering adverse health effects [of chemical exposure].”).

5. See Press Release, U.S. Env'tl. Prot. Agency, Train Sees New Toxic Substances Law as “Preventative Medicine” (Oct. 21, 1976), <http://www.epa.gov/history/topics/tsc/03.html>.

6. See, e.g., HOULIHAN ET AL., *supra* note 2, at 33 (characterizing TSCA as “the nation’s notoriously weak chemical safety law”); see also James T. O’Reilly, *Torture by TSCA: Retrospectives of a Failed Statute*, NATURAL RES. & ENV’T, Summer 2010, at 43 (“TSCA was floated with great ambitions, but it has bombed with tepid results TSCA has failed and left us with a mere façade of effective environmental action. Industry in the United States dodged the bullet.”).

7. See *infra* Part I.B.1 (describing the extensive procedures EPA must follow in issuing a rule under TSCA in addition to those required under the Administrative Procedure Act).

8. See *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1217 (5th Cir. 1991) (requiring that EPA perform an extensive quantitative analysis to justify issuing a section 6 rule). But see *infra* Part II.C (arguing that the court’s interpretation of what is required of EPA under section 6 is contrary to both the language of the statute and its legislative history).

9. Since TSCA was passed, “only five . . . chemicals have been regulated under [EPA’s section 6] ban authority.” *The Toxic Chemicals Safety Act of 2010: Hearing on H.R. 5820 Before the Subcomm. on Commerce, Trade, and Consumer Prot. of the H. Comm. on*

While far from a perfect tool, TSCA remains the only statutory tool available to regulate many of the chemicals that enter commerce¹⁰—and subsequently the environment and the human body—every day. Reform is necessary to address the procedural and substantive obstacles posed by the current law;¹¹ in the meantime, TSCA offers opportunities for regulation before a reform bill is enacted. With new chemical risks continually coming to light,¹² meaningful regulatory action at both the federal and state level is possible, and is happening, right now.¹³

This Comment argues that by utilizing the full extent of its authority under the current statute, EPA can more fully effectuate TSCA's goal of minimizing the risks of dangerous chemicals, and that TSCA's preemption provision allows for state action to regulate chemicals to supplement what can be done at the federal level. This Comment begins by presenting the backdrop to which the current debate over TSCA is set. Part I describes the history and purpose of TSCA, outlines key sections of the legislation and EPA's authority under those sections, and discusses the main hurdles to TSCA's

Energy and Commerce, 111th Cong. 2 (2010), available at <http://democrats.energycommerce.house.gov/documents/20100729/Owens.Testimony.07.29.2010.pdf> [hereinafter *TSCA Hearings*] (statement of Steve Owens, Assistant Administrator, Office of Chem. Safety and Pollution Prevention, U.S. Env'tl. Prot. Agency). However, since 2009, EPA has announced that it is considering using its section 6 authority to ban or otherwise limit seven additional chemicals. See *Action Plan Fact Sheet*, U.S. ENVTL. PROT. AGENCY (Apr. 2011), <http://www.epa.gov/oppt/existingchemicals/pubs/overview.pdf> (providing an overview of EPA's "Chemical Action Plans" for ten listed chemicals, seven of which EPA is considering banning or restricting under § 6).

10. TSCA regulates "chemical substance[s]," a term that is defined very expansively in the statute: it refers to "any organic or inorganic substance." TSCA § 3(2)(A), 15 U.S.C. § 2602(2)(A) (2006). However, Congress excluded chemicals that were already regulated specifically under other statutory schemes; TSCA does not apply to pesticides, tobacco, nuclear materials, firearms, and "any food, food additive, drug, cosmetic, or device." *Id.* § 3(2)(B)(i)–(vi).

11. See *infra* Part I.C.2 (describing current reform efforts); *infra* Conclusion (concluding that reform is necessary for truly effective chemical management).

12. See Bryan Walsh, *The Perils of Plastic*, TIME, Apr. 1, 2010, http://www.time.com/time/specials/packages/article/0,28804,1976909_1976908,00.html ("Since World War II, production of industrial chemicals has risen rapidly, and the U.S. generates or imports some 42 billion lb. (19 billion kg) of them per day. . . . Those chemicals have a habit of finding their way out of everyday products and into the environment—and ultimately into living organisms.").

13. See *Enhancing EPA's Chemical Management Program*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/oppt/existingchemicals/pubs/enhanchems.html> (last updated Sept. 14, 2011) (laying out EPA's plans for more aggressive use of its TSCA authority: "EPA is initiating a comprehensive approach to enhance the Agency's current chemicals management program within the limits of existing authorities"). See generally MIKE BELLIVEAU, SAFER CHEMS. HEALTHY FAMILIES, HEALTHY STATES: PROTECTING FAMILIES FROM TOXIC CHEMICALS WHILE CONGRESS LAGS BEHIND (2010), available at <http://www.saferchemicals.org/PDF/reports/HealthyStates.pdf> (analyzing state efforts to regulate chemicals in the absence of federal regulation).

implementation. It completes the picture by giving an overview of the current landscape, including descriptions of state law responses to TSCA's failures, the two principal proposed TSCA reform bills, and EPA's current plans to make the most of its TSCA authority.

Part II argues that, by utilizing the full extent of its existing authority, EPA currently has the ability to make TSCA better serve its purpose in the near term. EPA has proposed a number of aggressive new actions that this Comment argues are well within the Agency's current authority and are likely to withstand any post-implementation court challenges. Part III then argues that TSCA's preemption provision affords states leeway to regulate chemicals within their borders even more expansively than EPA can, thus supplementing what can be done at the federal level. This Comment concludes by recommending that TSCA be reformed to remove the procedural and substantive obstacles under the current law, thus allowing EPA to regulate chemical risks even more effectively and efficiently. This would in turn reduce the need for the current patchwork of state regulation.

I. BACKGROUND

Congress passed TSCA in 1976 to address two significant regulatory gaps: the lack of information about the risks of chemicals¹⁴ and the absence of authority to address and minimize those risks.¹⁵ However, significant hurdles to TSCA's implementation resulted in these needs going largely unmet.¹⁶ In response to these hurdles and a growing consensus that TSCA has failed to live up to its mandates, TSCA reform has become a major discussion point among stakeholders.¹⁷ The evolution of TSCA from its promising beginnings, to its

14. See TSCA § 2(b) ("It is the policy of the United States that—(1) adequate data should be developed with respect to the effect of chemical substances . . . on health and the environment . . .").

15. See *id.* § 2(b)(2) ("[A]dequate authority should exist to regulate chemical substances . . . which present an unreasonable risk of injury to health or the environment . . .").

16. See *infra* Part I.B (identifying the procedural, legal standard, and judicial review obstacles that have impeded EPA's ability to effectively regulate under TSCA).

17. See, e.g., John S. Applegate, *Synthesizing TSCA and REACH: Practical Principles for Chemical Regulation Reform*, 35 *ECOLOGICAL L.Q.* 721, 765 (2008) (advocating that "if TSCA is to be truly preventive, TSCA reform must incorporate provisions that expressly permit EPA to act in advance of full information"); Malcolm D. Woolf, *Why Modernization of the U.S. Toxic Substances Law is Good for Public Health and Business*, SUSTAINABLE DEV. L. & POL'Y, Spring 2006, at 4 (describing the reasons why TSCA should be reformed from the perspective of both public health advocates and chemical manufacturers).

ineffectiveness in practice, and to its proposed reform, is discussed below.

A. Purpose and Scope of TSCA

TSCA was enacted during what has been described as “the most active phase of federal environmental law-making this country has ever seen.”¹⁸ The central purpose of TSCA is to prevent the “unreasonable risk” of injury to human health or the environment due to chemical manufacturing and use.¹⁹ TSCA’s introduction was spurred by the 1971 report *Toxic Substances*, which was prepared by the newly established Council on Environmental Quality (CEQ).²⁰ On the basis of available data and growing fears about the unknown dangers posed by largely unregulated chemicals, this report made a series of straightforward findings that were the impetus for TSCA’s introduction and passage: (1) toxic substances were entering the environment; (2) the effects of these substances were largely unknown and potentially severe; (3) existing legal mechanisms were not suited to address these effects; and (4) new legal authority was required.²¹ In February 1971, a new legal authority was proposed: President Nixon submitted to Congress a version of the bill that would become TSCA.²² After five years of debate and fifteen days of hearings,²³ TSCA emerged in its current form and was signed into law in October 1976.²⁴

This Comment will analyze three primary tools delegated to EPA by TSCA to accomplish Congress’s stated intent: (1) section 4 testing authority, (2) section 5 notice requirements, and (3) section 6 authority to limit or ban a chemical substance. The following

18. David Markell, *An Overview of TSCA, Its History and Key Underlying Assumptions, and Its Place in Environmental Regulation*, 32 WASH. U. J.L. & POL’Y 333, 334 (2010); see also *id.* at 334 n.6 (observing that the majority of major environmental laws, including the Clean Air Act, the Clean Water Act, and the National Environmental Policy Act were enacted in the 1970s).

19. See TSCA § 2(b) (“It is the policy of the United States that . . . adequate authority should exist to regulate chemical substances and mixtures which present an *unreasonable risk* of injury to health or the environment . . .” (emphasis added)).

20. See generally COUNCIL ON ENVTL. QUALITY, *supra* note 4 (detailing the dangers posed by toxic substances and calling for regulation).

21. See *id.* at 759–60.

22. *Id.* at 761. TSCA was proposed before *Toxic Substances* was published in April 1971 because the pressing nature of the findings necessitated that CEQ resources be diverted to writing the legislation before the report could be finalized. *Id.* at 758.

23. S. REP. NO. 94-698, at 3 (1976), reprinted in H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 159 (Comm. Print 1976).

24. Pub. L. No. 94-469, 90 Stat. 2003 (codified as amended at 15 U.S.C. §§ 2601–92 (2006)).

subsections provide a brief overview of these three provisions of TSCA, and Part II addresses courts' interpretations of the features of these provisions.²⁵

1. *Section 4: Authority to require testing of chemicals*

Section 4 of TSCA establishes EPA's authority to require testing of chemical substances.²⁶ EPA exercises this authority by issuing a rule requiring the manufacturers of certain chemicals to perform a series of tests to determine the chemicals' health and environmental effects (hereinafter known as a "test rule").²⁷ In enacting TSCA, Congress declared that "this provision would no longer allow the public or the environment to be used as a testing ground for the safety of [chemical] products."²⁸

Section 4(a) of TSCA provides EPA with two separate bases on which it can require testing of chemical substances. Under section 4(a)(1)(A), EPA can require testing for chemicals that "may present an unreasonable risk of injury to health or the environment."²⁹ Alternatively, under section 4(a)(1)(B), EPA can mandate that manufacturers test chemicals for which there is insufficient information to determine whether the chemical presents a risk to health or the environment, and thus testing is needed to "develop such data."³⁰ EPA can use its section 4(a)(1)(B) authority to fill in data gaps for chemicals that are (1) "produced in substantial quantities," and (2) either "enter the environment in substantial quantities" or will result in "substantial human exposure" to the chemical.³¹

In *Chemical Manufacturers Association v. EPA*,³² the United States Court of Appeals for the Fifth Circuit held that EPA has discretion to determine the quantities of chemical production and the levels of human exposure that rise to the level of being "substantial," such that

25. The legal standards that EPA must meet to use its authority under these three provisions are also discussed in Part I.B (in the context of hurdles to implementation). Part II discusses these sections in the context of opportunities for EPA to use relevant provisions to effectuate TSCA's stated purpose.

26. TSCA § 4, 15 U.S.C. § 2603 (2006) (entitled "Testing of chemical substances and mixtures").

27. *See id.* § 4(a) (stating that once the requisite findings have been made with respect to a chemical or mixture, "the Administrator shall by rule require that testing be conducted on such substance or mixture").

28. S. REP. NO. 94-698, at 3.

29. *See* TSCA § 4(a)(1)(A)(i) (limiting testing to chemicals whose health and environmental effects cannot be determined with existing information).

30. *Id.* § 4(a)(1)(B).

31. *See id.*

32. 899 F.2d 344 (5th Cir. 1990).

they trigger EPA's section 4(a)(1)(B) authority.³³ In that case, the Chemical Manufacturers Association (CMA) challenged a rule that EPA issued requiring manufacturers of the chemical cumene "to perform certain toxicological testing . . . to determine [cumene's] health and environmental effects."³⁴ CMA argued that EPA's estimate of the quantity of cumene that entered the environment was too high.³⁵ It urged the court to accept its considerably lower estimate of cumene emissions and accordingly find that there was not a "substantial quantity" of cumene entering the environment.³⁶

The Fifth Circuit held that while EPA's estimate was supported by substantial evidence,³⁷ because neither TSCA nor its legislative history define what amount of a chemical constitutes a "substantial quantity," the court could not determine whether the amount of cumene emissions presented by EPA was sufficient to trigger its statutory authority.³⁸ Further, because "substantial quantity" and substantial human or environmental exposure were left undefined in the statute, the court held that Congress had delegated the authority to define and interpret these terms to EPA.³⁹ Accordingly, the Fifth Circuit rejected CMA's construction of what amount constituted a "substantial quantity," and remanded the case to EPA to define the term "substantial" within section 4(a)(1)(B), noting that EPA has "considerable latitude" and "[r]oom must be left for the exercise of judgment" in complying with the court's mandate.⁴⁰

Though the Fifth Circuit did not cite to the Supreme Court's decision in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*,⁴¹ the logic of the Court's decision in *Chevron* underlies the reasoning applied in *Chemical Manufacturers*. In *Chevron*, the Supreme Court held that where "Congress has not directly addressed the precise question at issue," in a statute, but rather has explicitly "left a gap for the agency to fill," the reviewing court shall not overturn an agency's interpretation unless it is "arbitrary, capricious, or manifestly contrary to the statute."⁴² In a later decision, the Supreme Court

33. *Id.* at 359.

34. *Id.* at 346.

35. *Id.* at 352.

36. *Id.*

37. *Id.*; see also TSCA § 19(c)(1)(B)(i), 15 U.S.C. § 2618(c)(1)(B)(i) (2006) (setting a substantial evidence standard of review based on the rulemaking record for section 4 test rules).

38. *Chem. Mfrs.*, 899 F.2d at 354.

39. See *id.* (noting that the court must accept EPA interpretations that are rational and consistent with the statute).

40. See *id.* at 359–60.

41. 467 U.S. 837 (1984).

42. See *id.* at 843–44 (adding that for instances when Congress implicitly

clarified that the level of deference afforded to agency interpretations under its opinion in *Chevron* was reserved for areas of a statute where the agency had the authority to speak with the force of law, such as the rulemaking authority set out by Congress in section 4(a)(1)(B).⁴³

Thus, in accordance with the Fifth Circuit's holding in *Chemical Manufacturers* and the principles from the Supreme Court's holding in *Chevron*, in 1993 EPA published guidance in the Federal Register describing the criteria it would use to determine when a test rule issued pursuant to section 4(a)(1)(B) is necessary (hereinafter "guidance document").⁴⁴ EPA defined the term "substantial quantity" of a chemical for the purposes of triggering section 4(a)(1)(B) of TSCA as greater than or equal to one million pounds, in reference to both chemical production levels as well as the amount of a chemical released into the environment.⁴⁵ Due to the intricacies of defining a term as vague and potentially far-reaching as "substantial human exposure,"⁴⁶ EPA defined what constitutes "substantial human exposure" for various situations: more than 100,000 people for the general population; more than 10,000 people for consumers; and more than 1000 people for workers.⁴⁷ In setting these quantities, EPA exercised the interpretive discretion that Congress granted it in having "left a gap for the agency to fill"⁴⁸ in section 4(a)(1)(B), as recognized by the Fifth Circuit in *Chemical Manufacturers*.⁴⁹

delegates authority, courts should not disturb an agency's "reasonable interpretation[s] of statutory provisions").

43. See *United States v. Mead Corp.*, 533 U.S. 218, 226–27 (2001) (offering administrative adjudication and notice-and-comment rulemaking as examples of congressional intent to delegate an agency authority to make rules with the force of law).

44. TSCA Section 4(a)(1)(B) Final Statement of Policy; Criteria for Evaluating Substantial Production, Substantial Release, and Substantial or Significant Human Exposure, 58 Fed. Reg. 28,736 (May 14, 1993).

45. See *id.* at 28,746 ("EPA believes a threshold value of 1 million pounds is a reasonable interpretation of the phrase 'produced in substantial quantities' in TSCA section 4(a)(1)(B)(i)[,] [and] EPA believes that [1 million pounds] is a reasonable interpretation of the phrase 'enters the environment in substantial quantities' in TSCA section 4(a)(1)(B)(i)(I).").

46. See *Chem. Mfrs. Ass'n v. EPA*, 899 F.2d 344, 359 (5th Cir. 1990) ("We recognize that 'substantial' is an inherently imprecise word. We are also aware that . . . no definition or group of criteria can be established which will function like a mathematical formula, so that for every given set of facts a specific, predictable answer will always be forthcoming.").

47. *Id.*

48. *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984).

49. See *Chem. Mfrs.*, 899 F.2d at 346 (indicating that TSCA authorized EPA to promulgate test rules).

2. *Section 5: Notice of chemical production and potential for regulation*

Where section 4 is predominantly about chemical testing, section 5 of TSCA requires manufacturers to give EPA notice before they begin producing a new chemical or producing an existing chemical that will be put to a new use.⁵⁰ This section reflects Congress's rationale that "[t]he most effective and efficient time to prevent unreasonable risks to public health or the environment is prior to first manufacture."⁵¹ In addition to requiring that manufacturers give EPA advance notice of chemical production, section 5(b)(4)(A) of TSCA states that EPA can issue a rule listing chemicals that EPA finds "present[] or may present an *unreasonable risk* of injury to health or the environment."⁵² In determining whether to make such a list, and which chemicals to add, TSCA dictates that EPA weigh "all relevant factors," explicitly requiring EPA to consider the chemical substance's health effects, as well the degree of environmental exposure to the chemical.⁵³

The term "unreasonable risk" is not defined in the statute⁵⁴ and has not been addressed by courts in the context of section 5 of TSCA.⁵⁵ However, courts have interpreted this term in relation to section 4 of TSCA.⁵⁶ The language in the statute triggering a section 4(a)(1)(A) test rule and a section 5(b)(4)(A) rule similarly permits EPA to issue a rule where a chemical "may present an unreasonable risk of injury to health or the environment."⁵⁷ The Supreme Court has held that

50. See TSCA § 5(a), 15 U.S.C. § 2604(a) (2006) (requiring that manufacturers of new chemicals or existing chemicals put to "a significant new use" must provide EPA with ninety days notice before the chemical can be manufactured).

51. See S. REP. NO. 94-698, at 5 (1976), *reprinted in* H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 161 (Comm. Print 1976).

52. TSCA § 5(b)(4)(A)(i) (emphasis added).

53. *Id.* § 5(b)(4)(A)(ii).

54. See *id.* § 3 (failing to include a definition of "unreasonable risk" in this "definitions" section of the statute).

55. See *infra* text accompanying notes 208–209 (explaining that because EPA has never used section 5(b)(4)(A), there is no precedent defining this term).

56. See, e.g., *Chem. Mfrs. Ass'n v. EPA*, 859 F.2d 977, 984 (D.C. Cir. 1988) (ruling that EPA can issue a test rule when its findings provide a "substantial" or "more-than-theoretical" basis for determining that a chemical "may present" an "unreasonable risk" exists); *Ausimont U.S.A. Inc. v. EPA*, 838 F.2d 93, 97 (3d Cir. 1988) (upholding a test rule where "an existing possibility of harm raise[d] reasonable and legitimate cause for concern").

57. Compare TSCA § 5(b)(4)(A)(i) ("The Administrator may, by rule, compile and keep current a list of chemical substances with respect to which the Administrator finds that the manufacture, processing, distribution in commerce, use, or disposal, or any combination of such activities, presents or *may present an unreasonable risk of injury to health or the environment.*" (emphasis added)), with *id.* § 4(a) ("If the Administrator finds that—the manufacture, distribution in commerce, processing, use, or disposal of a chemical substance or mixture, or that any combination of such activities, *may present an unreasonable risk of injury to health or the*

when interpreting an undefined statutory term that appears in multiple places in the same statute, courts are to presume that the meaning is the same in each instance.⁵⁸ While this presumption can be overcome by a finding that Congress intended that words be given different meanings,⁵⁹ Part II.B argues that here, the term “unreasonable risk” should be interpreted in the same manner in both the section 4(a)(1)(A) and section 5(b)(4)(A) contexts, and thus section 4(a)(1)(A) precedent is illustrative of how courts would interpret this term as used in section 5(b)(4)(A).⁶⁰

In reviewing a challenge to a 4(a)(1)(A) test rule, the United States Court of Appeals for the D.C. Circuit observed in *Chemical Manufacturers Association v. EPA*⁶¹ that in the absence of an indication as to level of “unreasonable risk” that EPA must find before regulating a chemical, Congress left it to EPA to determine whether and to what degree a chemical poses “unreasonable risk” such that regulation is necessary.⁶² As stated by the Supreme Court in *Chevron*, if Congress does not address an issue in the statute, such as the definition of “unreasonable risk,” then courts should look to an agency’s construction of the term and uphold it so long as it is reasonable.⁶³ Specifically, the *Chevron* Court determined that “[i]f Congress has explicitly left a gap for the agency to fill [in the statute],” then Congress expressly delegated to the agency the authority to “elucidate” the meaning of the statute in its regulation.⁶⁴

Applying the Supreme Court’s analysis from *Chevron*, the D.C. Circuit upheld EPA’s construction of “unreasonable risk” as requiring that EPA only show that the risk is “more-than-theoretical,” as opposed to being “more likely than not,” as argued for by the Chemical Manufacturers Association.⁶⁵ The court’s ultimate holding,

environment . . . [along with additional requirements] the Administrator shall by rule require that testing be conducted . . .”(emphasis added)).

58. See *Envtl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 574 (2007).

59. See *id.* (acknowledging that context can compel interpreting the same word in a different way).

60. See *infra* Part II.B.

61. 859 F.2d 977 (D.C. Cir. 1988). Although this case involved the same parties and has the same name as the Fifth Circuit case discussed above in Part I.A.1, this D.C. Circuit litigation was wholly distinct from the Fifth Circuit litigation. I have attempted to clearly differentiate between the two cases.

62. *Id.* at 984.

63. See *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843–44 (1984).

64. *Id.*

65. See *Chem. Mfrs.*, 859 F.2d at 985 (noting that the legislative history of TSCA “not only shows that ‘unreasonable risk’ need not be a matter of absolute certainty; it shows the reasonableness of EPA’s conclusion that ‘unreasonable risk’ need not be established to a more-probable-than-not degree”).

which it noted was supported by the findings of other circuits,⁶⁶ was that EPA has the authority to issue a section 4 rule so long as it has a “more-than-theoretical basis” for believing that there is some level of human exposure to the chemical at issue and the chemical is toxic enough at that level to create an “unreasonable risk of injury” to human health.⁶⁷

Courts determine whether to uphold EPA’s finding that a chemical presents an “unreasonable risk” using the substantial evidence standard of review.⁶⁸ In *Ausimont U.S.A. Inc. v. EPA*,⁶⁹ the United States Court of Appeals for the Third Circuit reviewed a challenge to a section 4(a)(1)(A) test rule and described what a substantial evidence review of EPA’s finding of unreasonable risk looks like: “[H]ere we look to see if the Administrator produced substantial evidence to demonstrate not fact, but doubt and uncertainty.”⁷⁰ Similar to both the D.C. Circuit and Fifth Circuit *Chemical Manufacturers* cases, the Third Circuit held that where EPA has supported its findings with scientific studies, and the challengers to the rule have not shown fundamental or fatal flaws in these studies, EPA has met its burden of proving the “unreasonable risk” of a chemical substance.⁷¹

3. Section 6: The authority to ban or otherwise limit chemical substances

Section 6 is TSCA’s most aggressive provision, providing EPA with the authority to impose a range of restrictions, from labeling requirements to a complete ban.⁷² To issue a section 6 rule, EPA must first find “that there is a reasonable basis to conclude that” the production of a chemical “will present an unreasonable risk of injury to health or the environment.”⁷³ EPA then “shall by rule apply one or more [listed regulatory] requirements to such substance or mixture to the extent necessary to protect adequately against such risk using

66. See *Ausimont U.S.A. Inc. v. EPA*, 838 F.2d 93, 97 (3d Cir. 1988) (upholding a test rule where “an existing possibility of harm raises reasonable and legitimate cause for concern”); *Shell Chem. Co. v. EPA*, 826 F.2d 295, 298 (5th Cir. 1987) (remanding to explore additional evidence without deciding how strong a showing of “unreasonable risk” must be to warrant a test rule).

67. *Chem. Mfrs.*, 859 F.2d at 987–88 (internal quotation marks omitted).

68. TSCA § 19(c)(1)(B)(i), 15 U.S.C. § 2618(c)(1)(B)(i) (2006); see also *Chem. Mfrs.*, 859 F.2d at 991–92 (observing that the standard of review for TSCA regulations is more stringent than for agency decisions under other statutes).

69. 838 F.2d 93 (3d Cir. 1988).

70. *Id.* at 96.

71. *Id.* at 96–97.

72. TSCA § 6(a).

73. *Id.*

the least burdensome requirements.”⁷⁴ EPA has used its authority under section 6 to regulate only five chemicals since TSCA was enacted; as a basis for comparison, there are over 84,000 chemicals listed in EPA’s TSCA inventory.⁷⁵ EPA’s limited use of its section 6 authority has largely been attributed to the Fifth Circuit’s rejection of its section 6 ban on asbestos, despite this chemical’s status as a known carcinogen.⁷⁶

B. Hurdles to Implementation

When Congress passed TSCA, EPA Administrator Russell Train stated that EPA was “ready to start carrying out [its] responsibilities under the law openly and effectively.”⁷⁷ Thirty-three years later, in 2009, the current Administrator of EPA, Lisa Jackson, noted that people are still turning to EPA for “assurance that chemicals have been assessed using the best available science, and that unacceptable risks haven’t been ignored,” yet EPA is unable to provide this assurance under the current law.⁷⁸ TSCA’s implementation to date has led to the statute’s characterization as an “inadequate tool” for protecting the public and the environment from chemical risks.⁷⁹ The three primary reasons for this are discussed below.

1. Procedural obstacles

For EPA to use its authority to require testing under section 4, certain aspects of its notice-related authority under section 5, as well as its authority to ban or limit chemicals under section 6, EPA must issue a rule and in doing so, comply with extensive procedural requirements.⁸⁰ In executing its authority under these provisions,

74. *Id.*

75. See *TSCA Hearings*, *supra* note 9, at 2 (statement of Steve Owens, Assistant Administrator, Office of Chem. Safety and Pollution Prevention, U.S. Env’tl. Prot. Agency) (lamenting EPA’s lack of success in regulating only a small portion of the chemicals listed in EPA’s inventory); see also U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-05-458, CHEMICAL REGULATION: OPTIONS EXIST TO IMPROVE EPA’S ABILITY TO ASSESS HEALTH RISKS AND MANAGE ITS CHEMICAL REVIEW PROGRAM 58–60 (2005) (listing the five chemicals which EPA has regulated under section 6, all of which occurred before the Fifth Circuit’s decision in *Corrosion Proof Fittings v. EPA*).

76. See *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1229–30 (5th Cir. 1991) (rejecting EPA’s asbestos ban, while also acknowledging the hazards of asbestos use).

77. Press Release, U.S. Env’tl. Prot. Agency, *supra* note 5.

78. Lisa Jackson, Administrator, U.S. Env’tl. Prot. Agency, Remarks to the Commonwealth Club of San Francisco (Sept 29, 2009), <http://yosemite.epa.gov/opa/admpress.nsf/a883dc3da7094f97852572a00065d7d8/fc4e2a8c05343b3285257640007081c5!OpenDocument>.

79. *Id.* (noting that TSCA has “been proven an inadequate tool for providing the protection against chemical risks that the public rightfully expects”).

80. TSCA §§ 4(b)(5), 5(b)(4)(C), 6(c)(2)–(3), 15 U.S.C. §§ 2603(b)(5), 2604(b)(4)(C), 2605(c)(2)–(3) (2006).

EPA must follow both the Administrative Procedure Act's (APA's) rulemaking requirements, as well as an additional set of requirements that Congress added to those already imposed by the APA.⁸¹ Since TSCA's passage, administrative law scholars have observed that courts have applied and interpreted the APA's rulemaking requirements to require strict adherence to numerous procedures, rendering the rulemaking process increasingly rigid and complicated, even "ossified."⁸² Because TSCA's procedural requirements are even more extensive than the procedures required by the APA, TSCA has been called the "ne plus ultra of ossification."⁸³ EPA has lamented the fact that TSCA's extensive procedural requirements render the use of its available regulatory tools "cumbersome and time-consuming."⁸⁴

2. *Difficult substantive legal standards*

In addition to procedural hurdles, the legal standards contained in the statute itself also constrain EPA's ability to address chemical risks. In enacting TSCA, Congress intended to protect against "unreasonable" risks to health and the environment, adopting what has been described as a "probabilistic approach" to the meaning of risk.⁸⁵ Accordingly, TSCA does not instruct EPA to regulate to prevent *all* risks, but just risks that it determines are "unreasonable."⁸⁶ This standard is in stark contrast to Congress's approach in other preventative regulatory schemes, such as the Delaney Clause of the Federal Food, Drug, and Cosmetic Act.⁸⁷ That clause protects against *any* risk that a regulated product causes cancer, whether the risk is minute or considerable.⁸⁸

Congress's approach in TSCA inherently limits EPA's authority to regulate chemicals by requiring EPA to first make a finding that a

81. See, e.g., *id.* § 5(b)(4)(C) ("Any rule promulgated under subparagraph (A) . . . shall be promulgated pursuant to the procedures specified in section 553 of title 5 [of the APA], except that (i) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions, (ii) a transcript shall be kept of any oral presentation, and (iii) the Administrator shall make and publish with the rule the finding described in subparagraph (A).").

82. See Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 DUKE L.J. 1385, 1385-86 (1992) (observing how "agencies are beginning to seek out alternative . . . regulatory vehicles to circumvent the increasingly stiff and formalized structures of the informal rulemaking process").

83. Applegate, *supra* note 17, at 766.

84. Jackson, *supra* note 78.

85. Applegate, *supra* note 17, at 728 (emphasis in original omitted).

86. *Id.* (emphasis in original omitted).

87. Federal Food, Drug and Cosmetic Act § 409(c)(3)(A), 21 U.S.C. § 348(c)(3)(A) (2006).

88. See *id.* ("[N]o additive shall be deemed to be safe if it is found to induce cancer when ingested by man or animal . . .").

chemical poses an “unreasonable risk” before using its authority to ban or limit the chemical.⁸⁹ Further, for EPA to use its authority under section 6—where EPA’s strongest authority under TSCA lies—after finding that a chemical poses an “unreasonable risk,” Congress requires EPA to regulate “to protect adequately against such risk using the *least burdensome requirements*.”⁹⁰ Accordingly, Steve Owens, the EPA official who oversees the Agency’s TSCA implementation, noted that “[e]ven if EPA has substantial data and wants to protect the public against known risks, the law creates obstacles to quick and effective regulatory action.”⁹¹

3. *Invasive judicial review: Corrosion Proof Fittings v. EPA*

Unless stated otherwise, federal agencies’ uses of their statutorily granted discretion are reviewed under the APA’s “arbitrary and capricious” standard of review.⁹² This standard applies to most environmental laws; however, Congress chose to require courts to apply a different standard to TSCA.⁹³ Section 19 of TSCA requires courts to set aside rules issued by EPA “if the court finds that the rule is not supported by substantial evidence in the rulemaking record.”⁹⁴ The “substantial evidence” standard applies to test rules promulgated pursuant to section 4, a rule listing dangerous chemicals under section 5, and rules regulating chemicals under section 6.⁹⁵

In *Corrosion Proof Fittings v. EPA*,⁹⁶ the Fifth Circuit noted that under the “substantial evidence” standard of review, even if the challenger to a rule’s assertions has a solid evidentiary backing, the court will not overturn the rule as long as “substantial evidence to support [EPA]’s decision” to issue the rule exists.⁹⁷ The court also noted that the substantial evidence standard of review “‘afford[s] a considerably

89. See TSCA § 6(a), 15 U.S.C. § 2605(a) (2006) (stating that EPA can only regulate a chemical substance under section 6 where it “finds that there is a reasonable basis to conclude that the manufacture, processing, distribution in commerce, use, or disposal of a chemical substance . . . presents or will present an *unreasonable risk* of injury to health or the environment” (emphasis added)).

90. *Id.* (emphasis added).

91. TSCA Hearings, *supra* note 9, at 2 (statement of Steve Owens, Assistant Administrator, Office of Chem. Safety and Pollution Prevention, U.S. Env’tl. Prot. Agency).

92. See APA § 10(b), 5 U.S.C. § 706 (2006) (“The reviewing court shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . .”).

93. TSCA § 19(c).

94. *Id.* § 19(c)(1)(B)(i).

95. *Id.* § 19(c)(1)(A) (limiting judicial review under this standard to actions taken under sections 4(a), 5(a)(2), 5(b)(4), 6(a), 6(e), and 7).

96. 947 F.2d 1201 (5th Cir. 1991).

97. *Id.* at 1213.

more generous judicial review' than the arbitrary and capricious test."⁹⁸ This more generous review requires the reviewing court to strike a balance: the court must carefully scrutinize the agency's findings, while showing deference to decisions that are based on the agency's specific areas of knowledge and experience.⁹⁹

In *Corrosion Proof Fittings*, the court reviewed a challenge to a rule issued by EPA pursuant to section 6 of TSCA banning the "manufacture, importation, processing, and distribution of asbestos in almost all products."¹⁰⁰ The challengers to EPA's rule alleged that it was not based on substantial evidence and should therefore be overturned.¹⁰¹ In evaluating the record presented by EPA, the court applied an invasive review of EPA's legal obligations under section 6, which authorizes EPA to regulate a chemical so long as it has a reasonable basis to conclude that the chemical "will present an unreasonable risk of injury to health or the environment."¹⁰² Section 6 further requires EPA to use "the least burdensome requirements" to protect against that risk.¹⁰³

The court observed that by choosing to *ban* asbestos, the most stringent of EPA's regulatory options under section 6, "EPA assigned to itself the toughest burden in satisfying TSCA's requirement that its alternative be the least burdensome of all those offered to it."¹⁰⁴ The court noted that much of the analysis on which EPA based its decision was correct; this analysis included EPA's consideration and rejection of other regulatory options, such as labeling, because these options still exposed the public to too much risk.¹⁰⁵ However, the court's concern was not with the analysis itself, but with EPA's methodology.¹⁰⁶ In evaluating the manner in which EPA carried out its section 6 analysis, the court recognized that TSCA required EPA not only to show that "its proposed action reduce[d] the risk of the [chemical] to an adequate level, but also that the actions Congress identified as less burdensome also would not do the job."¹⁰⁷ The court then went a step further, requiring that EPA use cost-benefit analysis to make this showing, which the Agency had failed to do.¹⁰⁸

98. *Id.* at 1214 (citing *Abbott Labs. v. Gardner*, 387 U.S. 136 (1967)).

99. *Id.*

100. *Id.* at 1207.

101. *Id.*

102. TSCA § 6(a), 15 U.S.C. § 2605(a) (2006).

103. *Id.*

104. *Corrosion Proof Fittings*, 947 F.2d at 1216.

105. *Id.* at 1216.

106. *Id.*

107. *Id.* at 1217.

108. *See id.* ("Upon an initial showing of product danger, the proper course for

Thus, despite the fact that asbestos was a known carcinogen and that EPA had spent ten years compiling evidence to support its ban, the court found that EPA failed to provide substantial evidence that it had chosen the “least burdensome requirement,”¹⁰⁹ and that its actions were intended to prevent an “unreasonable risk.”¹¹⁰ The immediate result of the court’s review was that it remanded the asbestos rule to EPA.¹¹¹ The long-term result of this decision, however, is that EPA has since never used its section 6 authority to successfully ban a chemical.¹¹²

C. *The Current Landscape*

Despite its flaws, TSCA’s main title has never been amended.¹¹³ While EPA struggled to implement TSCA’s main provisions, states chose to take matters into their own hands, passing state laws regulating chemicals as increasing numbers of threats from chemical substances came to light.¹¹⁴ Congress, on the other hand, made little progress to change TSCA until 2009, when the United States House of Representatives and Senate both seriously considered legislation that would substantially reform the current law.¹¹⁵ In addition to advocating for reform, in 2009 the Obama Administration EPA announced its intention to chart a new path under the current statute, pledging to aggressively enforce its existing TSCA authority.¹¹⁶ State actions, the pending reform legislation, and EPA’s current TSCA trajectory are discussed below.

EPA to follow is to consider each regulatory option, beginning with the least burdensome, and the costs and benefits of regulation under each option.”).

109. *Id.* at 1229–30. The court focused on the fact that in choosing the ban, “EPA presented two comparisons[:] . . . a world with no further regulation under TSCA, and a world in which no manufacture of asbestos takes place. The EPA rejected calculating how many lives a less burdensome regulation would save, and at what cost.” *Id.* at 1216. The court held that EPA’s failure to show “that the actions Congress identified [in section 6] as less burdensome also would not do the job” amounted to a “failure to meet its burden of showing that its actions . . . reduce the risk . . . in the Congressionally-mandated *least burdensome* fashion.” *Id.* at 1217.

110. TSCA does not define the term “unreasonable risk.” Therefore, in *Corrosion Proof Fittings* the court analogized to other statutes where Congress directed agencies to act to prevent “unreasonable risks.” *Id.* at 1222. The court reasoned that “unreasonable risk” “necessarily involves a balancing test” whereby EPA must analyze the costs and benefits of any action taken to prevent such a risk. *Id.*

111. *Id.* at 1228.

112. See U.S. GOV’T ACCOUNTABILITY OFFICE, *supra* note 75, at 58–60 (describing bans of polychlorinated biphenyls, fully halogenated chlorofluoroalkanes, dioxin, asbestos, and hexavalent chromium, all of which EPA imposed before the Fifth Circuit’s decision in *Corrosion Proof Fittings*).

113. TSCA §§ 1–30, 15 U.S.C. §§ 2601–29 (2006).

114. See *infra* Part I.C.1.

115. See *infra* Part I.C.2.

116. See *infra* Part I.C.3.

1. *State responses to stymied federal action*

In 2007, bisphenol A (BPA), a chemical used to make hard plastics such as baby bottles and sports bottles, made headlines across the country.¹¹⁷ A U.S. government-sponsored panel found that exposure through ingesting liquid housed in a plastic container made with BPA was linked to neurological and behavioral effects in developing fetuses, and required further study to determine the effects on adults.¹¹⁸ In addition to the firestorm of media coverage, the troubling findings about BPA's likely toxicity spurred eight states¹¹⁹ to ban this chemical as the federal government evaluated its options; federal regulation of BPA under TSCA is still pending.¹²⁰

State action to regulate toxic chemicals goes beyond the recent series of laws passed in response to the risks of BPA. A November 2010 report based on a nationwide survey of state toxics regulation found that "18 states have passed 71 chemical safety laws in the last eight years by an overwhelming, bipartisan margin."¹²¹ The report points to three primary factors that have led to both the prevalence and success of state laws regulating chemicals: "growing scientific evidence of harm, strong public outcry, and Congress's failure to act [to reform TSCA]."¹²² States' ability to pass laws regulating chemicals in the face of federal inaction is also due to TSCA's express preemption provision.¹²³

The Supreme Court has held that the Constitution mandates that

117. See, e.g., Steven Reinberg, *Plastics Chemical of 'Some Concern' for Fetal, Child Health*, WASH. POST, Aug. 9, 2007, <http://www.washingtonpost.com/wp-dyn/content/article/2007/08/08/AR2007080802060.html> (reporting that "[a]nimal experiments have suggested that BPA may mimic the female sex hormone estradiol"); Lisa Stiffler, *Are Plastic Bottles Dangerous?*, SEATTLE POST-INTELLIGENCER, Aug. 8, 2007, http://www.seattlepi.com/local/326907_plastic09.html (noting that the same week that the federal study related to risks of BPA was released, another study came out which found that BPA risks were negligible). Since the initial attention to BPA in 2007, researchers continue to explore the chemical's risks, and some advocate for a federal ban. See Elizabeth Kolbert, *A Warning by Key Researcher on Risks of BPA in Our Lives*, YALE ENV'T 360 (Nov. 24, 2010), http://e360.yale.edu/feature/a_warning_by_key_researcher_on_risks_of_bpa_in_our_lives/2344/ (likening BPA to a known carcinogen and hormonal disrupting chemical called DES, which was administered to women in the 1950s and then banned when it became known that DES caused serious reproductive disorders and elevated cancer levels).

118. Reinberg, *supra* note 117.

119. See Jane Houlihan et al., *Timeline: BPA from Invention to Phase-Out*, ENVTL. WORKING GRP., <http://www.ewg.org/reports/bpatimeline> (last updated Mar. 2011) (chronicling state action on BPA). To date, California, Connecticut, Maryland, Massachusetts, Minnesota, New York, Washington, and Wisconsin have issued full or partial BPA bans. *Id.*

120. See *infra* Part I.C.3.

121. BELLIVEAU, *supra* note 13, at 26.

122. *Id.* at 7.

123. TSCA § 18(a), 15 U.S.C. § 2617(a) (2006).

“[w]here a state statute conflicts with, or frustrates, federal law, the former must give way.”¹²⁴ However, courts must not declare that a state law is preempted unless Congress clearly intended for the federal law to be preeminent.¹²⁵ To determine whether Congress intended for a federal act to preempt the states’ powers, courts should first look to “the plain wording” of a statute’s express preemption clause, which contains the most conclusive evidence of Congress’s intent.¹²⁶ TSCA contains such an express preemption provision; thus, this provision is where courts will begin their review in deciding whether a state law is preempted by TSCA.¹²⁷

TSCA’s preemption provision, located in section 18 of the statute, states that “nothing in this chapter shall affect the authority of any State or political subdivision of a State to establish or continue in effect regulation of any chemical substance.”¹²⁸ There are two exceptions to this provision: (1) where EPA has issued a section 4 test rule for a substance, a state’s ability to establish or continue a testing requirement for the same substance or mixture is preempted;¹²⁹ and (2) where EPA has issued a rule or order under section 5 or section 6, any state requirement applying to the same substance must be either identical to or more stringent than the federal rule.¹³⁰ Thus, where EPA has not regulated a chemical, states are free to regulate it as they wish.¹³¹ Where EPA has regulated a chemical under section 5 or section 6, states can do so as well—so long as the states’ requirements are at least as protective as the federal requirement.¹³²

2. *Brief overview of House and Senate reform bills*

In April 2010, following the rising tide of state legislation,¹³³ coupled with intense pressure from environmental and health

124. *CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 663 (1993).

125. *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947).

126. *CSX Transp.*, 507 U.S. at 664.

127. *See id.* (explaining a court’s task in making a preemption determination when dealing with a statute containing an express preemption clause).

128. TSCA § 18(a)(1).

129. *Id.* § 18(a)(2)(A).

130. *See id.* § 18(a)(2)(B) (providing that where EPA has regulated a chemical under section 5 or section 6, a state regulation that differs from the federal rule will avoid preemption so long as it bans that chemical).

131. *Id.* § 18(a).

132. States can either regulate to the same extent that the federal government has or go a step further and ban the substance entirely. *Id.* § 18(a)(2)(B).

133. *See BELLIVEAU*, *supra* note 13, at 12 (detailing how the rate of policymaking has tripled since 2003, such that by 2010, state legislatures passed fourteen state toxic chemical laws per year compared with four laws per year in 2003).

advocacy groups,¹³⁴ Senator Frank R. Lautenberg introduced legislation to reform TSCA in the Senate.¹³⁵ In July 2010, Representatives Henry A. Waxman and Bobby Rush introduced their own version of such legislation in the House.¹³⁶ In April 2011, Senator Lautenberg reintroduced his legislation.¹³⁷ The current bills, entitled the “Safe Chemicals Act of 2011” in the Senate and the “Toxic Chemicals Safety Act of 2010” in the House, are similar;¹³⁸ both attempt to address what have been identified as the “core failings” of TSCA.¹³⁹

The proposed reform legislation amends the core provisions of TSCA to give EPA greater flexibility and authority to regulate chemical risks.¹⁴⁰ The reform bills would change section 4 of TSCA to require that manufacturers and processors send a “minimum data set” to EPA without EPA having to require them to do so by rule.¹⁴¹

134. See, e.g., Molly Gray, *When It Comes to Chemicals, “Safe Until Proven Harmful” Isn’t Good Enough for My Baby and Me*, SAFER CHEMICALS, HEALTHY FAMILIES BLOG (Feb. 4, 2010), <http://blog.saferchemicals.org/2010/02/when-it-comes-to-chemicals-safe-until-proven-harmful-isnt-good-enough-for-my-baby-and-me.html> (describing how test results in a study of nine pregnant women showed the author had chemical exposure above the national average despite doing “everything [she] could to reduce [her] exposure to toxic chemicals”); Linda Greer, *Part I: Stemming the Tide of Toxic Chemicals*, SWITCHBOARD (Mar. 2, 2009), http://switchboard.nrdc.org/blogs/lgreer/part_i_stemming_the_tide_of_to.html (arguing that “President Obama and his new, more progressive government will not be able to fix the mess [caused by toxic chemicals]” because “many problems in current policy have their origins in the fundamental weakness of the main federal law intended to comprehensively regulate the use of toxic chemicals”).

135. Safe Chemicals Act of 2010, S. 3209, 111th Cong.

136. Toxic Chemicals Safety Act of 2010, H.R. 5820, 111th Cong.

137. Safe Chemicals Act of 2011, S. 847, 112th Cong.

138. See *Summary and Comparison of the TSCA Reform Legislation*, BERGESON & CAMPBELL, P.C. (Apr. 27, 2010), <http://www.lawbc.com/regulatory-developments/entry/summary-and-comparison-of-the-tsca-reform-legislation/> (summarizing the Discussion Draft of the House bill and noting the differences between the House and Senate bill, of which there are few). Though this comparison addressed the original 2010 Senate bill, the portions of the 2011 bill addressed in this Comment have not changed significantly since the 2010 version.

139. *Id.* (internal quotation marks omitted); see also Press Release, Senator Frank R. Lautenberg, Sen. Lautenberg Introduces “Safe Chemicals Act of 2011” (Apr. 14, 2011), <http://lautenberg.senate.gov/newsroom/record.cfm?id=332785&> (“[The] ‘Safe Chemicals Act of 2011’ would require safety testing of all industrial chemicals, and puts the burden on industry to prove that chemicals are safe in order stay on the market. Under current policy, the [EPA] can only call for safety testing after evidence surfaces demonstrating a chemical is dangerous.”).

140. Press Release, Senator Frank R. Lautenberg, *supra* note 139.

141. See S. 847 § 4(a)(2) (requiring manufacturers to submit data to EPA for both new and existing chemicals); H.R. 5820 § 4(a)(2) (also requiring manufacturers to submit data for both new and existing chemicals). Further, the proposed section 4 would also give EPA the authority to require testing beyond the “minimum data set” via orders, thus circumventing the extensive requirements that come with rulemaking. S. 847 § 4(b)(1)(A) (allowing EPA to require testing “by rule or order” (emphasis added)); H.R. 5820 § 4(b) (entitled “Testing Rules and Orders”).

The bills would also change section 5 of TSCA to further shift the burden of proof from EPA to manufacturers: rather than approving chemicals absent EPA action, both new and existing chemicals could not be manufactured unless EPA determines that such chemicals meet safety standards set by the Agency.¹⁴² Under section 6, the new legislation affords EPA significantly more leeway to regulate dangerous chemicals; specifically, EPA would no longer have to choose the “least burdensome requirements” when regulating.¹⁴³ Lastly, judicial review under the reform bills would be subject to the APA “arbitrary and capricious” standard of review, rather than the “substantial evidence” standard.¹⁴⁴ In short, both bills attempt to remove the procedural and legal obstacles that have plagued TSCA.

3. *The Obama EPA's aggressive new approach to its TSCA authority*

Current EPA officials have been among the most vocal proponents of TSCA reform.¹⁴⁵ However, in addition to pushing Congress to pass a new law, the current EPA has also pledged to aggressively use the TSCA authority that it currently possesses.¹⁴⁶ In September 2009, EPA unveiled its plans to regulate what it considers to be some of the greatest chemical threats that are currently unregulated under TSCA in a series of “Chemical Action Plans.”¹⁴⁷ These plans have been described as “almost breathtaking in scope” and are unprecedented in the history of EPA's implementation of TSCA.¹⁴⁸ Part II argues that

142. S. 847 § 6(b)(1)(B)(i), (b)(3)(B); H.R. 5820 § 6(b)(2).

143. Compare S. 847 § 6(c) (authorizing EPA to manage risks of toxic chemicals through options such as outright bans or warning label requirements, without imposing a “least burdensome alternative” requirement), and H.R. 5820 § 6(c) (same), with TSCA § 6(a), 15 U.S.C. § 2605(a) (2006) (requiring that EPA protect against chemical risk using the “least burdensome requirements”).

144. See S. 847 § 19 (noting that relief should be granted in accordance with “chapter 7 of title 5, United States Code,” i.e. the APA, located at 5 U.S.C. § 706); H.R. 5820 § 19 (also requiring that judicial review follow the provisions of the APA).

145. See *Current Science on Public Exposures to Toxic Chemicals Before the Subcomm. on Superfund, Toxics, and Env'tl. Health of the S. Comm. on Env't and Pub. Works*, 111th Cong. 2 (2010), available at http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=1ce6689c-cf2c-4ced-a4f0-524283f4add8 (statement of Steve Owens, Assistant Administrator, Office of Prevention, Pesticides, and Toxic Substances, U.S. Env'tl. Prot. Agency) (testifying that “EPA's authority is outdated and does not provide the tools to adequately protect human health and the environment”); see also *TSCA Hearings*, *supra* note 9, at 5 (statement of Steve Owens, Assistant Administrator, Office of Chem. Safety and Pollution Prevention, U.S. Env'tl. Prot. Agency) (observing that the House Toxic Chemicals Safety Act, “if enacted, would substantially update and modernize TSCA”).

146. *Enhancing EPA's Chemical Management Program*, *supra* note 13.

147. *Id.* (noting that “EPA is developing *chemical action plans* which will target the Agency's risk management efforts on chemicals of concern” (emphasis added)).

148. See Charles Auer et al., *EPA's Action Plans Signal a New Chapter for TSCA While Informing the Future Legislative Debate on Chemicals*, 40 ENVTL. L. REP. 10,243, 10,243 (2010) (noting that “EPA has never previously announced so many actions under

a number of the actions proposed by EPA have potential to both effectuate TSCA's goals and to withstand court challenges. These actions include EPA's authority (1) to require chemical testing under section 4(a)(1)(B); (2) to create a list of chemicals that pose a potential threat to health and the environment pursuant to section 5(b)(4)(A); and (3) to regulate dangerous chemicals under section 6.¹⁴⁹

These actions are in various stages of implementation. Pursuant to its section 4(a)(1)(B) authority, on January 7, 2011, EPA issued a final rule requiring the manufacturers of nineteen chemicals that the Agency found were produced in "substantial quantities" and resulted in "substantial human exposure," and for which little to no data is currently available, to test the chemicals' effects on health and the environment.¹⁵⁰ In contrast, EPA has not yet issued its Chemicals of Concern list—which it has authority to issue pursuant to section 5(b)(4)(A)—as a final rule since it initially proposed the rule in April 2010.¹⁵¹ Lastly, EPA has yet to take any final action using its section 6 authority; however, as is explained in Part II.C, EPA should not be dissuaded from using this authority by current precedent.¹⁵²

II. WAYS IN WHICH EPA CAN MAKE (AND IS MAKING) THE MOST OF ITS AUTHORITY UNDER TSCA TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT

Despite its procedural and substantive hurdles, TSCA still presents opportunities for EPA to act now to minimize chemical risks. EPA has identified several areas of the statute that offer regulatory

[TSCA], nor has it ever cited use of § 6 so widely").

149. *Infra* Part II.

150. See Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. 1067, 1069 (Jan. 7, 2011) (to be codified at 40 C.F.R. pts. 9, 799).

151. See *RegInfo.gov*, OFFICE OF MGMT. & BUDGET, <http://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201010&RIN=2070-AJ70> (last visited Oct. 2, 2011) ("EPA is proposing to add a category of eight phthalates, a category of polybrominated diphenyl ethers (PBDEs), and bisphenol A (BPA) to a list of chemical substances that EPA finds present an unreasonable risk of injury to human health or the environment.").

152. This Comment acknowledges that it is likely, based on the terms of TSCA's judicial review provision, that any EPA rule banning a chemical substance would be reviewed by the Fifth Circuit, for which *Corrosion Proof Fittings* is binding authority. See TSCA § 19(a)(1)(A), 15 U.S.C. § 2618(a)(1)(A) (2006) (allowing parties to file a petition for review in the Court of Appeals with jurisdiction over the area "in which such person's principal place of business is located"). Notably, many chemical manufacturers operate facilities in the states that make up the Fifth Circuit. In Part II.C, this Comment lays out an argument for why the Fifth Circuit's decision in *Corrosion Proof Fittings* was erroneous and thus argues that any reviewing court should not rely on that decision (and in the case of the Fifth Circuit, should overturn it).

potential in its proposed Chemical Action Plans.¹⁵³ These opportunities are present in areas of the statute where courts have afforded EPA relative leeway in using its authority.¹⁵⁴ They are also present in provisions of TSCA that EPA has never used before, but are well within its authority.¹⁵⁵ Lastly, they are present in areas of the law that are long overdue for reexamination; specifically, it is time for a reinterpretation of EPA's authority under section 6.¹⁵⁶

Actions in each of these areas present an avenue for EPA to realize some of the promise that remains in the current law. Further, all of the foregoing actions are within the Agency's legal authority under TSCA and, when carried out in accordance with the statute, should be able to withstand likely court challenges and help effectuate TSCA's purpose of protecting human health and the environment from chemical risks. While TSCA certainly presents some opportunities beyond the scope of this Comment, the following methods of regulation each represent a significant step toward making TSCA work now.

A. EPA Can Take Advantage of Relatively Broad Judicial Interpretations of Its Section 4 Authority to Fill in Information Gaps Regarding Chemical Risk

According to commentators, one of TSCA's greatest failures is that it has not produced the comprehensive chemical health and safety data that Congress envisioned when it passed the statute.¹⁵⁷ Largely because the statute does not create an affirmative duty for manufacturers to test chemicals—rather, manufacturers are only legally required to perform tests when EPA issues a test rule—“troubling gaps” are present in EPA's current universe of data on chemical risks.¹⁵⁸ However, section 4(a)(1)(B) of TSCA presents an opportunity for EPA to issue rules that will generate health and safety information about some of the most prevalent chemicals on the market, for which data is currently lacking. As a result of EPA's recently issued section 4(a)(1)(B) rule,¹⁵⁹ manufacturers of nineteen

153. See *Existing Chemicals Action Plans*, *supra* note 147 (describing how EPA is deciding what chemicals to select for action plans based on factors like “[h]igh production,” “consumer products,” and “[c]hemicals subject to review and potential action in international forums”).

154. *Infra* Part II.A.

155. *Infra* Part II.B.

156. See *infra* Part II.C (discussing the only judicial interpretation of EPA's section 6 authority to date).

157. See U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 75, at 19 (noting that EPA has made “little progress” in reviewing chemical risks since it first began chemical review in 1979).

158. Jackson, *supra* note 78.

159. Testing of Certain High Production Volume Chemicals; Second Group of

highly prevalent chemicals will be required for the first time to perform tests to determine the chemicals' overall toxicity, including "[d]evelopmental and reproductive toxicity" and "[g]enetic toxicity."¹⁶⁰ EPA can then use this data, and data generated from similar future rules, to make fully informed decisions about how to handle any risks posed by these prevalent chemicals.¹⁶¹ For the following reasons, if EPA's recently issued rule or similar future rules are challenged, a court will likely uphold such rules as valid exercises of EPA authority.

In accordance with the Supreme Court's holding in *Chevron*, a court will likely defer to EPA's construction of the requirements for issuing a section 4(a)(1)(B) rule.¹⁶² To issue a rule under this section, the statute requires that EPA determine (1) that the chemicals being regulated enter the environment in "substantial quantities," or are produced in "substantial quantities" and result in "substantial human exposure," and (2) whether testing is necessary to fill in gaps in knowledge about the effects of the tested chemical.¹⁶³ However, neither TSCA nor its legislative history defines what quantities of chemical or what level of human or environmental exposure suffice to be considered "substantial."¹⁶⁴ Because Congress left these terms undefined in the statute, the Supreme Court's analysis in *Chevron* is applicable here.¹⁶⁵

In *Chevron*, the Court held that where a statute is silent or ambiguous as to a particular term in a statute delegating authority to an agency to make rules carrying the force of law, an agency has

Chemicals, 76 Fed. Reg. 1067, 1067 (Jan. 7, 2011) (to be codified at 40 C.F.R. pts. 9, 799).

160. *Id.* at 1069.

161. If, based on the data that EPA receives as a result of testing mandated by section 4(a)(1)(B) rules, EPA finds that a chemical "presents or will present an unreasonable risk of injury to health or the environment," TSCA § 6(a), 15 U.S.C. § 2605 (2006), it can then regulate that chemical pursuant to section 6 of TSCA. *Id.* To date, EPA has proposed an additional rule that would require manufacturers of another set of high production volume chemicals to submit test data to the Agency. Testing of Certain High Production Volume Chemicals; Third Group of Chemicals, 75 Fed. Reg. 8575, 8575 (Feb. 25, 2010) (to be codified at 40 C.F.R. pt. 799).

162. *See Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 844 (1984) ("We have long recognized that considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer.").

163. TSCA § 4(a)(1)(B).

164. *See id.* § 3 (lacking "substantial" in "Definitions" section); Chem. Mfrs. Ass'n v. EPA, 899 F.2d 344, 353 (5th Cir. 1990) (noting that "TSCA contains no definition of 'substantial,' nor does its legislative history").

165. *Chevron*, 467 U.S. at 843 (asserting that "if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute").

implicit authority to define that term, and any reasonable interpretation by the agency should be upheld.¹⁶⁶ Further, the Court also held that where Congress “left a gap” for the agency to fill, Congress *explicitly* delegated to the agency the authority to define a statutory term.¹⁶⁷ In section 4(a)(1)(B), Congress seemingly left such a gap for EPA to fill by requiring EPA to issue a test rule if it determines that a chemical is produced in “substantial quantities” and enters the environment in “substantial quantities,” without defining what a “substantial quantity” is.¹⁶⁸ Thus, under *Chevron*, a court should uphold EPA’s interpretation of these terms unless it is based on an impermissible or unreasonable construction of the statute.¹⁶⁹

Accordingly, in *Chemical Manufacturers*, the Fifth Circuit held that by failing to define what amount of chemical constitutes a “substantial quantity” and what level of human exposure is “substantial” for purposes of triggering section 4(a)(1)(B), Congress gave EPA “considerable latitude” to define these terms.¹⁷⁰ Though the court did not cite to *Chevron* in that decision, the court’s holding reflected the deference required by the Supreme Court in *Chevron* and its progeny.¹⁷¹ Thus, in accordance with both the Supreme Court’s holding in *Chevron* and the Fifth Circuit’s holding in *Chemical Manufacturers*,¹⁷² the interpretation of “substantial quantity” and “substantial human exposure” espoused by EPA in its 1993 guidance document,¹⁷³ as incorporated by reference in EPA’s recently issued section 4(a)(1)(B) test rules,¹⁷⁴ should be the standard to which a

166. *Id.* at 843–44.

167. *Id.*

168. TSCA § 4(a)(1)(B).

169. *Chevron*, 467 U.S. at 843.

170. *Chem. Mfrs. Ass’n v. EPA*, 899 F.2d 344, 359 (5th Cir. 1990) (citation omitted).

171. *Compare Chevron*, 467 U.S. at 842–43 (requiring that courts first ask whether Congress has directly addressed the issue, and if not, whether the agency permissibly interpreted the statute), *with Chem. Mfrs.*, 899 F.2d at 354 (observing that Congress did not define the term in the statute, and that the court would uphold EPA’s interpretation as long as it was consistent with the statutory scheme).

172. *Chem. Mfrs.*, 899 F.2d at 354.

173. See TSCA Section 4(a)(1)(B) Final Statement of Policy; Criteria for Evaluating Substantial Production, Substantial Release, and Substantial or Significant Human Exposure, 58 Fed. Reg. 28,736, 28,736 (May 14, 1993) (stating that the purpose of the 1993 guidance document is to establish “threshold amounts to make ‘substantial’ production, release, and human exposure findings under TSCA section 4(a)(1)(B)”).

174. In its section 4(a)(1)(B) test rule, EPA sets out its interpretation of the meaning of “substantial quantity” and “substantial human exposure” by incorporating the interpretation espoused by the Agency in its 1993 guidance document. See Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. 1067, 1072 (Jan. 7, 2011) (to be codified at 40

court looks in determining whether these two threshold requirements for a new test rule have been met.¹⁷⁵

In TSCA's legislative history, Congress was "permissive and expansive" in defining EPA's discretion to interpret these terms, further supporting EPA's broad grant of authority to define what is required to satisfy the section 4(a)(1)(B) test rule requirements.¹⁷⁶

Chevron demands only that an agency's interpretation be a reasonable or "permissible construction" of the statute that the agency is charged with administering.¹⁷⁷ As EPA based its interpretation of the terms "substantial quantity" and "substantial human exposure" on its expertise and knowledge of chemical risks,¹⁷⁸ courts will likely uphold its interpretation as a valid interpretation of section 4(a)(1)(B).

EPA determined in both its guidance document and its recent rule that TSCA contemplates a "substantial quantity" as being more than one million pounds per year;¹⁷⁹ production of each of the chemicals

C.F.R. pts. 9, 799) (restating the definition of "substantial quantities" used in EPA's 1993 guidance document and noting that "EPA believes that in general an environmental release of a chemical substance in an amount equal to or greater than 1 million lbs per year or greater than 10% of the reported production volume is 'substantial' as that term is used with reference to 'enter the environment in substantial quantities' in TSCA section 4(a)(1)(B)(i)"); *see also* TSCA Section 4(a)(1)(B) Final Statement of Policy; Criteria for Evaluating Substantial Production, Substantial Release, and Substantial or Significant Human Exposure, 58 Fed. Reg. at 28,736. Thus, while the Supreme Court held in *Mead* that agency guidance documents are not entitled to the same level of deference as agency rules intended to carry the force of law, the Court's analysis in *Mead* is inapplicable here as EPA set out its interpretation of these terms in its guidance document within its rulemaking. *See United States v. Mead Corp.*, 533 U.S. 218, 229–30 (2001) (observing that while *Chevron* deference does not apply to agency pronouncements that do not carry the force of law, such as guidance documents, "a very good indicat[ion] of delegation meriting *Chevron* treatment i[s] express congressional authorizations to engage in the process of rulemaking or adjudication that produces regulations or rulings for which deference is claimed"). Thus, here, EPA is entitled to *Chevron* deference, and not the lower level of deference revived by the Court in *Mead*, as EPA's interpretation is in an area of the statute where Congress delegated to EPA the authority to make binding regulations. *See id.*

175. *Chem. Mfrs.*, 899 F.2d at 359.

176. *Id.* at 355 n.15, 356 n.16 (citing H.R. REP. NO. 94-1341, at 18 (1976), *reprinted in* H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 425 (Comm. Print 1976)).

177. *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 (1984).

178. TSCA Section 4(a)(1)(B) Final Statement of Policy; Criteria for Evaluating Substantial Production, Substantial Release, and Substantial or Significant Human Exposure, 58 Fed. Reg. at 28,736. Further, CMA acknowledged in its comments that EPA's determination that production of one million pounds of a chemical was a "substantial quantity" was reasonable. *Id.* at 28,739.

179. *Id.*; *see also* Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. 1067, 1071–72 (Jan. 7, 2011) (to be codified at 40 C.F.R. pts. 9, 799) (restating the definition of "substantial quantities" used in EPA's 1993 guidance document and commenting that "EPA believes that in general an environmental release of a chemical substance in an amount equal to or greater than

regulated in EPA's rule exceeds this amount.¹⁸⁰ In addition, EPA found that all nineteen chemicals met the requisite level of exposure to be considered "substantial" in the employment context, which is exposure of over 1000 workers to a chemical substance.¹⁸¹ Based on EPA's discretion to define these terms in its rulemaking, a court will likely determine that EPA has met the first two requirements to trigger its section 4(a)(1)(B) authority.

However, to withstand judicial review, EPA must also show that its determinations are supported by substantial evidence in the record.¹⁸² In the test rule, EPA included extensive information to support its findings that the chemicals subject to the rule are produced in "substantial quantities" and result in "substantial human exposure."¹⁸³ Namely, EPA noted that its estimates of the quantity of chemicals produced, as well as the exposure of workers to the chemicals, are based on information that manufacturers submitted to EPA pursuant to section 8(a) of TSCA,¹⁸⁴ which requires manufacturers to report current data on the volume of chemicals they produce to EPA every four years.¹⁸⁵

In *Chemical Manufacturers*, the Fifth Circuit held that where EPA had scientific studies to support its finding that three million pounds of cumene entered the atmosphere, and where CMA failed to show that such findings were "fatally flawed,"¹⁸⁶ EPA's determination was a "reasonable ball-park estimate" supported by substantial evidence in the record.¹⁸⁷ Here, unlike in *Chemical Manufacturers* where EPA's studies were in conflict with CMA's,¹⁸⁸ EPA based its estimates of the quantities of chemicals produced and released on the manufacturers' own data.¹⁸⁹ Thus, in its January 2011 rule, EPA's determination of

1 million lbs per year or greater than 10% of the reported production volume is 'substantial' as that term is used with reference to 'enter the environment in substantial quantities' in TSCA section 4(a)(1)(B)(i)").

180. Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1070.

181. *Id.*

182. TSCA § 19(c), 15 U.S.C. § 2618(c) (2006).

183. Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1069–71.

184. *See id.* at 1071–72 (noting that production and worker exposure data "is based, in large part, on information submitted in accordance with the 2006 [section 8(a) Inventory Update Rule]").

185. This requirement is known as the Inventory Update Rule (IUR). *See* TSCA § 8(a); 40 C.F.R. §§ 710.25, 33 (2010).

186. *Chem. Mfrs. Ass'n v. EPA*, 899 F.2d 344, 352 (5th Cir. 1990).

187. *Id.* at 353.

188. *Id.* at 352 (recognizing that "EPA identified sufficient defects in the CMA study to justify a determination not to rely on it").

189. Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1071 (noting that EPA's finding regarding the production

the amount of chemicals produced should logically be the same as the manufacturers', as EPA based its production estimates on data submitted by the manufacturers themselves.¹⁹⁰ It follows that EPA's estimates of the "substantial quantities" of chemicals produced are even closer to the mark than a "reasonable ball-park estimate"¹⁹¹—they are manufacturers' actual production figures.

Similarly, EPA's estimate of the "substantial human exposure" resulting from the use of these nineteen chemicals is also based in large part on data sent to EPA by the manufacturers themselves.¹⁹² However, unlike production information (for which manufacturers are the seemingly most authoritative source), the worker exposure data that the manufacturers sent to EPA was submitted only "to the extent the information was readily obtainable."¹⁹³ While in the Fifth Circuit *Chemical Manufacturers* case CMA attempted to debunk EPA's estimate of the amount of cumene released with CMA's own drastically lower estimate,¹⁹⁴ to the extent that the manufacturers submitted worker exposure data to EPA, EPA's estimates and the manufacturers' estimates will largely match up and therefore should not be challenged.

However, for chemicals for which manufacturers did not submit worker exposure data,¹⁹⁵ EPA also based its exposure estimates on National Occupational Exposure Survey (NOES) data developed by the National Institute for Occupational Safety and Health, and EPA analyzed this data in its rule.¹⁹⁶ In *Chemical Manufacturers*, the Fifth Circuit noted that EPA is not required to determine exact quantities in estimating the human exposure or environmental release of a chemical, but rather that a "reasonable ball-park estimate" is acceptable, and "rough approximation suffices."¹⁹⁷ Here, where EPA's estimate that at least 1000 workers are exposed to each of the nineteen chemicals is based on data from the chemical manufacturers as well as the NOES data and the Agency's own

of the nineteen chemicals subject to the rule was "based on information gathered pursuant to the 2006 IUR," which requires manufacturers to submit production data to EPA).

190. *Id.*

191. *Chem. Mfrs.*, 899 F.2d at 353.

192. Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1071.

193. *Id.*

194. *Chem. Mfrs.*, 899 F.2d at 349–50.

195. It is not clear from the rule for which chemicals this is true. See Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1071.

196. *Id.*

197. *Chem. Mfrs.*, 899 F.2d at 352–53.

analysis, a court will likely find that EPA has supported its estimate with substantial evidence in the record.

In short, in its recently issued rule EPA has shown—using substantial evidence—that the nineteen chemicals subject to the rule are produced in “substantial quantities” and result in “substantial human exposure.”¹⁹⁸ EPA has also substantiated the fact that the last two of the four triggers for its use of section 4(a)(1)(B) have been met: (1) there is currently insufficient data for these chemicals; and (2) testing is necessary to develop that data.¹⁹⁹ EPA determined, based on “searches for data” and the “review of studies/data identified by commenters [to the rule],” that the data the Agency is looking for is unavailable.²⁰⁰

In *Chemical Manufacturers*, the CMA did not challenge, and therefore the Fifth Circuit did not analyze, EPA’s finding with regard to these last two requirements of section 4(a)(1)(B).²⁰¹ However, where, as here, EPA has substantiated its determination that the data the Agency is seeking is currently nonexistent, a court will likely uphold the Agency’s findings based on the deference shown to EPA in *Chemical Manufacturers* with regard to the first two triggers of section 4(a)(1)(B). Where the Fifth Circuit in *Chemical Manufacturers* found that “rough approximation” sufficed with regard to EPA’s estimates for the quantity of chemicals produced and the level of exposure,²⁰² a court is likely to find that EPA’s searching attempt to find the requested data and subsequent determination that it “knows of no other means to generate [this data] other than the testing,”²⁰³ amounts to substantial evidence that testing is necessary. Accordingly, a court is likely to uphold EPA’s recently issued rule as a valid exercise of the Agency’s section 4(a)(1)(B) authority. So long as EPA similarly substantiates its findings in future rules with regard to the four requirements of this section, these rules will likely be upheld as well.

Section 4(a)(1)(B) provides EPA with an opportunity to issue rules to fill in gaps concerning the effects of some of the most prevalent chemicals in society. By issuing its recent rule to obtain missing information about nineteen chemicals produced in quantities of over

198. Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1071–72.

199. *Id.* at 1072–73.

200. *Id.*

201. *Chem. Mfrs.*, 899 F.2d at 352 n.12.

202. *Id.* at 352–53.

203. Testing of Certain High Production Volume Chemicals; Second Group of Chemicals, 76 Fed. Reg. at 1073.

one million pounds per year,²⁰⁴ and by issuing similar additional rules, EPA can gather currently unknown information about the health and safety risks of chemicals produced on a massive scale. The health and safety information that EPA gains from issuing section 4(a)(1)(B) test rules can serve as a step toward reducing the risks from these highly prevalent chemicals preemptively, before their risks place the public or environment's health in jeopardy.

B. Section 5 Presents New Opportunities to Raise Public Awareness About Chemical Risks

Another frequent criticism of TSCA is that the statute fails to give EPA sufficient guidance on the prioritization of chemicals that require regulatory action.²⁰⁵ EPA has proposed using section 5(b)(4)(A) of TSCA to create a Chemicals of Concern list,²⁰⁶ which would help draw attention to particularly dangerous chemicals, as well as identify chemicals that are priorities for potential regulation.²⁰⁷ As section 5(b)(4)(A) is an area of the statute where courts are likely to show EPA significant deference, this section presents an opportunity for EPA to draw attention to the risk factors of a wide range of chemicals.

To date, EPA has never used section 5(b)(4)(A) of TSCA,²⁰⁸ and thus no current court precedent exists interpreting this section's primary requirement: that EPA may add chemicals to such a list so long as it finds that they present an "unreasonable risk" of injury to human health or the environment.²⁰⁹ Though "unreasonable risk" is not defined in the statute,²¹⁰ courts *have* interpreted this term in the context of section 4(a)(1)(A) of TSCA and have shown substantial

204. *Id.* at 1072–73.

205. See Mark A. Greenwood, *TSCA Reform: Building a Program That Can Work*, 39 ENVTL. L. REP. 10,034, 10,036 (2009) (recognizing that "[i]t is unrealistic to expect a new TSCA program to review all chemicals under the statute's jurisdiction").

206. See *TSCA Section 5(b)(4) Concern List*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/oppt/existingchemicals/pubs/sect5b4.html> (last updated Apr. 28, 2010) (providing that EPA will compile and maintain the list through "rulemaking proceedings with opportunity for notice and comment").

207. See Press Release, U.S. Env'tl. Prot. Agency, EPA Announces Actions to Address Chemicals of Concern, Including Phthalates: Agency Continues Efforts to Work for Comprehensive Reform of Toxic Substance Laws (Dec. 30, 2009), <http://yosemite.epa.gov/opa/admpress.nsf/0/2852C60DC0F65C688525769C0068B219> (recognizing that 60,000 chemicals were listed in the EPA inventory when TSCA was passed in 1976, and since then over 20,000 new chemicals have been created).

208. See Auer et al., *supra* note 148, at 10,244 (observing that while "the George W. Bush Administration raised the possibility of using the § 5(b)(4) listing," the "[chemical] industry raised a number of 'black list' concerns in its comments").

209. TSCA § 5(b)(4)(A)(i), 15 U.S.C. § 2604(b)(4)(A)(i) (2006).

210. *Id.* § 3.

deference to EPA in the process. As explained in the following analysis, it is likely that a court will show similar deference to EPA in evaluating its determination of “unreasonable risk” for purposes of adding a chemical to a section 5(b)(4)(A) Chemicals of Concern list.

Principles of statutory interpretation, as espoused by the Supreme Court, dictate that courts generally presume that a word or term usually carries the same meaning when it occurs more than once in a single statute.²¹¹ Both section 5(b)(4)(A) and section 4(a)(1)(A) contain identical language that permits EPA to issue a rule—either listing a chemical in the 5(b)(4)(A) context or requiring a manufacturer to test a chemical in the section 4(a)(1)(A) context—only when EPA determines that a chemical presents an “unreasonable risk” of injury to human health or the environment.²¹² However, the presumption that identical terms will be given identical meanings “yields whenever there is such variation in the connection in which the words are used . . . to warrant the conclusion that they were employed in different parts of the act with different intent.”²¹³

TSCA’s legislative history is evidence that Congress intended for EPA to apply the term “unreasonable risk” in section 4(a)(1)(A) and section 5(b)(4)(A) in the same manner.²¹⁴ The House Report on the bill noted that while “unreasonable risk” is used throughout the statute as the standard for defining the regulatory authority of the Administrator, the implementation of the standard will necessarily “vary depending on the specific regulatory authority which the

211. See *Entvl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 574 (2007) (“[W]e presume that the same term has the same meaning when it occurs here and there in a single statute”). However, the Court notes later in its opinion that this presumption is not irrefutable and can be overcome by evidence of Congressional intent to the contrary. *Id.* at 574.

212. Compare TSCA § 5(b)(4)(A)(i) (“The Administrator may, by rule, compile and keep current a list of chemical substances with respect to which the Administrator finds that the manufacture, processing, distribution in commerce, use, or disposal, or any combination of such activities, *presents or may present an unreasonable risk of injury to health or the environment.*” (emphasis added)), with *id.* § 4(a) (“If the Administrator finds that . . . the manufacture, distribution in commerce, processing, use, or disposal of a chemical substance or mixture, or that any combination of such activities, may *present an unreasonable risk of injury to health or the environment* . . . [along with additional requirements] the Administrator shall by rule require that testing be conducted” (emphasis added)).

213. *Entvl. Def.*, 549 U.S. at 574 (quoting *Atl. Cleaners & Dyers, Inc. v. United States*, 286 U.S. 427, 433 (1932)) (internal quotation marks omitted).

214. See H.R. REP. NO. 94-1341, at 13–14 (1976), reprinted in H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 421–22 (Comm. Print 1976) (“[T]he determination of unreasonable risk involves a consideration of probability, severity, and similar factors which cannot be defined in precise terms and is not a factual determination but rather requires the exercise of judgment on the part of the person making it”).

Administrator seeks to exercise.”²¹⁵ The committee indicated that the reason for varied implementation was Congress’s intent that the determination of “unreasonable risk” involve a “balancing” of the probability of harm from a chemical with the harm to society from limiting the use of a chemical.²¹⁶ As is explicitly noted in the legislative history, the implementation of section 4 of TSCA will not result in the public being deprived of the benefits of a chemical that is subject to a test rule, and therefore the determination of unreasonable risk should reflect that fact.²¹⁷

Though the legislative history does not specifically discuss the considerations Congress intended EPA to evaluate when determining “unreasonable risk” in the section 5(b)(4)(A) context,²¹⁸ the considerations are analogous to those in the section 4(a)(1)(A) context. Just as subjecting a chemical to a section 4 test rule will not deprive the public of the benefits of that chemical, adding a chemical to a section 5(b)(4)(A) Chemicals of Concern list will also not deprive the public of the benefits of that chemical. Thus, because the effect of the regulation under section 4(a)(1)(A) and section 5(b)(4)(A) is similar, it follows that the implementation of the term “unreasonable risk” should be similar in both contexts. In sum, here, where Congress’s intent with respect to the use of “unreasonable risk” in these two sections appears to be the same, the presumption that these two terms have the same meaning should not yield.²¹⁹ Accordingly, courts should find that the interpretation of “unreasonable risk” in the section 5(b)(4)(A) context is analogous to the section 4(a)(1)(A) context.

Further, a court may find that the term “unreasonable risk” could be applied even *more* expansively in the section 5(b)(4)(A) context. The probability of harm to the environment addressed by a section 5(b)(4)(A) rule would be balanced against an even lower level of harm to manufacturers from the result of the rule than in the section 4(a)(1)(A) context; when EPA issues a rule pursuant to section 5(b)(4)(A), it does so at no direct expense to a chemical manufacturer.²²⁰ Thus, this type of rule can serve as a mechanism for

215. *Id.* at 422.

216. *Id.* at 421–22.

217. *Id.* at 422 (“[A] determination that a risk associated with a chemical substance or mixture is unreasonable involves balancing the probability that harm will occur . . . against the effect of proposed regulatory action on the availability [of a chemical] to society . . .”).

218. *Id.* at 421–22.

219. *Env’tl. Def. v. Duke Energy Corp.*, 549 U.S. 561, 574 (2007).

220. Unlike a section 4(a)(1)(A) test rule, which requires that manufacturers submit extensive testing data, the creation of a section 5(b)(4)(A) Chemicals of

EPA to draw attention to chemical risks and provide an indirect environmental benefit via potentially changed consumer habits, weighed against a relatively low cost to manufacturers. In contrast, testing pursuant to section 4(a)(1)(A) also provides an indirect environmental benefit, but this benefit is weighed against a multi-million dollar burden to manufacturers.²²¹ However, whether “unreasonable risk” is interpreted more leniently in the section 5(b)(4)(A) context or not, it follows that a court will likely be at least as deferential to EPA in construing section 5(b)(4)(A) as in construing section 4(a)(1)(A).

In interpreting “unreasonable risk” in cases involving challenges to section 4(a)(1)(A) rules, courts have shown EPA significant deference both in making its determination as to what constitutes “unreasonable risk” and the type of evidence required to support that determination. For example, in *Chemical Manufacturers*, the D.C. Circuit held that to show that a chemical poses an “unreasonable risk,” EPA must simply show that the risk caused by the chemical is “more probable than not,” and further, that EPA can issue a rule so long as it has a “more-than-theoretical basis” for believing that a chemical is toxic at a given exposure level.²²² Thus, the standard for showing “unreasonable risk” affords EPA significant latitude in determining the basis for the risk.

Despite this latitude, in section 4(a)(1)(A) as well as in section 5(b)(4)(A), EPA must still support its determination with substantial evidence.²²³ However, *Ausimont* shows that in the section 4(a)(1)(A) context, and by analogy in the section 5(b)(4)(A) context, substantial evidence review requires that EPA “demonstrate not fact, but doubt and uncertainty.”²²⁴ Thus, EPA is not required to gather evidence that conclusively shows that a chemical poses a high level of risk, but rather it must show that there is *potential* that a chemical poses such a risk (i.e. “doubt and uncertainty”).²²⁵

To date, EPA has based its choice of chemicals to be added to a Chemicals of Concern list on existing toxicity data and “evidence of pervasive human and environmental exposure.”²²⁶ For each of the

Concern list does not create a direct expense for chemical manufacturers.

221. *Id.*

222. *Chem. Mfrs. Ass’n v. EPA*, 859 F.2d 977, 984–85 (D.C. Cir. 1988).

223. TSCA § 19(c)(1)(B)(i), 15 U.S.C. § 2618(c)(1)(B)(i) (2006) (requiring courts to “hold unlawful and set aside” any rule that is “not supported by substantial evidence in the rulemaking record”).

224. *Ausimont U.S.A. Inc. v. EPA*, 838 F.2d 93, 96 (3d Cir. 1988).

225. *Id.*

226. *See, e.g., U.S. ENVTL. PROT. AGENCY, PHTHALATES ACTION PLAN 1* (2009), available at <http://www.epa.gov/opptintr/existingchemicals/pubs/actionplans/>

chemicals that EPA has proposed adding to the list, EPA already has extensive evidence that each chemical poses “an unreasonable risk” to human health and the environment.²²⁷ In *Ausimont*, the Third Circuit held that so long as EPA has supported its finding of the *potential* for risk, it has met its burden under the substantial evidence standard.²²⁸ Here, EPA has documentation of the *known*, as well as potential, risks of listed chemicals from existing studies and testing to support its finding.²²⁹ Therefore, a court will likely find EPA’s authority to list such substances under section 5(b)(4)(A) has been triggered.

Lastly, while listing a chemical on a Chemicals of Concern list pursuant to section 5(b)(4)(A) does not create a direct expense for manufacturers, manufacturers might argue that it costs them in terms of advertising and public relations value.²³⁰ However, a court is likely to uphold EPA’s section 5(b)(4)(A) rule adding chemicals to a Chemicals of Concern list regardless of the economic impact of the listing, so long as the statutory requirements of section 5(b)(4)(A) are met. Unlike section 6 of TSCA, which explicitly requires that EPA consider the balancing of environmental and health concerns versus economic impact,²³¹ section 5(b)(4)(A) explicitly requires EPA to consider only two factors: 1) the effects of a chemical substance on health and 2) the effects of such substance on the environment.²³² In section 5(b)(4)(A), Congress does not explicitly require EPA to consider effects other than those on health and the environment as it does in section 6, and therefore a court is unlikely to fault EPA for basing its listing determination on non-economic factors.²³³

phthalates_ap_2009_1230_final.pdf (describing a plan to regulate chemicals that are “produced in high volume, over 470 million pounds per year”).

227. See *id.* (noting that according to Center for Disease Control studies, “[a] number of phthalates appear in biomonitoring surveys of human tissues, evidencing widespread human exposure”).

228. *Ausimont*, 838 F.2d at 96.

229. See U.S. ENVTL. PROT. AGENCY, *supra* note 226, at 1 (stating various health risks associated with exposure to phthalates).

230. See Charles M. Auer et al., *TSCA Section 5(b)(4) ‘Chemicals of Concern’ List: Questions, Issues, Concerns*, B.N.A. DAILY ENV’T REP., May 24, 2010, at B-4 (observing that similar lists created pursuant to other laws have had far-reaching effects, including publication of the lists by environmental groups and states using the list as a basis to ban a chemical).

231. See TSCA § 6(c)(1)(C)–(D), 15 U.S.C. § 2605(c)(1)(C)–(D) (2006) (requiring that EPA consider “the benefits of such substance or mixture for various uses and the availability of substitutes for such uses, and . . . the reasonably ascertainable economic consequences of the rule, after consideration of the effect on the national economy, small business, technological innovation, the environment, and public health”).

232. *Id.* § 5(b)(4)(A)(ii).

233. Compare *id.* § 5(b)(4)(A)(ii) (failing to include economic factors as a

In sum, the creation of a Chemicals of Concern list is within EPA's authority, and courts should uphold EPA's action in creating such a list if challenged. The creation of this list presents an opportunity for the Agency to draw further attention to the threats of certain chemicals. This list can serve as a tool to raise public awareness about the risks of harm from certain chemicals, as adding chemicals to the list is likely to gain media attention. EPA's announcement that it was targeting certain chemicals for potential addition prompted widespread media coverage, including discussion of the threats of BPA, PBDE, and phthalates.²³⁴ Media coverage of EPA's decision to list BPA as a potential "chemical of concern" included information about the threat of BPA (including heart disease and cancer), its prevalence ("90 percent of Americans show traces of it in their urine"), and how it can be avoided (by refusing to use hard plastic food and drink containers that are not labeled BPA-free).²³⁵ Thus, EPA's use of its section 5(b)(4)(A) authority has the potential to serve as an important catalyst for consumer awareness about the harm posed by various chemicals.

C. *Corrosion Proof Fittings Revisited: Why a Judicial Activist Decision Should Not Prevent EPA from Using Its Section 6 Authority Today*

In its Chemical Action Plans, EPA has announced its intention to use its section 6 authority with renewed and unprecedented vigor, proposing to regulate phthalates, which pose potentially serious threats to male reproductive systems and to child development; long-chain perfluorinated chemicals (PFCs), which have been shown to be toxic to wildlife; and short-chain chlorinated paraffins (SCCPs), among others.²³⁶ EPA's Chemical Action Plans have generated rapt attention in the TSCA community because EPA has not used its section 6 authority to ban a chemical since the Fifth Circuit's rejection of EPA's asbestos ban in *Corrosion Proof Fittings*.²³⁷ This case

consideration), *with id.* § 6(c)(1)(D) (explicitly requiring EPA to consider economic factors in addition to effects on health and the environment).

234. See, e.g., David A. Fahrenthold, *EPA Calls BPA a 'Chemical of Concern'*, WASH. POST, Mar. 30, 2010, at A9; Elana Schor, *Enviro Groups Press for Expanded EPA Oversight of Household Toxins*, N.Y. TIMES, Oct. 19, 2010, <http://www.nytimes.com/gwire/2010/10/19/19greenwire-enviro-groups-press-for-expanded-epa-oversight-17542.html> (noting the existence of "a growing body of scientific literature indicating that phthalates interfere with endocrine and reproductive functioning," and that EPA has begun the process of regulating these chemicals).

235. Schor, *supra* note 234.

236. See Auer et al., *supra* note 148, at 10,243 (noting that "EPA has never previously announced so many actions under [TSCA], nor has it ever cited use of § 6 so widely").

237. See *EPA Issues Four Chemical Action Plans Under TSCA*, BEVERIDGE & DIAMOND,

has been called a “death knell” for EPA’s attempts to use section 6 to ban chemicals under TSCA.²³⁸ However, the Fifth Circuit’s use of the “substantial evidence” standard of review in *Corrosion Proof Fittings* was erroneously invasive. Subsequent reviews of EPA’s use of its section 6 authority should be more deferential to the Agency to increase the chance that such rules will be upheld.

In its review of EPA’s proposed asbestos ban, the Fifth Circuit inserted requirements into section 6 of TSCA which neither the language of the statute, nor its legislative history, support.²³⁹ Section 19 of TSCA provides that a reviewing court shall hold unlawful and set aside a section 6 rule if the court determines that, upon review of the record, the rule is not supported by substantial evidence.²⁴⁰ In *Corrosion Proof Fittings*, the Fifth Circuit correctly summarized the Supreme Court’s statement in *Universal Camera Corp. v. NLRB*²⁴¹ that substantial evidence means “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.”²⁴² The court also correctly pointed out that substantial evidence review enables courts to exert greater scrutiny of agency decision-making than arbitrary and capricious review, and requires “careful scrutiny” of agency findings.²⁴³ Despite its accurate summary of the requirements of substantial evidence review, the Fifth Circuit erred in its application of this standard to the facts of the case before it.

In evaluating whether EPA had met the requirements of section 6, so as to trigger its authority to ban a chemical, the Fifth Circuit went beyond a searching review for “substantial evidence” and instead read requirements into the statute that were neither included nor

P.C. (Jan. 5, 2010), <http://www.bdlaw.com/assets/attachments/2010-01-05%20BD%20Client%20Alert%20-%20EPA%20Issues%20Four%20Chemical%20Action%20Plans%20Under%20TSCA.pdf> (observing that “[t]his is the first time EPA has proposed significant actions under TSCA § 6(a) . . . since the asbestos ban was invalidated in 1991”).

238. Noah Sachs, *Blocked Pathways: Potential Legal Responses to Endocrine Disrupting Chemicals*, 24 COLUM. J. ENVTL. L. 289, 324 (1999) (quoting DAN FAGIN & MARIANNE LAVELLE, *TOXIC DECEPTION: HOW THE CHEMICAL INDUSTRY MANIPULATES SCIENCE, BENDS THE LAW, AND ENDANGERS YOUR HEALTH* 138 (1996)) (internal quotation marks omitted).

239. Compare TSCA § 6(c), 15 U.S.C. § 2605(c) (2006) (requiring only that EPA issue reports on the effects of substances on the environment and people, and the economic consequences of the rule), with *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1217 (5th Cir. 1991) (“[T]he EPA must show not only that its proposed action reduces the risk of the product to an adequate level, but also that the actions Congress identified as less burdensome also would not do the job.”).

240. TSCA § 19(c)(1)(B)(i).

241. 340 U.S. 474 (1951).

242. *Id.* at 477 (quoting *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)) (internal quotation marks omitted).

243. *Corrosion Proof Fittings*, 947 F.2d at 1213–14.

intended by Congress. Specifically, the court interpreted section 6 as requiring that EPA must make a showing, after it has chosen what it considers to be the least burdensome regulatory option to address a chemical's risk, that each of the other six alternatives in the statute are not also sufficient to reduce that risk.²⁴⁴ Section 6 of TSCA directs EPA to regulate a chemical "to the extent necessary to protect adequately against [health and environmental] risk using the least burdensome requirements."²⁴⁵ The statute does not mandate that EPA apply any particular methodology or formula in determining whether the regulation it has chosen is the "least burdensome" option.²⁴⁶ This requirement imposed by the court, though not required by the statute, *could* be seen as the equivalent of what courts should look for when evaluating a section 6 rule under substantial evidence review.²⁴⁷ However, the court then went a step further, outside the bounds of substantial evidence review, to require that EPA make this showing using cost-benefit analysis.²⁴⁸

In imposing the requirement that EPA make a quantitative showing as to why each possible alternative to its intended regulation will not also protect against risk, the Fifth Circuit went beyond the already stringent mandate that Congress gave to EPA in TSCA by creating its own artificial requirement.²⁴⁹ While the Supreme Court has noted that substantial evidence review is more invasive than traditional arbitrary and capricious review,²⁵⁰ it does not follow that this form of review enables courts to impose judicially-created requirements on agencies, outside of what is already required of

244. *Id.* at 1217.

245. TSCA § 6(a).

246. *Id.*; *see, e.g.*, Thomas O. McGarity, *The Courts and the Ossification of Rulemaking: A Response to Professor Seidenfeld*, 75 TEX. L. REV. 525, 546 (1997) (arguing that in *Corrosion Proof Fittings*, the court "clearly failed to give any deference to EPA's interpretation of its statute and it arguably misinterpreted the statute when it alluded to 'TSCA's requirement that [EPA's] alternative be the least burdensome of all those offered to it'" (quoting *Corrosion Proof Fittings*, 947 F.2d at 1216)).

247. By requiring EPA to document why it did not choose each of the other regulatory alternatives in the statute, the court ensured that EPA is essentially populating the record with documentation that its chosen regulation is supported by substantial evidence. *See* TSCA § 19.

248. *Corrosion Proof Fittings*, 947 F.2d at 1222.

249. There is no requirement in section 6 of the TSCA that EPA must individually evaluate each of the seven regulatory options listed in that section. *See* TSCA § 6(a). Rather, the findings that the statute does require EPA to produce are explicitly listed in section 6(c). *Id.* § 6(c) (listing the following requirements: (1) the effects of substances on people; (2) the effects of substances on the environment; (3) the benefits of substances and the substances' substitutes; and (4) the reasonably ascertainable economic consequences of the rule).

250. *See* *Abbott Labs. v. Gardner*, 387 U.S. 136, 143 (1967) (noting that the substantial evidence test affords a "considerably more generous judicial review than the 'arbitrary and capricious' test").

them by the statutes they are charged with implementing. Rather, this standard explicitly requires a court to review the record for substantial evidence to support EPA's determination that a ban is "the least burdensome requirement[]" that is "necessary to protect adequately" against chemical risk.²⁵¹ Nowhere in the statute does Congress require that EPA accompany this finding with extensive evaluations of the quantitative costs and benefits of each possible alternative.²⁵²

Here, the Fifth Circuit found that "[m]uch of EPA's analysis" necessitating the ban was correct,²⁵³ and acknowledged that "EPA mentions the problems posed by intermediate levels of regulation."²⁵⁴ This finding alone—that EPA's analysis supporting the ban was "correct" and that EPA reasoned through why lower levels of regulation would not suffice—appears to meet the Supreme Court's requirement in *Universal Camera* that "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion" be present.²⁵⁵ Yet, rather than applying the Supreme Court's test, the Fifth Circuit faulted EPA for failing "to calculate the costs and benefits of these intermediate levels [of regulation]."²⁵⁶ While EPA is statutorily required to choose the "least burdensome requirement[]," it is not required to conduct a cost-benefit analysis of each regulatory option presented to it.²⁵⁷

The court itself noted earlier in its opinion that "[a]n agency may exercise its judgment without strictly relying upon quantifiable risks, costs, and benefits" so long as the agency explains why it made the decision it did, and shows a rational connection between the facts at issue and its choice of regulation.²⁵⁸ By evaluating the problems with lesser levels of regulation, EPA met this requirement. Further, the Supreme Court has held that "[w]hen Congress has intended that an agency engage in cost-benefit analysis, it has clearly indicated such intent on the face of the statute."²⁵⁹ Here, rather than expressing its intent that EPA conduct a cost-benefit analysis before issuing a

251. TSCA § 6(a).

252. *Id.* § 6(c).

253. *Corrosion Proof Fittings*, 947 F.2d at 1216.

254. *Id.* at 1217.

255. *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 477 (1951) (quoting *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)) (internal quotation marks omitted).

256. *Corrosion Proof Fittings*, 947 F.2d at 1217.

257. See TSCA § 6(a) (requiring that EPA use the "least burdensome requirement[]" to address chemical risk, but at no point specifying the manner in which EPA must make this choice).

258. *Corrosion Proof Fittings*, 947 F.2d at 1214.

259. *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 510 (1981).

section 6 rule, Congress stated that the balancing process inherent in making “a determination that a risk associated with a chemical substance . . . is unreasonable involves balancing . . . [but] does not require a formal benefit-cost analysis under which a monetary value is assigned to the risks associated.”²⁶⁰

Contrary to the court’s conclusion that EPA must consider and reject each less burdensome form of regulation based on quantitative data,²⁶¹ the legislative history of section 6 indicates that Congress did not intend for EPA to undertake this level of exhaustive quantitative analysis. The TSCA House Report specifically stated that Congress did not intend for necessary regulation to “be unreasonably delayed while the Administrator develops quantitative [sic] data comparing the costs of control methods.”²⁶² Rather, members of Congress expected that “the determination of the least burdensome requirement w[ould] be based on information *submitted to* the Administration during the rulemaking proceeding and other information which is *readily available*.”²⁶³ Congress intended for EPA to base its analysis on the resources the agency had on hand, and not on drawn out cost projections that fail to quantify qualitative benefits of the rule.²⁶⁴ Thus, in *Corrosion Proof Fittings*, the Fifth Circuit’s review of EPA’s asbestos ban exceeded what is required by both the statute itself and Congress’s expressed intentions in the statute’s legislative history.

If EPA determines that any of the chemicals currently poised for section 6 action in its Chemical Action Plans “present[] or will present an unreasonable risk of injury to health or the environment,” it should proceed with whichever regulatory option it finds is “necessary to protect adequately against such risk” and is the “least burdensome.”²⁶⁵ A reviewing court should not hold EPA to the Fifth Circuit’s non-statutorily based requirement—that EPA bears the burden of performing a full cost-benefit analysis for each alternative listed in section 6 before its chosen regulation can be upheld. Though TSCA does require that EPA choose the “least burdensome

260. See H.R. REP. NO. 94-1341, at 14 (1976), *reprinted in* H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 408 (Comm. Print 1976) (noting that “a risk associated with a chemical substance or mixture is unreasonable [if] the probability that harm will occur and the magnitude or severity of that harm [outweighs] the effect of proposed regulatory action on the availability to society of the benefits of the substance or mixture”).

261. *Corrosion Proof Fittings*, 947 F.2d at 1217, 1228.

262. H.R. REP. NO. 94-1341, at 34.

263. *Id.* (emphases added).

264. *Id.*

265. TSCA § 6(a), 15 U.S.C. § 2605(a) (2006).

requirement[],” it does not require EPA to substantiate that choice by quantitatively and extensively analyzing the costs and benefits of each option.²⁶⁶ EPA is required to support its choice of the “least burdensome” regulatory option by “substantial evidence,” which the Supreme Court defined as evidence that “a reasonable mind might accept as adequate to support a conclusion.”²⁶⁷

For the foregoing reasons, the thorough consideration, rationale, and analysis accompanying EPA’s rejection of lesser measures in *Corrosion Proof Fittings* should be enough to adequately support any future regulations imposed by EPA under section 6. As noted by the Congress that passed TSCA, it was not Congress’s intent that “needed regulation be unreasonably delayed while the Administrator develops quantative [sic] data comparing the costs of control methods.”²⁶⁸ Rather, the likely regulatory actions posed by the current EPA should be upheld so long as they are issued in conformity with the statute’s requirements, which do not include extensive, highly detailed, and purely quantitative cost-benefit analysis to make a showing that the “least burdensome” alternative has been selected.

III. TSCA’S PREEMPTION PROVISION ALLOWS STATES TO TAKE BROAD ACTION TO REGULATE CHEMICALS

TSCA’s preemption provision, found in section 18, allows states to freely regulate chemicals so long as EPA has not yet acted to regulate them.²⁶⁹ However, even if EPA has taken regulatory action under section 5 or section 6 of TSCA, state laws regulating the same chemicals are not preempted so long as they match whatever requirement has been promulgated by EPA, or are more stringent (meaning they ban the chemical substance entirely).²⁷⁰ TSCA’s expansive preemption provision is the first place that a reviewing court will look in determining whether a state law is preempted.²⁷¹ Because this provision expressly allows that, unless EPA has already taken action, “nothing . . . shall affect the authority of any State or

266. *Id.*

267. *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 477 (1951) (quoting *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)) (internal quotation marks omitted).

268. H.R. REP. NO. 94-1341, at 34 (1976), *reprinted in* H. COMM. ON INTERSTATE AND FOREIGN COMMERCE, 94TH CONG., LEGISLATIVE HISTORY OF THE TOXIC SUBSTANCES CONTROL ACT, at 427 (Comm. Print 1976).

269. TSCA § 18(a).

270. *Id.* § 18(a)(2)(B).

271. *See CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 664 (1993) (observing that if a statute contains an express preemption clause, a court should first “focus on the plain wording of the clause, which necessarily contains the best evidence of Congress’s pre-emptive intent”).

political subdivision of a State to establish or continue in effect regulation of any chemical substance,²⁷² states have broad leeway in regulating chemicals that they determine pose a risk to their populations or environment. Under this provision, the fact that EPA has regulated only five chemicals to date²⁷³ lends itself to even broader state action.²⁷⁴

States have used their essentially unlimited (due to lack of regulation at the federal level) authority to regulate chemicals with much greater frequency than has occurred under TSCA,²⁷⁵ and courts should allow states to continue to do so under TSCA's current preemption provision. Further, the regulations that states have issued have in many instances succeeded at regulating chemical risks where TSCA has failed.²⁷⁶ For example, one of the earliest state toxic laws, California's Proposition 65 (passed as a ballot initiative in 1986), requires that the Governor of California once a year "cause to be published a list of those chemicals known to the state to cause cancer or reproductive toxicity."²⁷⁷ It also requires businesses to provide consumers, or others exposed to their products, with a "clear and reasonable warning" if their products contain a listed chemical.²⁷⁸ Thus, without violating TSCA's preemption provision, California has required warning labels for over 800 chemicals known to cause cancer and reproductive toxicity.²⁷⁹

Other states have followed in California's footsteps and regulated chemical manufacturers or producers outside the void of action under TSCA, and these actions are similarly permitted under TSCA's

272. TSCA § 18(a).

273. See U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 75, at 58–60 (noting that to date EPA has regulated five chemicals under section 6).

274. While there have been no preemption challenges to EPA action under the TSCA's main title (for the reasons discussed in this Part), there have been a number of challenges to state laws regulating polychlorinated biphenyls (PCBs). See, e.g., *City of Chesapeake v. Sutton Enters., Inc.*, 138 F.R.D. 468, 477–78 (E.D. Va. 1990). Because PCBs were a known risk at the time of the TSCA's passage, Congress created an explicit federal scheme to manage the use and disposal of PCBs. TSCA § 6(e); 40 C.F.R. pt. 761 (2010). State laws imposing lesser PCB requirements are preempted by the extensive federal regulation. See, e.g., *City of Chesapeake*, 138 F.R.D. at 477.

275. See BELLIVEAU, *supra* note 13, at 6 (observing that "18 states have passed 71 chemical safety laws in the last eight years").

276. See, e.g., CAL. HEALTH & SAFETY CODE § 25249.8 (West 2006) (requiring labeling of products containing chemicals identified as carcinogenic or toxic); ME. REV. STAT. tit. 38, § 1691 to 1699-B (2010) (granting the state authority to ban chemicals that are identified as hazardous to children).

277. CAL. HEALTH & SAFETY CODE § 25249.8(a).

278. *Id.* § 25249.6.

279. *Proposition 65 in Plain Language!*, CAL. OFFICE OF ENVTL. HEALTH HAZARD ASSESSMENT, <http://oehha.ca.gov/prop65/background/p65plain.html> (last updated Mar. 2010).

preemption provision. In 2007, Maine adopted the Toxic Chemicals in Children's Products Law,²⁸⁰ which—like California's Proposition 65—requires the state environmental department to “publish a list of chemicals of high concern.”²⁸¹ The basis for this list is whether chemicals are: “[A] [a] carcinogen, a reproductive or developmental toxicant or an endocrine disruptor; [B] [p]ersistent, bioaccumulative and toxic; or [C] [v]ery persistent and very bioaccumulative.”²⁸²

Section 5(b)(4)(A) of TSCA similarly enables EPA to publish a list of hazardous chemicals; however, EPA may only list chemicals that pose an “unreasonable risk.”²⁸³ Under the Maine Toxic Chemicals in Children's Products Law, there is no qualifier for the risk of a chemical: so long as the chemical has any of the specified effects, it can be added to the list.²⁸⁴ It is of no consequence that the risk may be minute; as long as it is present, the state can make it known to the public.²⁸⁵ Even once EPA issues its final Chemicals of Concern list,²⁸⁶ lists like Maine's, California's, and any other states', will not be preempted.²⁸⁷ Section 18 requires that if EPA has issued a rule under section 5 addressing a certain chemical, a state rule also addressing that chemical will be upheld so long as it is consistent with and as stringent as EPA's rule.²⁸⁸ Because both the Maine statute and section 5(b)(4)(a) similarly result in the creation of a list, any chemical that is listed by both the state and EPA will therefore be subject to identical treatment.²⁸⁹ Therefore, any state law that requires the listing of a chemical also listed by EPA will likely be upheld.

After the list is set, the Maine Toxic Chemicals in Children's Products Law then places an affirmative duty on manufacturers to notify the department regarding their production and use of the

280. ME. REV. STAT. tit. 38, § 1691 to 1699-B.

281. *Id.* § 1693(1).

282. *Id.*

283. TSCA § 5(b)(4)(A)(i), 15 U.S.C. § 2604(b)(4)(A)(i) (2006); *see also supra* Part II.B (discussing the scope of EPA's ability to create a list of hazardous chemicals).

284. ME. REV. STAT. tit. 38, § 1693(1).

285. *See id.* (providing that the state “shall publish a list of chemicals of high concern,” which means any chemical that on the “basis of credible scientific evidence” has been determined to cause cancer or disrupt endocrine or hormonal systems, is “[p]ersistent, bioaccumulative and toxic,” or is “[v]ery persistent and very bioaccumulative”).

286. *See supra* Part II.B (discussing EPA's plan to issue a “Chemicals of Concern” list).

287. *See* TSCA § 18(a) (establishing that no state law shall be preempted unless EPA has enacted a similar requirement, in which case the state requirement must be “identical,” adopted under the Clean Air Act, or be a blanket prohibition of the chemical).

288. *Id.*

289. *See id.*

listed chemical.²⁹⁰ Unlike TSCA, this law does not require notification only of the production of new chemicals and existing chemicals put to a “significant new use,” but of all chemicals contained on the priority list.²⁹¹ The fact that TSCA distinguishes between new and existing chemicals, allowing greater leeway for the untested production of chemicals that existed when TSCA passed, has been a frequent point of criticism.²⁹² State laws have responded—as Maine’s Toxic Chemicals in Children’s Products Law demonstrates—by regulating all chemicals alike and not allowing one group to escape regulation.²⁹³

The Toxic Chemicals in Children’s Products Law also provides that the state can decide to “prohibit[] the manufacture, sale or distribution in the State” of a listed chemical if it finds that children or other vulnerable populations are exposed to the chemical and that a safer alternative is available.²⁹⁴ Unlike in TSCA where there is a requirement to choose the “least burdensome requirement[],”²⁹⁵ here the state is directed to identify the safest alternatives to chemical risks.²⁹⁶ The statute directs manufacturers of children’s products that contain hazardous chemicals to comply by either: (1) substituting a safer alternative in the product or (2) discontinuing sales of the product altogether.²⁹⁷ This provision, which allows the state to ban the use of a chemical where a safer alternative is unavailable, is well within TSCA’s preemption clause, which states that even where EPA has promulgated a section 5 or section 6 rule regulating a substance, a state ban of that substance is not preempted.²⁹⁸

TSCA’s preemption provision grants states generous authority to regulate chemical risks within their borders. If EPA follows through with its proposed section 6 actions, which include potential bans,²⁹⁹

290. ME. REV. STAT. tit. 38, § 1695(1).

291. TSCA § 5(a)(1)(B).

292. See Greenwood, *supra* note 205, at 10,040 (describing the “fundamental problem[s] inherent in a regulatory program built around a distinction between things new and existing”).

293. ME. REV. STAT. tit. 38, § 1691 to 1699-B.

294. *Id.* § 1696(1).

295. TSCA § 6(a).

296. ME. REV. STAT. tit. 38, § 1696(1)(B).

297. *Id.* § 1696.

298. TSCA § 18(a)(2)(B) (stating that where “the Administrator prescribes a rule or order under section [5] or [6] . . . “no State . . . may . . . establish or continue in effect any requirement which is applicable to such substance or mixture . . . *unless such requirement* . . . (iii) prohibits the use or such substance or mixture in such State”).

299. See *Existing Chemicals Action Plans*, *supra* note 153 (stating that EPA is considering banning a number of chemicals under its section 6 authority, including phthalates).

those bans would preempt any state laws regarding the banned chemicals only *if* the state laws were less stringent. However, as many state laws include bans and other strong regulations,³⁰⁰ it is likely that even with aggressive federal action, state laws would still be upheld under TSCA's preemption provision.

CONCLUSION

Chemicals are an ever-present and fully integrated part of the fabric of American life. Some of the risks of commonly used chemicals were known at the time of TSCA's passage, and more are known now. However, many of these risks have come to light not through statutorily required testing performed by chemical manufacturers, but rather through independent studies that find dangers to humans and the environment after the harmful effects of chemicals are already occurring.³⁰¹ Historically, under the current version of TSCA, once these risks became known, attempts at regulating them proved too difficult to undertake.³⁰²

However, this Comment argues that the current Toxic Substances Control Act gives EPA the legal authority to: require additional testing of the most prevalent chemicals using section 4; draw attention to chemical risks using section 5; and regulate hazardous chemicals using section 6. These steps, and others that EPA is currently undertaking,³⁰³ are essential to protect public health and the environment from chemical risks in the near term. In each of the sections of TSCA addressed in this Comment, EPA has substantial discretion to exercise its authority, and courts are likely to recognize

300. See BELLIVEAU, *supra* note 13, at 12–13 (listing eighteen states that have banned or phased out hazardous chemicals).

301. For example, BPA existed at the time of TSCA's passage; however, no test rule was ever issued to determine the risks that it posed. Instead, these risks came to light through a series of independent and government studies. See Kolbert, *supra* note 117 (summarizing the work of a prominent BPA researcher, including a sequence of studies drawing attention to the risks of BPA); see also Houlihan et al., *supra* note 119 (chronicling the history of BPA).

302. See *supra* Part I.B (discussing the hurdles to using the regulatory authority granted to EPA by TSCA).

303. On February 10, 2011, EPA notified five chemical manufacturers that information about their products which they claimed constituted "Confidential Business Information" (CBI), and was thus exempt from public disclosure, was not in fact CBI. Press Release, U.S. Env'tl. Prot. Agency, EPA Removes Confidentiality Claims on Studies of Chemicals Submitted Under TSCA (Feb. 10, 2011), <http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/fb73e2f72dc2fc98852578330053cf62!OpenDocument>. EPA announced that this "critical health and safety information" would now be released to the public. *Id.* While this action is outside the scope of this Comment, it is indicative of EPA's continued work to assert its TSCA authority.

and uphold EPA's use of this discretion.³⁰⁴ Despite TSCA's flaws, EPA does have the legal authority to prevent the general public and the environment from continuing to be a "laboratory for discovering adverse health effects" of hazardous chemicals.³⁰⁵

Further, this Comment also argues that TSCA's section 18 express preemption provision allows for expansive state action to build on what the federal government is able to do using the latter sources of authority. States such as California, Maine, and many others³⁰⁶ have passed legislation that does what the federal government has not: ban the use of dangerous chemicals,³⁰⁷ as well as enable state environmental agencies to choose the safest alternative—as opposed to the "least burdensome"³⁰⁸—when regulating a chemical.³⁰⁹ This combination of federal tools and state action can serve as an important step toward the preventative and responsive approach to chemical regulation that the 1971 CEQ Toxic Substances report envisioned.³¹⁰

However, while this Comment argues that chemical regulation can and should occur now—before reform bills are passed in several (or perhaps many) years—it also acknowledges that reform is the best option for achieving TSCA's goals of a preventative and readily responsive system of chemical regulation. Though EPA does have legal authority to issue section 4 test rules to obtain information about highly prevalent chemicals and to issue section 6 regulations, including bans, EPA still must face the built-in procedural hurdles contained in these sections of the statute; namely, the extensive rulemaking requirements that EPA must comply with.³¹¹ In a 2005 report to Congress, the Government Accountability Office noted that, according to EPA officials, "finalizing rules under section 4 of TSCA can take from 2 to 10 years and require the expenditure of substantial resources."³¹² In 1994, EPA officials estimated that test rules could cost the Agency as much as \$250,000 to issue.³¹³ Similar costs and hurdles face EPA in issuing a section 6 rule, even without

304. *Supra* Part II.

305. COUNCIL ON ENVTL. QUALITY, *supra* note 4, at 21.

306. *Supra* Part III; see also BELLIVEAU, *supra* note 13 (analyzing state efforts to regulate chemicals in the absence of federal regulation).

307. ME. REV. STAT. tit. 38, § 1696 (2010).

308. TSCA § 6(a), 15 U.S.C. § 2605(a) (2006).

309. *Id.*

310. COUNCIL ON ENVTL. QUALITY, *supra* note 4, at 21 (commenting that through TSCA, the government would "no longer be limited to repairing damage after it ha[d] been done").

311. *Supra* Part I.B.1.

312. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 75, at 26.

313. *Id.*

the cost-benefit analysis erroneously required by the Fifth Circuit. These procedural obstacles, and the burden placed on EPA to go after chemical manufacturers for data, as opposed to the manufacturers sending data to EPA,³¹⁴ make the current legal authority difficult to use.

While these procedural obstacles are legally surmountable,³¹⁵ doing so requires expenditures of significant resources and time.³¹⁶ Despite EPA's legal authority to take action to address chemical risks, alleviating the burdens inherent in the current law would make EPA's task more efficient, and likely more effective. Both the House and Senate reform bills work to remove these obstacles,³¹⁷ and thus create a more fluid and readily adaptable regulatory scheme than currently exists. States have voiced their support for reform, and they are awaiting a uniform federal standard that will not necessitate the extensive patchwork of state laws currently in place.³¹⁸ While EPA and the states can and should use their authority under TSCA to take steps toward chemical regulation, reform is necessary to transition from a relatively less-efficient approach under the current law to a streamlined and efficient system of chemical management via the proposed reforms.

314. See *supra* Part I.C.2 (giving an overview of the major differences between TSCA and the House and Senate reform bills, including the requirement in the reform bills that manufacturers have an affirmative duty to send health and safety data to EPA, and further that EPA can require additional data via an order, which is much less cumbersome than a rule).

315. See *supra* Part II (arguing that EPA does have legal authority to take steps to require additional testing, draw attention to chemical risks, and issue bans or other chemical regulation).

316. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 75, at 26.

317. *Supra* Part I.C.2.

318. *Resolution Urging Congress to Reform the Toxic Substances Control Act*, ENVTL. COUNCIL OF THE STATES (Aug. 30 2010), http://www.ecos.org/section/committees/cross_media.