TOXIC RESULTS: THE EPA'S POWER, PROCESS, AND POTENTIAL TO REGULATE CHEMICALS UNDER THE TOXIC SUBSTANCES CONTROL ACT

ABSTRACT

"Climate change is among the greatest health risks of the 21st Century."[1] *The World Health Organization—along with an extensive number of medical, scientific, economic, political, and environmental groups—recognizes human-induced, global climate change as the most extreme danger facing human health and the environment in history. While the Environmental Protection Agency (EPA or Agency) aims to protect human health and the environment and claims to do so through various programs and legislation, the efforts regarding climate change fall short of accomplishing what is necessary to protect the EPA's intended beneficiaries. The EPA has been granted substantial power to regulate substances that play a major role in global climate change through the manufacture, use, transportation, and eventual disposal of these substances. The manufacture, use, and disposal of petroleum-related products in particular exceedingly contributes to the increase in greenhouse gases and therefore global climate change.*[2] *Sure enough, these substances are also screened from the EPA's extensive regulations and power.*

This Note provides an overview of the EPA's statutory power under the Toxic Substances Control Act (TSCA), the updated and comprehensive process for evaluating chemicals, and the EPA's untapped potential to regulate chemical substances. Part I provides an introduction to how the EPA gained its broad

1. *WHO Global Programme on Climate Change & Health*, WORLD HEALTH ORG., https://www.who.int/globalchange/mediacentre/news/global-programme/en/ [https://perma.cc/FXC4-AAUB].

2. It is beyond the scope of this Note to discuss the implications of fossil-fuel production and disposal and the effects these products have on the global climate system. For more information on the sources of greenhouse gases, see *Sources of Greenhouse Gas Emissions*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions [https://perma.cc/5EZ3-R9EU]. For a basic explanation of the connection between petroleum products and greenhouse gases, see *Energy and the Environment Explained: Where Greenhouse Gases Come From*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/energy-and-the-environment/where-greenhouse-gases-come-from.php [https://perma.cc/CXY5-J49T]. For an explanation of how greenhouse gases impact global climate change, see *The Causes of Climate Change*, NASA, https://climate.nasa.gov/causes/ [https://perma.cc/E7X4-FKV7]. What is apparent and important for the purposes of this Note is that the EPA could regulate these substances but fails to do so.

regulatory power over chemical substances. Part II introduces the TSCA and highlights the changes that came with the implementation of the Frank R. Lautenberg Chemical Safety for the 21st Century Act, which significantly amended the original TSCA. Part III exemplifies the extensive yet relatively coherent process that the EPA goes through to evaluate new and existing chemicals. Finally, in Part IV, this Note discusses the EPA's failure to use these powers to their full, intended potential and to address the substances posing the highest risk to human health and the environment.

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I. INTRODUCTION

"The mission of the EPA is to protect human health and the environment."[3] This is clearly stated on the Agency's website and has been exemplified throughout its history.[4] Since 1975, the EPA has developed processes for evaluating potential risks to both environmental health and human health arising from interactions with chemical substances, so it may better understand the impacts these substances have on the two groups it aims to protect.[5] The first instance of the Agency's intent to evaluate

3. *Our Mission and What We Do*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/aboutepa/our-mission-and-what-we-do [https://perma.cc/AM89-95QS].

4. *Id.*

5. *About Risk Assessment: History of Risk at EPA*, U.S. ENVTL. PROTECTION

potential risks was documented in the *Interim Procedures and Guidelines for Health Risk and Economic Impact Assessments of Suspected Carcinogens*.[6] This procedural document stated assessments of human health risks and national economic impacts would be undertaken as part of a new regulatory process.[7] Additionally, the document outlined a basic analytical process regarding potential carcinogenic substances.[8] While the initial process was simple—asking first if a particular substance constitutes a cancer risk, then determining what regulatory action should be taken to reduce the risk[9]—it quickly developed into a more complex decision-making process that was used to assess the risks associated with a variety of substances, not only those that were known or suspected as carcinogenic.[10] Shortly after publishing the *Interim Procedures and Guidelines* report, its principles were codified in the 1976 Toxic Substances Control Act.[11]

The current TSCA took its present form over the course of several decades and from differing versions of EPA-authored principles.[12] The quantitative procedures first developed by the EPA were initially used to assess water quality, based on pollutant concentrations and the resulting environmental and human health effects.[13] After the National Academy of Science published the groundbreaking Red Book[14] in 1983, the EPA incorporated many of the same risk assessment principles into its practices.[15]

AGENCY, https://www.epa.gov/risk/about-risk-assessment#tab-2 [https://perma.cc/J8Q2-RELX] [hereinafter *Risk Assessment History*].

6. ENVTL. PROT. AGENCY, INTERIM PROCEDURES AND GUIDELINES FOR HEALTH RISK AND ECONOMIC IMPACT ASSESSMENTS OF SUSPECTED CARCINOGENS 1 (1976).

7. *Id.* at 2–3.

8. *Id.* at 3. The framework describing the process of analyzing potential risks recommended health-related data be analyzed independent of the economic impacts. *See id.*

9. *Id.*

10. *Compare id.* at 1 (focusing solely on known carcinogenic chemicals), *with* Toxic Substances Contract Act, 15 U.S.C. § 2602(2) (2018) (defining *chemical substances* as any organic or inorganic substance and consequently broadening the scope to cover nearly all chemical substances).

11. Toxic Substances Control Act, 15 U.S.C. § 2601.

12. *See Risk Assessment History*, *supra* note 5.

13. *See generally* OFFICE OF WATER REGULATIONS & STANDARDS, ENVTL. PROT. AGENCY, QUALITY CRITERIA FOR WATER 1986 (1986).

14. NAT'L RESEARCH COUNCIL, RISK ASSESSMENT IN THE FEDERAL GOVERNMENT: MANAGING THE PROCESS (1983). It is commonly referred to as the Red Book due to its red cover. *See Risk Assessment History*, *supra* note 5.

15. *See Risk Assessment History*, *supra* note 5.

The following year, the EPA published *Risk Assessment and Management: Framework for Decision Making*[16] and later launched the Integrated Risk Information System—a database of the health effects that could result from exposure to chemicals found in the environment.[17] The EPA continued its efforts by issuing a series of guidelines for conducting human-health risk assessments and eventually adapted the assessments to deal with risks to plants, animals, and entire ecosystems.[18] In the 1990s, the focus shifted from gathering and assessing information toward using the information to manage risks through regulatory programs and federal laws.[19] This trend continued as an increasing awareness of potential environmental hazards and the associated impacts to human health became a growing concern among the public.[20]

II. THE TOXIC SUBSTANCES CONTROL ACT

A. *The EPA Under the Original TSCA*

Chemicals are present in nearly every aspect of life.[21] Some chemicals pose risks to human and environmental health, while others are completely harmless.[22] The TSCA empowers and requires the EPA to evaluate the

16. ENVTL. PROTECTION AGENCY, RISK ASSESSMENT AND MANAGEMENT: FRAMEWORK FOR DECISION MAKING (1984) (explaining the activities implemented by the EPA come from the National Academy of Science's recommendations).

17. *Integrated Risk Information System*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/iris [https://perma.cc/W8HC-Z6YK]. The Integrated Risk Information System program is evidence of the EPA's mission to protect human health and the environment by supplying available information regarding possible chemical hazards to the public.

18. *See Risk Assessment History*, *supra* note 5.

19. *See Presidential Commission on Risk Assessment and Risk Management*, U.S. ENVTL. PROTECTION AGENCY, https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=55006 [https://perma.cc/3REJ-JVRL]. The mandate of the Commission on Risk Assessment and Risk Management was to investigate fully the policy implications and appropriate uses of risk assessments. *Risk Assessment History*, *supra* note 5. The specific, underlying mandate was to "provide guidance on how to deal with residual emissions from Section 112 hazardous air pollutants (HAPs) after technology-based controls have been placed on stationary sources of air pollutants." *Id.*

20. *See, e.g.*, ENV'T DEP'T, THE WORLD BANK, ENVIRONMENTAL HAZARD AND RISK ASSESSMENT 1 (1997).

21. Zhai Yun Tan, *Harmful Chemicals Are Everywhere—But What Does That Mean?*, KAISER HEALTH NEWS (July 17, 2016), https://khn.org/news/harmful-chemicals-are-everywhere-but-what-does-that-mean/ [https://perma.cc/R6AF-WVRF].

22. *Chemicals in Food*, EUR. FOOD SAFETY AUTHORITY, https://

potential risks of new and existing chemicals[23] and to find ways to prevent or reduce pollution before it gets into the environment.[24] In general, the risk of a chemical substance depends on how much of a chemical is present in an environmental medium (such as air, water, or soil), how much exposure a person or ecological receptor[25] has with the contaminated medium, and the inherent toxicity of the chemical.[26] Under the 1976 TSCA, the EPA's authority to require testing was severely limited.[27] The original TSCA was reflective of the EPA's focus at the time: the Agency was simply gathering information and analyzing possibilities without a comprehensive plan for acting on the identified risks.[28] The EPA had the authority to create reporting, recordkeeping, and testing requirements, and the TSCA included restrictions related to certain chemical substances.[29] If the EPA wanted to act on the assessments, the process in place at the time required the Agency to show that the probability of a hazard or risk was more than theoretical and that it posed an "unreasonable risk of injury."[30] The EPA had to both

www.efsa.europa.eu/en/topics/topic/chemicals-food [https://perma.cc/KG4J-77RM] ("[N]utrients such as carbohydrates, protein, fat and fibre are composed of chemical compounds.").

23. *Chemicals Under the Toxic Substances Control Act (TSCA)*, U.S. ENVTL. PROTECTION AGENCY, http://www.epa.gov/chemicals-under-tsca [https://perma.cc/DP4R-KVS2].

24. *See New Chemicals and Pollution Prevention Efforts*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/new-chemicals-and-pollution [https://perma.cc/U9BQ-MY8L].

25. An ecological receptor "includes any living organisms other than humans, the habitat which supports such organisms, or natural resources which could be adversely affected by environmental contaminations." *Risk Assessment: Ecological Receptor*, EUGRIS, http://www.eugris.info/FurtherDescription.asp?e=34&Ca=2&Cy=0&T=Receptor:%20Ecological [https://perma.cc/4782-YCKD].

26. *About Risk Assessment: Learn About Risk Assessment*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/risk/about-risk-assessment [https://perma.cc/6ZVW-QZGH] [hereinafter *Learn About Risk Assessment*].

27. *See* ENVTL. DEF. FUND, COMPARING THE 1976 TOXIC SUBSTANCES CONTROL ACT TO THE FRANK R. LAUTENBERG CHEMICAL SAFETY FOR THE 21ST CENTURY ACT (H.R. 2576) (2016), http://blogs.edf.org/health/files/2016/06/Side-by-side-oldTSCA-newTSCA-FINAL.pdf [https://perma.cc/CWF4-3G93] [hereinafter COMPARING ACT TO AMENDMENT].

28. *See supra* Part I.

29. *Summary of the Toxic Substances Control Act*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/laws-regulations/summary-toxic-substances-control-act [https://perma.cc/S3TJ-D5AB].

30. WILLIAM H. RODGERS, JR. & ELIZABETH BURLESON, RODGERS ENVIRONMENTAL LAW § 31:4 (2d ed. Supp. 2018).

prove the existence of the potentially dangerous risk and determine the risk was unreasonable before it could issue a testing rule requiring further development.[31] This created an onerous obstacle for the EPA: before it could move forward with testing, the Agency had to prove the existence of what it was trying to assess in the first place.[32] Consequently, the rules took years to develop and implement, very few substances were subject to the test results, and those that were subject to regulation were challenged by the industries the EPA sought to regulate.[33]

B. *Reformed Responsibilities and Expanded Power*

In 2016, the Frank R. Lautenberg Chemical Safety for the 21st Century Act (the Lautenberg Act) amended the original TSCA with a focus on the modern goal that stemmed from risk assessments: risk management.[34] The Lautenberg Act ushered in several significant changes, including new obligations and deadlines imposed on the EPA, enhancements to the EPA's authority to regulate, and a (more) clear explanation of the process for the review and determination of risks.[35] The Lautenberg Act's amendments made the required course of action more comprehensible, the objectives more attainable, and the process generally more transparent for both those directly involved in the process and those concerned with the outcome.[36]

31. *Id.*

32. *Id.* (resulting in an "unreasonable risk standard").

33. *See, e.g.*, Wendy E. Wagner, *Commons Ignorance: The Failure of Environmental Law to Produce Needed Information on Health and the Environment*, 53 DUKE L.J. 1619, 1676–77 (2004).

34. *Current Chemical Risk Management Activities*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/current-chemical-risk-management-activities [https://perma.cc/GB3P-C7QC].

35. *A New Chemical Safety Law: The Lautenberg Act*, ENVTL. DEF. FUND, https://www.edf.org/health/new-chemical-safety-law-lautenberg-act [https://perma.cc/9SQR-CV5W].

36. RICHARD A. DENISON, A PRIMER ON THE NEW TOXIC SUBSTANCES CONTROL ACT (TSCA) AND WHAT LED TO IT 3, 7 (2017), https://www.edf.org/sites/default/files/denison-primer-on-lautenberg-act.pdf [https://perma.cc/NE6D-H3CT]. Before the enactment of the Lautenberg Act, companies were able to claim the information submitted to the government was confidential business information that included trade secrets, therefore allowing manufacturers to hide critical and often damaging information from the public, the government, and medical professionals. *Id.* at 7. The new TSCA reduced the number of confidential business information claims by allowing the EPA to review the claims and give access to this information to health professionals. *Id.*

The first major change increased the EPA's obligations by "explicitly requiring that the Agency review all new chemicals and Significant New Uses (SNU), make one of three determinations, and take required actions."[37] The amendment also made a significant change within the risk determination process for existing chemicals by thoroughly stipulating the essential steps to be taken by the EPA.[38] The general process involves the prioritization of chemicals to undergo the risk evaluation, completion of the risk evaluation, and implementation of measures for risk management.[39] The amendment to the risk evaluation process also removed problematic requirements and language that previously hindered the EPA's progress.[40] The amended TSCA gives the EPA more authority to determine which chemicals pose the highest risk and to take action in managing those risks without recourse from the affected industries.[41] Under the old TSCA, manufacturers had wide latitude to influence an evaluation's impact by preventing access to otherwise required information by claiming it was confidential business information (CBI).[42] CBI claims are now subject to mandated reviews, explicit requirements, and disclosures upon request from certain agencies or health care professionals.[43] One of the most significant changes to the TSCA is the incorporation of a mandate to review the safety of existing chemicals.[44] While it was possible for the EPA to evaluate chemicals already active in commerce, there was no requirement to do so.[45] The Lautenberg Act changed a possible action into a necessary objective.[46]

37. Lynn L. Bergeson, *TSCA Reform: Key Provisions and Implications*, ENVTL. QUALITY MGMT., Winter 2016, at 1, 2 [hereinafter Bergeson, *TSCA Reform*].

38. *See* Toxic Substances Contract Act, 15 U.S.C. § 2605(b) (2018).

39. *Id.*

40. Bergeson, *TSCA Reform*, *supra* note 37, at 2.

41. *A New Chemical Safety Law: The Lautenberg Act*, *supra* note 35.

42. COMPARING ACT TO AMENDMENT, *supra* note 27.

43. 15 U.S.C. § 2613.

44. *See* LYNN L. BERGESON ET AL., CHEMICAL MANAGEMENT: WHAT ALL ENVIRONMENTAL, ENERGY, AND RESOURCES LAWYERS NEED TO KNOW ABOUT TSCA REFORM AND WHY 8 (2017), https://www.lawbc.com/uploads/docs/ABA_Chemical_Management.pdf [https://perma.cc/6C3Y-WUR5].

45. *See* COMPARING ACT TO AMENDMENT, *supra* note 27.

46. *See A New Chemical Safety Law: The Lautenberg Act*, *supra* note 35.

III. RISK EVALUATIONS

A. *Determining the Risk of New Chemicals*

While the ongoing initiative of the TSCA is to evaluate the 86,000 existing chemical substances currently on the TSCA Inventory,[47] the EPA is also obligated to review and evaluate any newly manufactured or processed chemicals and any SNUs of a chemical.[48] The Lautenberg Act heightens this obligation by explicitly requiring the EPA to review all new chemicals and SNUs, make a determination about the new substance or use, and implement required actions based on the initial decision.[49] Upon notice to the EPA that a person intends to manufacture or process a new chemical substance or SNU, the Agency must conduct a review and make one of three alternative determinations:[50]

- *Determination 1*: the chemical substance or SNU presents an unreasonable risk of injury to health or the environment;[51]
- *Determination 2*:
  - the information available to the EPA Administrator is insufficient to permit a reasoned evaluation of the health and environmental effects of the substance or SNU; or
  - in the absence of sufficient information, the manufacture, processing, distribution in commerce, use, or disposal of the substance, or any combination of the activities, may present an unreasonable risk of injury to health or the environment; or
  - the substance is or will be produced in substantial quantities, and the substance either enters or may reasonably be anticipated to enter the environment in substantial quantities, or there may be significant or substantial human exposure to the substance;[52] or

47. *About the TSCA Chemical Substance Inventory*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/tsca-inventory/about-tsca-chemical-substance-inventory [https://perma.cc/N3US-2AUX].

48. *See* 15 U.S.C. § 2604(a).

49. Bergeson, *TSCA Reform*, *supra* note 37, at 2.

50. 15 U.S.C. § 2604(a)(1).

51. *Id.* § 2604(a)(3)(A).

52. *Id.* § 2604(a)(3)(B).

- *Determination 3*: the chemical substance or SNU is not likely to present an unreasonable risk of injury to health or the environment.[53]

One of the many improvements advanced by the Lautenberg Act removed the cost-benefit analysis previously incorporated in Determination 1.[54] The amendment clarified that when the EPA makes the determination of whether the chemical or SNU presents an unreasonable risk of injury to health or the environment, the Agency should not consider costs or other nonrisk factors.[55]

All three determinations identified above require the EPA to take further action. Determination 1 requires the EPA—to the extent necessary to protect against the risks to health or the environment—to either issue a proposed rule[56] or issue an order prohibiting or limiting the manufacture, processing, or distribution in commerce of the chemical.[57] Determination 2 requires the Agency to issue an order prohibiting or limiting the manufacture, processing, distribution in commerce, use, or disposal of the substance, so manufacturers may commence processing within the limits of that order while the required information is developed.[58] Determination 3 allows the manufacturer to begin processing the chemical, and because the substance was deemed not likely to present an unreasonable risk, a statement of findings must be made by the EPA and submitted for publication in the Federal Register as soon as practicable.[59]

B. *Evaluating Existing Chemicals*

While the EPA has long held that its purpose is to protect human health and the environment, the Agency's ability to circumvent the massive

53. *Id.* § 2604(a)(3)(C).

54. COMPARING ACT TO AMENDMENT, *supra* note 27.

55. 15 U.S.C. § 2604(a)(3)(A).

56. *Id.* § 2604(f)(1)–(3).

57. *Id.* § 2605(a). The subsections identify the possible scope of the regulation, which may include (1) a complete prohibition; (2) a prohibition, restriction, or limitation on the manufacturing, processing, or distribution in commerce of those substances or mixtures; or an imposition of requirements regarding (3) minimum warning labels and instructions, (4) the maintenance of records regarding production, (5) methods of commercial use, (6) the method of disposal of the substance, or (7) notices to distributors and the public. *See id.*

58. *Id.* § 2604(e)(1).

59. *Id.* § 2604(g).

responsibility accompanying its mission has been present for as long as the mission itself.[60] The EPA has always had the ability to evaluate and regulate, but the lack of obligations has resulted in a comparable lack of significant action.[61] The Lautenberg Act reoriented the EPA by identifying specific guidelines that the EPA must follow throughout the process, establishing that chemical prioritizations and evaluations will be ongoing and continuous, and imposing deadlines throughout the process to ensure the EPA fulfills specified requirements.[62] Under the original TSCA, the chemicals already in commerce were grandfathered in and hidden from evaluation, but now the EPA must work its way through the existing chemical inventory to evaluate the risks of chemicals already in use.[63] The resulting process is similar to the one used in the evaluation of new chemical substances, but it differs slightly considering the substances are already in use.[64] The EPA is required to prioritize those chemicals to be evaluated before others,[65] then those chemicals designated as high priority will be immediately evaluated for risks.[66] Once the risks are determined, the substance and its uses must be properly managed to prevent the potential risks to the environment and human health.[67]

1. *Prioritization*

The first step in the process requires the EPA to prioritize chemicals into one of two categories: high priority, for those chemical substances that will undergo further risk evaluation, or low priority, for those that do not currently require risk evaluation.[68] Prioritization is critical to the entire process. Not only does it act as the first notice that a chemical may potentially cause injury to the environment or human health,[69] but because

60. *See* Cathy Milbourn, *For the First Time in 40 Years EPA to Put in Place a Process to Evaluate Chemicals That May Pose Risk*, U.S. ENVTL. PROTECTION AGENCY (Jan. 13, 2017), https://archive.epa.gov/epa/newsreleases/first-time-40-years-epa-put-place-process-evaluate-chemicals-may-pose-risk.html [https://perma.cc/88G8-Y8KL].

61. *See id.*

62. COMPARING ACT TO AMENDMENT, *supra* note 27.

63. *See* 15 U.S.C. § 2607(b).

64. *Compare id.*, *with id.* § 2605(b)(1)(B).

65. *Id.* § 2605(b)(1)(B).

66. *Id.* § 2605(b)(3)(A), (4)(A)–(F).

67. *Id.* § 2605(c)(2)(A).

68. *Prioritizing Existing Chemicals for Risk Evaluation*, U.S. ENVTL. PROTECTION AGENCY, https://perma.cc/ZGJ2-2QDR [hereinafter *Prioritizing Overview*].

69. *Id.* ("Prioritization is a priority-setting step. High-Priority designations are not

of the requirement to keep evaluating, new chemicals must constantly be prioritized to keep both high-priority and low-priority inventories full as other evaluations are completed.[70] This creates an ongoing process of prioritizing, which leads to risk evaluations, allowing the EPA to fulfill its obligations by working through the list of existing chemicals still in need of evaluation and eventual management.[71]

The prioritization step itself includes an intricate and time-consuming process to be completed before the chemical can even be evaluated. The process takes between 9 and 12 months and involves 7 steps: pre-prioritization, candidate selection, initiation, screening review, proposed designation, final designation, and possibly a revision of designation.[72] Pre-prioritization identifies chemicals as potential candidates based on a flexible approach that considers Agency priorities, the quantity and quality of information available to keep progress from slowing down, and the workload and resource constraints involved in light of the statutory deadline that begins running once a chemical is designated as high priority.[73] Next, the EPA selects candidate chemicals based on statutory requirements and Agency discretion.[74] The TSCA requires 50 percent of high-priority designations to be drawn from the 2014 Update of the TSCA Work Plan,[75] and the Agency will give further preference to those chemicals from the list that show persistence and bioaccumulation scores of three or higher, are known human carcinogens, or have a high acute or chronic toxicity.[76]

The initiation step is the "formal beginning" of the prioritization process, where the statutorily prescribed 9-month minimum and 12-month maximum time period begins.[77] The EPA makes a formal announcement of

indications of risk and Low-Priority designations are not indications of safety.").

70. 15 U.S.C. § 2605(b)(2)(D).

71. *See* Milbourn, *supra* note 60.

72. *Prioritizing Overview*, *supra* note 68.

73. OFFICE OF CHEMICAL SAFETY & POLLUTION PREVENTION, ENVTL. PROT. AGENCY, A WORKING APPROACH FOR IDENTIFYING POTENTIAL CANDIDATE CHEMICALS FOR PRIORITIZATION 7–9 (2018).

74. *Id.* at 1–3.

75. 15 U.S.C. § 2605(b)(2)(B); *see generally* U.S. ENVTL. PROT. AGENCY, TSCA WORK PLAN FOR CHEMICAL ASSESSMENTS: 2014 UPDATE (2014), https://www.epa.gov/sites/production/files/2015-01/documents/tsca_work_plan_chemicals_2014_update-final.pdf [https://perma.cc/WZ6Y-UUMW].

76. *Prioritizing Overview*, *supra* note 68.

77. *Id.*

the selected substance and gives the public a 90-day comment period.[78] In addition to the public comment period, the EPA will open up public dockets for the remaining chemicals on the 2014 Work Plan that are not currently undergoing risk evaluations.[79] The public dockets allow the EPA to gather information that will inform future prioritization and risk evaluations for these chemicals, as well as providing the public with a platform for suggesting potential candidates.[80] After the comment period, the EPA performs a screening review.[81] Here, the Agency is required to screen the chemical under its "conditions of use":

> The process . . . shall include a consideration of the hazard and exposure potential of a chemical substance or a category of chemical substances (including consideration of persistence and bioaccumulation, potentially exposed or susceptible subpopulations and storage near significant sources of drinking water), the conditions of use or significant changes in the conditions of use of the chemical substance, and the volume or significant changes in the volume of the chemical substance manufactured or processed.[82]

The term *conditions of use* was added to the TSCA through the Lautenberg Act and allows the EPA to look at the full spectrum of how a chemical substance is "intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of."[83] The conditions of use are of significant importance to the chemical's prioritization and are used throughout the risk evaluation process.[84] Once screening is complete, the EPA will make a proposed designation of the

78. *Id.*

79. *Submitting Information on TSCA Work Plan Chemicals to Inform Prioritization and Risk Evaluation*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/submitting-information-tsca-work-plan-chemicals-inform [https://perma.cc/VS5Z-QVX2].

80. *Id.* The EPA is specifically interested in information about the types of industrial, commercial, or consumer uses; the types of products and articles containing the chemical; the industries that use the chemical; the functional, discontinued, or phased-out uses; the available hazard and toxicity information; regulations imposed by other authorities; exposure data; and the engineering controls used to reduce exposure. *Id.*

81. *Prioritizing Overview*, *supra* note 68.

82. 15 U.S.C. § 2605(b)(1)(A) (2018).

83. *Id.* § 2602(4).

84. *See Prioritizing Overview*, *supra* note 68.

chemical as high priority or low priority.[85] In addition to making the proposed designation, the Agency must publish the designation, along with the information, analysis, and basis used to make this designation, and then provide another 90-day public comment period.[86] After taking the public comments into consideration, the EPA will finalize the designation and either designate as low priority—determining that no risk evaluation is warranted at the time—or designate as high priority and immediately begin the risk evaluation.[87] It is possible for the Agency to revise the designation, but this requires the prioritization process to start all over again.[88]

2. *Risk Evaluation*

At this point, the EPA has completed a significant amount of work, invested substantial resources, and spent months' worth of time just to get to another segment in the process, which will again involve several other steps, determinations, and considerations. This part of the process—the risk evaluation—will eventually result in a comprehensive assessment of the chemical substance and its risks.[89] Before the EPA will manage the risks and protect the environment and human health, it must be certain there are significant risks that are worth managing.[90] The risk evaluation process allows the Agency to do just that. With the acquired information, the EPA will finally have the resources necessary to fulfill its obligations.

As previously established, the EPA is required to begin a risk evaluation after a chemical substance is designated as high priority, and as a result of the Lautenberg Act, the Agency is required to keep the inventory of potential substances full.[91] This generates an automated process, and in

85. *Id. High-priority substances* are defined as those substances "that the Administrator concludes, without consideration of costs or other nonrisk factors, may present an unreasonable risk of injury to health or the environment because of a potential hazard and a potential route of exposure under the conditions of use . . . ." 15 U.S.C. § 2605(b)(1)(B)(i). *Low-priority substances* are defined as those substances that do not meet the high-priority standard. *Id.* § 2605(b)(1)(B)(ii).

86. *Prioritizing Overview*, *supra* note 68.

87. *Id.*

88. *Id.*

89. *Risk Evaluations for Existing Chemicals Under TSCA*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-evaluations-existing-chemicals-under-tsca#determination [https://perma.cc/U6MF-NNR3] [hereinafter *Risk Evaluations Overview*].

90. *See id.*

91. *See supra* Part III.B.1.

addition to these recurring initiations, the EPA will initiate evaluations based on requests from manufacturers.[92] Manufacturer-requested evaluations must make up 25 to 50 percent of the risk evaluations if the EPA receives enough requests.[93] These requests save the EPA considerable time and effort due to the amount and quality of information required in the manufacturer's request, including the chemical identity, conditions of use of interest, and all other information necessary for the EPA to conduct the risk evaluation.[94] Once the process is initiated, whether by prioritization or by manufacturer request and approval, the evaluation is conducted in the same manner.[95]

The overall risk evaluation process requires four main steps: (1) establishing the scope of the evaluation, (2) completing the hazard and exposure assessments, (3) characterizing the risk, and (4) making a final risk determination.[96] The EPA must draft and publish the scope of the evaluation within 3 months of initiation, followed by a 45-day public comment period on the drafted scope, then the finalized scope must be published within 6 months of initiation.[97] The scope of the risk evaluation must include a Conceptual Model, which describes "the relationships between the chemical, under the conditions of use, and humans and the environment," and an Analysis Plan, which identifies "the approaches and methods [the] EPA intends to use to assess exposures and hazards."[98] Through subsequent assessments, the EPA must assess the hazards and exposures for the conditions of use and identify specific risks of injury to human health or the environment, taking into account the likely duration, intensity, frequency, and number of exposures under the conditions of use.[99] Hazards include, but are not limited to, "toxicity with respect to cancer, mutation, reproductive, developmental, respiratory, immune, cardiovascular impacts, and neurological impairments."[100] The exposure assessment also includes "the nature and types of individuals or populations who are exposed to the

92. 15 U.S.C. § 2605(b)(4)(C) (2018).
93. *Risk Evaluations Overview*, *supra* note 89.
94. *See id.*
95. *Id.*
96. *See id.*
97. *See* 15 U.S.C. § 2605(b)(4)(D); *see also Risk Evaluations Overview*, *supra* note 89.
98. *Risk Evaluations Overview*, *supra* note 89.
99. 15 U.S.C. § 2605(b)(4)(F).
100. *Risk Evaluations Overview*, *supra* note 89.

chemical" substance.[101] After integrating and assessing all available information and making the appropriate hazard and exposure assessments, the EPA characterizes the risk.[102] Finally, the EPA determines whether the chemical, under its conditions of use, presents an unreasonable risk to the environment or human health; if so, the substance and its conditions of use immediately move into risk management.[103] While the other sections of the process require the EPA to proceed relatively fast, the final risk evaluation does not have to be completed and published until at most three years after the chemical was identified as high priority.[104]

3. *Risk Management*

Once the chemical has reached the risk management phase, the EPA can finally begin to fulfill its obligation to protect the environment and human health.[105] The actions taken by the EPA to manage the identified risks may include various regulatory actions,[106] such as administering SNU rules, consent orders, and limitations on manufacturing, processing, and use, or through voluntary efforts.[107] Like the final risk evaluation, this step allows the EPA to take its time in promulgating rules. The TSCA allots a maximum time of two years after the risk evaluation is completed before the rule or regulation must be published.[108] Overall, the process may take years to complete before a rule—which is expected to manage the substance's effects on the environment and health—even becomes enforceable under the law.[109] While the Lautenberg Act gives the EPA more explicit and clear direction, as well as greater authority to regulate existing chemical substances,[110] the amendment to the TSCA fails to push the Agency far enough and fast enough. Under the TSCA, the EPA is able to regulate entire industries and

101. *Id.*
102. *Id.*
103. *Id.*
104. 15 U.S.C. § 2605(b)(4)(G).
105. *Id.* § 2605(a).
106. *See id.* § 2605(a)(1)–(7).
107. *See Current Chemical Risk Management Activities*, *supra* note 34.
108. 15 U.S.C. § 2605(c)(1)(C).
109. *See generally id.* § 2605. Each step in the process is provided a maximum amount of time in which it must be completed. *Id.* The 3, 6, 9, 12, or even 18 month "deadlines" give the EPA years to complete the process from initial prioritization to promulgation of a final rule. *See id.*
110. *See supra* Part II.B.

create lasting rules to protect the environment and human health.[111] Unfortunately, the lax standards also allow the EPA to skirt its responsibilities at the same rate it has since the TSCA was enacted and to avoid managing the highest risks currently facing the environment and human health.

IV. MANAGING THE HIGHEST RISK

Based on the high priority, the substantial and proven risks, and the amount of information available, the EPA should be addressing the chemicals and products at the root of arguably the most imminent, hazardous exposure facing the environment and human health to date: the manufacture, use, and disposal of petroleum-related chemicals and the resulting output of greenhouse gases.[112] On its face, the TSCA seems to only cover the manufacture of what most would deem chemicals, such as the incomprehensible additives found in processed foods or the unknown materials hidden in everyday products. But the TSCA's definition of *chemical* is all-encompassing,[113] meaning the EPA is capable of extensive regulation.

What is a chemical substance under the TSCA? The TSCA defines *chemical substance* as "any organic or inorganic substance of a particular molecular identity, including (i) any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and (ii) any element or uncombined radical."[114] Chemical substances on the TSCA Inventory "include organics; inorganics; polymers; and chemical substances of unknown or variable composition, complex reaction products, and biological materials."[115] Chemicals not on the list are not regulated under the TSCA because their use is governed by other statutes.[116] Those explicitly exempt from regulation under the TSCA (because they are addressed by another statute) are the following:

111. *See supra* Part II.B.

112. For an explanation of the interrelation among petroleum products, greenhouse gases, climate change, and the effects they have on human health and the environment, see *supra* note 2 and the accompanying sources.

113. *See* 15 U.S.C. § 2602(2).

114. *Id.* § 2602(2)(A).

115. *About the TSCA Chemical Substance Inventory*, *supra* note 47.

116. *See* 15 U.S.C. § 2602(2)(B).

pesticides;[117] foods, food additives, drugs, and cosmetics;[118] tobacco products;[119] nuclear materials;[120] and munitions.[121] Unless otherwise exempt, all chemical substances are subject to the required reporting and regulations prescribed by the TSCA.[122]

Manufacturers of chemicals subject to the TSCA are required to report certain information to the EPA.[123] Any person who manufactures or imports 25,000 pounds or more of a chemical substance for commercial purposes must provide the EPA with a compliance certification statement, company and plant-site information, and chemical-specific information related to chemical identification, processing, and use.[124] However, certain categories of chemical substances are fully exempt from these reporting requirements, including polymers, microorganisms, naturally occurring chemical substances, and certain forms of natural gas and water.[125] Manufacturers of these chemical substances are completely exempt from reporting and therefore not required to report even the most basic, minimal identification material to the EPA.[126] The TSCA specifically lists which chemicals are exempt from its reporting, risk assessments, and regulations, including those listed above, so I present the obvious question: Where are the TSCA-mandated risk management strategies regarding the hazards stemming from petroleum manufacturing, processing, use, and disposal? Conveniently, 617 chemical substances termed "petroleum process streams" are also partially exempt from reporting under the TSCA.[127]

A. *Petroleum Process Stream Chemicals and Greenhouse Gases*

What the manufacturers in the petroleum industry are partially exempt from is the highly relevant information that other chemical manufacturers are required to report—the chemical-specific information regarding

117. Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136 (2018).
118. Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 321 (2018).
119. 15 U.S.C. § 2602(2)(B)(iii).
120. Atomic Energy Act, 42 U.S.C. § 2011 (2018).
121. Internal Revenue Code of 1986, 26 U.S.C. § 4181 (2018).
122. *See* 15 U.S.C. § 2602(2)(A) ("Except as provided in subparagraph (B), the term 'chemical substance' means any organic or inorganic substance . . . .").
123. 40 C.F.R. § 711.8 (2019).
124. *Id.* § 711.15(b)(3)–(4).
125. *Id.* § 711.6(a).
126. *See id.*
127. *Id.* § 711.6(b)(1).

industrial processing, site information, and consumer and commercial use information, including production volumes.[128] Providing this information allows the EPA to more easily and efficiently make the necessary risk assessments that are essential to combating the hazards these substances present to human health and the environment.[129] But the EPA has clarified why these exempted chemical substances are not subject to reporting the otherwise-required information.[130] When making the determination of whether the exemption should apply to a particular chemical substance, the EPA assures it will consider "the totality of information available for the chemical substance in question," including the following:

> (A) Whether the chemical substance qualifies or has qualified in past IUR or CDR[131] collections . . . .
>
> (B) The chemical substance's chemical and physical properties or potential for persistence, bioaccumulation, health effects, or environmental effects (considered independently or together).
>
> (C) The information needs of EPA, other Federal agencies, Tribes, States, and local governments, as well as members of the public.
>
> (D) The availability of other complementary risk screening information.
>
> (E) The availability of comparable processing and use information.
>
> (F) Whether the potential risks of the chemical substance are adequately managed.[132]

From this explanation, the EPA justifies the exemption of petroleum-related chemicals because the information regarding consumer exposure is of low interest or there is no need for the information based on the totality

128. *Id.* § 711.15(b)(4).

129. *See supra* Part III.B.2.

130. *See* 40 C.F.R. § 711.6(b)(2).

131. In 2011, the EPA changed the name of its chemical reporting regulation from the Inventory Update Reporting (IUR) Rule to the Chemical Data Reporting (CDR) Rule, which is codified at 40 C.F.R. § 711. *Chemical Data Reporting - Previously Collected Data*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/chemical-data-reporting/chemical-data-reporting-previously-collected-data [https://perma.cc/PY7G-GV9Y].

132. 40 C.F.R. § 711.6(b)(2)(ii).

of the circumstances.[133] This is inconsistent with another finding of the EPA, which exemplifies the high public interest of this information, the significant risks, and the need for proper management of petroleum-based products.[134]

Following *Massachusetts v. EPA*,[135] the EPA Administrator was required to determine whether greenhouse gas emissions would "reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision."[136] In 2009, the EPA conducted a careful and exhaustive review of climate change research and subsequently determined greenhouse gas emissions endanger human health and environmental welfare.[137] The EPA's Endangerment Finding, simply put, clarifies with scientific certainty that the increase of greenhouse gases in the atmosphere poses an extreme risk to the safety of the environment and human health.[138] This finding by the EPA signals the clear risks associated with the accumulation of greenhouse gases in the atmosphere, including the presence of petroleum-product outputs in the environment, the exposure and harm to humans and ecological receptors, and the toxic results that stem from the use of petroleum process stream chemicals—all results that implicate the risk factors identified by the EPA.[139]

B. *Fulfilling the Risk Management Obligation*

It is a well-understood scientific fact that the manufacture, production, distribution, use, and disposal of petroleum and related substances results in

133. *See id.*

134. *See generally* Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496 (Dec. 15, 2009).

135. Massachusetts v. EPA, 549 U.S. 497 (2007).

136. *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under the Section 202(a) of the Clean Air Act*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean [https://perma.cc/PZT5-6FAM].

137. *See generally* Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496. The EPA Administrator found current and projected concentrations of the six key greenhouse gases—carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6)—in the atmosphere threaten the public health and welfare of current and future generations. *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under the Section 202(a) of the Clean Air Act*, *supra* note 136.

138. *See generally Endangerment and Cause or Contribute Findings for Greenhouse Gases Under the Section 202(a) of the Clean Air Act*, *supra* note 136.

139. *See Learn About Risk Assessment*, *supra* note 26.

substantial greenhouse gas emissions.[140] When applying the framework identified above regarding exemptions,[141] it is evident that petroleum process stream chemicals should not be exempt from reporting. Additionally, when applying the framework established by the TSCA regarding the evaluation of existing chemicals,[142] it is apparent that the EPA is obligated to address the obvious and overwhelming risks associated with petroleum-related chemicals by implementing appropriate risk management strategies.

First and foremost, the EPA should not provide the substantial protection given to the petroleum industry by exempting hundreds of chemicals from its risk assessment and management procedures. Based on the "totality of information available" as described in 40 C.F.R. § 711.6(b)(2)(ii),[143] it is evident that petroleum products, as a broad category, do not meet the requirements for exemption. The result of petrochemical manufacturing, processing, and use is an increased accumulation of greenhouse gases in the atmosphere[144]—this effect would fall under 40 C.F.R. § 711.6(b)(2)(ii)(B) and the "potential for persistence, bioaccumulation, health effects, or environmental effects."[145] Additionally, as one of the largest contributors to greenhouse gas emissions,[146] processes involved with manufacturing and using petroleum products should be accessed to shape policies regarding reduction of emissions. There is a substantial need for information related to these chemicals, their use, and their disposal in order to inform the public and shape government policies—this necessity falls under section 711.6(b)(2)(ii)(C)'s language of "[t]he information needs of EPA, other Federal agencies, Tribes, States, and local governments, as well as members of the public."[147] Finally, pursuant to section 711.6(b)(2)(ii)(F), the EPA will exempt certain chemical substances

140. *See GHGRP Refineries*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/ghgreporting/ghgrp-refineries [https://perma.cc/5TDM-Z6YX].

141. *See supra* Part IV.A.

142. *See supra* Part III.B.

143. 40 C.F.R. § 711.6(b)(2)(ii) (2019).

144. *See Energy and the Environment Explained: Where Greenhouse Gases Come From*, *supra* note 2 ("Nearly half of U.S. energy-related CO2 emissions are from petroleum use.").

145. 40 C.F.R. § 711.6(b)(2)(ii)(B).

146. *See Sources of Greenhouse Gas Emissions*, *supra* note 2 ("The transportation sector generates the largest share of greenhouse gas emissions. . . . Over 90 percent of the fuel used for transportation is petroleum based . . . .").

147. 40 C.F.R. § 711.6(b)(2)(ii)(C).

from reporting where the risks are adequately managed.[148] The chemical substances in the petroleum process are directly related to one of the greatest risks facing the environment and human welfare today;[149] therefore, it is clear the risks associated with this problem have yet to be adequately managed. Looking at the totality of the circumstances and considering three of the six factors are arguably implicated, petroleum process stream chemicals should not be exempt from reporting to the EPA and the obligatory analysis under the TSCA.

Without an exemption, the chemicals would then be subject to reporting, risk assessment, and a full evaluation. As shown previously, the risk evaluation process for existing chemicals involves several steps and significant resources to make the proper determinations.[150] What makes the process significantly easier is the availability and production of information by manufacturers.[151] When the EPA is given this information, the process is much more efficient, and the Agency is able to manage the risks based on necessity, rather than availability of information or manufacturer requests.[152] Looking first to the prioritization process, it is clear the evaluation would be one of high priority.[153] The pre-prioritization process considers the EPA's priorities, the quantity and quality of available information, the resource restraints, and whether those substances show bioaccumulation and persistence.[154] Protecting human health and the environment is the EPA's priority—this includes protecting the global atmospheric climate system, as it substantially affects every aspect of human health and environmental stability.[155] The quantity of information available regarding this topic is unending, and the quality is unmatched considering the interdisciplinary focus and abundance of connected resources.[156] Accordingly, any resource

148. *Id.* § 711.6(b)(2)(ii)(F).

149. *See supra* note 2.

150. *See supra* Part III.B.

151. *Risk Evaluations Overview*, *supra* note 89; *see also supra* Part III.B.2.

152. *See Risk Evaluations Overview*, *supra* note 89.

153. *See Prioritizing Overview*, *supra* note 68.

154. *See supra* Part III.B.1.

155. *Our Mission and What We Do*, *supra* note 3 ("The mission of EPA is to protect human health and the environment."); *see also The Effects of Climate Change*, NASA, https://climate.nasa.gov/effects/ [https://perma.cc/KW3K-52H4] (exemplifying the effects that climate change has on various aspects of the environment).

156. *See Scientific Consensus: Earth's Climate Is Warming*, NASA, https://climate.nasa.gov/scientific-consensus/ [https://perma.cc/MN4Y-6RN3] ("Multiple studies published in peer-reviewed scientific journals show that 97 percent or more of

restraints facing the EPA are put in place by the Agency itself. If the EPA were to require the petroleum industry to report rather than exempting them from providing readily available information, the EPA would have to do very little in terms of collecting the necessary information for risk assessment.[157] Additionally, preference is given to those chemical substances that present issues regarding bioaccumulation and persistence,[158] which is at the very core of the issue of greenhouse gas emissions and atmospheric buildup.[159] If the opportunity for assessment was presented, petroleum process stream chemicals would be given preference due to their potential for persistence, and they would be properly prioritized. Next, the chemicals would be subject to a screening of all conditions of use, from the beginning of the manufacturing process to the disposal and byproducts.[160] The EPA's ability to consider the full spectrum of how a chemical substance is "intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used or disposed of"[161] would likely unveil more risks than originally anticipated. Finally, the EPA would make a designation, and based on the presence of every possible factor pointing toward a high-priority designation,[162] the substances would move into the risk evaluation process.

actively publishing climate scientists agree: Climate-warming trends over the past century are extremely likely due to human activities.").

157. As previously stated, the most relevant information that other chemical manufacturers are required to report—the chemical-specific information regarding industrial processing, site information, and consumer and commercial use—is not required for petroleum process stream chemical producers. *See* 40 C.F.R. § 711.15(b)(3)–(4) (2018). If manufacturers had to report this information, the EPA would have everything necessary to complete a thorough and efficient evaluation. *See Risk Evaluations Overview*, *supra* note 89.

158. *See* 40 C.F.R. § 711.6(b)(2)(ii).

159. *See Effects of Changing the Carbon Cycle*, NASA EARTH OBSERVATORY, https://earthobservatory.nasa.gov/features/CarbonCycle/page5.php [https://perma.cc/43B2-DGHD] (exemplifying the accumulation and persistence of carbon in the atmosphere from human activity).

160. *See supra* Part III.B.1.

161. 15 U.S.C. § 2602(4) (2018).

162. *Id.* § 2605(b)(1)(B)(i). Recall that high-priority substances are defined as those substances "that the Administrator concludes, without consideration of costs or other nonrisks factors, may present an unreasonable risk of injury to health or the environment because of a potential hazard and a potential route of exposure under the conditions of use." *Id.*

The old TSCA allowed industries to claim certain reportable information was confidential, effectively shielding it from assessment and hindering the EPA's progress.[163] The amended TSCA boasts more stringent requirements regarding confidential business information.[164] This provides greater transparency overall and contributes to the EPA's heightened authority regarding the determination of which chemical substances represent the highest risks.[165] The access to information also benefits the EPA while conducting a risk evaluation, as the Agency must be certain of the presence of a significant risk before entering into the risk-management phase.[166] Once the risk evaluation is complete, the EPA will have the information necessary for it to manage the risks associated with petroleum process stream chemical substances and the greenhouse gases that result from manufacturing, using, and disposing of petroleum-based products.[167] The substantial amount of information regarding the effects that petroleum-related chemicals have on the global climate system, and consequently human health, would provide the EPA with more information than any other chemical undergoing evaluation. Therefore, the Agency would experience substantial ease in completing a risk evaluation regarding these chemicals.[168]

V. CONCLUSION

Under the old TSCA, the EPA was simply authorized to make a risk determination or initiate a chemical risk assessment. However, the amended TSCA requires the Agency to regulate, limit, and manage chemicals to the extent necessary to protect human health and the environment.[169] Where risks are apparent, the EPA must act to manage those risks.[170] Where information is inadequate, manufacturers must be put on notice and limited in their operations while the necessary information is gathered.[171] And in situations where the EPA actually finds there is no unreasonable risk present, the Agency must explain this finding and publish the material for

163. COMPARING ACT TO AMENDMENT, *supra* note 27.
164. 15 U.S.C. § 2613.
165. *See id.* § 2605(b)(1)(B)(i).
166. *See supra* Part III.B.2.
167. *See Risk Evaluations Overview*, *supra* note 89.
168. *See id.*
169. 15 U.S.C. § 2604(f)(1)–(3).
170. *Id.*
171. *Id.* § 2604(e)(1).

the public to understand what all went into the chemical evaluation.[172] Considering the mission of the EPA, it should not only be its responsibility but also its goal to evaluate the risks associated with certain chemical substances, so the EPA may fulfill its established purpose—protecting the environment and human health.[173] Providing exemptions for some of the highest risk chemical substances without sufficient reasoning, and contrary to established reasoning,[174] is a perfect example of how the EPA has avoided its obligations. With the amended TSCA and more public comment on the priority of evaluating high-risk chemical substances, perhaps the Agency will be pushed back in the direction of its original goals.

Sheridan DeJong∗

172. *Id.* § 2604(g).

173. *Our Mission and What We Do*, *supra* note 3.

174. *See supra* Part IV.A.

∗ B.S., University of Iowa, 2016; J.D. Candidate, Drake University Law School, 2020. Thank you to the *Drake Law Review* staff for editing this Note and for being incredible peers.