

**THE ATTORNEYS GENERAL OF NEW YORK, ARIZONA, CONNECTICUT,
THE DISTRICT OF COLUMBIA, HAWAII, ILLINOIS, MARYLAND,
MASSACHUSETTS, MINNESOTA, NEW JERSEY, OREGON,
PENNSYLVANIA, RHODE ISLAND, AND WASHINGTON**

December 15, 2023

Via Electronic Filing

EPA-HQ-OPPT-2020-0642

Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460-0001

Re: Proposed Rule: Trichloroethylene (TCE); Regulation Under the Toxic Substances Control Act (TSCA), 88 Fed. Reg. 74,712 (Oct. 31, 2023)

Dear Administrator Regan,

The Attorneys General of New York, Arizona, Connecticut, the District of Columbia, Hawai'i, Illinois, Maryland, Massachusetts, Minnesota, New Jersey, Oregon, Pennsylvania, Rhode Island, and Washington submit these comments regarding the U.S. Environmental Protection Agency's ("EPA") proposed rule (the "Proposed TCE Rule")¹ under the Toxic Substances Control Act ("TSCA"),² addressing the unreasonable risk of injury to human health presented by the highly toxic solvent, trichloroethylene ("TCE"). Exposure to TCE poses serious risks to human health and the environment and our States have a significant interest in ensuring that such risks are prevented. Therefore, we strongly support EPA's decision to prohibit the manufacture, use, and disposal of this harmful chemical as set forth in the proposed rule. Moreover, because some uses of TCE will have lengthy phaseout periods under the proposed rule, the States urge EPA to adopt measures to protect fence-line communities from TCE exposures during such periods.

I. Background and Overview of the Proposed TCE Rule

In June 2016, TSCA was amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act ("Lautenberg Act")³ to require EPA to evaluate the safety of existing chemicals. Under TSCA as amended, EPA must conduct Risk

¹ Trichloroethylene (TCE); Regulation Under the Toxic Substances Control Act (TSCA), 88 Fed. Reg. 74,712 (Oct. 31, 2023).

² 15 U.S.C. §§ 2691, *et seq.*

³ Pub. L. No. 114-182, 130 Stat. 448 (June 22, 2016).

Evaluations of certain chemicals to determine whether they present unreasonable risks of injury to health or the environment, under the conditions of the chemicals' use,⁴ including an unreasonable risk to potentially exposed or susceptible subpopulations.⁵ If EPA determines that a chemical presents an unreasonable risk, it must implement, via regulation, restrictions on the manufacture, processing, distribution, use or disposal of the chemical to eliminate the unreasonable risk.⁶

The Lautenberg Act required EPA promptly to initiate Risk Evaluations on 10 chemical substances drawn from the agency's 2014 update of the TSCA Work Plan for Chemical Assessments and to publish the list of 10 chemicals within 180 days of enactment.⁷ In December 2016, EPA designated TCE as one of those 10 priority chemicals for Risk Evaluation due to its known hazards and amounts of exposure.⁸

In November 2020, EPA completed its Risk Evaluation of TCE and determined that TCE presents, under certain conditions of use, an unreasonable risk of injury to health, including an unreasonable risk to potentially exposed or susceptible subpopulations.⁹ In December 2022, EPA issued a revised unreasonable risk determination for TCE, after the agency determined that its risk determination for TCE is better characterized as a whole chemical risk determination rather than as a condition-of-use-specific one.¹⁰ In revising its TCE unreasonable risk determination, EPA also conducted a screening-level analysis to assess potential risks to fenceline communities—that is, neighborhoods directly adjacent to sources of TCE emissions—from exposure to TCE in the ambient air and water.¹¹

Based on EPA's revised Risk Evaluation, the Proposed TCE Rule would prohibit: the manufacture, processing, and distribution in commerce of TCE; the industrial and commercial use of TCE for all uses; and the disposal of TCE to industrial pre-treatment, industrial treatment, or publicly owned treatment works.¹² And in the proposed rule, EPA varies phaseout periods for different identified conditions of use, ranging from three months for the manufacture of TCE to 50 years

⁴ "Conditions of use" under TSCA means "the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used or disposed of." 15 U.S.C. § 2602(4).

⁵ See 15 U.S.C. §§ 2605(b)(2)-(4); 40 C.F.R. Part 702, Subpart B.

⁶ 15 U.S.C. § 2605(a); 40 C.F.R. § 702.49(c).

⁷ 15 U.S.C. § 2605(b)(2)(A).

⁸ Designation of Ten Chemical Substances for Initial Risk Evaluations Under the Toxic Substances Control Act, 81 Fed. Reg. 91,927 (Dec. 19, 2016).

⁹ EPA, *Risk Evaluation for Trichloroethylene* (Nov. 2020), at 248, https://www.epa.gov/sites/default/files/2020-11/documents/1_risk_evaluation_for_trichloroethylene_tce_casrn_79-01-6.pdf.

¹⁰ Trichloroethylene (TCE); Revision to the Toxic Substances Control Act (TSCA) Risk Determination; Notice of Availability, 88 Fed. Reg. 1,222 (Jan. 9, 2023).

¹¹ 88 Fed. Reg. at 74,768-74,773.

¹² *Id.* at 74,712.

for laboratory uses of TCE considered by EPA to be “essential.”¹³ The proposal also includes strict workplace controls, including compliance with a TCE workplace chemical protection program, which would include an inhalation exposure limit and dermal protection, to limit exposure to TCE for those conditions of use with long-term phaseouts.¹⁴ According to EPA, the proposal “would ultimately result in a complete ban on TCE.”¹⁵

II. The States’ Interests in Banning TCE

TCE is a colorless, volatile liquid with a mild, sweet odor.¹⁶ The two major uses of TCE are as a solvent to remove grease from metal parts and as a chemical that is used to make other chemicals, particularly the refrigerant, HFC-134a.¹⁷ Approximately 15% of TCE’s annual production volume is used as a degreasing solvent and approximately 84% is used to make HFC-134a.¹⁸ TCE is used in consumer products such as cleaners for brakes, electronics, tires, film, furniture and carpets, as well as in mold release products, shoe polish, fabric spray, and adhesives.¹⁹ The total annual aggregate production volume of TCE ranged from 100 to 250 million pounds between 2015 and 2019.²⁰

The States have a strong interest in banning TCE due to its demonstrated risks to human health and the environment. The hazards of TCE are well established. TCE can enter the body through ingestion, inhalation, and skin contact. TCE poses serious risks to human health from both acute single exposures and long-term repeated exposures.²¹ Acute exposure to moderate amounts of TCE may cause headaches, dizziness, and sleepiness; large amounts may cause coma and even death.²² Acute exposure can also cause nerve damage, changes in the rhythm of the heartbeat, liver damage, and kidney damage.²³ The most sensitive effects of acute exposure to TCE are developmental toxicity and immunosuppression.²⁴ Chronic exposure can cause fetal cardiac defects, autoimmunity, liver toxicity, kidney toxicity, neurotoxicity, immunosuppression, reproductive toxicity, and developmental toxicity.²⁵ In addition,

¹³ *Id.* at 74,744-74,751.

¹⁴ *Id.* at 74,715.

¹⁵ *Id.* at 74,716.

¹⁶ Agency for Toxic Substances & Disease Registry, *Trichloroethylene - ToxFAQs™* (June 2019), <https://www.atsdr.cdc.gov/toxfaqs/tfacts19.pdf>.

¹⁷ *Id.*

¹⁸ 88 Fed. Reg. at 74,772.

¹⁹ *Id.* at 74,727-74,729.

²⁰ EPA, *Non-Technical Summary of the Risk Evaluation for Trichloroethylene* (Dec. 2022), at 2, https://www.epa.gov/system/files/documents/2023-01/TCE_Non%20Technical%20Summary_12-21-22-final-v2.pdf.

²¹ 88 Fed. Reg. at 74,716.

²² *Trichloroethylene - ToxFAQs™*, *supra* note 16.

²³ *Id.*

²⁴ 88 Fed. Reg. at 74,712.

²⁵ *Id.* at 74,716.

TCE is a known human carcinogen and exposure can lead to liver, kidney, and non-Hodgkin lymphoma cancers.²⁶

TCE can be released to air, water, and soil at places where it is produced or used.²⁷ It is broken down quickly in air, but degrades very slowly in soil and water and is removed mostly through evaporation to air.²⁸ TCE is relatively mobile in soils and therefore readily migrates into groundwater. Once in the groundwater it is relatively persistent and remains present for years. Between 2017 and 2019, 438 utilities in 43 states detected TCE in drinking water.²⁹ And TCE has been found in at least 1,051 of the 1,854 sites on EPA's National Priorities List of Superfund Sites ("Superfund NPL").³⁰

New York

Contaminated groundwater plumes and contaminated soil may also cause soil vapor intrusion into buildings and homes. TCE vapors can enter buildings in basements through cracks in the foundation, around pipes, or through a sump or drain system. The TCE vapor then contaminates the indoor air.³¹ For example, in March 2022, EPA added a site spanning several city blocks in the Greenpoint/East Williamsburg area of Brooklyn, New York to the Superfund NPL, due to the presence of chlorinated volatile organic compounds, including TCE.³² Contaminated soil and groundwater underneath the site have caused vapors to seep into the indoor air of residential and commercial structures in the area.³³ According to EPA, "[h]undreds of residents and workers are exposed to the indoor air contamination that results from vapor intrusion into the structures."³⁴

TCE has also been a chemical of concern at many sites where it has exceeded health-based maximum contaminant levels for drinking water. This is of particular concern in locations where groundwater is the sole source of drinking water, such as on Long Island in New York for the almost three million residents of Nassau and Suffolk Counties. Most notably, TCE is the primary contaminant in one of the largest groundwater plumes in the nation—the Navy-Grumman plume on Long Island. The contamination was caused by manufacturing plants operated during the mid-20th century by Northrop Grumman and the U.S. Navy, which used TCE to clean aircraft

²⁶ *Id.*

²⁷ *Trichloroethylene - ToxFAQs™*, *supra* note 16.

²⁸ *Id.*

²⁹ Environmental Working Group, *Tap Water Database*, <https://www.ewg.org/tapwater/contaminant.php?contamcode=2984#>.

³⁰ *Trichloroethylene - ToxFAQs™*, *supra* note 16.

³¹ See EPA, *What is Vapor Intrusion?*, <https://www.epa.gov/vaporintrusion/what-vapor-intrusion>.

³² EPA, *National Priorities List (NPL): Meeker Avenue Plume* (Mar. 2022), <https://semspub.epa.gov/work/HQ/402017.pdf>.

³³ EPA, *Current and Upcoming Activities* (Sept. 2021), <https://semspub.epa.gov/work/02/625195.pdf>.

³⁴ *National Priorities List (NPL): Meeker Avenue Plume*, *supra* note 32.

parts. Today, a TCE-contaminated groundwater plume lies beneath a nearly seven-square mile heavily developed area within Nassau County. TCE concentrations in the groundwater have been found up to 11,200 parts per billion (“ppb”), which far exceeds New York State’s limit of 5 ppb.³⁵ Eleven public water supply wells have been impacted by the plume and are being treated to remove TCE.³⁶

TCE contamination is a problem across other parts of New York State. TCE is or has been a contaminant of concern at over 600 inactive hazardous waste sites in New York, with 175 sites in New York City alone.³⁷ According to EPA’s Toxic Release Inventory, 41,346 pounds of TCE were released in New York between 2017 and 2022.³⁸ Responding to this human health and environmental threat, in 2022, New York banned the use of TCE as a vapor degreaser, an intermediate chemical to produce other chemicals, a refrigerant, an extraction solvent, and in any other manufacturing or industrial clean process or use.³⁹

Arizona

The State of Arizona has devoted substantial resources to addressing environmental and public health impacts caused by historical use of TCE. 80% of Superfund NPLs in Arizona involve TCE cleanup operations.⁴⁰ TCE has contaminated several groundwater aquifers in Arizona, requiring costly remediation measures and impairing an important water source in an arid state.⁴¹

³⁵ New York State Department of Environmental Conservation, *Amended Record of Decision Northrop Grumman Bethpage Facility and Naval Weapons Industrial Reserve Plant* (Dec. 2019), at 22, https://extapps.dec.ny.gov/data/DecDocs/130003B/ROD.HW.130003B.2019-12-20.Navy-Northrop_Grumman_Full_AROD_Final.pdf.

³⁶ New York Department of Environmental Conservation, *Amended Remedy Proposed for State Superfund Site, Navy Grumman Groundwater Plume* (May 2019), https://extapps.dec.ny.gov/data/DecDocs/130003A/Fact%20Sheet.HW.130003A.2019-05-23.DEC-Factsheet_Proposed_Amended_ROD.pdf.

³⁷ See New York State Department of Environmental Conservation, Environmental Site Remediation Database Search, <https://extapps.dec.ny.gov/cfm/extapps/derexternal/index.cfm?pageid=3>.

³⁸ See EPA, TRI Explorer, https://enviro.epa.gov/triexplorer/tri_release.chemical.

³⁹ N.Y. Env’t Conserv. Law § 37-0119.

⁴⁰ See generally <https://azdeq.gov/superfund-sites>; Hassayampa Landfill, North Indian Bend Wash, Motorola 52nd Street, Phoenix-Goodyear Airport, Williams Air Force Base, Tucson International Airport Area (including the 162nd Fighter Wing Arizona Air National Guard, U.S. Air Force Plant 44, Airport Property Area, Texas Instruments, Tucson Airport, West-Cap, and West Plume B sites), and Marine Corps Air Station Yuma all involve TCE cleanup. 13 of the 16 (~81%) active NPL sites in Arizona involve TCE exposure.

⁴¹ Keith Bagwell, *City to Drill 9 Wells This Fall in TCE Cleanup*, The Arizona Daily Star, June 29, 1991, https://tucson.com/city-to-drill-9-wells-this-fall-in-tce-cleanup/article_bba948c8-d06c-11eb-9057-2be6b8e0cf5e.html; Ciara Encinas, *40 Years After TCE Water Contamination: Cleanup Efforts Post Contamination*, KGUN 9 Tucson, Mar. 30, 2021, <https://www.kgun9.com/news/local-news/40-years-after-tce-water-contamination-cleanup-efforts-post-contamination>; Ian James and Andrew Niela, *Toxic Groundwater Lies Beneath Phoenix, and a Cleanup Has Been Delayed for Years*, The Republic, Aug. 13, 2019, <https://www.azcentral.com/story/news/local/arizona->

Massachusetts

TCE is regulated in Massachusetts under the Commonwealth's hazardous waste site cleanup regulations known as the Massachusetts Contingency Plan ("MCP").⁴² Under the MCP, short-term exposures to hazardous chemicals that may pose a health risk are identified as "Imminent Hazards," and the Massachusetts Department of Environmental Protection has set various Imminent Hazard values for TCE in recognition of the serious risks posed by exposures to the chemical.⁴³ And under the Massachusetts Toxics Use Reduction Act, G.L. c. 21I ("TURA"), large-quantity users of certain toxic chemicals, including TCE, must report annually on their use of the chemicals and periodically conduct toxics use reduction planning. The TURA program may designate "Higher" or "Lower Hazard Substances" within the larger TURA list of Toxic or Hazardous Substances. If a chemical is designated as a Higher Hazard Substance ("HHS") under TURA, the thresholds for reporting for those chemicals are lowered. The TURA program has designated TCE as one of the 14 chemicals or chemical categories currently listed as HHS. Also, the Massachusetts Toxics Use Reduction Institute ("TURI"), created under TURA, Section 6, and the Massachusetts Office of Technical Assistance and Technology ("OTA"), its partner agency, work with Massachusetts businesses to reduce the use of toxic chemicals in the state. TURI and OTA are engaged in on-going work to help Massachusetts businesses and communities reduce their use of TCE and other toxic solvents. This work to assist Massachusetts businesses and communities complements other regulatory activities within the Commonwealth to protect workers, communities and the environment from these and other toxic chemicals.

Minnesota

In the wake of a massive civil settlement with an industrial manufacturer that exceeded its TCE permit limits, Minnesota became the first state in the nation to ban most permitted uses for TCE altogether.⁴⁴ While the ban went into effect as of June 2022, the regulated sites (130 separate facilities) were able to comply ahead of schedule.⁴⁵

Oregon

Since the establishment of Oregon's Cleanup Program, the state has investigated 350 sites for soil and groundwater contamination resulting from releases

[environment/2019/08/13/toxic-groundwater-beneath-phoenix-west-van-buren-but-cleanup-stalled/3486506002/](https://www.environment/2019/08/13/toxic-groundwater-beneath-phoenix-west-van-buren-but-cleanup-stalled/3486506002/).

⁴² The Massachusetts Contingency Plan, 310 C.M.R. 40.0000.

⁴³ See Imminent Hazard Risk Characterization and Outcome, 310 C.M.R. 40.0955.

⁴⁴ Minn. Stat. § 116.385.

⁴⁵ Minnesota Pollution Control Agency, *How Minnesota Passed the Country's First Ban on Trichloroethylene*, <https://www.pca.state.mn.us/news-and-stories/tce-ban-in-effect>.

of TCE. These sites require state resources for oversight of environmental investigations and cleanup of contamination. For example, in Corvallis, the firm Hollingsworth & Vose, formerly Evanite, a manufacturer of specialty glass parts, used TCE to clean machine parts. Releases from the site resulted in an extensive groundwater plume extending into residential neighborhoods and the Willamette River. Groundwater pump and treat systems and vapor extraction systems have been operating for years in an attempt to contain and diminish the groundwater contamination. Another notable site is the former View-Master facility in Beaverton, where thousands of employees were exposed to concentrations of TCE as high as 1,670 micrograms per liter ($\mu\text{g/L}$) at the onsite well used for drinking water.

Washington

Washington has had to oversee the cleanup of numerous sites contaminated by releases of TCE to soil and groundwater under its Model Toxics Control Act.⁴⁶ These include the Boeing Auburn site, at which the airplane manufacturer used TCE to clean metal parts from the mid-1960s to the 1990s. Releases of the chemical created a plume of groundwater contamination that extends more than a mile north and northwest of the manufacturing facility at depths of 30 to 100 feet. In order to protect the health of residents living above such groundwater contamination, the state developed guidance for actions when TCE vapor intrusion into buildings has the potential to exceed action levels, and in which women of childbearing age are occupants.

III. The States Support EPA's Phase Out of TCE

The States strongly support EPA's proposal to phase out and ultimately ban TCE. As discussed above, TCE presents a clear danger to human health, and, once released into soil and groundwater, it remains a persistent environmental contaminant threatening indoor air quality and drinking water. EPA's Risk Evaluation for TCE amply supports the Proposed TCE Rule. EPA identified significant adverse health effects associated with short- and long- term exposures to TCE. As EPA found, acute inhalation and dermal exposure to TCE can cause immunosuppression and developmental toxicity. Chronic inhalation and dermal exposure to TCE can cause liver toxicity, kidney toxicity, neurotoxicity, autoimmunity, reproductive toxicity, developmental toxicity, and cancer.⁴⁷

The Proposed TCE Rule will provide wide-ranging health benefits for the public. EPA determined that the decreased incidence of liver, kidney, and non-Hodgkin's lymphoma cancers as a result of the rule will produce monetized benefits of approximately \$18.1 to \$21.5 million annualized over the next 20 years at a 3%

⁴⁶ Wash. Rev. Code Chapter 70A.305.

⁴⁷ 88 Fed. Reg. at 74,722.

discount rate.⁴⁸ It follows that the benefits for reducing other health risks associated with TCE exposure are likely substantial as well.⁴⁹ EPA also notes that approximately 982 pregnant workers and occupational non-users will potentially benefit each year by reducing their TCE exposure and therefore reducing the risk of fetal cardiac defects for their offspring.⁵⁰ Furthermore, the rule is likely to reduce the amount of TCE in drinking water systems and thereby reduce exposures to populations using those drinking water sources.⁵¹ Although EPA did not quantify the health-related benefits of improved drinking water quality in the proposed rule,⁵² such non-monetized benefits of the Proposed TCE Rule are likely significant.

IV. The States Support EPA's Proposed ECEL of 1.1 ppb

Since TCE will continue to be manufactured, used, and disposed of until the chemical is completely phased out, in the Proposed TCE Rule, EPA sets a strict occupational inhalation exposure limit—referred to as the existing chemical exposure limit (“ECEL”)—of 1.1 ppb (0.0011 parts per million³) as an eight-hour time-weighted average. The ECEL of 1.1 ppb is based on the most sensitive overall human endpoint of developmental toxicity, specifically, fetal cardiac defects.⁵³ It represents the concentration of TCE at which an individual would be unlikely to suffer adverse effects if exposed for a single eight-hour workday. It also protects against adverse health effects that could arise following chronic or lifetime exposures under typical occupational exposure scenarios.⁵⁴

EPA requests comment on its selection of the proposed ECEL of 1.1 ppb rather than an alternative ECEL of 4 ppb, which would protect against immunotoxicity but not fetal cardiac defects.⁵⁵ The States support the proposed ECEL of 1.1 ppb because it is designed to be protective of the most susceptible populations. As EPA explains, older pregnant workers and occupational non-users may be especially susceptible to TCE-induced cardiac defects in their developing fetuses.⁵⁶ TSCA mandates that EPA consider risks to potentially exposed or susceptible subpopulations, which are defined to include “pregnant women” and “workers.”⁵⁷ Therefore, EPA was correct to set an ECEL based on risk to these groups.

EPA's proposed ECEL of 1.1 ppb is also amply supported by sound scientific evidence. In 2011, EPA's Toxicological Review of TCE assessed the available evidence

⁴⁸ *Id.* at 74,717-74,718.

⁴⁹ *See id.* at 74,718.

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

⁵³ 88 Fed. Reg. at 74,721.

⁵⁴ *Id.*

⁵⁵ *Id.* at 74,731-74,732.

⁵⁶ *Id.* at 74,731.

⁵⁷ 15 U.S.C. §§ 2605(b)(4)(A), 2602(12).

on congenital malformations and concluded that TCE exposure poses a hazard for cardiac defects in offspring.⁵⁸ In 2014, EPA’s TSCA Work Plan Chemical Risk Assessment for TCE conducted a weight of evidence analysis⁵⁹ and “concluded that the totality of data demonstrates congenital heart defects as a human health hazard resulting from exposure to TCE.”⁶⁰ In 2016, EPA published a peer-reviewed journal article describing an updated literature search and analysis reviewing the available data on associations between exposure to TCE and fetal cardiac defects. It concluded that “the evidence supports a conclusion that TCE has the potential to cause cardiac defects in humans when exposure occurs at sufficient doses during a sensitive period of fetal development.”⁶¹ In the 2020 Risk Evaluation for TCE, EPA conducted yet another weight of evidence analysis comprising of 45 studies in total.⁶² EPA concluded that “an association between increased congenital cardiac defects and TCE exposure is supported by the weight of evidence, in agreement with previous EPA analyses.”⁶³

EPA also seeks comment on whether it should replace the proposed TCE prohibitions with compliance with the workplace chemical protection program (“WCPP”) if regulated entities are able to consistently demonstrate compliance with the ECEL through effective controls.⁶⁴ The States oppose replacing the TCE prohibitions with the WCPP because it would place the responsibility of protecting workers on the regulated community with no fail safe if certain entities do not comply with the implementation of effective controls. As discussed previously, the only way to ensure that workers are not exposed to the toxic effects of exposure to TCE is to prohibit its use. Replacing the proposed TCE prohibitions with the WCPP would also discourage industry from pursuing appropriate alternatives to TCE that are less harmful to human health and the environment. For example, EPA notes that alternative products with similar cost and efficacy are available for most of the products that are formulated with TCE.⁶⁵

The TCE Proposed Rule sets the hierarchy of controls for eliminating TCE risk from most to least preferred: elimination of the hazard, substitution with a less hazardous substance, engineering controls, administrative controls, and finally use of personal protective equipment (“PPE”).⁶⁶ Where the other methods of control are

⁵⁸ EPA, *Toxicological Review of Trichloroethylene* (Aug. 2011), at 4-673 to 4-675, https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/0199tr.pdf.

⁵⁹ EPA, *TSCA Work Plan Chemical Risk Assessment* (June 2014), at 97-99 and Appendix N, www.epa.gov/sites/default/files/2015-09/documents/tce_opptworkplanchemra_final_062414.pdf.

⁶⁰ *Risk Evaluation for Trichloroethylene*, *supra* note 9, at 248.

⁶¹ Susan Makris et al., *A Systematic Evaluation of the Potential Effects of Trichloroethylene Exposure on Cardiac Development*, 65 *Reproductive Toxicology* 321-358 (Oct. 2016), at 345, <https://www.sciencedirect.com/science/article/pii/S0890623816303240?via%3Dihub>.

⁶² *Risk Evaluation for TCE*, *supra* note 9, at 249, 643-655.

⁶³ *Risk Evaluation for TCE*, *supra* note 9, at 249.

⁶⁴ 88 Fed. Reg. at 74,736.

⁶⁵ *Id.* at 74,717.

⁶⁶ *Id.* at 74,721.

not feasible to reduce the TCE air concentration below the ECEL, EPA proposes to set minimum respiratory PPE requirements. If the most recent exposure monitoring indicates exposures exceeding the ECEL, the proposed rule gives the owner or operator three months to supply all persons within the regulated area with respirators. EPA seeks comment on whether respirators should be provided in a timeframe shorter than three months.⁶⁷ The States believe that given the severity of the hazard of TCE, the respiratory protection requirements—including the provision of respirators, and worker training, fit-testing, and medical evaluation—should be provided within no more than two weeks after an ECEL exceedance is recorded. Providing PPE on an expedited basis is particularly important because developmental effects (*i.e.* fetal cardiac defects) can occur from short-term exposures to pregnant workers and occupational non-users during a critical period of pregnancy.⁶⁸

V. EPA Should Provide Additional Protections for Fenceline Communities

The general population can be exposed to TCE by inhaling indoor or ambient outdoor air, ingesting contaminated food, drinking contaminated water, or through skin contact with contaminated water.⁶⁹ Fenceline communities, *i.e.*, those close to polluting facilities and contaminated sites, are especially at risk of TCE exposure and harmful health effects. Fenceline communities often include low-income populations, people of color, and/or Indigenous populations.

Separate from its Risk Evaluation, EPA conducted a fenceline screening level analysis⁷⁰ to assess whether there may be risks to populations living in proximity to facilities releasing TCE to the ambient air and water.⁷¹ In the TCE Proposed Rule, EPA conceded that “[f]or TCE, the results from applying this screening approach did not allow EPA to rule out unreasonable risk to fenceline communities.”⁷²

⁶⁷ *Id.* at 74,741.

⁶⁸ *See* Makris, *supra* note 61.

⁶⁹ Agency for Toxic Substances and Disease Registry, *What Are the Primary Routes of Exposure to Trichloroethylene?* (Aug. 2022), https://www.atsdr.cdc.gov/csem/trichloroethylene/routes_of_exposure.html.

⁷⁰ In March 2022, the States submitted comments on EPA’s Draft TSCA Screening Level Approach for Assessing Ambient Air and Water Exposures to Fenceline Communities arguing that the Fenceline Screening Approach falls short of TSCA’s requirement for thorough and comprehensive evaluation of all risks posed by exposure to regulated chemicals. *See* Comments of Attorneys General of New York, Hawai’i, Illinois, Maine, Maryland, Massachusetts, Minnesota, New Jersey, Oregon, Pennsylvania, Rhode Island, and Vermont, and the Corporation Counsel of the City of New York on EPA’s Draft TSCA Screening Level Approach (Mar. 22, 2022), <https://www.regulations.gov/comment/EPA-HQ-OPPT-2021-0415-0080>.

⁷¹ 88 Fed. Reg. at 74,723, 74,768-74,770.

⁷² *Id.* at 74,768.

EPA's single year fenceline analysis of ambient air pathways identified risk estimates exceeding one in a million for cancer risk for 99 facilities at multiple distances.⁷³ The multi-year analysis found risk estimates above one in a million for cancer in 133 facilities within 100 meters of the releasing facility.⁷⁴ Furthermore, EPA identified 69 facilities with expected exposure to fenceline communities.⁷⁵

EPA's analysis of the environmental justice impacts of the Proposed TCE Rule found at least two TCE facilities in areas where facilities reporting under the agency's Toxic Release Inventory ("TRI")⁷⁶ are clustered. Both facilities use TCE as a chemical intermediate in the manufacture of hydrofluorocarbons ("HFCs"). The Arkema facility in Marshall, Kentucky has 11 other TRI facilities located within five miles of it and the Mexichem Fluor facility in Iberville, Louisiana has 21 other TRI facilities located within five miles of it.⁷⁷ Within one mile of the Mexichem Fluor facility, 77.5% of the population is Black and 45.3% of the population is at least two times below the poverty level.⁷⁸

The States are encouraged by EPA's finding that ambient air exposures to fenceline communities with a one in a million cancer risk estimate would be eliminated under the prohibitions in the proposed rulemaking.⁷⁹ Yet, while many fenceline TCE exposures would be eliminated within a year, there are some conditions of use that have longer phaseout periods and so such facilities would continue to impact fenceline communities. For example, the TCE Proposed Rule allows an eight-and-a-half-year phaseout for the manufacturing and processing of TCE as an intermediate in the generation of HFC-134a⁸⁰ and approximately 84% of TCE's annual production volume is used to create HFC-134a. Given that this condition of use would continue for many years, EPA must ensure that fenceline communities, including those near the Arkema and Mexichem Fluor facilities, are protected from TCE exposure.

The States believe that owners and operators should be required to certify in their exposure control plans that the engineering controls selected do not increase emissions of TCE to ambient air outside of the workplace and document in their

⁷³ *Id.* at 74,769.

⁷⁴ *Id.* at 74,770.

⁷⁵ *Id.*

⁷⁶ Section 313 of the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. § 11023, established the Toxics Release Inventory ("TRI"). It requires facilities in different sectors to report annually how much of certain chemicals are released to the environment. Facilities that report to TRI are typically larger facilities involved in manufacturing, metal mining, electric power generation, chemical manufacturing and hazardous waste treatment. EPA, *What is the Toxic Release Inventory?*, <https://www.epa.gov/toxics-release-inventory-tri-program/what-toxics-release-inventory>.

⁷⁷ EPA, *Economic Analysis of the Proposed Regulation of TCE Under TSCA Section 6(a)* (Oct. 2023), at ES-24, <https://www.regulations.gov/document/EPA-HQ-OPPT-2020-0642-0178>.

⁷⁸ *Id.*

⁷⁹ 88 Fed. Reg. at 74,770.

⁸⁰ *Id.* at 74,734.

exposure control plans whether additional equipment was installed to capture emissions of TCE to ambient air.⁸¹ When a facility cannot attest that emissions are not increased, EPA should require air monitoring. EPA should also consider whether it can further control TCE emissions under the agency's statutory authority pursuant to the Clean Air and Clean Water Acts.

VI. Conclusion

The States strongly support EPA's proposal to ban TCE. The Proposed TCE Rule will have wide-reaching health and environmental benefits for the residents of our States. For those uses of TCE for which EPA is proposing phaseout periods, we urge EPA to require employers to ensure that workers are quickly provided with respirators when there is a risk that the existing chemical exposure limit for TCE will be exceeded. Moreover, EPA should act to ensure that those living in fenceline communities are protected during any phaseout period by providing further limitations on emissions from facilities that continue to use TCE in those communities.

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⁸¹ *Id.* at 74,770.

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