EDF
ENVIRONMENTAL DEFENSE FUND®
Finding the ways that work

JUNE 2019

TOXIC CONSEQUENCES

Trump's attacks on chemical safety put our health at risk.

ENVIRONMENTAL DEFENSE FUND

WE ARE STILL LIVING WITH THE TOXIC CONSEQUENCES of chemicals allowed onto the market decades ago without adequate regulation and scrutiny of their safety. The dangerous legacy of these chemicals lives on in contamination of the environment and continuing harm to public health. Some of these chemicals, many still in use today, have been linked to diseases on the rise: brain tumors and leukemia in children, asthma, infertility, autism and Parkinson's disease.

Concern over toxic exposures and a lack of confidence in the badly outdated chemical safety system led all sides to come together in 2016 to reform the Toxic Substances Control Act (TSCA)—the law governing chemicals—and finally give the Environmental Protection Agency (EPA) the power to strengthen health protections for American families and the environment.

Three years after the landmark legislation to strengthen our chemical safety system, why are we going backwards when it comes to regulating toxic chemicals?

Right now, the Trump Administration is taking every opportunity to dismantle our chemical safety system—allowing new chemicals onto the market with little or no health information and only cursory safety reviews, ignoring real-life exposures when evaluating chemicals already in use today, blocking crucial restrictions on dangerous uses of chemicals, and denying the public access to health information on chemicals.

These are not merely process problems. The toxic consequences of these actions will be felt by our children and subsequent generations. This administration is prescribing a future of more environmental contamination and disease—for decades to come.

WARNINGS FROM THE PAST

When it comes to regulating toxic chemicals, the stakes are high. From the pesticide DDT poisoning the nation's birds to toxic waste at Love Canal contaminating an entire community—modern history holds countless stark reminders of what can happen

"THE LEGACY OF ENVIRONMENTAL RECKLESSNESS WILL BE VISITED UPON US, UPON OUR CHILDREN, AND UPON OUR GRANDCHILDREN...TODAY'S PROFITMAKING CHEMICAL MAY BE TOMORROW'S BIRTH DEFECT OR DISEASE."

Senator Tunney, 1976

when chemical risks are not adequately addressed. However, one need not look to the past to understand the threats to health and the environment: the consequences of decisions made decades ago on toxic chemicals surround us to this day.

THE LEGACY OF PCBS

We are still dealing with the deadly legacy of polychlorinated biphenyls (PCBs)—even though Congress largely banned them four decades ago. PCBs were once widely used in pesticides, electrical equipment, paints, building materials, and more. Manufacture of the class of chemicals drastically declined and was largely banned in the late 1970s as evidence grew linking PCBs to health impacts, including toxicity to the developing brain, immune disorders, and cancer. They are emblematic of a large group of high-risk chemicals known as "PBTs" (persistent, bioaccumulative, and toxic chemicals), which are exceedingly slow to break down in the environment and capable of building up in the food chain to the point of harming human health and environmental organisms.

Despite steps to curb their manufacture and control their disposal, PCBs remain nearly ubiquitous worldwide. Because they stick around in the environment and build up in living organisms, traces of PCBs can be detected in people and wildlife around the world—from large cities in the US to remote areas in the Arctic. Recent evidence has even shown the chemicals contaminate some of the few remaining killer whale populations on Earth and may drive them to extinction.

The damage has been—and continues to be—done.

FAILURES UNDER TSCA

It was concern over chemicals like PCBs that led Congress to pass the original TSCA in 1976. Unfortunately, for decades, TSCA proved ineffective at ensuring the safety of the chemicals used in everything from household cleaners to clothing and couches.

The broken chemical safety system:

- Allowed tens of thousands of chemicals to remain on the market without any review of their safety.
- Let chemical companies put hundreds of new chemicals on the market every year without any demonstration that they were safe.
- Required the government to have evidence a chemical posed a risk before it could require testing—creating a Catch 22.
- Left the government virtually powerless to regulate even chemicals known to be dangerous.
- Gave companies wide latitude to claim chemical information they submitted to the government to be trade secrets and hide it from the public and even from state and local governments and health professionals.

A CHANCE TO GET IT RIGHT

For years, advocates, members of Congress, industry, and other stakeholders attempted to update TSCA. These efforts were driven by the need both for better health protections for American families and for greater public confidence in the chemical safety system.

"SINCE 1976, THOUSANDS OF CHEMICALS A YEAR HAVE BEEN MANUFACTURED AND RELEASED ONTO THE MARKET WITHOUT A SAFETY EVALUATION AND WITHOUT MEANINGFUL REGULATION...NOW WE HAVE HISTORIC REFORM—DECADES IN THE MAKING AND DECADES OVERDUE."

Senator T. Udall, 2016

And in 2016, at long last, Congress passed the bipartisan Frank R. Lautenberg Chemical Safety for the 21st Century Act that strengthened our broken chemical safety system. The Lautenberg Act finally provided EPA with new tools and mandates to review and manage chemicals more effectively.

The strengthened law presented perhaps a once-in-a-lifetime opportunity to protect us from dangerous chemicals and avoid the mistakes of the past.

Notably, the law:

- Mandates safety reviews for chemicals in active commerce.
- Requires a safety finding for new chemicals before they can enter the market.
- Replaces TSCA's burdensome cost-benefit safety standard—which prevented the EPA from banning asbestos—with a pure, health-based safety standard.
- Explicitly requires protection of vulnerable populations like children, pregnant women, and workers.
- Gives the EPA enhanced authority to require testing of both new and existing chemicals.
- Sets aggressive, judicially enforceable deadlines for EPA decisions.
- Establishes a system to make information about chemicals available, by limiting companies' ability to claim information as confidential, and by giving states and health and environmental professionals access to confidential information they need to do their jobs.

BUT RISK STILL LURKS AROUND THE CORNER

Unfortunately, the promise of TSCA and the chance to better protect the public's health from toxic chemical exposures is being actively undermined by the Trump EPA. The current administration is seeking to dismantle the new authorities and mandates under the law with the goal of shifting policies to serve the chemical industry's agenda.

THE ACTIONS TO WEAKEN CRUCIAL SAFEGUARDS ARE LARGELY BEING UNDERTAKEN BY POLITICAL APPOINTEES WHO PREVIOUSLY WORKED FOR OR LOBBIED ON BEHALF OF THE CHEMICAL INDUSTRY.

Chief among the players involved is Nancy Beck—a former American Chemistry Council (ACC—the chemical industry's main trade association) senior official whose current leadership role at EPA has allowed her outsized influence in shaping TSCA implementation. As detailed in a New York Times investigation, Beck has made numerous controversial moves, including reversing course on the major rules governing how the law works—making changes that closely mirror the language in ACC comments on the proposed rules. Other former industry representatives at EPA with influence over chemical safety regulation include David Dunlap—who came to the agency's research office straight from Koch Industries—and Erik Baptist—who came directly from the American Petroleum Institute and was a senior attorney in the toxics office until early June 2019.

THE TOXIC CONSEQUENCES OF ATTACKS ON CHEMICAL SAFETY

Below are some of the key actions already taken by Trump's handpicked political appointees to undermine the law, potentially setting us back decades and leaving the American public to face the toxic consequences into the foreseeable future.

1. Approving new chemicals without regard for the law or public health

Initially after passage of the new law, EPA was on track reviewing new chemicals in a health-protective manner. Unfortunately, in the face of relentless chemical industry pressure for EPA to rubber-stamp their new chemicals and at the direction of political appointees, this has all changed.

THE ATTACK:

The Trump EPA is giving the green light to hundreds of new chemicals after only cursory reviews that—in many ways—are weaker than was the case under the old law. Of particular concern is the agency's approval of a large number of chemicals without restrictions despite having clearly identified risks to workers or not having enough information to determine worker risks.

Further, the agency is leaving the public in the dark with these decisions. EPA is sidestepping

THE TRUMP EPA IS APPROVING MANY NEW CHEMICALS BASED ON NOTHING MORE THAN THE EXPECTATION THAT WORKERS WILL FOLLOW RECOMMENDATIONS IN MANUFACTURERS' NON-BINDING SAFETY DATA SHEETS (SDS).

requirements to make critical information about health and safety and potential exposures accessible to the public.

This approach perpetuates earlier mistakes and blindly ignores the letter and intent of the law.

THE CONSEQUENCE:

New chemicals—that could harm workers and the public—are being given unlimited market access.

SINCE JULY 2018, EPA HAS GREENLIGHTED OVER 80% OF NEW CHEMICALS DESPITE THEIR RISKS, GRANTING THEM UNLIMITED MARKET ACCESS.

For **over 80%** of chemicals EPA approved between July 2018 and early June 2019—for use in everything from clothing and carpets to motor oil and wood paneling—the agency has greenlighted the chemicals without any restrictions. For over 70% of those chemicals, EPA has identified risks to workers, but the agency assumes that these risks will be addressed because of nonbinding recommendations in the companies' "Safety Data Sheets."

Among the chemicals recently allowed to enter the market are **new PBTs** (persistent, bioaccumulative, and toxic chemicals)—in spite of the agency's own policies meant to safeguard against another PCB-like crisis.

AS ONE EXAMPLE, EPA IDENTIFIED HEALTH RISKS OF A CHEMICAL THAT INCLUDE CARCINOGENICITY AND DEVELOPMENTAL, REPRODUCTIVE, LIVER, AND KIDNEY TOXICITY. IT APPROVED THE CHEMICAL WITHOUT RESTRICTION.

This approach poses a particular threat to workers—despite the fact that Congress explicitly flagged this group as one of the vulnerable populations requiring special protection under the law.

2. Ignoring real-life exposures when evaluating risks of existing chemicals

Under the revised law, EPA is tasked with conducting comprehensive risk reviews of existing chemicals it identifies as high-priority. This process includes several steps to determine whether the chemicals present an "unreasonable risk" and—if so—the best method to mitigate the risk.

Among the 10 chemicals in the first batch being reviewed by the agency are known killers like asbestos and other toxic chemicals, such as trichloroethylene, that cause cancer and are linked to developmental and neurological disorders.

THE ATTACK:

In evaluating the risk of existing chemicals, including the first 10 chemicals undergoing review, EPA is defying the law and threatening the public's health. The agency is ignoring any exposures from emissions of these chemicals to air, water, and land in addition to any exposures from ongoing uses and disposals of a chemical that is no longer being made for that use—so called "legacy" uses and associated disposals.

The agency's rationale for its approach is that other EPA laws, like the Clean Air Act and Clean Water Act, regulate these exposures—even where the other laws don't regulate a chemical or allow substantial exposures to continue. By relying on the existence of other laws, EPA is effectively treating these exposures as non-existent, clearly a highly flawed assumption. And by excluding legacy uses, EPA is ignoring exposure to chemicals widely present in our homes and environment, like asbestos in older ceiling tiles or housing insulation, in addition to the many Superfund sites (polluted sites prioritized by EPA for cleanup) and other locations contaminated with these chemicals.

THE CONSEQUENCE:

Fewer—or no—restrictions needed to protect the public will be imposed on toxic chemicals.

For just seven of the first 10 chemicals being reviewed, Environmental Defense Fund has calculated that EPA's approach to evaluating chemical risks fails to account for over 66 million pounds of toxic emissions every year released to the air, water, and land. Additionally, the agency is assuming communities have zero exposure from the 628 Superfund sites across the country contaminated by at least one of these chemicals (see table below).

EPA WILL IGNORE OVER 66 MILLION LBS/YEAR OF TOXIC EMISSIONS AND RELEASES FROM OVER 600 TOXIC WASTE SITES

Actual reported emissions and Superfund sites vs. what EPA will count in TSCA risk evaluations of 7 of the first 10 chemicals

Chemical	Annual Emissions to Air, Water & Land (Lbs./ Year)	Superfund Sites	Emissions and Sites that EPA Counts
Asbestos	20,544,772	51	**0**
Carbon tetrachloride	411,848	240	**0**
1,4-Dioxane	636,469	37	**0**
Methylene chloride	14,392,918	394	**0**
N-Methylpyrrolidone	9,556,874	—	**0**
Perchloroethylene	8,148,311	394	**0**
Trichloroethylene	12,350,624	364	**0**

Data sources: Toxics Release Inventory for water and land emission estimates. National Emissions Inventory for air emission estimates, except for N-Methylpyrrolidone (NMP) which is not reported under the NEI and for which we used the TRI estimate. National Institutes of Health TOXMAP for Superfund sites.

For additional information, see this table.

WHAT DOES THIS MEAN FOR COMMUNITIES?

The fight for health safeguards in Johnson County, Indiana

Over the last decade, there have been over 50 pediatric cancer cases in Johnson County, Indiana. Growing concern over the number of rare, childhood cancer diagnoses prompted two mothers, Kari Rhinehart and Stacie Davidson, to start "If It Was Your Child"—an organization seeking answers and action in 2015. Rhinehart lost her daughter, Emma Grace Findley, to brain cancer in 2014. Davidson's stepson, Zane, is currently in remission from a rare leukemia.

Investigations in the area by an independent testing group and EPA discovered contamination from trichloroethylene (TCE) and other toxic chemicals linked to a former factory in the town of Franklin in Johnson County. A large plume of carcinogenic TCE had spread under homes in the town, resulting in contamination and detections of the chemical in the air in and around homes. Monitoring and testing is ongoing, and members of the community are tirelessly fighting to protect their children, including by travelling to Washington, D.C. to urge federal action on TCE.

Stacie Davidson (left) and Kari Rhinehart (center) meet with former Indiana Senator Joe Donnelly (right) about the TCE contamination in Franklin County.

Under the current approach taken by EPA, the exposures faced by this community will not even be considered when the agency evaluates the risks posed by the chemical. By ignoring the TCE exposure Johnson County families—and families across the country—face from the air, water, and land, EPA is ensuring that it won't eliminate the risks and protect public health.

By ignoring real-world exposures, EPA will drastically underestimate the risk posed by these chemicals—making it more likely that the agency will decide a dangerous chemical is safe and will not manage the risks to protect the public.

3. Blocking or weakening bans of toxic chemicals

In late 2016 and early 2017 under the last administration, EPA proposed to ban or restrict high-risk uses of three dangerous chemicals:

- Trichloroethylene (TCE): Proposed ban on use in aerosol degreasing and spot cleaning in dry cleaning facilities and a second proposed ban on use in vapor degreasing.
- Methylene chloride (DCM): Proposed ban on use in paint strippers.
- N-methylpyrrolidone (NMP): Proposed ban or restriction on use in paint strippers.

These proposed actions marked the first time in nearly three decades that EPA had proposed to restrict use of a chemical—a significant milestone that could have demonstrated that the reformed TSCA was already working to protect public health.

These uses of the three chemicals pose a number of concerning health threats. Methylene chloride is acutely lethal and its use in paint strippers has resulted in at least 83 deaths in the last several decades; it is also linked to liver and lung cancer and liver toxicity

from chronic exposure. TCE is also a known human carcinogen that interferes with development, is toxic to the immune system and kidneys, and is associated with neurological damage. NMP is linked to fetal development problems, including low birth weight and birth defects.

THE ATTACK:

In December 2017, less than a year after EPA proposed the bans, the Trump Administration shifted them from active to "long term action" status in the administration's unified agenda—effectively shelving them. For TCE and NMP, EPA then went a step further by abandoning the proposed bans altogether. EPA is instead starting from scratch by reassessing the uses as part of a separate process under TSCA. This will, at best, delay action for 3 to 5 years and, at worst, leave the uses entirely unregulated.

BY EXCLUDING COMMERCIAL USES FROM THE BAN, THE EPA IS LEAVING WORKERS WHOLLY UNPROTECTED.

For methylene chloride, the agency finalized a weakened ban covering only consumer uses of paint strippers in March 2019—leaving commercial uses unchecked. Even this limited action took over two years and happened only because of significant pressure from families that have lost loved ones as well as the efforts of lawmakers and advocates. And it falls short of what is needed: By excluding commercial uses from the ban, it leaves workers wholly unprotected, despite the fact that the majority of reported deaths from these products are of workers.

These backward actions are a clear result of the sway that chemical industry special interests hold over the Trump Administration. For decades, the chemical industry has taken many approaches—including significant delay tactics—to stymie efforts by EPA to protect the public from hazardous chemicals. Now it has a powerful voice within the agency.

The Halogenated Solvents Industry Alliance (HSIA)—a trade group representing major ACC member companies that produce these chemicals—advocated from the beginning against the proposed regulations on methylene chloride, NMP, and TCE. With industry-friendly appointees like Nancy Beck running the show at the Trump EPA, the financial interests of chemical companies are taking center stage and being prioritized over public health.

THE TRAGIC IMPACTS OF METHYLENE CHLORIDE:

Kevin Hartley's story

In April 2017, Kevin Hartley tragically lost his life while using a paint stripper containing methylene chloride to refinish a bathtub for the small, Nashville painting company where he worked. He was just 21 years old.

In the time since his death, Kevin's mother, Wendy Hartley, has tirelessly fought to ban paint strippers containing methylene chloride. She has travelled to Washington, D.C. to share Kevin's story with lawmakers and EPA officials, and has joined a lawsuit to force the agency to do the right thing.

Unfortunately, the consumer use ban that EPA finalized on methylene chloride will not protect workers like Kevin. By excluding commercial uses from the ban, the agency is leaving everyone that uses these deadly products in the workplace at risk.

THE CONSEQUENCE:

Americans are unprotected from known dangerous uses of toxic chemicals.

Not restricting high-risk uses of these chemicals will have a predictable consequence: Americans will continue to be exposed to and harmed by methylene chloride, TCE, and NMP. There are—at a minimum—**one million people** across the country directly exposed by the high-risk uses of these chemicals every year.

EPA IS LEAVING OVER ONE MILLION AMERICANS UNPROTECTED FROM KNOWN DANGEROUS USES OF CHEMICALS

Chemical Use EPA Failed to Ban	Minimum # People Directly Exposed Annually
DCM-based paint strippers (commercial use)	32,600–51,465
NMP-based paint strippers	762,300
TCE—spot cleaning in dry cleaning facilities, aerosol and vapor degreasing	183,190–307,390
Total	**978,090–1,121,155**

Data sources: DCM, NMP and TCE (vapor degreasing and aerosol degreasing & spot cleaning) proposed rules; and DCM economic analysis.
For additional information see this table.

The table above shows the number of people exposed to these chemical uses. This estimate is conservative as it only represents direct use of such products, not encompassing all bystanders or the many others who are exposed to the chemicals from indirect contamination of air, water, or land.

One of the proposed rules on TCE would have banned the very use of the chemical that led to the toxic contamination in Johnson County, Indiana. By refusing to finalize this ban, the current administration is leaving other communities across the country to face the same consequences.

PROTECTING FUTURE GENERATIONS FROM TOXIC CONSEQUENCES

The newly overhauled chemical safety law provides the opportunity to better protect the public and workers from harmful exposures to toxic chemicals. The law's passage was a unique moment—a stark contrast from the highly partisan battles that characterize most debates in Washington. Here, all sides came together, from industry, the health and environmental community, and government, in 2016 to pass the first major environmental legislation in decades.

IS IT 1 PERCENT?

In an interview with The New York Times, Wendy Cleland-Hamnett—previously the acting assistant administrator of the EPA's Office of Chemical Safety—cited a conversation in which Nancy Beck questioned whether the number of deaths from paint strippers containing methylene chloride warranted a ban on the chemical: "'Is it 1 percent?' Ms. Hamnett recalled Dr. Beck asking."

"FOR THE FIRST TIME IN 20 YEARS, WE ARE UPDATING A NATIONAL ENVIRONMENTAL STATUTE. FOR THE FIRST TIME IN OUR HISTORY, WE'LL ACTUALLY BE ABLE TO REGULATE CHEMICALS EFFECTIVELY. AND WE'RE DOING IT IN THE SAME, OVERWHELMINGLY BIPARTISAN FASHION AS HAPPENED WITH THOSE PILLARS OF LEGISLATION TO PROTECT OUR AIR, AND OUR WATER, AND OUR WILDLIFE..."

President Obama at the signing of the Lautenberg Act

The success of TSCA reform was borne out of a collective understanding that our nation's chemical safety system was ineffective, and that there was a clear need to ensure chemicals on the market are safe for human health and the environment.

But this monumental achievement is now at risk—as is our health and the health of future generations—because of the elevation of narrow private interests over the public interest by this administration and its allies in Congress and industry.

Looking back to what we knew at the time of the PCBs crisis in the 1960s, we could say, "if only we knew better."

BUT THERE IS NO EXCUSE NOW.

WE DO KNOW BETTER.

We know that without a drastic change to EPA's current direction on chemical safety, we will be forced to endure the toxic consequences of its mistakes for decades to come.

KEY EDF RESOURCES:

A new chemical safety law: The Lautenberg Act

A primer on the new Toxic Substances Control Act

EPA's first 10 chemicals under review

Demanding health-protective implementation of TSCA

TSCA lawsuit case resources

See the latest on the EDF Health Blog

Finding the ways that work

JUNE 2019