

Health Danger In Teflon Cookware

Teflon's Toxic Legacy

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For more than half a century DuPont hid information that a chemical it was using to make Teflon might be making people sick.

BY SHARON KELLY

Almost two decades ago, Carla Bartlett, a then 41-year-old West Virginia secretary and mother of two, was first diagnosed with cancer – what her surgeon later labeled a “garden variety” type of kidney cancer.

“I was scared to death,” Bartlett, now 59, told an Ohio federal jury this fall during hearings in the first of more than 3,500 personal injury and wrongful death suits by West Virginia and Ohio residents against the chemical giant DuPont. “And all I could think of was not being there, not being able to be there for my family.” Bartlett’s tumor and part of her rib were removed in a surgery in 1997 that, she said, involved cutting her “virtually in half.” Though the cancer hasn’t recurred since, for Bartlett, the harm, both physical and emotional, has lingered. “It’s never out of my mind, because you worry constantly about it,” she said. “And then I have the reminder of the scar, every day, that, you know, this... this is... this was cancer; this could come back.”

On October 7, after less than a day of deliberations, the jury found DuPont liable for Bartlett’s cancer, agreeing with the defendant that the company had for years negligently contaminated her drinking water supply in Tupper’s Plain, Ohio with a toxic chemical formerly used to make its signature brand of nonstick coating: Teflon.

What makes the verdict remarkable is that unlike, say, mesothelioma – a form of lung cancer almost exclusively linked to asbestos exposure – the renal cell carcinoma that struck Bartlett is not usually considered the calling card of a specific carcinogen. So it was difficult for her doctors to definitively say what had first made Bartlett sick – it could have been virtually anything. The \$1.6 million the jury awarded to Bartlett – the product of decades’ worth of legal battles that unearthed reams of secret DuPont studies and internal emails – came despite the extreme difficulty of connecting common ailments to a specific chemical under the current United States legal system.

Proving that DuPont was legally culpable for Bartlett’s kidney cancer required years of extraordinarily innovative lawyering – and at times some plain dumb luck. The very improbability of that verdict demonstrates much that is flawed about the way this country regulates potentially dangerous chemicals. With no mandatory safety testing for the vast majority of the tens of

thousands of chemicals used daily in America, doctors and public health officials have little information to guide them as they seek to identify potential health hazards – including the chemical, called C8, that DuPont knowingly allowed to pollute Bartlett’s drinking water. Bartlett’s travails are also a cautionary tale about C8, which has become so pervasive today that it’s found in virtually every American’s blood.

A federal jury has found DuPont liable for Carla Bartlett’s kidney cancer.

“Part of a diagnosis is: Well, tell me what you’ve been around,” one of Bartlett’s attorneys, Mike Papantonio, told the jury in opening arguments in the case. “Well, I drank my water. That doesn’t sound like a problem. It was a problem”

Teflon was first created, as many miracle chemicals were, in a laboratory accident. In 1938, Roy J. Plunkett, a DuPont chemist, was experimenting with refrigerants when he discovered a white waxy material that seemed very slippery. The material turned out to be an inert fluorocarbon – Polytetrafluoroethylene (PTFE) – that had superior nonstick properties. In 1945, the company patented the chemical and registered it under the trademark “Teflon,” touting it as “the most slippery material in existence.” By 1948 DuPont was producing about 2 million pounds of Teflon a year at its Washington Works plant in Parkersburg, West Virginia. For DuPont, Teflon, which was used to coat pots and pans, proved to be a gold mine, with sales peaking at roughly a billion dollars a year in 2004, according to the company’s SEC filings.

Starting around 1951, DuPont began using another laboratory-formed chemical known as Perfluorooctanoic (PFOA) acid, or C8 (so called because it contains eight carbon molecules), to smooth out the lumpiness of freshly manufactured Teflon. An unusually durable chemical, C8 first entered the world in 1947 and due to its nonstick and stain-resistant properties its use as a “surfactant” spread with extraordinary speed. The white, powdery compound, often said to look like Tide laundry detergent, would ultimately be used in hundreds of products including fast food wrappers, waterproof clothing, electrical cables, and pizza boxes. (DuPont used to purchase C8 from another chemical company called 3M until 2002, when the company phased it out. DuPont then started manufacturing C8 on its own at a factory in Fayetteville, North Carolina.)

all photos by Maddie McGarvey Buck Bailey, whose mother worked at the Teflon plant in Parkersburg, was born with just one nostril and other facial deformities.

The trouble was that the compound – which has since been linked to a variety of health risks including cancer, liver disease, developmental problems, and thyroid disease – escapes into the air easily. In fact, C8 was often shipped to factories pre-mixed with water to keep the dust from worker’s lungs.

Because it’s an extremely stable chemical, C8 does not biodegrade. Instead, it bioaccumulates, building up in people’s blood over time if they continue to drink water or breathe air laced with the substance. Due to its ubiquitous use, the chemical can now be found in trace amounts in the bloodstream of more than 98 percent of Americans, and even in umbilical cord blood and breast milk, according to the Centers for Disease Control. It’s also been found in the blood of seals, eagles,

and dolphins around the world, including in animals living in a remote wildlife refuge in the middle of the North Pacific. The chemical is expected to stay in the environment for thousands of years.

Concerns about the hazards posed by Teflon and C8 began to garner public attention only about 15 years ago. By 2003, DuPont had dispersed almost 2.5 million pounds of C8 from its Washington Works plant into the mid-Ohio River Valley area, according to a peer-reviewed study. The company's most egregious disposal practices occurred before US environmental laws were first written in the 1970s and included burying toxic waste in drums along the banks of the Ohio River and dropping barrels of it out into the open ocean (where it once caused a scandal when a local fisherman dredged a barrel up in his nets), and, in more recent decades, burying it in local "non-hazardous" landfills.

Now, information emerging from millions of pages of internal company reports reveals that several DuPont scientists and senior staff members had for many years either known, or at least suspected, that C8 was harmful. Yet DuPont continued to use the chemical, putting its own workers, local residents, and the American public at risk.

The documents show that signs of C8's toxicity began to emerge very quickly as DuPont scaled up its Teflon production in the 1950s. The company funds its own safety-testing laboratory – the Haskell Laboratory of Industrial Toxicology – in part to screen workers for signs of illnesses that might be tied to DuPont products. In 1961, company lab tests linked C8 exposure to enlarged livers in rats and rabbits. DuPont scientists then conducted tests on humans, asking a group of volunteers to smoke cigarettes laced with C8. "Nine out of ten people in the highest-dosed group were noticeably ill for an average of nine hours with flu-like symptoms that included chills, backache, fever, and coughing," the researchers noted.

"Concerns about the potential toxicity of C8 had been raised internally within DuPont by at least 1954, leading DuPont's own researchers to conclude by at least 1961 that C8 was toxic and, according to DuPont's own Toxicology Section Chief, should be 'handled with extreme care,'" Bartlett's February 2013 suit against DuPont alleged.

But it wasn't until the 1970s that DuPont's researchers began to understand that C8 was building up in the bloodstreams of workers, and soon after, they began to see troubling signs that the chemical could pose serious health risks. The stakes were high: The Washington Works plant where Teflon is manufactured was one of the biggest employers in the region. The plant currently employs more than 2,000 people – 3,000 if you include sub-contractors – in a sparsely populated Appalachian community alongside the Ohio River separating West Virginia from Ohio.

In 1981, the company ordered all female employees out of the Teflon division after two out of seven pregnant workers gave birth to children with birth defects. One of those children, Bucky Bailey, was born with just one nostril and other facial deformities that required many painful surgeries to fix.

In 1981, two out of seven pregnant workers at the Teflon plant gave birth to children with birth defects.

"I've never, ever felt normal. You can't feel normal when you walk outside and every single person looks at you. And it's not that look of He's famous or He's rich," he told ABC News in 2003. "It's that look of He's different. You can see it in their eyes."

In 1984, DuPont began to secretly collect local tap water, asking employees to bring in jugs of water from their own homes, schools, and local businesses, and discovered that C8 was making its way into public drinking water supplies in both Ohio and West Virginia at potentially dangerous

levels. Minutes recorded at a meeting at DuPont's corporate headquarters in Delaware that year suggest a high level of concern regarding how this could affect the company's image and bottom line. "Legal and medical will likely take the position of total elimination," notes from the meeting read. The company executives present, however, concluded the available methods for cutting pollution were not "economically attractive."

In the years following that meeting, instead of slashing its use of C8, DuPont escalated production, while keeping much of what it knew about the chemical's dangers secret. The company's Washington Works factory continued with its usual practice of dumping C8-laden sludge in unlined landfills, allowing it to enter the Ohio River, and pumping out C8-laced vapors from its smokestacks.

None of this would have come to light had it not been for a West Virginia cattle rancher named Wilbur Tennant who, along with four other members of his family, sued DuPont in 1998 claiming he had lost hundreds of head of cattle because of pollution from a landfill next to his farm. DuPont had purchased the patch of land, which included a creek that ran directly into the Ohio River, from Tennant in the 1980s, telling him that it would be used as a non-hazardous landfill.

But soon after the landfill got underway, the creek started to turn black and smelly. Sometimes there would be a layer of foam on the water. Within a few years, about 280 of Tennant's cattle, which drank water from the creek, had died. When the Tennants cut open a cow to investigate the cause of its death, they discovered that its internal organs had turned bright, neon green, video footage recorded by the rancher shows. Tennant and his family members, too, suffered breathing difficulties and cancers.

Tennant's attorney, Robert Bilott, forced DuPont to turn over tens of thousands of pages of internal company documents as part of the legal process. Buried in those materials was a single mention of a chemical Bilott had never heard of before: PFOA (C8). The chemical sounded similar to another one, called PFOS, which had just been pulled off the market by its maker 3M (which, if you recall, supplied C8 to DuPont for decades). So Bilott made another request to DuPont. This time he asked the company to turn over all documents related to C8.

"I did not immediately recognize the significance [of C8]," Bilott told Earth Island Journal, "but we came to."

The trove of documents ultimately uncovered during the ensuing legal battles offered up incriminating evidence about the company's decades-long cover-up. In addition to research findings, copies of internal emails and documents included in this cache were especially illuminating. One 2001 email describes a scientist warning that when airborne, C8 is so hard to deal with that "it might require the public to wear 'gas masks.'"

Another, by DuPont's in-house counsel, Bernard Reilly, shows that company officials planned to push regulators to allow the public to be exposed to higher levels of the chemical than DuPont itself had recommended. In an October 2001 email to his son, Reilly wrote:

"So far DuPont has been saying there are safe levels, we need to have an independent agency agree, we are hoping that it will agree to higher levels than we have been saying. If for no other reason than we are exceeding the levels we say we set as our own guideline, mostly because no one bothered to do air monitoring until now, and our water test has been completely inadequate."

Reilly's personal emails, written mostly to family members between late 1999 and mid-2001 using his work email address, give an unfiltered insight into the company's legal efforts to cover up C8's

risks. In one August 2000 email he writes: “The shit is about to hit the fan in WV. The lawyer for the farmer finally realizes the surfactant issue. He is threatening to go to the press to embarrass us to pressure us to settle for big bucks. Fuck him.”

This information not only helped the Tennant case – which DuPont settled in 2001 for an undisclosed amount – it would eventually lead to one of the most significant class-action lawsuits in the history of environmental law (which culminated in the landmark October ruling in Carla Bartlett’s case). Sadly, Tennant didn’t live to see the ripple effect of his lawsuit. He died of cancer in 2009 at age 67.

By 2001, while still working on the Tennant case, Bilott came to realize that the C8 contamination wasn’t isolated to the Tennant property, but extended across a large swath of the mid-Ohio River Valley. The chemical had seeped into the water supply of at least six public water systems in West Virginia and Ohio. That year, Bilott filed a class action lawsuit against DuPont, Leach, et al. v E.I. du Pont de Nemours and Co., on behalf of about 80,000 people in the six water districts. He also reported his findings to the US Environmental Protection Agency and sent along copies of some 900 pages of DuPont’s internal documents, after which the agency launched a “priority review” of C8.

In 2004 the US EPA, too, filed a lawsuit against DuPont, charging it with concealing evidence about C8’s risks for more than two decades. In 2005 the company agreed to pay \$16.5 million as part of a settlement agreement with the EPA – the largest civil penalty ever in the agency’s history. But environmental groups argue that the fine was little more than a slap on the wrist to a company where a single division sold more than that amount in a single day.

“We also learned that not only do we have people drinking our famous surfactant, but levels in the ambient air are above our guidelines... we should have checked this years ago and taken steps to remedy, guess the hills on the other side of the river cause great conditions for high ambient levels, the plume hits them before it can disperse more fully. Ugh. “

BERNARD J. REILLY, DUPONT LAWYER 08/09/2001

“Under the terms of the settlement, the company wasn’t even obliged to pull C8 from the market... the best the agency could negotiate was a voluntary phase-out by 2015,” the watchdog organization Environmental Working Group says in its May 2015 report “Poisoned Legacy.”

The same year, DuPont settled the class-action suit filed by Bilott’s firm for over \$100 million – plus another \$235 million if research funded by the settlement turned up evidence that people might be getting sick. Under the settlement, DuPont promised to install filtration systems in contaminated water districts and put \$70 million into a community health and education project. And, in a rather unusual move, the company also agreed to fund a multimillion dollar health study, overseen by independent, court-appointed scientists, to determine whether exposure to C8 had actually harmed people. Moreover, DuPont agreed that if the study did prove that the C8 had caused certain diseases, those who suffered from diseases connected to C8 would be entitled to sue individually for personal injury.

It's not quite clear why DuPont agreed to the independent study. Perhaps it was the knowledge that most medical monitoring programs fail to attract enough participants, which usually makes it almost impossible to draw reliable inferences about disease clusters. But in this case, nearly 80 percent of the surrounding community in West Virginia and Ohio showed up at makeshift medical clinics in trailers around the region to have their blood drawn and a health care questionnaire completed. Community members were, more often than not, drawn by the \$400 checks (pulled from the DuPont settlement) that the enterprising team of medical researchers offered to each man, woman, and child who participated.

“The shit is about to hit the fan in WV. The lawyer for the farmer finally realizes the surfactant issue. He is threatening to go to the press to embarrass us to pressure us to settle for big bucks. Fuck him.”

BERNARD J. REILLY, 08/13/2000

“We have families of five dragging their three kids kicking and screaming, and the parents are saying, ‘Yes, you’re going to get stuck in the arms – that’s \$2,000!’” one local resident told The Huffington Post.

The C8 science panel, which took seven years to complete its research, ultimately linked C8 exposure to six diseases: ulcerative colitis; pregnancy-induced hypertension; high cholesterol; thyroid disease; testicular cancer; and kidney cancer. The panel's findings, published in several peer-reviewed journals, were remarkable because they proved that the chemical pretty much affected the entire body, even at low exposure levels. The researchers concluded that C8 posed health threats at just 0.05 parts per billion in drinking water for people who drank that water for a single year. They found that the average C8 level in blood samples from the mid-Ohio Valley was 83 parts per billion. The average C8 level for those living closest to the plant – whose drinking water came from Ohio's Little Hocking water district – was more than 224 parts per billion compared to 4 parts per billion for average Americans.

photo by Maddie McGarvey “When this all started, I did not think it would get out of hand like it has,” says Joe Kiger, a lead plaintiff in the 2005 class action lawsuit against DuPont.

Once the connection between C8 exposure and the diseases was established, more than 3,500 Ohio Valley residents, including Carla Bartlett, filed personal injury cases against DuPont. Bartlett's case was the first to go on trial this past September. The court's verdict in her favor might just set the tone for the rest of cases that will come to trial.

Still, there are many who feel the company will keep trying to wriggle its way out of its responsibilities. (During Bartlett's trial, for instance, DuPont attorneys argued that her cancer was

triggered by her obesity rather than C8, even though, as per terms of the class action suit settlement, DuPont isn't permitted to dispute the fact that C8 can cause the kind of cancer she endured.)

"I've been at it 16 years, if that tells you anything," Joe Kiger, a local gym teacher and lead plaintiff in the original 2005 class action suit, told the Journal. "When this all started, I did not think it would get out of hand like it has, but we kept finding out more and more of what DuPont did, what the cover-ups were, them knowing full well that this stuff was toxic." Kiger – who suffers from numerous kidney and liver problems and had to have surgery following a heart attack in May – is a member of Keep Your Promises DuPont, a community-based organization working to hold the company accountable for its actions. "Our biggest faith and trust we have is in our utilities," he said. "We flip that light switch on, we expect it to come on. We don't think anything about it. You turn on your tap to get water, you expect that water to be clean and not have all these chemicals in it. I think now, people are starting to find out that someone has lied to them."

To understand how C8 managed to remain in use for so long requires a look back at the history of chemical regulation in the US, and the role that DuPont itself played in crafting those laws.

Since the early 1970s, pressure had been growing to regulate the rising use of chemicals in almost every aspect of post-World War II American life. And few companies were as responsible for – or as dependent on – that expansion as DuPont.

FROM: BRUCE KARRH,
DUPONT'S MEDICAL DIRECTOR,
1982 FROM INTERNAL COMPANY DOCUMENT

"There is obviously great potential for current or future exposure of members of the local community from emissions leaving the plant perimeter."

In 1930, DuPont created Freon, making mass-market refrigerators and air conditioners possible for the first time. In 1935, a DuPont scientist invented nylon, a synthetic fiber that proved invaluable during World War II. Cellophane, Mylar, Tyvek, Rayon, Lycra – household names to this day – were all developed by DuPont in the past century. The company also made artificial fertilizers, fungicides, pesticides, plastics, and paints. "We have been proud to publicize the fact that more than 60 percent of our sales in 1950 resulted from products that were unknown, or at least were only laboratory curiosities, as recently as 1930," a DuPont rep told a group of financiers in 1955. But as thousands of new chemical innovations entered the daily lives of Americans, pressure was also rising to find out what health risks many of them posed.

FROM MAY 1984 DUPONT CORPORATE MANAGERS MEETING MINUTES:

"None of the options developed are ... economically attractive and would essentially put the long term viability of this business segment on the line."

One of the first acts of the White House Council on Environmental Quality, after it was established in 1969, was to highlight the need for federal chemical controls – a system that would let regulators figure out which substances could pose public health risks before people got sick. "The Council's

study indicates the high-priority need for a program of testing and control of toxic substances,” it said as it released a 1971 report calling for new chemical rules. “We should no longer be limited to repairing damage after it has been done; nor should we continue to allow the entire environment to be used as a laboratory.”

For several years, the Manufacturing Chemists Association, an industry trade group that counted DuPont as a core member (known as the American Chemistry Council today), managed to block any attempt to regulate the industry. But as a growing list of chemicals like PCBs, asbestos, and vinyl chloride began to be linked to illness, so did the demand to regulate them. Foreseeing the inevitable, many chemical companies decided that it would be better to be involved in the drafting process than to risk the type of bans that barred the use of the notorious pesticide DDT in 1972.

FROM:
DUPONT INTERNAL DOCUMENT, 1995

“We are concerned about the potential long term human health effects of these materials considering they all appear to have long biological half lives.”

DuPont had a key seat at that drafting table.

Robert C. Eckhardt, a progressive Texas politician from a north Houston district packed with chemical and oil companies, is often described as the chief craftsman of the legislation that came out of this drafting process – the Toxic Substances Control Act (TSCA), which even today is the primary law regulating chemicals used in the US. First elected in 1966, Congressman Eckhardt was known for riding a bicycle to work at the Capitol – carrying his legislative files in a whisky case strapped to his bike – a habit that put him far ahead of the curve as an environmentalist and gained him support from early conservationists, especially after the 1970s’ energy crisis. During his career in DC, which ended in 1980, the Democratic congressman championed civil rights, fought to tax oil and gas companies, and helped ensure that core environmental statutes like the Clean Air Act and Superfund laws passed.

TSCA, as it stands today, was the product of an unlikely collaboration between the iconoclastic Eckhardt and DuPont.

Early meetings between Eckhardt and DuPont had gone so badly that Eckhardt stormed out of the room during a March 1976 negotiation. But as a draft chemical control bill passed the Senate, DuPont reluctantly returned to the table. One of the biggest sticking points was whether safety tests should be required before companies were allowed to put new chemicals on the market – an effort that the industry successfully blocked. “No mandatory testing was a huge compromise,” Rena Steinzor, University of Maryland School of Law professor and president of the Center for Progressive Reform, told the Journal.

photo by Maddie McGarveyThe Ohio River in Parkersburg, West Virginia that's been contaminated by C8-laden sludge.

The bill that "Bicycle Bob" Eckhardt ultimately produced was so packed with compromises that some of his early supporters opposed the law's final version. "I mean, it was [called] the Heckert-Eckhardt bill," Steven D. Jellinek, the EPA's first-ever assistant administrator for toxic substances, told the Chemical Heritage Foundation's Oral History Project, referring to Richard Heckert, then a DuPont vice-president and the chair of the Manufacturing Chemists Association. "It was written by industry."

Eckhardt's good intentions might have been undermined by the fact that he was on the Senate Commerce Committee rather than the Environment and Public Works Committee. "The Senate Environment and Public Works Committee was composed of people who believed in the EPA's mission and knew a great deal about it," Steinzor says. "The Senate Commerce Committee, like its name, was focused on other concerns and not knowledgeable about toxic chemicals."

Under the toothless TSCA law that DuPont helped write, industrial chemicals – unlike pharmaceuticals or pesticides – do not have to be tested before they are put on the market. The law does require that the EPA keep a current list of all chemicals used commercially in the US, but it does not require that the chemicals be tested for environmental or human health impacts. Additionally, TSCA allows manufacturers to claim some information, including the chemical's identity, as a trade secret.

Though the law also requires manufacturers give the EPA some information necessary to assess a new chemical's safety, roughly 60,000 chemicals that were in use at the time TSCA was enacted were exempted from this rule. These chemicals include bisphenol A (BPA), formaldehyde and several flame retardants – all of which have since been found to present significant risks to human health and the environment. Today, there are more than 85,000 industrial chemicals in commercial use in the US – roughly 2,000 new chemicals are introduced every year in the US – but federal regulators have so far required only a tiny percentage of these to undergo any safety testing. You can literally count on one hand the number of chemicals that EPA has banned or widely restricted under TSCA: asbestos, PCBs, dioxin, CFCs, and hexavalent chromium (made famous in the movie Erin Brockovich). That's only five chemicals in nearly 40 years.

"In many ways, C8 is a poster child for the failures of US toxic chemical law," says Bill Walker, one of the authors of the Environmental Working Group (EWG) report on C8. "Between 3M and DuPont you have an increasingly damning cover-up. And yet the law is so toothless that neither company was really concerned about being caught by the EPA."

The lack of safety testing helps explain why, back in 1998 when the Tennants first contacted Bilott,

virtually no one outside of DuPont and 3M – not EPA field inspectors, OSHA chemists, or state environmental testing laboratories – had ever heard of C8. The two companies essentially had a monopoly on information relating to this chemical. DuPont used that monopoly to illegally cover up its own research that showed that C8 was making its workers ill.

“But for the lawsuit, it is very likely that the EPA would be completely unaware of this chemical as well its toxicological profile,” says Ned McWilliams, another plaintiff’s attorney. “This lawsuit quite literally blew the whistle on this still unregulated chemical.”

C8 “is the poster child for the failures of US toxic chemical law.”

DuPont, unsurprisingly, plans to appeal the court’s verdict. “The knowledge base around [C8], its environmental footprint, and its health profile has evolved,” company spokesperson Dan Turner told theJournal. “Over the same period, the chemical industry and its regulators have also learned a great deal about how to operate more safely, sustainably and to reduce emissions.” The company has, in the meantime, spun off its Teflon-related operations into another company, called Chemours, in a move that could limit the amount of compensation that plaintiffs can recover.

Over the past few years, DuPont, 3M, and other chemical firms have begun marketing C8-free Teflon, and recent studies show that the levels of C8 in most people’s blood are dropping. Unfortunately, the new chemicals that have replaced C8 are also raising concerns. “These next generation PFCs [perfluorinated chemicals] are used in greaseproof food wrappers, waterproof clothing and other products,” the EWG’s “Poisoned Legacy” report says. “Few have been tested for safety, and the names, composition and health effects of most are hidden as trade secrets.”

On a positive note, efforts to strengthen TSCA, which is the only major environmental law that has not been updated since it was first enacted, have gained steam in recent months. This fall, Congress was on the verge of passing TSCA reform measures. The House and the Senate introduced separate TSCA reform bills this year and while the House passed its bill (HR 2576) in June, and the Senate was yet vote on its bill (S 697) as this story went to press. Reforms proposed by these bills include speeding up the pace of the EPA’s chemical assessments, changing how the agency prioritizes chemicals for safety review, and amending TSCA’s definition of chemicals that may pose an “unreasonable risk” of harmful exposure.

Still, critics say these efforts fall short of what’s needed and may be at risk of repeating the errors of the past.

“Neither bill provides the EPA with the resources to act quickly enough on reviewing and regulating

the use of chemicals that can cause cancer and other serious health problems,” Scott Faber, the Environmental Working Group’s senior vice-president for government affairs told the Journal. “Neither clears away the legal hurdles that prevent the EPA from banning chemicals like asbestos, which we already know are dangerous.” Faber is also concerned that the reforms might interfere with regulatory laws introduced by states and other local governments to make up for the lack of effective federal oversight of chemicals. (There are about 172 individual laws regulating chemicals in 35 US states, and another 100 or so similar bills have been under consideration in 28 states this year.)

In the end, it all comes down to the need for a strong political push that can override industry influence and introduce laws to regulate chemicals before they cause the kind of harm that C8 has wreaked. The history of C8, still unfolding, offers many lessons for those battles.

Sharon Kelly is a Philadelphia-based lawyer and freelance writer. Her work has appeared in The New York Times, The Legal Intelligencer, and publications of the National Wildlife Federation.