

THE TEFLON TOXIN

DuPont and the Chemistry of Deception



	
	 41

 [Sharon Lerner](#)
Aug. 11 2015, 6:35 p.m.

K

EN WAMSLEY SOMETIMES DREAMS that he's playing softball again. He'll be at center field, just like when he played slow pitch back in his teens, or pounding the ball over the fence as the crowd goes wild. Other times, he's somehow inexplicably back at work in the lab. Wamsley calls them nightmares, these stories that play out in his sleep, but really the only scary part is the end, when "I wake up and I have no rectum

anymore."

Wamsley is 73. After developing rectal cancer and having surgery to treat it in 2002, he walks slowly and gets up from the bench in his small backyard slowly. His voice, which has a gentle Appalachian lilt, is still animated, though, especially when he talks about his happier days. There were many. While Wamsley knew plenty of people in Parkersburg, West Virginia, who struggled to stay employed, he made an enviable wage for almost four decades at the DuPont plant here. The company was generous, helping him pay for college courses and training him to become a lab analyst in the Teflon division.

He enjoyed the work, particularly the precision and care it required. For years, he measured levels of a chemical called C8 in various products. The chemical "was everywhere," as Wamsley remembers it, bubbling out of the glass flasks he used to transport it, wafting into a smelly vapor that formed when he heated it. A fine powder, possibly C8, dusted the laboratory drawers and floated in the hazy lab air.

At the time, Wamsley and his coworkers weren't particularly concerned about the strange stuff. "We never thought about it, never worried about it," he said recently. His believed it was harmless, "like a soap. Wash your hands [with it], your face, take a bath."

Today Wamsley suffers from ulcerative colitis, a bowel condition that causes him sudden bouts of diarrhea. The disease also can – and his case, did – lead to rectal cancer. Between the surgery, which left him reliant on plastic pouches that collect his waste outside his body and have to be changed regularly, and his ongoing digestive problems, Wamsley finds it difficult to be away from his home for long.

Sometimes, between napping or watching baseball on TV, Wamsley's mind drifts back to his DuPont days and he wonders not just about the dust that coated his old workplace but also about his bosses who offered their casual assurances about the chemical years ago.

"Who knew?" he asked. "When did they know? Did they lie?"



The Washington Works DuPont plant in Parkersburg, West Virginia, on Wednesday, August 5, 2015. Photo: Maddie McGarvey for The Intercept/Investigative Fund

U

NTIL RECENTLY, FEW PEOPLE had heard much about chemicals like C8. One of tens of thousands of unregulated industrial chemicals, perfluorooctanoic acid, or PFOA – also called C8 because of the eight-carbon chain that makes up its chemical backbone – had gone unnoticed for most of its eight or so decades on earth, even as it helped cement the success of one of the world's largest corporations.

Several blockbuster discoveries, including nylon, Lycra, and Tyvek, helped transform the E. I. du Pont de Nemours company from a 19th-century gunpowder mill into “one of the most successful and sustained industrial enterprises in the world,” as its corporate website puts it. Indeed, in 2014, the company reaped more than \$95 million in sales each day. Perhaps no product is as responsible for its dominance as Teflon, which was introduced in 1946, and for more than 60 years C8 was an essential ingredient of Teflon.

Called a “surfactant” because it reduces the surface tension of water, the slippery, stable compound was eventually used in hundreds of products, including Gore-Tex and other waterproof clothing; coatings for eye glasses and tennis rackets; stain-proof coatings for carpets and furniture; fire-fighting foam; fast food wrappers; microwave popcorn bags; bicycle lubricants; satellite components; ski wax; communications cables; and pizza boxes.

Concerns about the safety of Teflon, C8, and other long-chain perfluorinated chemicals first came to wide public attention more than a decade ago, but the story of DuPont’s long involvement with C8 has never been fully told. Over the past 15 years, as lawyers have been waging an epic legal battle – culminating as the first of approximately 3,500 personal injury claims comes to trial in September – a long trail of documents has emerged that casts new light on C8, DuPont, and the fitful attempts of the Environmental Protection Agency to deal with a threat to public health.

This story is based on many of those documents, which until they were entered into evidence for these trials had been hidden away in DuPont’s files. Among them are write-ups of experiments on rats, dogs, and rabbits showing that C8 was associated with a wide range of health problems that sometimes killed the lab animals. Many thousands of pages of expert testimony and depositions have been prepared by attorneys for the plaintiffs. And through the process of legal discovery they have uncovered hundreds of internal communications revealing that DuPont employees for many years suspected that C8 was harmful and yet continued to use it, putting the company’s workers and the people who lived near its plants at risk.

The best evidence of how C8 affects humans has also come out through the legal battle over the chemical, though in a more public form. As part of a 2005 settlement over contamination around the West Virginia plant where Wamsley worked, lawyers for both DuPont and the plaintiffs approved a team of three scientists, who were charged with determining if and how the chemical affects people.

In 2011 and 2012, after seven years of research, the science panel found that C8 was “more likely than not” linked to ulcerative colitis – Wamsley’s condition – as well as to high cholesterol; pregnancy-induced hypertension; thyroid disease; testicular cancer; and kidney cancer. The scientists’ findings, published in more than [three dozen peer-reviewed articles](#), were striking, because the chemical’s effects were so widespread throughout the body and because even very low exposure levels were associated with health effects.

We know, too, from internal DuPont documents that emerged through the lawsuit, that Wamsley’s fears of being lied to are well-founded. DuPont scientists had closely studied the chemical for decades and through their own research knew about some of the dangers it posed. Yet rather than in-



Ken Wamsley, 73, stands outside of his home in Parkersburg, West Virginia, on Tuesday, August 4, 2015. Photo: Maddie McGarvey for The Intercept/Investigative Fund



form workers, people living near the plant, the general public, or government agencies responsible for regulating chemicals, DuPont repeatedly kept its knowledge secret.

Another revelation about C8 makes all of this more disturbing and gives the upcoming trials, the first of which will be held this fall in Columbus, Ohio, global significance: This deadly chemical that DuPont continued to use well after it knew it was linked to health problems is now practically everywhere.

A man-made compound that didn't exist a century ago, C8 is in the blood of 99.7 percent of Americans, according to a 2007 analysis of [data](#) from the Centers for Disease Control, as well as in newborn human babies, breast milk, and umbilical cord blood. A growing group of scientists have been tracking the chemical's spread through the environment, documenting its presence in a wide range of wildlife, including Loggerhead sea turtles, bottlenose dolphins, harbor seals, polar bears, caribou, walruses, bald eagles, lions, tigers, and arctic birds. Although DuPont no longer uses C8, fully removing the chemical from all the bodies of water and bloodstreams it pollutes is now impossible. And, because it is so chemically stable – in fact, as far as scientists can determine, it never breaks down – C8 is expected to remain on the planet well after humans are gone from it.

In some ways, C8 already is the tobacco of the chemical industry — a substance whose health effects were the subject of a decades-long corporate cover-up.

Eight companies are responsible for C8 contamination in the U.S. (In addition to DuPont, the leader by far in terms of both use and emissions, seven others had a role, including 3M, which produced C8 and sold it to DuPont for years.) If these polluters were ever forced to clean up the chemical, which has been detected by the EPA 716 times across water systems in 29 states, and in some areas may be present at dangerous levels, the costs could be astronomical – and C8 cases could enter the storied realm of tobacco litigation, forever changing how the public thinks about these products and how a powerful industry does business.

In some ways, C8 already is the tobacco of the chemical industry – a substance whose health effects were the subject of a decades-long corporate cover-up. As with tobacco, public health organizations have taken up the cause – and numerous reporters have dived into the mammoth story. Like the tobacco litigation, the lawsuits around C8 also involve huge amounts of money. And, like tobacco, C8 is a symbol of how difficult it is to hold companies responsible, even when mounting scientific evidence links their products to cancer and other diseases.

There is at least one sense in which the tobacco analogy fails. Exposure to tobacco usually contains an element of volition, and most people who smoked it in the past half century knew about some of the risks involved. But the vast majority of Americans – along with most people on the planet – now have C8 in their bodies. And we've had no choice in the matter.

F

OR ITS FIRST HUNDRED YEARS, DuPont mostly made explosives, which, while hazardous, were at least well understood. But by the 1930s, the company had expanded into new products that brought new mysterious health problems. Leaded gasoline, which DuPont made in its New Jersey plant, for instance, wound up causing madness and violent deaths and life-long institutionalization of workers. And certain rubber and industrial

chemicals inexplicably turned the skin of exposed workers blue.

Perhaps most troubling, at least to a DuPont doctor named George Gehrmann, was a number of bladder cancers that had recently begun to crop up among many dye workers. Worried over “the tendency to believe [chemicals] are harmless until proven otherwise,” Gehrmann pushed DuPont to create Haskell Laboratories in 1935. Haskell was one of the first in-house toxicology facilities and its first project was to address the bladder cancers. But the inherent problems of assigning staff scientists to study a company’s own employees and products became clear from the outset.

One of Haskell’s first employees, a pathologist named Wilhelm Hueper, helped crack the bladder cancer case by developing a model of how the dye chemicals led to disease. But the company forbade him from publishing some of his research and, according to epidemiologist and public health scholar David Michaels, fired him in 1937 before going on to use the chemicals in question for decades.

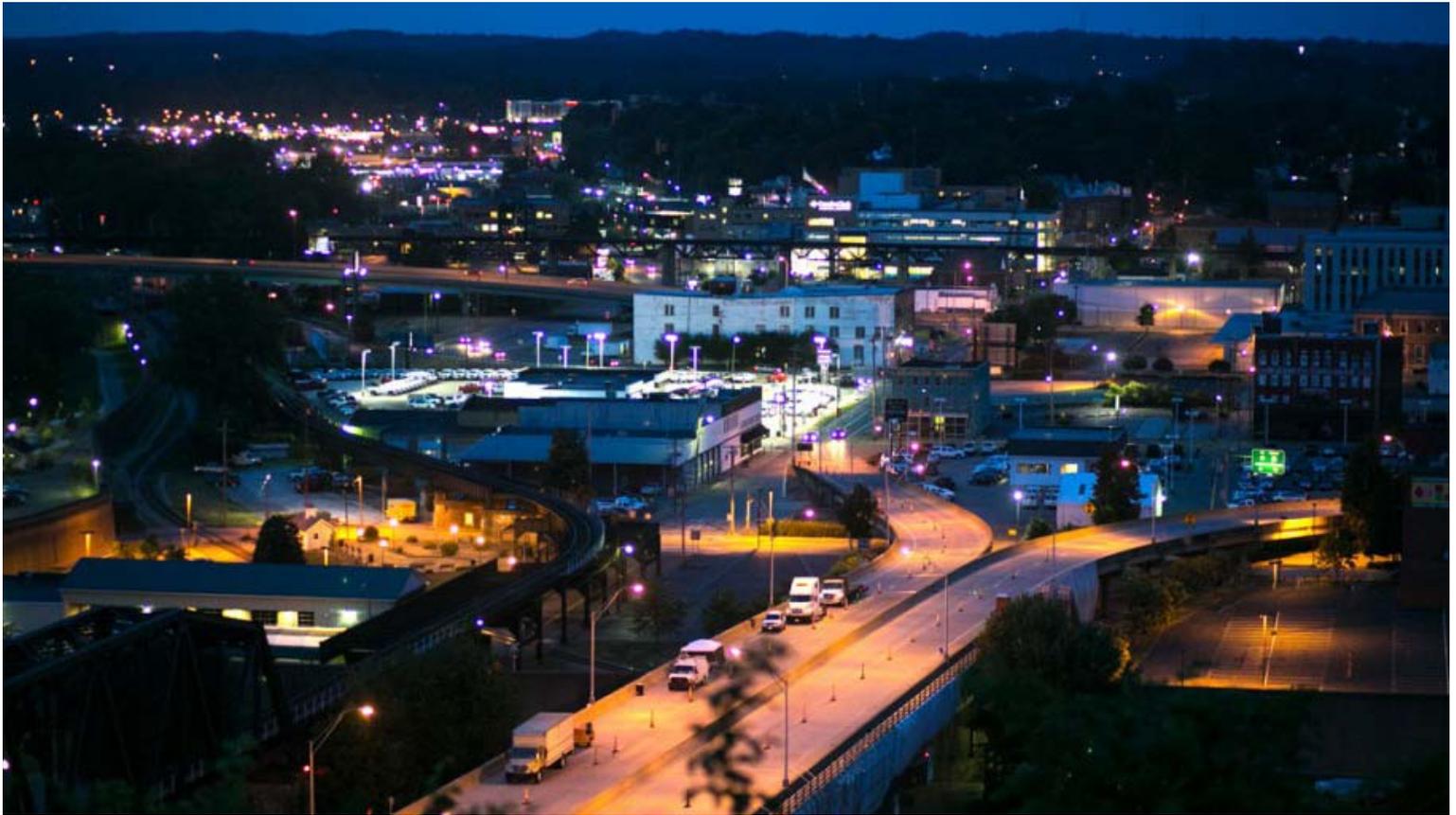
C8 would prove to be arguably even more ethically and scientifically challenging for Haskell. From the beginning, DuPont scientists approached the chemical’s potential dangers with rigor. In 1954, the very year a French engineer first applied the slick coating to a frying pan, a DuPont employee named R. A. Dickison noted that he had received an inquiry regarding C8’s “possible toxicity.” In 1961, just seven years later, in-house researchers already had the short answer to Dickison’s question: C8 was indeed toxic and should be “handled with extreme care,” according to a report filed by plaintiffs. By the next year experiments had honed these broad concerns into clear, bright red flags that pointed to specific organs: C8 exposure was linked to the enlargement of rats’ testes, adrenal glands, and kidneys. In 1965, 14 employees, including Haskell’s then-director, John Zapp, received a memo describing preliminary studies that showed that even low doses of a related surfactant could increase the size of rats’ livers, a classic response to exposure to a poison.

DuPont elected not to disclose its findings to regulators.

The company even conducted a human C8 experiment, a deposition revealed. In 1962, DuPont scientists asked volunteers to smoke cigarettes laced with the chemical and observed that “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.”

Because of its toxicity, C8 disposal presented a problem. In the early 1960s, the company buried about 200 drums of the chemical on the banks of the Ohio River near the plant. An internal DuPont document from 1975 about “Teflon Waste Disposal” detailed how the company began packing the waste

in drums, shipping the drums on barges out to sea, and dumping them into the ocean, adding stones to make the drums sink. Though the practice resulted in a moment of unfavorable publicity when a fisherman caught one of the drums in his net, no one outside the company realized the danger the chemical presented. At some point before 1965, ocean dumping ceased, and DuPont began disposing of its Teflon waste in landfills instead.



A view of Parkersburg, West Virginia, from Fort Boreman Park on Wednesday, August 5, 2015. Photo: Mad-die McGarvey for The Intercept/Investigative Fund

I

N 1978, BRUCE KARRH, DuPont’s corporate medical director, was outspoken about the company’s duty “to discover and reveal the unvarnished facts about health hazards,” as he wrote in the *Bulletin of the New York Academy of Medicine* at the time. When deposed in 2004, Karrh emphasized that DuPont’s internal health and safety rules often went further than the government’s and that the company’s policy was to comply with either laws or the company’s internal health and safety standards, “whichever was the more strict.” In his 1978 article, Karrh also insisted that a company “should be candid, and lay all the facts on the table. This is the only responsible and ethical way to go.”

Yet DuPont only laid out some of its facts. In 1978, for instance, DuPont alerted workers to the results of a study done by 3M showing that its employees were accumulating C8 in their blood. Later that year, Karrh and his colleagues began reviewing employee medical records and measuring the level of C8 in the blood of the company’s own workers in Parkersburg, as well as at another DuPont plant in Deepwater, New Jersey, where the company had been using C8 and related chemicals since the 1950s. They found that ex-

posed workers at the New Jersey plant had increased rates of endocrine disorders. Another notable pattern was that, like dogs and rats, people employed at the DuPont plants more frequently had abnormal liver function tests after C8 exposure.

DuPont elected not to disclose its findings to regulators. The reasoning, according to Karrh, was that the abnormal test results weren't proven to be adverse health effects related to C8. When asked about the decision in deposition, Karrh said that "at that point in time, we saw no substantial risk, so therefore we saw no obligation to report."

Not long after the decision was made not to alert the EPA, in 1981, another study of DuPont workers by a staff epidemiologist declared that liver test data collected in Parkersburg lacked "conclusive evidence of an occupationally related health problem among workers exposed to C-8." Yet the research might have reasonably led to more testing. An assistant medical director named Vann Brewster suggested that an early draft of the study be edited to state that DuPont should conduct further liver test monitoring. Years later, a proposal for a follow-up study was rejected.

If the health effects on humans could still be debated in 1979, C8's effects on animals continued to be apparent. A report prepared for plaintiffs stated that by then, DuPont was aware of studies showing that exposed beagles had abnormal enzyme levels "indicative of cellular damage." Given enough of the stuff, the dogs died.

DuPont employees knew in 1979 about a recent 3M study showing that some rhesus monkeys also died when exposed to C8, according to documents submitted by plaintiffs. Scientists divided the primates into five groups and exposed them to different amounts of C8 over 90 days. Those given the highest dose all died within five weeks. More notable was that three of the monkeys who received less than half that amount also died, their faces and gums growing pale and their eyes swelling before they wasted away. Some of the monkeys given the lower dose began losing weight in the first week it was administered. C8 also appeared to affect some monkeys' kidneys.

Of course, enough of anything can be deadly. Even a certain amount of table salt would kill a lab animal, a DuPont employee named C. E. Steiner noted in a confidential 1980 communications meeting. For C8, the lethal oral dose was listed as one ounce per 150 pounds, although the document stated that the chemical was most toxic when inhaled. The harder question was to determine a maximum *safe* dosage. How much could an animal – or a person – be exposed to without having any effects at all? The 1965 DuPont study of rats suggested that even a single dose of a similar surfactant could have a prolonged effect. Nearly two months after being exposed, the rats' livers were still three times larger than normal.

Steiner declared that there was no "conclusive evidence" that C8 harmed workers, yet he also stated that "continued exposure is not tolerable." Because C8 accumulated in bodies, the potential for harm was there, and Steiner predicted the company would continue medical and toxicological monitoring and described plans to supply workers who were directly exposed to the chemical with protective clothing.

Two years after DuPont learned of the monkey study, in 1981, 3M shared the results of another study it had done, this one on pregnant rats, whose unborn pups were more likely to have eye defects after they were exposed to C8. The EPA was also informed of the results. After 3M's rat study came out,

DuPont transferred all women out of work assignments with potential for exposure to C8. DuPont doctors then began tracking a small group of women who had been exposed to C8 and had recently been pregnant. If even one in five women gave birth to children who had craniofacial deformities, a DuPont epidemiologist named Fayerweather warned, the results should be considered significant enough to suggest that C8 exposure caused the problems.

As it turned out, at least one of eight babies born to women who worked in the Teflon division did have birth defects. A little boy named Bucky Bailey, whose mother, Sue, had worked in Teflon early in her pregnancy, was born with tear duct deformities, only one nostril, an eyelid that started down by his nose, and a condition known as “keyhole pupil,” which looked like a tear in his iris. Another child, who was two years old when the rat study was published in 1981, had an “unconfirmed eye and tear duct defect,” according to a DuPont document that was marked confidential.



Photos of Bucky Bailey as a baby, as well as article clippings his mother, Sue, saved over the years. Photo: Maddie McGarvey for The Intercept/Investigative Fund

Like Wamsley, Sue Bailey, one of the plaintiffs whose personal injury suits are scheduled to come to trial in the fall, remembers having plenty of contact with C8. When she started at DuPont in 1978, she worked first in the Nylon division and then in Lucite, she told me in an interview. But in 1980, when she was in the first trimester of her pregnancy with Bucky, she moved to Teflon, where she often sat watch over a large pipe that periodically filled up with liquid, which she had to pump to a pond in back of the plant. Occasionally some of the bubbly stuff would overflow from a nearby holding tank, and her supervisor taught her how to squeegee the excess into a drain.

Soon after Bucky was born, Bailey received a call from a DuPont doctor. “I thought it was just a compassion call, you know: can we do anything or do you need anything?” Bailey recalled. “Shoot. I should have known better.” In fact, the doctor didn’t express his sympathies, Bailey said, and instead asked her whether her child had any birth defects, explaining that it was standard to record such problems in employees’ newborns.

While Bailey was still on maternity leave, she learned that the company was removing its female workers from the Teflon division. She remembers the moment – and that it made her feel deceived. “It sure was a big eye-opener,” said Bailey, who still lives in West Virginia but left DuPont a few years after Bucky’s birth.





Bucky Bailey stands inside his mother's home in Bluemont, Virginia, on Thursday, August 6, 2015. Photo: Maddie McGarvey for The Intercept/Investigative Fund

T

HE FEDERAL TOXIC SUBSTANCES Control Act [requires](#) companies that work with chemicals to report to the Environmental Protection Agency any evidence they find that shows or even suggests that they are harmful. In keeping with this requirement, 3M submitted its rat study to the EPA, and later DuPont scientists wound up discussing the study with the federal agency, saying they believed it was flawed. DuPont scientists neglected to inform the EPA about what they had

found in tracking their own workers.

When DuPont began transferring women workers out of Teflon, the company did send out a flier alerting them to the results of the 3M study. When Sue Bailey saw the notice on the bench of the locker room and read about the rat study, she immediately thought of Bucky.

Yet when she went in to request a blood test, the results of which the doctor carefully noted to the thousandth decimal point, and asked if there might be a connection between Bucky's birth defects and the rat study she had read about, Bailey recalls that Dr. Younger Lovelace Power, the plant doctor, said no. According to Karrh's deposition, he told Karrh the same. "We went back to him and asked him to follow up on it, and he did, and came back saying that he did not think it was related."

"I said, 'I was in Teflon. Is this what happened to my baby?'" Bailey remembered. "And he said, 'No, no.'" Power also told Bailey that the company had no record of her having worked in Teflon. Shortly afterward, she considered suing DuPont and even contacted a lawyer in Parkersburg, who she says wasn't interested in taking her case against the town's biggest employer. When contacted for his response to Bailey's recollections, Power declined to comment.

By testing the blood of female Teflon workers who had given birth, DuPont researchers, who then reported their findings to Karrh, documented for the first time that C8 had moved across the human placenta.

In 2005, when the EPA fined the company for withholding this information, attorneys for DuPont argued that because the agency already had evidence of the connection between C8 and birth defects in rats, the evidence it had withheld was "merely confirmatory" and not of great significance, according to the agency's [consent agreement](#) on the matter.

Ken Wamsley also remembers when his supervisor told him they had taken female workers out of Teflon. "I said, 'Why'd you send all the women home?' He said, 'Well, we're afraid, we think maybe it hurts the pregnancies in some of the women,'" recalled Wamsley. "They said, 'Ken, it won't hurt the men.'"

HILE SOME DUPONT SCIENTISTS were carefully studying the chemical's effect on the body, others were quietly tracking its steady spread into

W

the water surrounding the Parkersburg plant. After it ceased dumping C8 in the ocean, DuPont apparently relied on disposal in unlined landfills and ponds, as well as putting C8 into the air through smokestacks and pouring waste water containing it directly into the Ohio River, as detailed in a 2007 study by Dennis Paustenbach published in the *Journal of Toxicology and Environmental Health*.

By 1982, Karrh had become worried about the possibility of “current or future exposure of members of the local community from emissions leaving the plant’s perimeter,” as he explained in a letter to a colleague in the plastics department. After noting that C8 stays in the blood for a long time – and might be passed to others through blood donations – and that the company had only limited knowledge of its long-term effects, Karrh recommended that “available practical steps be taken to reduce that exposure.”

To get a sense of exactly how extensive that exposure was, in March 1984 an employee was sent out to collect samples, according to a memo by a DuPont staffer named Doughty. The employee went into general stores, markets, and gas stations, in local communities as far as 79 miles downriver from the Parkersburg plant, asking to fill plastic jugs with water, which he then took back for testing. The results of those tests confirmed C8’s presence at elevated levels.

Faced with the evidence that C8 had now spread far beyond the Parkersburg plant, internal documents show, DuPont was at a crossroads. Could the company find a way to reduce emissions? Should it switch to a new surfactant? Or stop using the chemical altogether? In May 1984, DuPont convened a meeting of 10 of its corporate business managers at the company’s headquarters in Wilmington, Delaware, to tackle some of these questions. Results from an engineering study the group reviewed that day described two methods for reducing C8 emissions, including thermal destruction and a scrubbing system.

“None of the options developed are ... economically attractive and would essentially put the long term viability of this business segment on the line,” someone named J. A. Schmid summarized in notes from the meeting, which are marked “personal and confidential.”

The executives considered C8 from the perspective of various divisions of the company, including the medical and legal departments, which, they predicted, “will likely take a position of total elimination,” according to Schmid’s summary. Yet the group nevertheless decided that “corporate image and corporate liability” – rather than health concerns or fears about suits – would drive their decisions about the chemical. Also, as Schmid noted, “There was a consensus that C-8, based on all the information available from within the company and 3M, does not pose a health hazard at low level chronic exposure.”

Though they already knew that it had been detected in two local drinking water systems and that moving ahead would only increase emissions, DuPont decided to keep using C8.

In fact, from that point on, DuPont increased its use and emissions of the chemical, ac-

A DuPont lawyer referred to C8 as “the material 3M sells us that we poop to the river and into drinking water along the Ohio River.”

According to Paustenbach’s 2007 study, which was based on the company’s purchasing records, interviews with employees, and historical emissions from the Parkersburg plant. According to the study, the plant put an estimated 19,000 pounds of C8 into the air in 1984, the year of the meeting. By 1999, the peak of its air emissions, the West Virginia

plant put some 87,000 pounds of C8 into local air and water. That same year, the company emitted more than 25,000 pounds of the chemical into the air and water around its New Jersey plant, as noted in a confidential presentation DuPont made to the New Jersey Department of Environmental Protection in 2006. All told, according to Paustenbach’s estimate, between 1951 and 2003 the West Virginia plant eventually spread nearly 2.5 million pounds of the chemical into the area around Parkersburg.

Essentially, DuPont decided to double-down on C8, betting that somewhere down the line the company would somehow be able to “eliminate all C8 emissions in a way yet to be developed that would not economically penalize the bussiness [sic],” as Schmid wrote in his 1984 meeting notes. The executives, while conscious of probable future liability, did not act with great urgency about the potential legal predicament they faced. If they did decide to reduce emissions or stop using the chemical altogether, they still couldn’t undo the years of damage already done. As the meeting summary noted, “We are already liable for the past 32 years of operation.”

When contacted by *The Intercept* for comment, 3M provided the following statement. “In more than 30 years of medical surveillance we have observed no adverse health effects in our employees resulting from their exposure to PFOS or PFOA. This is very important since the level of exposure in the general population is much lower than that of production employees who worked directly with these materials,” said Dr. Carol Ley, 3M vice president and corporate medical director. “3M believes the chemical compounds in question present no harm to human health at levels they are typically found in the environment or in human blood.” In May 2000, 3M announced that it would phase out its use of C8.

DU PONT CONFRONTED ITS potential liability in part by rehearsing the media strategy it would take if word of the contamination somehow got out. In the weeks after the 1984 meeting, an internal public relations team drafted the first of several “standby press releases.” The guide for dealing with the imagined press offered assurances that only “small quantities of [C8] are discharged to the Ohio River” and that “these extremely low levels would have no adverse affects.” When a hypothetical reporter, who presumably learned that DuPont was choosing not to invest in a system to reduce emissions, asks whether the company’s decision was based on money, the document advises answering “No.”

The company went on to draft these just-in-case press releases at several difficult junctures, and even the hypothetical scenarios they play out can be un-

comfortable. In one, drafted in 1989, after DuPont had bought local fields that contained wells it knew to be contaminated, the company spokesperson in the script winds up in an outright lie. Although internal documents list “the interests of protecting our plant site from public liability” as one of the reasons for the purchase, when the hypothetical reporter asks whether DuPont purchased the land because of the water contamination, the suggested answer listed in the 1989 standby release was to deny this and to state instead that “it made good business sense to do so.”

DuPont drafted another contingency press release in 1991, after it discovered that C8 was present in a landfill near the plant, which it estimated could produce an exit stream containing 100 times its internal maximum safety level. Fears about the possible health consequences were enough to spur the company to once again rehearse its media strategy. (“What would be the effect of cows drinking water from the ... stream?” the agenda from a C8 review meeting that year asked.) Yet other recent and disturbing discoveries had also provoked corporate anxieties.

In 1989, DuPont employees found an elevated number of leukemia deaths at the West Virginia plant. Several months later, they measured an unexpectedly high number of kidney cancers among male workers. Both elevations were plant-wide and not specific to workers who handled C8. But, the following year, the scientists clarified how C8 might cause at least one form of cancer in humans. In 1991, it became clear not just that C8-exposed rats had elevated chances of developing testicular tumors – something 3M had also recently observed – but, worse still, that the mechanism by which they developed the tumors could apply to humans.

Nevertheless, the 1991 draft press release said that “DuPont and 3M studies show that C-8 has no known toxic or ill health effects in humans at the concentrations detected” and included this reassuring note: “As for most chemicals, exposure limits for C-8 have been established with sufficient safety factors to ensure there is no health concern.”

Yet even this prettified version of reality in Parkersburg never saw the light of day. The standby releases were only to be used to guide the company’s media response if its bad news somehow leaked to the public. It would be almost 20 years after the first standby release was drafted before anyone outside the company understood the dangers of the chemical and how far it had spread beyond the plant.

I

N THE MEANTIME, fears about liability mounted along with the bad news. In 1991, DuPont researchers recommended another study of workers’ liver enzymes to follow up on the one that showed elevated levels more than a decade before. But Karrh and others decided against the project, which was predicted to cost \$45,000. When asked about it in a deposition, Karrh characterized the decision as the choice to focus resources on other worthy scientific projects. But notes taken on a

discussion of whether or not to carry out the proposed study included the bullet point “liability” and the hand-written suggestion: “Do the study after we are sued.”

In a 2004 deposition, Karrh denied that the notes were his and said that the company would never have endorsed such a comment. Although notes from

the 1991 meeting describe the presence of someone named “Kahrh,” Karrh said that he had no idea who that person was and didn’t recall being present for the meeting. When contacted by *The Intercept*, Karrh declined to comment.

As the secrets mounted so too did anxiety about C8, which DuPont was by now using and emitting not just in West Virginia and New Jersey, but also in its facilities in Japan and the Netherlands. By the time a small committee drafted a “white paper” about C8 strategies and plans in 1994, the subject was considered so sensitive that each copy was numbered and tracked. The top-secret document, which was distributed to high-level DuPont employees around the world, discussed the need to “evaluate replacement of C-8 with other more environmentally safe materials” and presented evidence of toxicity, including a paper published in the *Journal of Occupational Medicine* that found elevated levels of prostate cancer death rates for employees who worked in jobs where they were exposed to C8. After they reviewed drafts, recipients were asked to return them for destruction.

In 1999, when a farmer suspected that DuPont had poisoned his cows (after they drank from the very C8-polluted stream DuPont employees had worried over in their draft press release eight years earlier) and filed a lawsuit seeking damages, the truth finally began to seep out. The next year, an in-house DuPont attorney named Bernard Reilly helped open an internal workshop on C8 by giving “a short summary of the right things to document and not to document.” But Reilly – whose own emails about C8 would later fuel the legal battle that eventually included thousands of people, including Ken Wamsley and Sue Bailey – didn’t heed his own advice.

Reilly clearly made the wrong choice when he used the company’s computers to write about C8, which he revealingly called the “the material 3M sells us that we poop to the river and into drinking water along the Ohio River.” But the DuPont attorney was right about two things: If C8 was proven to be harmful, Reilly predicted in 2000, “we are really in the soup because essentially everyone is exposed one way or another.” Also, as he noted in another prescient email sent 15 years ago: “This will be an interesting saga before it’s thru.”

EDITORS NOTE: DuPont, asked to respond to the allegations contained in this article, declined to comment due to pending litigation.

In previous statements and court filings, however, DuPont has consistently denied that it did anything wrong or broke any laws. In settlements reached with regulatory authorities and in a class-action suit, DuPont has made clear that those agreements were compromise settlements regarding disputed claims and that the settlements did not constitute an admission of guilt or wrongdoing. Likewise, in response to the personal injury claims of Ken Wamsley, Sue Bailey, and others, DuPont has rejected all charges of wrongdoing and maintained that their injuries were “proximately caused by acts of God and/or by intervening and/or superseding actions by others, over which DuPont had no control.” DuPont also claimed that it “neither knew, nor should have known, that any of the substances to which Plaintiff was allegedly exposed were hazardous or constituted a reasonable or foreseeable risk of physical harm by virtue of the prevailing state of the medical, scientific and/or industrial knowledge available to DuPont at all times relevant to the claims or causes of action asserted by Plaintiff.”

Coming next: Part 2, the lawsuits that revealed what DuPont knew about C8.



This article was reported in partnership with The Investigative Fund at The Nation Institute.

Alleen Brown, Hannah Gold, and Sheelagh McNeill contributed to this story.

CONTACT THE AUTHOR:



Sharon Lerner

[✉ fastlerner@gmail.com](mailto:fastlerner@gmail.com)

∨  41 Comments