

More than half a million Americans exposed to toxic air pollution face cancer risks above EPA guidelines

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Credit: CC0 Public Domain

Neighbors used to barely notice the drab, low-slung industrial building across the river from downtown.

The corporate name on the sign out front had changed a few times over the years. Truck traffic in and out of the loading docks ebbed and flowed. As far as anybody knew, the only concern was word that spread around town years ago about a gas they used inside being explosive enough to level the entire building.

Even after the U.S. Environmental Protection Agency concluded last summer that the same gas is responsible for some of the nation's biggest cancer risks from [toxic air pollution](#), it took months before residents of Michigan's second-largest city discovered they had an ethylene oxide problem.

EPA scientists had determined the lifetime cancer risk in one Grand Rapids census tract is nearly four times greater than the national average. But the Trump administration buried the finding in a report quietly released in August 2018.

Nobody at the EPA told people in the middle- and working-class neighborhood known as Kielbasa Valley that they were potentially at risk. Nor did the agency investigate the facility that had reported emitting the cancer-causing gas: a medical device manufacturer sandwiched between a cluster of two-story homes and a branch campus of Grand Valley State University.

"It's like we've been forgotten. Or maybe they just don't care," said Lorna Conkle, who grew up in the neighborhood and today lives a block away from the facility.

This pattern of inaction by the Trump EPA has been repeated in dozens of communities across the nation during the past year, a Chicago Tribune investigation found.

More than a half million Americans exposed to toxic air pollution face

cancer risks exceeding agency guidelines, according to EPA data. Ethylene oxide is the chief chemical of concern.

Yet industrial facilities emitting the toxic gas continue to legally operate under federal regulations that haven't been updated to reflect the risk it poses. As a result, neighbors for the most part don't know they are breathing pollution that can potentially trigger breast cancer, leukemia and lymphomas.

Some of the communities the EPA found to be at risk are near sprawling petrochemical complexes in Louisiana and Texas where ethylene oxide is produced by industry giants, including Dow Chemical, Shell, Huntsman and Union Carbide (now a subsidiary of Dow).

Others facing elevated cancer risks live close to nondescript buildings owned by lesser-known companies that use the toxic gas to sterilize medical products in the suburbs of Atlanta and Denver; Charleston, S.C.; Laredo, Texas; and rural Missouri.

So far the only source of ethylene oxide scrutinized by the EPA is Sterigenics, a sterilization facility behind a Target store and next to the village hall in Willowbrook, a Chicago suburb where residents and elected officials mobilized to demand action after learning they were living in a pollution hot spot.

Faced with a [public outcry](#) and bipartisan political pressure, the EPA deployed air monitoring equipment last winter at parks, schools and homes near Sterigenics. Three months of testing confirmed that pollution from the facility could trigger more than 10 cases of cancer for every 10,000 people exposed during their lifetimes—a rate 10 times higher than what the EPA considers acceptable.

"We have been very proactive," Cathy Stepp, the Trump administration's

top EPA official in the Midwest, told a public forum in May.

The testing in Willowbrook produced real-world measurements of ethylene oxide that led to the shutdown of Sterigenics. But Trump administration officials have refused to monitor air quality in other communities that stand out in the latest National Air Toxics Assessment, an occasional report compiled by EPA scientists intended to highlight areas of the United States where more investigation is needed.

EPA officials also haven't done anything to draw the public's attention to alarming cancer risks in those communities.

There are 73,057 census tracts in the U.S., with between 2,500 and 8,000 people living in each one. In 106 tracts, the EPA data shows, the risk of developing cancer from breathing toxic air pollution over a lifetime exceeds agency guidelines.

Three entire counties in Louisiana, known locally as parishes, face risks considered unacceptable by the EPA.

The population of a Louisiana tract with the nation's highest cancer risks is largely African American and poor—one of the definitions of an environmental justice community. However, in about two-thirds of the areas facing risks exceeding EPA guidelines, most of the residents are white and live in either middle-class or well-to-do neighborhoods, according to census data.

In the absence of action by the Trump administration, decisions about ethylene oxide pollution have been left to state environmental agencies. Only Colorado and Michigan reacted to the EPA findings by launching investigations.

"We took it very seriously, and we are very concerned," said Heidi

Hollenbach, a district supervisor at the Michigan Department of Environment, Great Lakes and Energy. "Our No. 1 concern here is protecting public health."

State officials already were involved in the Grand Rapids neighborhood when the EPA identified it as a pollution hot spot. In 2017, residents had raised concerns about a possible cancer cluster they feared might be linked to a city dump where the federal agency had overseen a cleanup during the late 1990s.

While health officials began studying actual cases of cancer in the area, Hollenbach's agency adopted more stringent limits on ethylene oxide, based on a 2016 scientific evaluation by the EPA that concluded the chemical is far more dangerous than previously thought.

Citing its new regulations, the state agency accused Viant Medical, the current owner of the medical device manufacturing facility, of violating Michigan air quality standards. Then state officials installed the same type of monitoring equipment the EPA used in Willowbrook to measure day-to-day concentrations of ethylene oxide in the surrounding neighborhood.

"They found it's hitting the people downtown, too, the people with money," said Margo Johnson, an employment benefits consultant and president of a local neighborhood group. "That's when things really started to change."

Sometimes environmental agencies fail to enforce clean air and water laws until confronted by residents affected by pollution. But in many of the communities with elevated cancer risks from toxic air, people don't know they are at risk.

For instance, there has been no federal or state scrutiny of B. Braun, a

German manufacturer of medical and pharmaceutical products, despite EPA records showing the company's Allentown, Pa., assembly plant emitted more ethylene oxide than Sterigenics did in Willowbrook between 2014 and 2016.

What makes the EPA's decision to not conduct air quality testing even more remarkable: The agency's own scientists determined that 56,000 people near the Allentown facility face elevated cancer risks—more than twice the affected population in suburban Chicago neighborhoods surrounding Sterigenics.

B. Braun legally emits ethylene oxide, just as Sterigenics did for years in Willowbrook. But permits for both companies were based on regulations adopted before the EPA had concluded that the toxic gas can be harmful at extremely low levels.

"B. Braun Medical Inc. has a longstanding history of responsible operation of our facilities in a manner designed to fully protect our employees and the communities in which we operate," the company said in an email response to questions from the Tribune. "B. Braun continues to investigate the availability of alternative methods that are consistent with our commitment to ensuring the safety of patients, clinicians, our employees and the environment."

The EPA didn't require the sterilization industry to install pollution-control equipment until the late 1990s. Agency officials relaxed the regulations a few years later in response to explosions at plants in Indiana, Massachusetts, Virginia and Wisconsin.

Industry representatives persuaded regulators that the government-mandated pollution controls were responsible for the blasts, though investigators found operator errors were to blame in each case and could have been prevented with more rigorous training and safer handling of

the highly flammable chemical.

For most of 2019, it appeared the EPA's conclusions about ethylene oxide might prompt the Trump administration to briefly detour from its aggressive campaign to scrap environmental regulations.

William Wehrum, the administration official in charge of the EPA's air quality office, promised the agency would adopt more stringent federal restrictions on pollution from the sterilization industry. As recently as late May, Wehrum told the Tribune the rules would be based on a stringent safety limit derived from the agency's 2016 evaluation of the chemical.

"We are now in a position to make very good decisions about what needs to happen next," he told a May 29 public forum in Burr Ridge, a Chicago suburb next door to Willowbrook. "We're going to get results."

But after Wehrum resigned in June, the EPA indefinitely delayed releasing the ethylene oxide rules for public comment.

Members of President Donald Trump's Cabinet, including EPA Administrator Andrew Wheeler, are under pressure from the White House to eliminate regulations, not to adopt new ones. The chemical and sterilization industries also are lobbying the administration to back off, in part by raising doubts about the cancer risks posed by ethylene oxide.

Trade groups have petitioned the administration to throw out the EPA's scientific evaluation, sought to weaken the agency's safety limit through unrelated rule-making and hired industry-friendly scientists whose research was rejected by two panels of independent scientists convened by the EPA.

If administration officials end up agreeing with industry lobbyists, the

federal government would not require companies that make and use ethylene oxide to do anything to reduce their pollution. The cancer risks calculated by the EPA would suddenly disappear in Allentown, Willowbrook and other hot spots.

"People are going to continue to suffer, though," said Jennifer Sass, a senior scientist at the nonprofit Natural Resources Defense Council who helped draft a recent letter to the EPA that rebutted claims made by the chemical industry.

The chemical industry has fought tougher ethylene oxide regulations for decades, Sass noted. "Now a bunch of corporations are having a temper tantrum," she said, "because they don't like what the science is telling us about this extremely dangerous chemical."

In Illinois, it doesn't matter what the federal government decides about ethylene oxide.

Gov. J.B. Pritzker's administration shut down the company's Willowbrook facility in February. Before the company can be permitted to resume operations, a new state law and a recently negotiated legal settlement require an overhaul that would limit emissions to 85 pounds a year, down from 2,890 pounds released into the community during 2017.

Sterigenics said it already has taken steps to reduce emissions from its facilities in Smyrna, Ga., and Santa Teresa, N.M., two other communities where the EPA determined that neighbors face elevated cancer risks. The company also said it is planning to upgrade all nine of its U.S. facilities with technology similar to what it is planning for Willowbrook.

"We will ensure that our additional controls will comply with any changing regulations," the company said in an email response to

questions from the Tribune, "and we will seek to continue to perform far better than those requirements at all of our facilities."

The Illinois law requires similar improvements at Medline Industries in Waukegan, where local officials scrambled to finance air quality testing after federal and state agencies brushed aside pleas from neighbors.

Back in Grand Rapids, Lorna Conkle and her husband, Larry, said they didn't think twice when a state official knocked on their door earlier this year and asked if inspectors could measure ethylene oxide concentrations in their backyard.

The stainless steel canisters used to collect samples, outfitted with gauges and tubes that make them look like something out of a 1950s science fiction movie, were posted near the Tiki bar that Larry Conkle built from scratch and the wooden fence the couple painted with images of ocean waves.

During a recent visit, the space where the Conkles usually erect an above-ground pool for their grandchildren was empty. They decided to keep the pool in storage after the state's testing found that concentrations of ethylene oxide in their yard were 800 times higher than Michigan's safety limit.

"I feel uncomfortable about the kids coming over," Lorna Conkle said. "I feel guilty that they've been exposed to this for all of these years."

In March, hours before state officials convened a public meeting about Viant's emissions, the company dropped a letter in mailboxes throughout the neighborhood. Viant claimed the [ethylene oxide](#) could be coming from vehicle exhaust, but the big news was in bold face just below the company logo:

By the end of the year, the letter said, the company will stop using the toxic gas in Grand Rapids for good.

"That's great, but if this stuff is so bad why didn't they shut it down immediately?" Larry Conkle said.

"They say exposure is only dangerous over a lifetime," he said. "But when you live here, when you've got grandkids here, you're not thinking about a lifetime. You want to be safe now."

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