A Plant That Sterilizes Medical Equipment Spews Cancer-Causing Pollution on Schoolchildren

A sterilization plant in Texas emits large amounts of ethylene oxide, which increases the risk of leukemia, especially in children.

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Jennifer Jinot didn't expect to retire early from her role as an environmental health scientist for the federal government. She'd spent 26 years assessing the dangers of toxic chemicals for the U.S. Environmental Protection Agency. The job could be frustrating but, more than that, rewarding.

Early in her career, Jinot evaluated the health impacts of secondhand smoke exposure. It took four years — a pace she remembers thinking was "crazy slow" — to develop a final risk assessment, published in 1993, that determined secondhand smoke causes lung cancer in adults and impairs the respiratory systems of children. The tobacco industry sued the agency. But, in the end, her work spurred changes to the law. The victory was invigorating for Jinot, who had long dreamed of doing what she calls "socially useful" science.

In 2002, Jinot joined an EPA team that was evaluating new research to determine whether ethylene oxide, one of the world's most widely used chemicals, caused cancer. A key building block for an endless array of consumer goods and a common product used for sterilizing medical equipment, the colorless, low-odor gas wafts out of at least 160 facilities across America. Jinot's colleagues had already spent four years reading studies, scrutinizing data and consulting with experts. She was hopeful it wouldn't take much longer. The team published a draft assessment in 2006 that found the chemical was significantly more carcinogenic than the agency had previously concluded and especially damaging to children.

Jinot believed the science begged for urgent action to strengthen existing environmental regulations. But industry lobbyists and company executives attacked the draft. Audry E. Eldridge, then-president of the Missouri-based Midwest Sterilization Corporation, argued in a 2006 letter that an "extensive database of toxicological and epidemiological studies" showed the EPA's findings were flawed. Eldridge, who helped found the Ethylene Oxide Sterilization Association, a trade group that lobbies on behalf of sterilizer companies, didn't name any specific studies, but said in the letter that the cancer risk posed by the chemical was "thousands of times less than portrayed in EPA's risk estimates."

Amid pressure from industry groups, the agency agreed to another round of scrutiny from independent scientists and the public before finalizing its findings. “They don’t want to put out anything that gets attacked,” Jinot said of the EPA in a recent interview. The EPA defended its process for evaluating harmful environmental chemicals as “strong” in a statement to ProPublica and The Texas Tribune.

A process that, according to a director for the U.S. Government Accountability Office, should last no more than four years ended up taking another decade. In 2016, the EPA published the final version of its assessment. It concluded that ethylene oxide was 30 times more carcinogenic to people who continuously inhale it as adults and 50 times more carcinogenic to those who are exposed since birth than the agency previously thought. The chemical, which alters DNA in the human body and increases the risk of certain types of cancer such as leukemia, is particularly harmful to children because their developing bodies can’t mend the genetic damage as effectively as adult bodies.

In the decade it took for the federal agency to finalize what its frustrated scientists already knew, Eldridge’s sterilization company dramatically expanded its new facility in the border city of Laredo, Texas. The facility, a ProPublica analysis determined, emitted far more ethylene oxide than any other sterilizer plant in the country that reports emissions to the EPA.

Simultaneously, families along its fence line were raising a generation of children who would grow up in the plant’s shadow.

Karla and Cesar Ortiz had a baby girl they named Yaneli, after a Spanish-language television character who embodied kindness and humility, traits they hoped their daughter would share. Through the years, their smiley, curly-haired little girl grew to love arts and crafts, became a fan of ’80s music and K-pop and watched over her two little brothers in their home, located less than 5 miles from Midwest.

Around the same time, Nidia and Rafael Nevares were raising their two boys, Rafael Jr. and Juan Jose, or JJ, about 2 miles from the plant. The younger of the two, JJ was more outgoing and quick to make friends. Among his favorite things to do was pulling his older brother away from the computer to play hide-and-seek in the front yard.

The EPA’s 2016 ethylene oxide report would not be legally enforceable until the agency incorporated it into new regulations. Even so, it inspired many states to crack down on industrial facilities that emitted the chemical — through lawsuits, stricter state regulations, air monitoring and cancer cluster studies. But Texas went in the other direction, becoming the only state to officially reject the agency’s conclusions. In August 2017, the Texas Commission on Environmental Quality, the state’s environmental regulatory agency, announced it would launch a review of EPA’s science; it eventually ruled that the chemical was significantly less toxic than the federal agency had found. That resulted in Texas enacting a new standard that could allow plants to emit more of the chemical.

In 2018, two years after the EPA published its final report, JJ was diagnosed with acute lymphocytic

leukemia, a cancer that has been linked to ethylene oxide exposure. He turned 6 years old a month later.

“Have you seen a novela mexicana?” his mother, Nidia Nevares, said. “That’s what it was like, like a soap opera. Crying and crying, shock, shock, totally.”

Yaneli’s diagnosis came soon after. Doctors found that she had the same type of cancer as JJ in June 2019, three months before her 13th birthday.

By then, Jinot was no longer at the EPA. She had grown frustrated with industry’s increased influence over the agency and with a bureaucracy that stalled critical scientific research. So when the Trump administration sought to shrink the agency’s staffing in 2017 by offering employees buyouts, Jinot accepted.

“I couldn’t stand the process anymore,” she said. “There’s no reason it should take so long.”

In the Dark

Communities such as Laredo, where the vast majority of the residents are Latino and more than a quarter live in poverty, have been left in the dark for years by regulators who had evidence of the dangers posed by ethylene oxide but never told the public about them.

Out of all the pollutants that the EPA regulates, ethylene oxide is the most toxic, contributing to the majority of the excess cancer risk created by industrial air pollutants in the United States, according to an unprecedented analysis of the agency’s most recent modeling data by ProPublica, in collaboration with The Texas Tribune. That risk is in addition to those Americans already face from other factors like genetics or lifestyle.

The EPA says it strives to minimize the number of people exposed to emissions that create excess cancer risk worse than 1 in 1 million — meaning that if a million people were exposed to the toxic air pollutants over a lifetime of 70 years, there would likely be at least one additional case of cancer. But the agency is far more permissive about the cancer risk it considers unacceptable: greater than one additional cancer death per 10,000 people.

ProPublica’s analysis of ethylene oxide assessed the impact of the chemical for an intermediate risk level, 1 in 100,000, which experts say is not sufficiently protective of public health. Using that threshold, the analysis, which examined data from 2014 to 2018, shows that more than 60% of the 6.9 million Americans who face heightened excess cancer risk from industrial air pollution are imperiled solely based on their exposure to ethylene oxide. (Though the analysis identifies elevated risk for geographical areas, it can’t be used to determine the specific causes of individual cancer cases.)

The risk is particularly acute in Texas, the nation’s top ethylene oxide polluter and home to 26 facilities that emit the chemical. The state stands out not just for the outsize risk its residents face but because it has emerged as a key ally for companies that emit or use ethylene oxide. Texas has

fought stricter federal emissions regulations, even as many other states, including several led by Republicans, have enacted tighter controls on the chemical.

But if you look at the risk from all chemicals except ethylene oxide, these hot spots shrink dramatically, showing the outsize impact of the chemical.

Laredo, home to more than 260,000 people, is among the 20 hot spots in the country with the highest levels of excess cancer risk, according to the analysis. Midwest's Laredo plant released far more ethylene oxide on average than any other sterilizer plant in the country during the five-year period covered by the analysis, which used emissions estimates that Midwest reported to the EPA. The facility elevates the estimated lifetime cancer risk for nearly half of Laredo's residents to at least 1 in 100,000, the analysis found. More than 37,000 of those are children.

Midwest said in a statement that the cancer risk posed by its sterilization plant is overstated, asserting that the emissions it reported to the EPA are "worst case scenarios," rather than specific pollution levels. The law actually requires companies to report "reasonable" estimates of what they release into the air.

In 2019, the EPA directed its regional offices to warn more than two dozen communities facing the highest risks from ethylene oxide pollution, including those near Midwest's sterilizer plants in Laredo and Jackson, Missouri.

Armed with that information, residents across the country organized and pressured their elected officials to act. Attorneys general in Illinois and Georgia sued sterilizer plants over alleged air pollution violations, and lawmakers enacted stricter regulations of the chemical. Georgia's Republican governor, Brian Kemp, backed the effort. A bipartisan coalition of U.S. representatives from Illinois, Georgia and Pennsylvania formed to push the EPA to adopt stricter regulations on ethylene oxide that reflected the findings in the agency's final assessment.

The meetings even prompted change at Midwest's facility in Jackson, which "voluntarily installed additional controls to reduce emissions," according to Ben Washburn, a regional EPA spokesperson.

But the EPA region that oversees Texas and Louisiana trailed behind. Despite being home to the most "high-priority" ethylene oxide facilities, the region had not scheduled a single meeting on the pollutant as of March 2020. "These communities have not been given the same opportunity to interact with federal and state regulators to become informed on the issue," said an urgent alert that month from the EPA's Office of Inspector General. The region didn't hold its first community meetings anywhere in the two states until August 2021, two years after the EPA directive.

Laredo is still waiting.

More than 100 Laredo residents contacted by ProPublica and the Tribune said they hadn't heard about the cancer risk posed by the plant. Only one even knew of the facility's existence. The EPA acknowledged in a statement to ProPublica and the Tribune this month that it hadn't yet informed

Laredo residents of the cancer risks tied to ethylene oxide. Madeline Beal, senior risk communication adviser for the EPA, said the agency recognizes “the critical importance of public outreach and engagement to inform impacted residents about risk and ultimately to address it.”

But Beal also suggested that the federal agency is not solely responsible for informing and protecting residents. She said states are in the best position to “conduct additional, more refined investigations, as well as carry out appropriate outreach with affected communities.”

Beal said, “These state-led efforts have already led to emission reductions and expected public health benefits in several areas.”

Children at Risk

Nidia Nevares, an accountant for a freight shipping and trucking company in northern Laredo, was working in her office earlier this year when her cellphone began ringing. Her chest tightened when she saw the caller ID: The Children’s Hospital of San Antonio. She was not expecting the call.

It had been almost two years since JJ had returned home from a 10-month stay at the Ronald McDonald House in San Antonio following his first round of treatment for leukemia. The journey had been brutal, as health care workers implanted ports — attachments for tubes to access the veins near his heart — into his chest almost weekly.

Eventually, the cancer cells that had multiplied in JJ’s small body were sufficiently sapped and he was allowed to return home to Laredo to finish out his treatment. JJ continued taking chemotherapy drugs and making biweekly trips to San Antonio, which many Laredo families have to travel to because their city doesn’t have a children’s hospital. He was doing well enough that his family started planning a trip to Orlando, Florida, where he could ride roller coasters with his older brother.

But the doctor on the other end of the phone that day delivered devastating news.

JJ’s cancer was back, and it had likely spread to his spine and brain. He would have to return to San Antonio for at least a year to restart a more aggressive treatment plan.

“It’s extremely hard. These are calls and moments that you don’t expect to happen,” Nevares said. “It’s just really, really hard.”

Dr. Susan Buchanan, director of the Great Lakes Center for Reproductive and Children’s Environmental Health at the University of Illinois Chicago, said ethylene oxide should not be ruled out as a factor in JJ and Yaneli’s diagnoses given their proximity to the Midwest facility and the amount of the chemical it releases.

Acute lymphocytic leukemia, the type of cancer JJ and Yaneli have, is the most common type of cancer among children, although pediatric cases remain rare compared to adult ones. One study also found the disease to be particularly prominent among Latino youth. Studies over the past

decade have found links between toxic air pollution and higher rates of blood cancers among children, including lymphoma and acute lymphocytic leukemia.

“Kids are uniquely susceptible to anything that’s in the air,” Buchanan said. “We should not be putting day cares and schools near the plants that are emitting ethylene oxide.”

More than 40% of Laredo’s nearly 70,000 schoolchildren attend campuses that are located in areas with an excess elevated risk of cancer greater than 1 in 100,000 due to ethylene oxide emissions from the Midwest plant, according to the ProPublica and Tribune analysis.

JJ attended Julia Bird Jones Muller Elementary School, a campus that, like his home, is located less than 2 miles from the Midwest plant. ProPublica’s analysis shows the area the school is in faces an estimated elevated lifetime cancer risk of 1 in 3,700. That’s nearly three times higher than the maximum 1 in 10,000 risk level the EPA considers acceptable, making it the most at-risk school in Laredo and one of the most at-risk in the country.

The Nevares family was shocked and angry after learning from ProPublica and the Tribune of the cancer risk posed by the facility. From the EPA to state and local governments, officials at all levels should be responsible for protecting Americans, family members said.

“You think that you can trust in the authorities, and that before they allow companies so close to residents or schools, they should regulate it, and maybe move the company somewhere further away,” said JJ’s aunt, Sara Montalvo Saldaña, who has been one of his primary caretakers. “Maybe, since we are on the border, there just isn’t that much attention being paid.”

Leaders of Laredo’s United Independent School District said they “had no knowledge of the Midwest Sterilization facility or any potential risk it might pose to our students and staff” until the news organizations began asking questions. At the request of the district, TCEQ held a virtual meeting on May 14 with school leaders, telling them it had inspected the facility five times in the past four years as part of its routine checks and found no major violations.

School officials indicated that TCEQ representatives made no mention of a complaint they investigated last year that alleged Midwest’s Laredo plant falsified ethylene oxide emissions readings for a decade. The complaint alleged that a device Midwest used to determine how much of the chemical is in the air had produced readings of zero from 2007 to 2017.

The TCEQ investigator assigned to the case, Sheila Serna, obtained records from Midwest that confirmed the instrument hadn’t been picking up on ethylene oxide in the air. But she couldn’t determine the cause because the company had recently replaced the device. Still, Serna urged her manager, Arnaldo Lanese, to refer the issue to the agency’s criminal division for further investigation.

“It seems very unlikely that emissions readings before the installation of this new system were truly 0,” Serna wrote in an email obtained by ProPublica and the Tribune.

Lanese replied that the investigation lacked sufficient information to merit such action, but offered to discuss the matter with Serna in person. Records indicate that the complaint wasn't referred for criminal investigation.

Midwest declined to answer specific questions about the complaint but said in a statement that the company meets or exceeds local, state and federal regulatory standards. TCEQ did not answer questions about the complaint and declined to make Serna or Lanese available for an interview.

JJ Nevares and his older brother attended Julia Bird Jones Muller Elementary School, located at the yellow square at right. The school is in an area that faces an estimated elevated lifetime cancer risk of 1 in 3,700, according to a ProPublica analysis of the most recently available EPA data.

After school leaders raised concerns, TCEQ purchased monitoring equipment that allowed it to take a single 10-minute air sample outside of the Laredo plant in June. The state agency told ProPublica and the Tribune that it found no violations of TCEQ air quality rules.

Todd Cloud, an air quality consultant who reviewed TCEQ investigative records at the request of ProPublica and the Tribune, called the agency's air monitoring "garbage."

"That is a PR stunt," said Cloud, who worked for the fossil fuel industry for more than 20 years before becoming an adviser to environmental groups. "Going out there for 10 minutes with a handheld analyzer: That's a joke."

Industry's Defense: A Medical Benefit

Despite the health risks posed by ethylene oxide emissions, the sterilizer industry is pushing an argument that the chemical is a net win for public health.

The industry has for years fought against stricter environmental regulations by highlighting the role ethylene oxide plays in sterilizing medical equipment, which it portrays as vital to the health care system.

At a conference in Cincinnati in February 2020, a toxicologist named Lucy Fraiser presented preliminary findings of a study that sought to compare the risk of ethylene oxide pollution to the harm that banning it would cause to the medical industry. Fraiser told government and industry scientists that banning the chemical could lower exposure for a "relatively small number" of people living and working near sterilization plants. But she said that such a move would ultimately have a limited impact on overall exposure because the chemical is also present in automobile exhaust, cigarette smoke, food and consumer products.

"If EtO use in sterilizing medical equipment/devices were banned, the much more tangible risk of HAIs" — health care-associated infections — "could increase across the entire U.S.," Fraiser said, according to minutes from the conference obtained by ProPublica and the Tribune.

When Fraiser completed her presentation, an attendee asked who had sponsored her research.

Fraiser responded that she was working for Midwest Sterilization Corporation, which she referred to as a small, privately owned company out of Missouri. She later told ProPublica and the Tribune that she put the study on the back burner due to a lack of data, but may eventually revisit it.

Since opening its first plant in Missouri in 1976, Midwest has become the largest privately owned contract sterilizer in the country. It now sanitizes some 40% of all medical procedure trays nationwide, according to the statement it sent to ProPublica and the Tribune.

The company has been involved in fighting stricter regulations of ethylene oxide and the sterilizer industry for decades. On several occasions, the EPA has waived requirements that would have reduced ethylene oxide pollution from sterilizer plants even as it strengthened regulations for other types of facilities that emit the chemical. Among them, the agency has halted requirements that sterilizers install a particular type of pollution control equipment to reduce emissions from a certain type of vent. It also permanently exempted the industry from a federal permitting program that would have imposed an additional level of oversight.

Beal, the EPA adviser, said in a statement that sterilizer companies are still required to abide by a federal regulation that dictates maximum pollution levels from their facilities. But in 2006, the same year Jinot and her colleagues published their draft assessment, the EPA decided against updating that rule, saying that any additional requirements would result in minimal pollution reductions at a significant cost to companies.

Texas championed the medical benefits of the sterilizer industry in the early months of the coronavirus pandemic when it finalized a new ethylene oxide standard that is far less protective than both the EPA's and the state's own previous benchmark. On May 15, 2020, the TCEQ declared that people could safely inhale 2,400 parts per trillion of ethylene oxide over their lifetimes. In contrast, the EPA's inhalation risk benchmark is a far stricter 0.1 parts per trillion. TCEQ said in a news release that the new standard "comes during a unique period of strain on the nation's medical industry."

Several scientists, including Jinot, decried the TCEQ's conclusion as flawed. They pointed out that the review, which found that ethylene oxide had "little human carcinogenic potential," wrongly excluded studies linking ethylene oxide exposure to breast cancer and drew on cherry-picked analyses of the same studies the EPA relied on.

TCEQ defended its assessment in a statement to ProPublica and the Tribune, saying it improved upon EPA's work and that its "decision to exclude breast cancer as an endpoint was supported by peer-reviewed studies."

"Using the most current science, the new limit remains protective for people living near facilities that emit ethylene oxide while providing flexibility for the medical sterilization industry to continue its own critical role in patient care in the state of Texas," TCEQ stated in its May 2020 news release.

The biggest advantage for companies of the Texas standard, critics said, is that it prevents them

from having to slash existing emissions, which they would need to do if the state followed the EPA's assessment.

"It certainly stops the regulatory driver for massive statewide reductions, which we are seeing in several other states," Cloud said. "It protected the existing EtO operations."

Mustapha Beydoun, vice president and chief operating officer of the nonprofit Houston Advanced Research Center, which conducts air quality studies for local governments as well as industry, said it's concerning that the TCEQ and the EPA are so far apart on such a crucial issue.

"TCEQ is going in the opposite direction, basically saying it's OK if you shower in this stuff," Beydoun said. "Where is the disconnect here?"

"Made It This Far"

On a cool, sunny day in late September, Yaneli wailed as she stood in a royal blue ball gown at the entrance to the chapel at Iglesia Cristiana Misericordia. Whether the teenager's tears were the product of the sharp pain shooting through her legs or the raw emotions on the occasion of her landmark 15th birthday celebration was unclear even to her parents, who rarely see her cry.

The steroid pills Yaneli took for nearly two years as part of her treatment for leukemia have killed off so much of the tissue in her hip bone that it hurts to move. Karla and Cesar Ortiz worried that their daughter would need a wheelchair to make it down the long aisle of the church for the traditional quinceañera blessing that welcomes a young girl to womanhood. They didn't know if they would get to dance with her under the stars at the reception.

But Yaneli insisted on standing and, later on, dancing. Her parents walked arm-in-arm with her toward the altar that afternoon, and they held her steady as she swayed on the dance floor.

That night, Karla Ortiz recalled how she had nearly lost her daughter two years earlier.

Soon after Yaneli's cancer diagnosis, the family moved to Corpus Christi, which has a children's hospital. Yaneli developed a serious infection that her small body was having trouble fighting because the cancer had nearly depleted her healthy white blood cell count. Doctors had just finished two hourslong surgeries to rid her body of the bacteria that had proliferated.

Eventually, a surgeon arrived in the same room where Yaneli had been diagnosed with cancer weeks earlier. Through an interpreter, he told Karla and Cesar Ortiz that their daughter was not breathing on her own and offered them two options: They could keep Yaneli on life support, where she would likely stay for the remainder of her life, or remove her from the breathing machines, which he estimated would give her two or three days to live. Cesar Ortiz dropped to his knees to pray. In his hands was the Bible he always carried with him.

After four agonizing hours, the couple decided to remove the tubes that doctors said were keeping Yaneli alive. "We'll suffer if she suffers, and we can't let that happen," Karla Ortiz recalled thinking.

The parents called their families and asked them to make the 2 1/2-hour drive from Laredo to Corpus Christi to say goodbye, a recommendation from the hospital's medical staff.

Karla Ortiz barely slept the night before doctors removed the tubes from Yaneli's fragile body. She felt nauseous. But when the moment came, an unconscious Yaneli suddenly started breathing on her own. Three weeks later, she woke up.

It was a blessing for the couple, and it strengthened the mother's resolve not to miss another moment with her daughter.

She quit her marketing job to take care of Yaneli full time. It would be the second job she'd left in the five months following her daughter's diagnosis. The couple needed the money, but Yaneli needed them more. They returned a car they were still paying off to the dealership, taking a hit on their credit that hampered their dream of buying a home.

Two years later, back in Laredo, they were not only commemorating their daughter's quinceañera but marking the anticipated end of her battle with cancer.

The Monday after her celebration, Yaneli was back at the children's hospital in Corpus Christi. Her legs hurt so much, it felt like they were broken.

She would need to have both of her hips replaced, but the surgeon didn't want to disrupt the final months of her treatment, which was set to end Dec. 3.

With the chemotherapy now done, Yaneli will have to return to the hospital for the hip surgeries.

"The doctors say after those she won't really be able to run again," Karla Ortiz said. "But at least we've made it this far."

"Laredo Can't Be a Sacrifice Zone"

More than 75 Laredo residents crammed into a city recreation center about 2 1/2 miles from the Midwest plant this month. Local leaders organized the meeting after reporters from ProPublica and the Tribune started asking questions about the Midwest plant. It drew so much interest that some residents listened from two nearby overflow rooms, while another 50 people tuned in via livestream.

"One of the biggest problems is we did not know," said Tricia Cortez, the executive director of the Rio Grande International Study Center, a local environmental group that focuses predominantly on water pollution. They learned about the issue in the spring, she explained, from investigative reporters. "Once we did, we were truly stunned by diving deep into EPA databases and knew that people had to know about this, and we had to address this right away."

Over the course of nearly three hours, residents expressed outrage that government officials had failed to alert them of the cancer risk posed by the Midwest plant. They listened to organizers from Illinois, who had mobilized to close an ethylene oxide plant in their community, and traded stories

about loved ones who had recently been diagnosed with cancer. They also circulated a petition asking the EPA to hold a community meeting and strengthen regulations. “Let it be known that Laredo can’t be a sacrifice zone to serve the rest of the country,” one resident said.

A doctor with the city’s health authority raised the possibility of a pilot program that would collect blood samples from 3,000 Laredo residents to test for higher concentrations of ethylene oxide. A representative from the newly established Clean Air Laredo Coalition, which formed in response to the reporting, said its members are pushing the city council to request that the Centers for Disease Control and Prevention conduct blood testing on children attending school campuses in areas facing a high excess cancer risk. And Laredo City Council members assured residents that local government officials would rely on EPA’s final risk assessment, and not the more lenient view taken by TCEQ, to weigh cancer risks.

Some officials say that’s just the beginning of what’s needed. U.S. Rep. Henry Cuellar, D-Laredo, has been pushing the EPA’s regional offices to finally hold the meeting they were asked to conduct years ago. “The worst thing they can do is hide this,” Cuellar said. In November, after ProPublica published a map that showed the spread of cancer-causing chemicals from thousands of sources of hazardous air pollution across the country, including Midwest’s Laredo facility, David Gray, EPA’s regional director for Texas, responded to Cuellar’s request. Gray said the EPA was discussing a community meeting with the local environmental group and that Cuellar could be involved in scheduling it.

Beal, of the EPA, said that the Biden administration has “reinvigorated its commitment to protect public health from toxic air emissions from industrial facilities.” And she said ethylene oxide in particular is a major priority. The agency has laid out a three-year timeline for strengthening regulations for a variety of pollutants and communicating the risks to the public. That includes proposing an updated regulation for ethylene oxide sterilizers like Midwest sometime in the coming months, which may require facilities to reduce ethylene oxide emissions.

Thomas McGarity, a professor at the University of Texas School of Law who once worked in the EPA’s Office of General Counsel, is skeptical that the administration will be as forceful as it is promising to be, particularly with states that are reluctant to follow its lead.

“The Biden administration has talked a big game, but let’s see what they will force states to do,” McGarity said. “The EPA has a lot of power, but it has always been reluctant to use it.”

Five years after Jinot and her colleagues published their updated risk assessment on ethylene oxide, the agency still has not incorporated the science into the majority of the environmental regulations that govern how much of the chemical facilities can emit. The one it has updated, which would reduce ethylene oxide pollution from certain chemical plants by an estimated 1 ton overall, is facing a lawsuit from environmental groups who argue it’s insufficient.

Meanwhile, the American Chemistry Council, which represents the chemical industry, formally asked the EPA to consider using Texas’ standard instead of its own. The group has suggested that the EPA’s assessment is outdated because it preceded the TCEQ assessment.

The EPA agreed to consider the request but hasn't yet made a decision. "I don't know what's going on now that they think they should reopen it," Jinot said. "There's nothing new here. There's just this really flawed and error-ridden alternative. It's very discouraging."

Jinot said she has tried to unplug since her retirement four years ago, but she keeps getting drawn back in to defend scientific conclusions that could have already led to stronger regulations to protect vulnerable communities.

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