FIGHTING TO BREATHE

East Chicago's Struggle for Clean Air and Soil

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When driving down Interstate 90, in northwest Indiana, toward Chicago, the smell of rotten eggs is so pungent, and the smoke so thick, it's impossible to miss. The smog is as much a part of the East Chicago skyline as the small high-rises that spike it.

I spent my summers as a child in Gary, seven miles away from East Chicago, and the exhaust from the factories didn't bother me then. I loved eggs, and the smell that permeated my grandma's backyard as I read or played with Barbies while she barbecued was more pleasing than dismaying. Of course, I didn't realize the impact the pollution was having on the environment and our community. Up and down the highway, to and from Chicago, the smokestacks pushed out pollution. And few questioned it, even my grandmother, who worked in the area at a local steel mill for decades.

Longtime resident Maritza Lopez vaguely remembers that the U.S.

Environmental Protection Agency (EPA) began placing flyers around the neighborhood, and ads in local publications around East Chicago, to alert as many affected residents as possible.[1] But few were moved to action. Lopez recalls signs cautioning people to take their shoes off at the door. Still, she says, "It seemed like it was no big deal. There was no talk about health risks, besides how it could affect children."

Many residents remained blissfully unaware of the severity of the contamination, and carried on as if nothing were amiss: their children still played in lead-contaminated parks and playgrounds; they kept their shoes on in the house.

That changed in 2016, when residents of East Chicago's Calumet neighborhood received a letter from Mayor Anthony Copeland explaining that they were living in a polluted area, with lead and arsenic present in both the atmosphere and the soil. Stressing the potential health risks, Mayor Copeland announced the closing of a city-owned housing complex just across the tracks in West Calumet, and local officials immediately began working with the Department of Housing and Urban Development to move more than one hundred residents affected by the closure.

Lopez, who had just purchased her childhood home a few years earlier, organized residents to demand answers from local government offices and the EPA about the extent of the pollution, and the dangers associated with it.

Three years later, residents are still dealing with contaminated dust and paint inside their homes, as well as contaminated soil in their yards.

HOW IT ALL BEGAN

East Chicago, Indiana, was founded in 1883 and grew in tandem with the expanding lead, copper, steel, and rail industries. During the industrial age, canals were built and extended for easy ship access, and railroad tracks were laid. In 1906, construction began on a number of buildings

that would later become the United States Smelter and Lead Refinery, in these parts referred to as USS Lead. The factory manufactured its own lead from 1920 until 1970, when it began recovering it from scrap metal and automotive batteries instead. All the while, lead and other toxic wastes present in the factory seeped into the surrounding residential properties, into the soil, into the groundwater.

East Chicago was once a bustling city—an industrial leader—where copper, lead, and locomotive factories thrived. Many of those factory buildings have since been demolished; others lie in wait, their windows broken, hungry weeds strangling their brick frames. In some cases, new industry has taken their place. Marathon Petroleum Corporation established a warehouse in the area, along with Marino/WARE, a steel manufacturing company, and Kemira, a global water treatment company.

According to the Census Bureau, 93 percent of East Chicago's population is Hispanic or African American. Almost 35 percent of the city's population lives in poverty, the median household income is just over $30,000—barely half the national average—and many of those who grew up here never left, the children and grandchildren of those originally lured by the factories at the apex of their run.

My grandmother, Angie Matheny, is among these residents. She has owned her house in Gary for more than four decades, and she began working at US Steel in East Chicago in 1964. Like many of the residents who still reside in East Chicago and in surrounding cities like Gary and Hammond, she had no idea of the type of health effects working twelve-hour days at the factory would cause her. In the 1990s, my grandmother fought and won her battle with breast cancer. Since then, she hasn't had many health scares, but does take medication to manage her thyroid and high blood pressure.

In 1985, the Indiana Department of Health declared USS Lead in violation of state law after it found lead particles downwind of the plant. By December of that year, USS Lead had ceased all operations and the In-

diana Department of Environmental Management (IDEM) began testing the soil around the facility and other residential areas for further contamination. Working with the state and following the guidelines of its own Resource Conservation and Recovery Act (RCRA), the EPA worked with the responsible parties at the time to properly clean up the affected facilities.

Twenty-two years later, after further investigation of the affected area, the EPA determined the contamination had spread beyond the facility's original boundaries, and so transferred the responsibility from the EPA's RCRA unit to its Superfund program, which oversees the cleanup of areas that pose a risk to human health and the surrounding environment. Today, the USS Lead Superfund Site refers to a seventy-four-acre residential area in East Chicago's Calumet neighborhood, where some of the factories once stood and close to where Maritza Lopez lives.

The EPA has held more than a dozen meetings with residents, solicited their feedback, and collected samples of soil and groundwater in the area to determine the best plan of action for removing contamination in all three zones. The EPA's maximum level for lead content in residential areas is 400 parts per million (ppm). Most of the soil samples came back at 1,200 ppm or higher.[2]

The EPA office now addressing this site is the same office addressing the water crisis in Flint, Michigan.

ENVIRONMENTAL JUSTICE AND COMMUNITIES OF COLOR

Although issues of environmental justice may seem new because of the recent spotlight on the water crisis in Flint, Michigan, and the standoff over the Dakota Access Pipeline, communities of color have almost always been the most susceptible to these issues says, Carlton Waterhouse, professor of law and divinity and director of the Environmental Justice Center at Howard University's law school.

"This is all grounded in the historic racial discrimination that we've had in the US since the beginning to the twentieth century," he says. Segregation and redlining persisted in the North and South even as America was also experiencing an industrialization boom. This segregation concentrated people who were already marginalized into limited living spaces, while white people had greater choices. They could choose to live in less polluted neighborhoods, to build their homes and start a family.

Communities of color found themselves near factories and industrial sites, not just in East Chicago, Indiana, but across the country in Michigan, Oklahoma, and Louisiana, where an area near industrial plants is actually known as Cancer Valley. By the time it was discovered that these factories were emitting large amounts of pollution to nearby residents, who were mostly low-income people of color, the damage had already been done.

Even when decisions were made by the government about how much pollution factories were allowed to emit, "those decisions rarely involved African Americans in government, nor African Americans in positions of authority at the companies doing the polluting," Waterhouse says.

The issues, of course, are structural. When working at US Steel in East Chicago, my grandmother recalls almost all of the wage workers being black men—she was one of the few women. Management were almost exclusively white men. "I remember when I first decided I was going to try working at the factory, I went up there with a few girlfriends of mine," my grandma recalls. "We thought there was no way they'd hire women, especially us black women. But they did, and so each day, I kept my head down and did my work." To this day, the executive team of US Steel is majority male and white.

THE LEVEL OF A GIVEN THREAT

In 2017 the EPA ordered responsible parties to remove only the top two feet of soil, where the highest levels of lead and arsenic were found. After

its removal, new soil will be placed over the top of older, potentially contaminated soil. When asked for feedback at a series of public meetings dating back to 2012, residents voiced concern that EPA's solution sounded like a minimum-maintenance plan.

"In public meetings, we have screamed 'this is a Band-Aid solution!' and unfortunately all the ground team can do is take it back to the higher-ups," Lopez said. "Expediting a cleanup that doesn't fully get rid of contamination doesn't solve the problem. I feel EPA has failed us in that manner. I understand they do not have the funds in their pockets, but they do have the resources to bring in the federal funds that we need."

Waterhouse explains that EPA's decision to only remove the top layer of soil in some areas of the Superfund site and not all is a common one.

"There are a lot of environmental challenges, so every problem in every neighborhood doesn't get the same level of attention and focus. For that reason, problems are ranked by what the agency knows about the threat and the level of it," Waterhouse says. This means that the EPA and other government agencies try to make the best decision given the information they have as well as the level of a given threat.

When asked in early 2019 about the chosen method for cleanup, an EPA spokesperson maintained that recontamination is not likely. The spokesperson explained, "The lead in the soil is not very mobile. Groundwater samples taken from four monitoring wells on the site only show low levels of dissolved lead, which are not high enough to recontaminate the top two feet of clean soil."

Lopez had her soil replaced in the fall of 2017, as well, but she is still concerned about the contamination inside her home, especially the basement, which can flood after heavy rains. In December 2018, family members came to visit on an unusually warm day. The unexpected weather caused the smell to intensify.

"They thought I was cooking eggs because the smell is a mixture of gas and eggs," she says. "Really it's sulfur from the surrounding companies."

HEALTH RISKS

According to the Agency for Toxic Substances and Disease Registry (ATSDR), exposure to lead can lead to a variety of behavioral and learning disorders, especially in children.[3] Exposure to lead can also lead to hypertension and future reproductive issues for women. Exposure to high levels of arsenic can cause digestion issues, sore throat, or irritated lungs.[4]

During public meetings, Lopez has asked EPA and ATSDR officials about what is being done to address these health concerns.

"They just stand there staring like deer in headlights," Lopez says. "They know tests exist to figure out how some of our ailments originated. That's what hurts the most. Any medical [document] that says how lead affects the body, we have seen those symptoms in this area, but no one has admitted that or taken responsibility for it in our meetings."

Dr. Mark Johnson, the Region 5 Director for ATSDR, says agency representatives have reminded residents during public meetings where to go for blood testing. There are two federally qualified health clinics in East Chicago: Regional Health Clinic and HealthLinc.

"Adults who lived in East Chicago, Indiana, neighborhoods within the USS Lead Superfund site as children might have been exposed to lead that could put them at a greater risk of high blood pressure, heart disease, kidney disease, and reduced fertility," he says. "They could also have problems with their nervous and digestive systems. ATSDR encourages community members to talk to their doctor about any health concerns they might have regarding exposures to lead."

In 2016, shortly after Mayor Copeland declared a state of emergency for the Superfund site, the EPA sent letters to residents and property owners detailing the amount of lead and arsenic in their soil. The letters also encouraged residents to get their children's blood tested at the East Chicago Health Department, noting that blood testing was the only way to tell if a person has been exposed to high levels of lead.

But eighteen years before, the ATSDR had conducted a study of its own. In 1998, ATSDR completed an exposure investigation that tested the blood-lead concentration of children in the West Calumet and Calumet communities to the north of the USS Lead site.[5] The investigation found that 30 percent of children six and younger had blood-lead concentrations greater than 10 micrograms of lead per deciliter. The average blood-lead concentration in children is 5 micrograms of lead per deciliter, according to new Centers for Disease Control recommendations.[6] At the time, the ATSDR recommended the lead contamination be cleaned up. However, the Superfund site wouldn't make it onto the National Priorities list until a decade later.

Since then, residents say, the government agencies involved have focused primarily on children under the age of six, as if the contamination hasn't been affecting all residents for more than thirty years.

"I've been sick all my life," Lopez says. "My brother and sister both died in their early forties due to health complications. I've had tests done that say there are high levels of lead and arsenic in my urine, which means it's probably in my organs. So, the government needs to focus on everyone that's lived in this area."

Right now, ATSDR continues to work with the Indiana State Department of Health (ISDH) and the East Chicago Health Department (ECHD) to encourage blood lead testing of young children, particularly in the Calumet neighborhood. In February 2019 the agency worked with Great Lakes Center for Children's Environmental Health and ECHD to present a Grand Rounds event for local physicians and other health care providers to present information about lead hazards and the importance of blood lead testing for children. Additionally, ATSDR coordinated with other health agencies to set up a meeting with the new East Chicago Schools' interim superintendent, Dee Etta Wright, to plan educational activities related to lead exposure for children and teachers.

KEEP FIGHTING

In October 2016, community leaders formed a Community Advisory Group with other residents to hold government agencies accountable and help residents stay informed. Currently, they're working closely with the Environment Advocacy Clinic at Northwestern University's Bloom Legal Clinic and the Abraham's Environmental Law Clinic at the University of Chicago. The clinics serve as advocates for residents, helping them parse through legal documents and demanding better treatment from government agencies on their behalf.

Since the group's forming, they've been able to get the EPA to expand its scope of work on the Superfund site, which allowed five hundred additional residential properties to have their soil tested; they pushed the EPA to examine drinking water, which revealed lead levels in excess of EPA's standards. Advocacy led to the replacement of some lead service lines; and lastly, the group pushed for dust testing and cleanup as well as lead paint abatement and were able to get the EPA to conduct additional tests that will continue through 2020.

When asked about moving elsewhere, outside of East Chicago, Lopez laughs. She is on disability due to health issues she believes are at least partially caused by the decades she's spent living within the Superfund site.

Although my grandmother grew up in Canton, Mississippi, northwest Indiana has been her home for more than fifty years. Her entire life is here, the job she worked for decades, her church, her best friends; they're all there. Like Lopez points out, it's not always easy to leave home, even when you should.

Lopez says if it made sense financially and medically for her to leave, she would have been gone. Since purchasing her house in 2012—before property owners had to disclose information about lead and arsenic

contamination—her home has lost $40,000 in property value, she says. Furthermore, if she or anyone else residing in the Superfund site chooses to move, they'll be required by the Residential Lead-Based Paint Hazard Reduction Act of 1992 to disclose information about the contamination in the area, making it nearly impossible to sell a home.

"We've asked the EPA to call a meeting with the mayor, school administrators, and the governor because it seems like everyone is being told something different," Lopez says. "It becomes the blame game. I feel like we've been left to the wayside by our federal government."

Still, Lopez and other residents plan to keep fighting. Not just for their home, but for their humanity.