

Puerto Rico's southern region fights for cleaner air, water

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A resident of Salinas, considered one of the most contaminated towns in Puerto Rico, waits for a meeting with U.S. Environmental Protection Agency officials to start, Wednesday, Jan. 25, 2023 in Salinas, Puerto Rico. Emboldened by the attention that the federal government has now placed in Salinas, communities are demanding a massive clean-up and penalties for those contaminating a region where residents have long complained about health conditions. (AP

Photo/Danica Coto).

Shuttered windows are a permanent fixture in Salinas, an industrial town on Puerto Rico's southeast coast that is considered one of the U.S. territory's most contaminated regions.

For years, toxic ash and noxious chemicals from coal-fired and [thermoelectric power plants](#) have enveloped this community, and residents have complained about [health problems](#) ranging from cancer to Alzheimer's.

Then last year, a bombshell: Officials with the U.S. Environmental Protection Agency traveled to Salinas to announce that the town also has one of the highest concentrations of ethylene oxide, a cancer-causing gas, in a U.S. jurisdiction.

"We're fighting a lot of battles," said José Santiago, a 74-year-old retiree.

Emboldened by the attention that the [federal government](#) has put on Salinas, Santiago and others are demanding a huge clean-up and penalties for those contaminating the region.

"I will keep fighting until I die," said Elsa Modesto, a 77-year-old retiree who has not missed a single EPA meeting since last year's announcement. "I want to know what's in the environment."

Puerto Rico ranks 22nd out of 56 U.S. states and territories based on total managed waste released per square mile, at 4.2 million pounds. Six of the top 10 municipalities in that category are in Puerto Rico's southern region, with Salinas ranked sixth, according to data obtained from the EPA's Toxics Release Inventory.

Salinas also has one of the highest incidence rates of cancer in Puerto Rico, with 140 cases reported in 2019, the newest figures available from the island's Central Registry of Cancer. Salinas has a higher rate than the neighboring town of Guayama, where cases of cancer and other diseases have increased since the coal-fired power plant began operating there in 2002, said Dr. Gerson Jiménez, director of the Menonite Hospital who has testified in public hearings and called for the closure of the plant.

"Medical doctors who work in the southeast area of Puerto Rico have noticed that since the AES Corporation began operating in Guayama, there has been a significant increase in diseases of the respiratory tract, urinary tract, as well as a significant increase in diagnoses of various types of cancer," he testified at one hearing.

The level of contamination has prompted the EPA for the first time to test air and groundwater in Puerto Rico's southeast region, with Administrator Michael Regan saying that low-income communities and communities of color have suffered unjustly for decades.

Salinas is a town of nearly 26,000 people—of which 28% identify as Black—with a median household income of \$18,000 a year. More than half of its population is poor, according to the U.S. Census Bureau.

The town is nestled between the coal-burning power plant, two of the island's largest thermoelectric plants and other industries, including a company that produces thermoset composites, a material used in major appliances like refrigerators. That company, IDI Caribe Inc., is the facility that releases the most emissions in Salinas, according to the EPA.

Overall, styrene and ethylene oxide, a carcinogenic gas, are the top two chemicals released into the air and water in Salinas, officials say. Salinas and Guayama also have sulfur dioxide levels that exceed new standards.

Meanwhile, a study by Puerto Rico's Chemistry Association published in late 2021 found the presence of heavy metals linked to coal in potable water in Salinas. The amounts found did not exceed regulatory limits.

Scientists doing that study were forced to collect samples from individual homes because the government's water and sewer company at the time blocked access to aquifers that residents in the southeast rely on, environmental activist Víctor Alvarado said. Since then, legislators have approved a law that requires the company to provide access for testing.

Salinas also is home to Steri-Tech, the company that uses ethylene oxide to sterilize medical equipment. It is a colorless, flammable gas that has a slightly sweet odor and is used to clean about 20 billion sterile medical devices a year. The EPA says [short-term exposure](#) to the gas does not appear to pose risks, but long-term or lifetime exposure can cause lymphoma, breast cancer and other illnesses.

Steri-Tech reported two explosions—one in October and the other earlier this month—that frightened residents and raised concerns about whether any toxic chemicals were released.

"My house shook!" said Lillian Melero, a 60-year-old retiree who recalled that the explosion broke a neighbor's windows.

Meleroe said she wants answers from federal officials about the contamination in her town. "They write down a lot of things, but I haven't seen any changes," she said.

Hoping to lessen his exposure, Santiago, the retiree who lives a few blocks from Steri-Tech, not only closes his windows but also has planted avocado trees, small palm trees and a bougainvillea with bright orange and fuchsia flowers seeking to prevent ethylene oxide and other

contaminants from seeping into his home.

Those measures have a limited effect, however, and residents continue frustrated that their complaints about contamination have been ignored for years.

Tired of fighting pollution at a local level and getting no response, community leader Wanda Ríos sought help from higher up.

"I stop this at a federal level," she said. "I don't waste my time here in Puerto Rico."

She said that several people in La Margarita, a neighborhood of some 100 people sitting next to Steri-Tech, have died of cancer, including a married couple and others who formed part of the association of residents she founded in recent years. Ríos added that Steri-Tech has organized recent health workshops for residents.

On Wednesday evening, some two dozen residents of Salinas gathered to hear the results from air samples that the EPA took last year, announcing that it found extremely high concentrations of [ethylene oxide](#) in some areas. One area had 121 micrograms per cubic meter of air—more than 400 times higher than the U.S. national average of .30 micrograms.

Richard Ruvo, an EPA air and radiation director, said Steri-Tech's equipment filters 99% of its emissions, but that it's not enough: "We know more has to be done to reduce those emissions."

Officials said the company is working on installing equipment that will filter 99.9% of emissions, but it's not clear when that will occur. Ruvo added that other measures to reduce emissions are part of confidential discussions with the company.

Andrés Vivoni, a representative with Steri-Tech, did not return a message seeking comment.

As the conversations behind closed doors continue, the EPA has pledged stricter regulations of toxic air emissions nationwide by the end of the year. That has been hailed by many in Puerto Rico, which has one of the highest asthma rates in a U.S. jurisdiction and whose power generation system is 97% based on fossil fuels.

Karilyn Bonilla, who is from the La Margarita community and has been mayor of Salinas for a decade, said she understands the concerns over pollution. Although she has been the target of protests organized by frustrated residents, she said she is pushing for corrective measures.

"It's been a struggle of many years," she said.

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