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WATCH

“We’re Dying Here”

The Fight for Life in a Louisiana Fossil Fuel Sacrifice Zone



“We’re Dying Here”

The Fight for Life in a Louisiana Fossil Fuel Sacrifice Zone

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Glossary

Air monitor: Air measurement device to determine levels of emissions of different pollutants from industrial operations which can be placed at different locations, such as within smokestacks or on the external wall or “fenceline” where it borders a local community.

Cancer Alley: Widely used nickname given to an area along the Mississippi River in the US state of Louisiana between New Orleans and Baton Rouge where communities live alongside some 200 fossil fuel and petrochemical plants. Alternatively referred to as the “Industrial Corridor.”

Environmental Justice: The environmental justice movement grew out of a response to the system of environmental racism. The EPA defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, culture, national origin, income, and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations, and policies.” This definition relies on disproportionate outcomes, rather than merely discriminatory intent, with EPA regulations prohibiting practices that “have a discriminatory effect,” even if those practices are “neutral on their face.” Each federal agency is mandated to “make achieving environmental justice part of its mission.”

Fenceline communities: Communities located “on the fence line” — that is, adjacent to — highly polluting facilities and directly affected by the operations of those facilities.

Flaring: When fossil fuel and petrochemical operators burn off excess methane gas rather than contain or capture it in pipelines. When burned, the powerful greenhouse gas — more than 80 times more potent at global warming than carbon dioxide over a 20-year period — is released into the atmosphere. Flaring also releases toxic pollutants known to harm human health, including benzene, a human carcinogen that can cause leukemia.¹

¹ United Nations Environment Programme, “Methane emissions are driving climate change. Here’s how to reduce them,” August 20, 2021, <https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them> (accessed October 25, 2023); Centers for Disease Control and Prevention, “Facts About Benzene,” <https://emergency.cdc.gov/agent/benzene/basics/facts.asp> (accessed October 25, 2023).

Fossil fuels: Non-renewable natural resources, namely oil, methane gas, and coal.

Industrial Corridor: An alternative to “Cancer Alley” often used by Louisiana’s state government.

Liquefied Natural Gas (LNG): Methane gas that has been cooled to a liquid state, at about -260 degrees Fahrenheit (-161.5 degrees Celsius), for shipping and storage.

Methane gas: Also known as “natural gas,” a gaseous fossil fuel primarily composed of methane.

Oil refinery: A facility which converts crude oil into petroleum products for other uses, including as fuels for transportation, heating, paving roads, generating electricity, and as feedstocks for petrochemicals.

Overburdened communities: The EPA uses the term to refer to the low-income, tribal, Indigenous and other people of color communities that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards, generally from industrial polluters. This increased vulnerability may be attributable to an accumulation of negative and lack of positive environmental, health, economic, or social conditions within these populations or communities.

Petrochemical Plants: Petrochemicals are chemicals derived from fossil fuels. Petrochemical plants use fossil fuel byproducts and convert them into compounds which they (or other plants) use in the manufacture of products, such as single use plastics, rubber, and synthetic fertilizers and pesticides. Virtually all industrial chemicals are derived from fossil fuel fuels and are thus “petrochemicals.”²

Toxics Release Inventory (TRI) Program: Primary regulatory tool for accessing industry emissions of toxic chemicals, this EPA program tracks industrial management of the

² International Energy Agency, “Chemicals,” <https://www.iea.org/energy-system/industry/chemicals> (accessed January 7, 2024); Human Rights Watch interview with Dr. Veena Singla, Senior Scientist, Natural Resources Defense Council, New Orleans, Louisiana, January 26, 2023.

highest emitting facilities which provide a self-accounting of the volume of certain hazardous pollutants released on a site-by-site basis.

SUMMARY AND RECOMMENDATIONS

SUMMARY

Sharon Lavigne, 71, lives in the small community of Welcome in the state of Louisiana, United States. Like many of her neighbors, the retired special education teacher has placed a sign in her front yard which reads, “We live on death row.” It is a morbid twist on the nickname by which their region has come to be more broadly known: “Cancer Alley.”

Sharon Lavigne, founder of RISE St. James, non-profit environmental justice organization, at her home in Welcome, St. James Parish, in Louisiana’s Cancer Alley. “We’re dying from inhaling the industries’ pollution. I feel like it’s a death sentence. Like we are getting cremated, but not getting burnt,” she said. October 16, 2023.

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“We’re dying from inhaling the industries’ pollution. I feel like it’s a death sentence. Like we are getting cremated, but not getting burnt.”

— SHARON LAVIGNE, 71, SAINT JAMES PARISH,
JANUARY 2023.

Welcome sits in St. James Parish in the heart of Cancer Alley, an approximately 85-mile stretch of communities along the banks of the Mississippi River between New Orleans and Baton Rouge where people live on the frontlines of some 200 fossil fuel and petrochemical operations — reportedly the largest concentration of such plants in the Western Hemisphere.

Residents of Cancer Alley are the victims of deadly environmental pollution from the fossil fuel and petrochemical industry. They face severe health harms including elevated burdens and risks of cancer, reproductive, maternal, and newborn health harms, and respiratory ailments. These harms are disproportionately borne by the area’s Black residents.

State and federal authorities have failed to properly regulate the industry, and they have not made information about risks to human health readily available.

For decades, the state of Louisiana, and the Louisiana Department of Environmental Quality (LDEQ) in particular, has repeatedly failed to address the harms of fossil fuel and petrochemical operations, to enforce the minimum standards set by the federal government, and to protect the environment and human health. The US Environmental Protection Agency (EPA) has not adequately ensured that federal laws and mandates are enforced in Louisiana, and as such, is failing to protect the air, land, water, and health of Louisiana residents from harms caused by the fossil fuel and petrochemical industry.



Janice Ferchaud, a breast cancer survivor, at her home in St. James Parish, in Louisiana’s Cancer Alley. She attributes her cancer and the illness and death of family and neighbors to the pollution from the approximately 200 fossil fuel and petrochemical plants that line Cancer Alley. October 17, 2023.

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Smoke rises from a plant in Louisiana’s Cancer Alley. October 18, 2023.

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Smoke billows over the Mississippi River in Louisiana's Cancer Alley. October 15, 2023.

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The prevalence of harm from the fossil fuel and petrochemical industry in Louisiana indicates that both state and federal authorities are failing to respect, protect, and fulfil the human rights to life, health, access to information, and the right to freedom from discrimination on the basis of race.

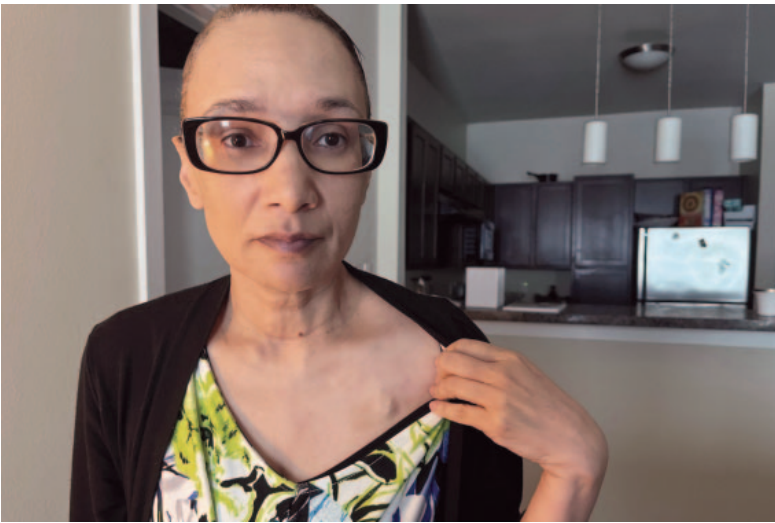
Not far from Lavigne's house, Janice Ferchaud, 66, sits in the trailer that has served as her home since her house was rendered uninhabitable by Hurricane Ida in August 2021. She wants the world to understand what is happening in Cancer Alley. She grows impatient with talking and aggressively pulls down the collar of her pink T-shirt to display her jagged mastectomy scars, the outcome of a surgery following a breast cancer diagnosis. Human Rights Watch interviewed many other Cancer Alley residents who also shared her frustration born of telling and retelling personal accounts of death, disease, and community-wide suffering and failing to see action.

Residents of Cancer Alley face significant risks of cancer and other severe health ailments as a result of emissions from fossil fuel and petrochemical plants, according to Human Rights Watch research, including an analysis of EPA data. The area with the highest risk of cancer from industrial air pollution in the US — more than seven times the national average — is located in Cancer Alley where Robert Taylor lives. Taylor, 83, described the cases of dozens of family members and neighbors who have died or been diagnosed with cancer, including both his mother and wife. The Lavignes and Ferchauds are Black, like nearly 90 percent of their neighbors in Welcome, as are Taylor and 60 percent of his neighbors in St. John, compared to 13.6 and 33 percent of the populations of the US and Louisiana, respectively.

Throughout Cancer Alley, there is clear evidence of a disproportionate burden of harms placed on the area's Black and low income residents from the polluting emissions of fossil fuel and petrochemical operations, including elevated cancer rates, among many other health problems.

Smoke billows over the Mississippi River in Louisiana's Cancer Alley. October 15, 2023.

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Raven Taylor, daughter of Robert Taylor, shows a port where she receives weekly infusions of medication into her heart. Taylor grew up in Reserve, in Cancer Alley. She attributes her serious health difficulties to the industry's pollution. New Orleans, Louisiana, March 29, 2023.

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Between September 2022 and January 2024, Human Rights Watch interviewed 70 people, including 37 Cancer Alley residents, and current and former officials of EPA, US Centers for Disease Control and Prevention (CDC), physicians, academics, lawyers, health care providers, advocates, and representatives of nongovernmental organizations (NGOs) in the region. In addition, Human Rights Watch examined scientific literature on health harms reported in Cancer Alley.

Human Rights Watch visited the nine Cancer Alley parishes: Ascension, East Baton Rouge, Iberville, Jefferson, Orleans, St. Charles, St. James, St. John the Baptist, and West Baton Rouge. Human Rights Watch observed fossil fuel and petrochemical plants located alongside or nearby playgrounds, schools, senior centers, homes, farms, and businesses. These operations were observed regularly and routinely emitting large burning flares, releasing plumes of black and brown polluting smoke, displaying stains from crude oil spilled from massive storage tanks, and releasing noxious smelling fumes. At least a dozen facilities reported to EPA their release of toxic pollution in amounts that exceeded federal legal limits established to protect public health and the environment.

In line with existing evidence linking fossil fuel and petrochemical pollution with increased risk of severe health harms, Cancer Alley residents shared with Human Rights Watch accounts of cancer diagnoses, including

Kaitlyn Joshua with her daughter, Lauryn, age 5, outside their home in Geismar, Ascension Parish, in Louisiana's Cancer Alley. Joshua, a chronic asthma sufferer since childhood, said her physician told her, "Kaitlyn, it's where you live. It's the air quality. You're going to have to move out of there." October 20, 2023.

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Geraldine Watkins at her home in LaPlace, St. John the Baptist Parish, in Louisiana’s Cancer Alley. A longtime organizer and activist, she blames the fossil fuel and petrochemical industry for death and disease in her community. October 20, 2023.

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breast, prostate, and liver cancers. Women discussed personal stories of maternal, reproductive, and newborn health harms, as well as those of immediate family members, friends, or neighbors, including low-birth weight, preterm birth, miscarriage, stillbirths, high risk pregnancy and birth, and infertility.

New research presented for the first time in this report and currently under peer review for publication in *Environmental Research: Health* journal finds that people living in those areas with the worst air pollution in Louisiana, which includes many parts of Cancer Alley, had rates of low birthweight as high as 27 percent, more than double the state average (11.3 percent) and more than triple the US average (8.5 percent). Preterm births were as high as 25.3 percent, nearly double the state average (13 percent) and nearly two-and-a-half times the US average (10.5 percent).

Severe respiratory ailments were also extremely common among those Cancer Alley residents Human Rights Watch interviewed, including chronic asthma, bronchitis and coughs, childhood asthma, and persistent sinus infections. Residents said these ailments added stress to already at-risk pregnancies, resulted in children being rushed to emergency rooms and kept inside to avoid polluted air, missed days of work and school, sleepless nights due to wracking coughs, and the deaths of family members and friends.





Ashley Gagnard with her grandson at her home in Donaldsonville in Ascension Parish, in Louisiana's Cancer Alley. She wants the local school billboard to record daily pollution emissions to help parents protect their children from the fossil fuel and petrochemical pollution in their community. October 19, 2023.

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Tish and Robert Taylor – daughter and father – at Tish’s home in La Place, Saint John the Baptist Parish, in Louisiana’s Cancer Alley. “We’re a sacrifice zone,” Tish said. October 17, 2023.

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Local human rights advocates and global institutions, including United Nations officials, have condemned the abuses and injustices perpetrated by the fossil fuel and petrochemical industry in Cancer Alley and other similarly impacted parts of Louisiana for more than two decades and have called on local, state, and national authorities for remedy. The pressure has contributed to some policy changes, but far greater action is required by all levels of US government today.

In 2022, the UN Special Rapporteur on Human Rights and the Environment identified Cancer Alley as one of several global “sacrifice zones,” among the most polluted and hazardous places on earth, illustrating egregious human rights violations. “The continued existence of sacrifice zones is a stain upon the collective conscience of humanity,” the special rapporteur wrote, representing “the worst imaginable dereliction of a State’s obligation to respect, protect and fulfill the right to a clean, healthy and sustainable environment.”

The United States has one of the most regulated fossil fuel and petrochemical industries in the world, but for a variety of reasons documented in this report, these regulations have been insufficient and poorly enforced. Yet expansion is underway with at least 19 new fossil fuel and petrochemical plants planned for Cancer Alley, including within many of the same areas of poverty and high concentrations of people of color, and near the homes of residents including Sharon Lavigne and Janice Ferchaud. New facilities are also planned for other areas of the state already heavily burdened by the industry, including five in Calcasieu Parish. In total, 10 are already being prepared for construction.

In 2020, 66 percent of Louisiana’s reported annual greenhouse gas emissions were produced by some 150 industrial facilities in Cancer Alley, virtually all of which are fossil fuel and petrochemical operations. These same facilities released 522 million metric tons of carbon dioxide emissions from 2016 to 2021, or the equivalent of the annual releases of 140 coal-fired power plants.

Myrtle Felton, Gail LeBoeuf, and Barbara Washington of Inclusive. LeBoeuf was diagnosed with liver cancer in January 2023. In Convent, St. James Parish, in Louisiana’s Cancer Alley. March 28, 2023.

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Fossil fuels are the primary driver of the climate crisis. The US is the world's largest oil and gas producer and accounts for the greatest share—more than one-third—of all planned global oil and gas expansion through 2050, totaling nearly 73 gigatons of CO₂, the equivalent of 454 new coal plants. The largest buildout of fossil fuel and petrochemical operations in the US is taking place in Louisiana and neighboring Texas.

The International Energy Agency has warned against any new fossil fuel projects if countries are to meet existing climate targets and avert the worst consequences of the climate crisis. The Intergovernmental Panel on Climate Change (IPCC), the world's leading authority on climate science, has called on governments to scale up renewable energy, and prioritize equity, climate justice, social justice, and inclusion to ensure that a just, rights-respecting transition is achieved.

In Cancer Alley and wherever these operations continue, local, state, and federal authorities should support moratoria on new or expanded fossil fuel and petrochemical operations. They should limit the areas where these operations can take place and require and ensure that operators implement practices and procedures that protect the human rights of frontline communities, including by enacting and effectively enforcing regulations and taking immediate and comprehensive action to deter and remedy violations.

In Louisiana, the Department of Environmental Quality (DEQ) should deny permits in already overburdened communities. The EPA should use its authority under the Clean Air Act to order fossil fuel and petrochemical facilities posing an imminent and substantial endangerment to human health and the environment to immediately pause all operations until they can operate in accordance with the law, object to permits which would result in a disproportionate burden of harm in already overburdened communities, and initiate an investigation into withdrawal of state authorization for Louisiana's Clean Air Act program.

Jo and Joy Banner, twins and co-founders of the Descendants Project, a non-profit environmental justice organization, at their home in the historic Black community of Wallace on the last remaining 11 miles on the Mississippi River in St. John Parish free of fossil fuel and petrochemical plants. They are organizing to keep it that way. October 17, 2023.

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Children at play near the home of Robert Taylor in Reserve, Saint John the Baptist Parish, in Louisiana's Cancer Alley and the census tract with the highest risk of cancer from industrial air pollution in the United States. October 17, 2023

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To uphold their human rights obligations, all governments should rapidly phase out fossil fuels.

To facilitate the transition away from these operations, Human Rights Watch recommends a Federal Fossil Fuel and Petrochemical Remediation and Relocation Plan (modeled on the 2022 Inflation Reduction Act programs) whereby companies operating in Cancer Alley and across Louisiana would work with community-based organizations to employ local workers and provide decommissioning and remediation services for the safe and efficient phase-out of fossil fuels. Under the plan, companies working jointly with the state and federal government would also support residents who want to leave by providing them with buyouts and relocations following all international human rights norms and best practices for relocation.

To reinforce the commitment that federal, state, and local government will respect, protect, and fulfil the human rights of Cancer Alley and all US residents, the US Congress should ratify the International Covenant on Economic, Social and Cultural Rights, the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of the Child, and the Convention on the Rights of Persons with Disabilities.

Achieving the recommendations detailed in this report requires the ongoing support of frontline communities. The same Louisiana communities that have been on the frontlines of fossil fuel operations the longest have also spent decades resisting and devising not only alternatives, but also paths to deliver them. Louisiana in general and Cancer Alley in particular have been home to key community-based leaders and developments in the US and global environmental and climate justice movements. They have modeled leadership and local, national, and international coalition building. But additional support is sorely needed — to uplift their efforts, facilitate their access to policymakers and the public, enable their long-term sustainability, and help them to access and use resources for effective advocacy.

“I’ve been told to sit down and stop fussing,” breast cancer survivor Genevieve Butler, 66, of St. James Parish, told Human Rights Watch. “But I’m not going to sit down because there’s too much at stake.”

RECOMMENDATIONS

TO THE US FEDERAL GOVERNMENT AND THE STATE OF LOUISIANA

- **Implement moratoria on new or expanded fossil fuel and petrochemical operations and begin phase-out of existing operations.**
- **Support a fair and equitable transition for workers, communities, and industry away from fossil fuels and petrochemicals toward a renewable green economy.**
- **Work with businesses that shut down to jointly pay for local workers to remediate sites, restore waterways and lands, and foster greater community resilience by building localized small-scale renewable energy sources.**
- **Allocate funding to community-based organizations for public and health care provider awareness and outreach campaigns on the health harms of exposure to fossil fuel and petrochemical operations, including maternal, reproductive, and newborn health, cancers, and respiratory ailments.**
- **Enact federal and state legislation (or amend the state constitution) to recognize the right to a clean, healthy, and sustainable environment.**

TO THE US PRESIDENT

- **Direct all relevant federal agencies to develop and implement a Federal Fossil Fuel and Petrochemical Remediation and Relocation Plan modeled on Inflation Reduction Act programs. The plan should create incentives for companies to work with community-based organizations to employ local workers to decommission and remediate operations and support relocation of those residents who desire to do so. Any relocation under the plan should follow international human rights norms and best practices.**
- **Direct all relevant agencies to reject federal permits for new or expanded fossil fuel projects.**
- **Submit the International Covenant on Economic, Social and Cultural Rights, the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of the Child, and the Convention on the Rights of Persons with Disabilities to the Senate for its advice and consent to ratification.**

TO THE US SENATE

- **Consent to ratification of the International Covenant on Economic, Social and Cultural Rights, the Convention on the Elimination of All Forms of Discrimination against Women, the Convention on the Rights of the Child, and the Convention on the Rights of Persons with Disabilities.**

TO THE US ENVIRONMENTAL PROTECTION AGENCY

- **Object to permits for fossil fuel and petrochemical operations that would result in a disproportionate burden of harm in already “overburdened communities,” defined by the EPA as those already experiencing disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards.**
- **Order fossil fuel and petrochemical operations that pose an imminent and substantial endangerment to human health and the environment to immediately pause all operations until they operate in accordance with the law.**
- **Implement periodic review periods of delegations of power to state agencies to better enforce implementation of federal standards.**

- Update the Clean Air Act National Emissions Standards for Hazardous Air Pollutants by mandating that all petrochemical and fossil fuel operations have fence-line air monitors and make data immediately publicly available, install leak detection systems which alert the public, limit excessive flaring, and take immediate and comprehensive action against violators.
- Update the Clean Water Act Effluent Limitation Guidelines to place stronger limits and controls on pollution from fossil fuel and petrochemical operations.
- Fully enforce all federal environmental laws in Louisiana with increased monitoring, investigation, oversight, and appropriate actions to compel compliance, including through the Office of External Civil Rights Compliance and by referring criminal violations to the US Attorney for prosecution.
- Initiate an investigation into withdrawal of state authorization for Louisiana’s Clean Air Act program under the Louisiana Department of Environmental Quality.
- Initiate a renewed investigation into statewide failure to enforce Title VI of the Civil Rights Act of 1964 and other federal nondiscrimination laws by the Louisiana Departments of Environmental Quality and Health.
- With the US Centers for Disease Control and Prevention (CDC) and the US Department of Health and Human Services (HHS), fund a community-led participatory comprehensive door-to-door epidemiological health survey of census tracts where residents face the highest pollution burdens in Louisiana, including Cancer Alley, focused on proximity to polluting operations.

TO THE GOVERNMENT OF LOUISIANA

- Support a fossil fuel phase-out.
- Support local demands for parish-wide moratoria on new or expanded industrial operations, including all fossil fuel and petrochemical operations.
- Deny permits for fossil fuel and petrochemical operations that would result in a disproportionate burden of harm in already overburdened communities.
- Require all petrochemical and fossil fuel facilities to have fence-line air monitors and make data immediately publicly available, install leak detection systems which alert the public, limit excessive flaring, and take immediate and comprehensive action against violators.
- Install community air monitors for all six National Ambient Air Quality Standard criteria pollutants throughout areas in which residents face the highest pollution burdens, make data immediately publicly available.

TO FOSSIL FUEL AND PETROCHEMICAL COMPANIES OPERATING IN LOUISIANA

- Operate within all local, state, and federal laws, including those related to pollutant emissions.
- With local community-based organizations and federal agencies, support residents with buyouts and relocations following all international human rights norms and best practices; provide decommissioning and remediation services for a safe and efficient phase out of fossil fuels.

TO PUBLIC AND PRIVATE HEALTHCARE INSTITUTIONS AND PROVIDERS

- Educate providers and resource patients about the health risks associated with exposure to fossil fuel and petrochemicals, including maternal, reproductive, and newborn health, cancer, and respiratory ailments.
- Provide accessible and affordable health services to treat specific health harms associated with fossil fuels and petrochemicals throughout Cancer Alley and Louisiana.
- Adopt US Department of Health and Human Services’ Health Sector Climate Pledge to achieve net zero emissions by 2050 and increase climate resilience.

Methodology

This report is based primarily on individual in-person interviews conducted with residents throughout Louisiana's Cancer Alley during three reporting missions in 2023: January 25-February 3, March 19-30, and May 9-18. A total of 70 interviews were conducted for this report. Detailed interviews were conducted with 37 residents of Cancer Alley, including nine who have worked in the fossil fuel and petrochemical industry, an additional three residents of other heavily fossil-fuel and petrochemical impacted areas of the state in Mossville and Lake Charles; and with 30 elected officials and other government representatives, including five former high-ranking officials within the EPA, one of whom also worked for the Centers for Disease Control and Prevention, physicians, academics, lawyers, healthcare providers, advocates, and members of nongovernmental organizations. Research was conducted from September 2022 to January 2024.

Human Rights Watch conducted research within nine parishes of Cancer Alley: Ascension, East Baton Rouge, Iberville, Jefferson, Orleans, St. Charles, St. James, St. John the Baptist, and West Baton Rouge. Parishes in Louisiana are functionally equivalent to counties elsewhere in the US. Human Rights Watch traveled throughout the two major cities and dozens of small largely rural communities which line River Road along the Mississippi River and into dozens of homes of residents, religious services, community organizing meetings, picnics, press conferences, court hearings, a legislative session at the State Capitol, a historic plantation honoring the history of the enslaved, graveyards, public spaces outside of dozens of fossil fuel and petrochemical operations, and a guided tour of the last remaining 11 miles along the Mississippi River in Saint John the Baptist Parish without heavy industry.

Residents interviewed include 28 Black and one white woman, ages 31 to 86 years, and 11 Black men, ranging in ages from their early twenties to 83 years.

Some interviews were conducted by phone, including with residents of Calcasieu and Cameron Parishes. All people interviewed provided oral or written informed consent to participate and no compensation was provided for any interviews.

Interviews were consistent with existing research on the extensive human rights harms associated with fossil fuel and petrochemical operations, including increased risks of cancer, maternal, reproductive, and newborn harm, severe respiratory and other ailments resulting from exposure to the toxic and other harmful pollution emitted from these operations.

Human Rights Watch conducted analysis of Risk-Screening Environmental Indicators (RSEI) data from US Environmental Protection Agency (EPA) and US Census Bureau population data. The RSEI score uses data reported by facilities on chemical releases, factors in the toxicity weights of those specific chemicals, models how chemicals move and change in the environment, and considers the size of the population exposed to these chemicals (within 3 mile radius).³ Human Rights Watch categorized the Louisiana facilities that report to the EPA on whether they are fossil fuel or petrochemical facilities, including those, such as synthetic fertilizer and pesticide plants, which use fossil fuels as a significant input in the manufacturing process. The facilities that report to the EPA for RSEI scores do not include all fossil fuel or petrochemical facilities within Cancer Alley or Louisiana, rather, only those that report to the EPA Toxic Release Inventory (TRI). TRI reporting forms must be filed by owners and operators of facilities that: fall within a TRI-covered industry sector or is federally-owned or operated; has 10 or more full-time employee equivalents; and manufactures (including import) or processes more than 25,000 pounds or otherwise uses more than 10,000 pounds of a TRI-listed chemical during a calendar year.

In October 2023, Human Rights Watch wrote to the US Environmental Protection Agency, the Louisiana Department of Environmental Quality, and the Louisiana Department of Health. All three agencies responded. The letters and replies are included in Annex A and Annex B.

Every resident of Cancer Alley interviewed for this report is a descendant of a family that has resided in the area for generations, grew up there, and has spent all or most of their lives in the area. Many are direct descendants of people who were enslaved to work on plantations or worked on fields that were formerly plantations following emancipation.

³ See EPA documentation and explanatory video, “Understanding RSET Results,” last updated on May 3, 2023, <https://www.epa.gov/rsei/understanding-rsei-results#what> (accessed January 10, 2024).



Flares and smoke released from fossil fuel and petrochemical plants in the wake of Hurricane Ida in August 2021 in Louisiana's Cancer Alley © 2021 Julie Dermansky

I. Background

*Our lot in life is to intercede for Louisiana,
Swallow all the spit, slime, vomit and despair
That comes to us...
down the long spine of Mother River.
We brush our teeth with dead oil
And flush our guts with sulfur dioxide
That we might be a worthy sacrifice.*

—Excerpt from “Ascension Parish,” by Barbara Malaika Favorite

Louisiana’s Toxic Legacy

The Mississippi River travels southeast across Louisiana, cutting a diagonal path through the state capitol in Baton Rouge, on to the River Parishes and New Orleans before heading out to the US Gulf of Mexico and the Atlantic Ocean. The Chitimacha and Choctaw people lived along the banks of the Mississippi for thousands of years before European plantation owners violently took their land, relying on a brutal and entrenched system of slavery for labor.⁴ Native Americans were among the enslaved, but it was the hundreds of thousands of Africans captured from their homes in Senegambia, the Bight of Benin, the Bight of Biafra, and West-Central Africa who for generations endured violence and cruelty, providing the bulk of Louisiana’s enslaved labor.⁵

⁴ “American Indians in Louisiana,” National Park Service, November 28, 2022, <https://www.nps.gov/jela/learn/historyculture/native-americans-in-louisiana.htm> (accessed October 25, 2023); Complaint, *Inclusive Louisiana v. St. James Parish*, No. 2:23-cv-00987 (E.D. La. filed March 21, 2023), https://ccrjustice.org/sites/default/files/attach/2023/03/Moratorium_Complaint.pdf (accessed October 25, 2023).

⁵ “Slavery in Louisiana,” The Whitney Plantation, accessed October 25, 2023, <https://www.whitneyplantation.org/history/slavery-in-louisiana/> (accessed October 25, 2023); Dreisen Heath, “H.R. 40: Exploring the Path to Reparative Justice in America,” Human Rights Watch, February 27, 2021, <https://www.hrw.org/news/2021/02/17/hr-40-exploring-path-reparative-justice-america> (accessed October 25, 2023).

Fossil fuels — oil, methane gas,⁶ and coal — are non-renewable natural resources. The global fossil fuel industry traces its roots to Louisiana. Home to one of the world’s first productive oil wells in 1901,⁷ nearly 40 years later, it was the site of the world’s first offshore oil well.⁸ As production boomed, oil refineries were built to turn oil into motor fuels and other petroleum products while extracting compounds such as ethane, propane, and methane. Petrochemical plants took these fossil fuel byproducts and converted them into ethylene, propylene, methanol, and other petrochemicals for use in the manufacture of other products, such as single use plastics, rubber, and synthetic fertilizers and pesticides.⁹ Virtually all industrial chemicals are derived from fossil fuels and are thus more accurately referred to as petrochemicals.¹⁰

As the plants arrived along the Mississippi River beginning primarily in the 1960s, many took and retain today the names of the plantations on which they were built. Many “Free Towns” founded by formerly enslaved people, including Morrisonville,¹¹ Reveilletown,¹² and Sunrise,¹³ were taken over by industry, their residents pushed or forced out, and largely erased.

⁶ Methane gas is commonly known as “natural gas.” Human Rights Watch uses the term “methane gas” to more accurately describe this gaseous fossil fuel primarily composed of methane. “Natural Gas Fuel Basics,” US Department of Energy, accessed October 25, 2023, https://afdc.energy.gov/fuels/natural_gas_basics.html (accessed October 25, 2023).

⁷ “First Oil Well in Louisiana,” Louisiana Department of Natural Resources, <https://www.dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=48#:~:text=The%20first%20oil%20well%20in%20rice%20fields%20when%20it%20flooded> (accessed October 25, 2023); “Total energy production and consumption by state, 2021,” Energy Information Administration (EIA), <https://www.eia.gov/beta/states/overview#50> (accessed October 25, 2023).

⁸ “Louisiana,” Energy Information Administration (EIA), last updated June 15, 2023, <https://www.eia.gov/beta/states/states/la/analysis> (accessed October 25, 2023).

⁹ Dana Drugmand et al., *Fossils, Fertilizers, and False Solutions: How Laundering Fossil Fuels in Agrochemicals Put the Climate and the Planet at Risk*, Center for International Environmental Law (October 2022), <https://www.ciel.org/wp-content/uploads/2022/10/Fossils-Fertilizers-and-False-Solutions.pdf> (accessed October 25, 2023).

¹⁰ International Energy Agency, “Chemicals,” <https://www.iea.org/energy-system/industry/chemicals> (accessed January 7, 2024); Human Rights Watch interview with Dr. Veena Singla, Senior Scientist, Natural Resources Defense Council, New Orleans, Louisiana, January 26, 2023.

¹¹ Rachel Blomquist, “The Lost Town of Morrisonville,” *Acadiana Historical*, <https://acadianahistorical.org/items/show/29> (accessed October 25, 2023).

¹² “Reveilletown,” Louisiana Environmental Action Network, https://leanweb.org/community-atlas/communities/reveilletown_ (accessed October 25, 2023).

¹³ Robert Bullard, ed., *The Quest for Environmental Justice: Human Rights and the Politics of Pollution* (Counterpoint Press, 2005), pp. 102-107; “Sunrise,” West Baton Rouge Museum, <https://www.westbatonrougemuseum.com/290/Sunrise/> (accessed October 25, 2023).

For decades, these fossil fuel and petrochemical operations were largely unregulated. The US Environmental Protection Agency (EPA) was not established until 1970, the Clean Water Act was not enacted until 1972, and the Clean Air Act did not fully come into effect until 1976. Louisiana’s first air pollution regulations were introduced in 1972, and the Louisiana Department of Environmental Quality (LDEQ) was only established in 1984.¹⁴

As early as the 1970s, residents, workers, and researchers began investigating and exposing toxic emissions and environmental and public health harm from these operations.¹⁵ A 1987 *Washington Post* article captured the fallout in what is likely the first national publication to refer to “Cancer Alley,” describing a human health and environmental calamity due to fossil fuel and petrochemical operations, reporting that the “air, ground and water along this corridor are ... full of carcinogens, mutagens and embryotoxins.” The article quotes Dr. Velma Campbell, an occupational health physician at the Ochsner Clinic in New Orleans, identifying a “positive correlation” between high cancer rates and the industry’s pollution and suggesting that residents have been subjected to a “massive human experiment” in which “large quantities of a wide variety of substances have been discharged into the air and water. Now we are standing back and seeing what the outcome will be.” Nonetheless, the article concluded, “No one is recommending the shutdown of companies so vital to Louisiana's fortunes.”¹⁶ That has changed.

But, while resistance grew, so too has the industry’s hold on the state. Louisiana is a global epicenter for fossil fuel and petrochemical operations. The most active methane gas market center in North America — the Henry Hub in Erath, Louisiana — is where nine interstate and three intrastate pipelines interconnect.¹⁷ US liquefied natural gas (LNG)

¹⁴ Complaint, para. 205, *Inclusive Louisiana v. St. James Parish*, No. 2:23-cv-00987 (E.D. La. filed March 21, 2023), <https://storage.courtlistener.com/recap/gov.uscourts.laed.260099/gov.uscourts.laed.260099.1.o.pdf> (accessed January 4, 2024).

¹⁵ Human Rights Watch interview with Wilma Subra; and, for examples, see Bullard, *The Quest for Environmental Justice*; Arlie Russell Hochschild, *Strangers in Their Own Land* (New York: The New Press, 2016); Barbara Allen, *Uneasy Alchemy: Citizens and Experts in Louisiana's Chemical Corridor Disputes* (Cambridge: The MIT Press, 2003).

¹⁶ David Maraniss and Michael Weisskopf, “Jobs and Illness in Petrochemical Corridor,” *Washington Post*, December 22, 1987, <https://www.washingtonpost.com/archive/politics/1987/12/22/jobs-and-illness-in-petrochemical-corridor/e623deeb-c966-471e-867d-b395046726d1/> (accessed October 25, 2023).

¹⁷ “Louisiana,” EIA.

exports more than doubled from 2020 to a record high in 2022, and Louisiana handled almost two-thirds of those shipments with plans for massive expansions underway.¹⁸

The US is the world's largest oil and gas producer,¹⁹ and Louisiana is one of the nation's largest oil- and gas-producing states. It is home to two so-called "carbon bombs," the world's largest fossil fuel production projects with reserves so large that were they to be completely extracted and burnt they could emit more than one gigaton of carbon dioxide (CO₂) each.²⁰ The first is in the US Gulf of Mexico and the second is in the northwestern corner of Louisiana known as the "Haynesville Shale." Production is booming in both areas.²¹

Louisiana has the highest per capita energy consumption in the US largely due to the fossil fuel and petrochemical industry itself. With 15 oil refineries²² and nearly 450 petrochemical plants²³, all of which consume enormous amounts of energy, some 15 percent of the total methane gas consumption in the state is used to simply produce and distribute more oil and gas. Meanwhile, energy for homes accounts for just 7 percent of the state's total consumption.²⁴

Unlike the rest of the US, Louisiana's industrial operators are the largest contributor to its carbon footprint.²⁵ Petrochemical and fossil fuel operations dominate the state's

¹⁸ Ibid.

¹⁹ Romain Loualalen and Kelly Trout, "Planet Wreckers: How Countries' Oil and Gas Extraction Plans Risk Locking in Climate Chaos," Oil Change International, September 2023, <https://priceofoil.org/content/uploads/2023/09/OCI-Planet-Wreckers-Report.pdf> (accessed January 10, 2024).

²⁰ Kjell Kühne, et al., "'Carbon Bombs' - Mapping key fossil fuel projects," *Energy Policy*, vol. 166 (2022), <https://doi.org/10.1016/j.enpol.2022.112950> (accessed October 25, 2023). Appendices with list of Carbon Bombs on file with Human Rights Watch.

²¹ "Louisiana," EIA; Sabrina Valle, "As oil output peaks, US Gulf of Mexico makes room for carbon capture," *Reuters*, May 1, 2023, <https://www.reuters.com/business/energy/oil-output-peaks-us-gulf-mexico-makes-room-carbon-capture-2023-05-01/> (accessed October 25, 2023).

²² "Louisiana," EIA.

²³ Scott Eustis, "The Climate Changers," *Healthy Gulf*, August 26, 2023, <https://healthygulf.org/the-climate-changers/> (accessed October 25, 2023).

²⁴ "Louisiana," EIA.

²⁵ David E. Dismukes, *Louisiana 2021 Greenhouse Gas Inventory* (LSU Center for Energy Studies, 2021) https://www.lsu.edu/ces/publications/2021/louisiana-2021-greehouse-gas-inventory-df-rev_reduced.pdf (accessed October 25, 2023).

greenhouse gas emissions, which are on the rise, reaching around 141 million metric tons in 2018 — the highest level since at least 2000.²⁶ The largest and majority of greenhouse gas emissions are from facilities in Cancer Alley.²⁷

Operations in Cancer Alley now total some 200 primarily fossil fuel and petrochemical plants. These include oil refineries, petrochemical plants, oil storage tank farms, and fertilizer and pesticide manufacturers that use fossil fuels as their primary feedstock. There are others, such as plants that produce steel and aluminum which burn large amounts of fossil fuels to power their operations.

The Mississippi River cuts through the middle of these operations, functioning as a dump site for chemical waste and a mass transit route, carrying barges loaded with open piles of coal, tankers filled with oil, gas, and petrochemicals, and ships shuttling cargo out to the offshore industry in the Gulf.

Pollution

We are a sacrifice zone.

— Tish Taylor, Saint John the Baptist Parish, March 2023

Louisiana has the worst pollution of any state in the United States, according to an analysis of 2021 EPA chemical release data conducted by *US News & World Report*.²⁸ That year, residents were, on average, exposed to nearly four times more industrial toxic pollutants in their air, land, and water than the national average, with 3,533 pounds per

²⁶ Ibid.

²⁷ Eustis, “The Climate Changers,” Healthy Gulf; Alex Kolker, “Greenhouse Gas Emissions in Louisiana: Large Facilities and the Mississippi River,” Louisiana Universities Marine Consortium, June 20, 2021, <https://alexkolker.com/2021/06/20/greenhouse-gas-emissions-in-louisiana-large-facilities-and-the-mississippi-river/> (accessed October 25, 2023).

²⁸ “Pollution,” in “2023 Best States Rankings,” U.S. News & World Reports, <https://www.usnews.com/news/best-states/rankings/natural-environment/pollution?sort=rank-desc> (accessed October 25, 2023); “2023 Best States Rankings: Louisiana,” U.S. News & World Reports, <https://www.usnews.com/news/best-states/louisiana#state-rankings> (accessed October 25, 2023).

square mile of industrial toxins versus a national average of 926.²⁹ Per capita, Louisiana residents also faced the nation’s highest risk of long-term chronic human health effects from toxic chemical pollution.³⁰

The fossil fuel and petrochemical industries are the worst polluters in the state,³¹ contributing more to toxic and harmful air pollution³² and greenhouse gas emissions than any other industry, and are the second leading source of water pollution, a good deal of which is dumped directly into the Mississippi River in Cancer Alley.³³ The majority of toxic air and greenhouse gas emissions also occurs in Cancer Alley,³⁴ which has the state’s highest concentration of fossil fuel and petrochemical operations.

²⁹ “Industrial Toxins,” in “2023 Best States Rankings,” U.S. News & World Reports, <https://www.usnews.com/news/best-states/rankings/natural-environment/pollution/industrial-toxins> (accessed October 25, 2023); Greg Hilburn, “Louisiana ranked worst state by U.S. News as violent crime surges, pollution poisons air,” Shreveport Times, <https://www.shreveporttimes.com/story/news/2023/05/08/louisiana-ranked-worst-in-us-news-best-states-rankings-as-crime-soars-and-pollution-poisons-air/70192826007/> (accessed October 25, 2023).

³⁰ “Pollution Health Risks,” in “2023 Best States Rankings,” U.S. News & World Reports, <https://www.usnews.com/news/best-states/rankings/natural-environment/pollution/pollution-health-risk> (accessed October 25, 2023).

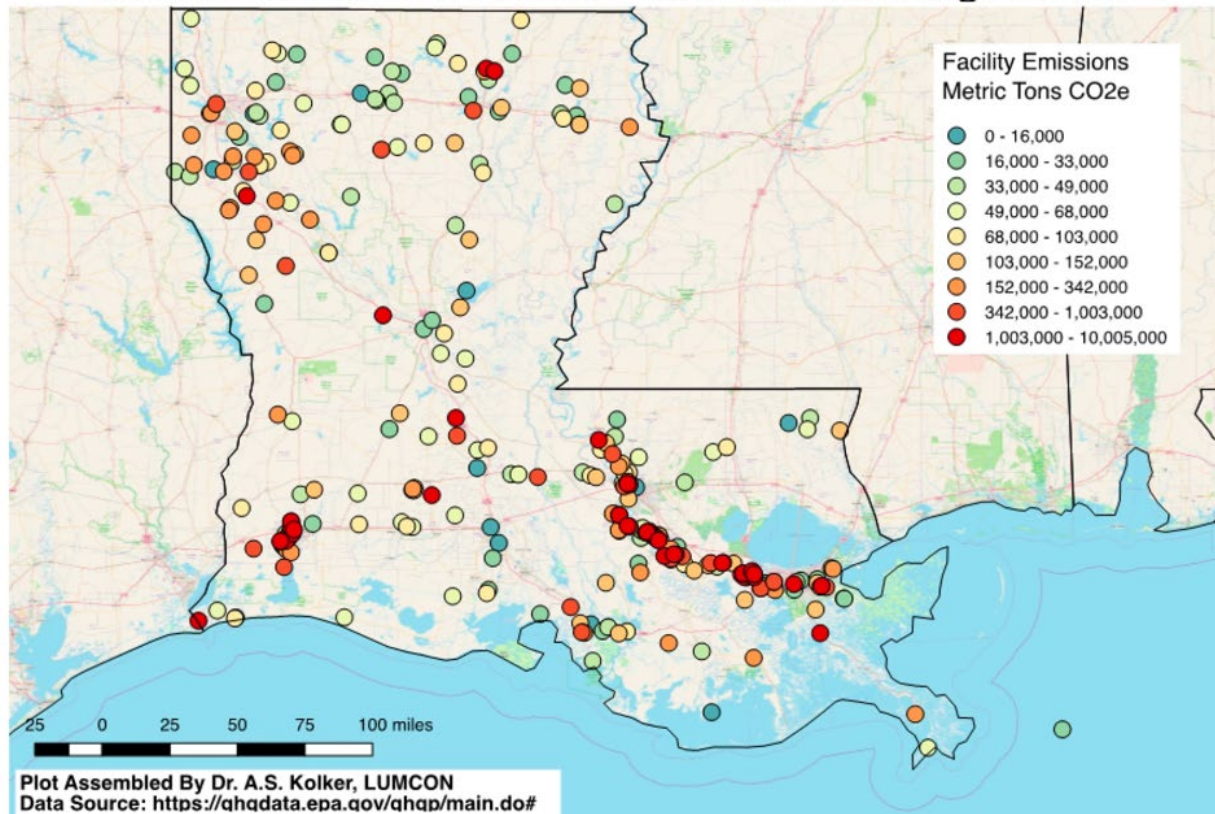
³¹ The fossil fuel and petrochemical industries are the “worst” based on being the single largest source of all toxic air pollution and GHG emissions, and the second largest source of water pollution.

³² Kimberly A. Terrell and Gianna St. Julien, “Discriminatory outcomes of industrial air permitting in Louisiana, United States,” *Environmental Challenges*, vol. 10 (2023), <https://doi.org/10.1016/j.envc.2022.100672>. Human Rights Watch confirmed this finding using TRI data for Louisiana. The parishes with the highest toxic air emissions have the highest concentration of fossil fuel and petrochemical operations, fossil fuel and petrochemical plants are also the largest contributors to air pollution emissions within these Parishes, and combining the emissions from the Cancer Alley Parishes yields the highest total toxic air emissions for the state. “TRI Explorer: Releases: Geography State Report,” EPA, https://enviro.epa.gov/triexplorer/release_geography?p_view=STGO&trilib=TRIQ1&sort=_VIEW_&sort_fmt=1&state=22&county=All+counties&chemical=NEW95&industry=ALL&year=2021&tab_rpt=1&fld=RELLBY&fld=TSFDSP (accessed September 6, 2023).

³³ Environment America, *Wasting Our Waterways*, September 2022, <https://publicinterestnetwork.org/wp-content/uploads/2023/04/AME-USP-FG-Wasting-our-Waterways-Sep22-revd-042523.pdf> (accessed October 25, 2023).

³⁴ Deep South Center for Environmental Justice, *The More Things Change, the More They Remain the Same: Living and Dying in Cancer Alley (1990 to 2023)*, https://fluxconsole.com/files/item/211/171496/DSCEJ-CancerAlley_Report.pdf (accessed September 6, 2023).

Greenhouse Gas Emissions In Louisiana From Large Facilities



The majority of greenhouse gas emissions from large industrial sources occur in Cancer Alley, which has the state's highest concentration of fossil fuel and petrochemical operations. Map created by, Alexander S. Kolker, PhD., "Greenhouse Gas Emissions in Louisiana: Large Facilities And The Mississippi River," June 20, 2021. <https://alexkolker.com/2021/06/20/greenhouse-gas-emissions-in-louisiana-large-facilities-and-the-mississippi-river/>

Under the US Clean Air Act and Clean Water Act, the EPA regulates emissions of hazardous air and water pollutants. It maintains a publicly available Toxics Release Inventory (TRI), in which the highest emitting facilities provide a self-accounting of the volume of certain (not all) hazardous pollutants they release on a site-by-site basis. TRI is the primary tool used by all levels of government to determine industry emissions of toxic pollutants.

The EPA found in 2016 and again in 2020 that residents of Cancer Alley were exposed to more than 10 times the level of health risk from hazardous air pollutants than residents

living elsewhere in the state.³⁵ Black residents in Cancer Alley face even higher rates of exposure than white residents, with the most polluting operations disproportionately concentrated within Black communities.³⁶ For example, while no new fossil fuel and petrochemical facilities have been built in the majority-white communities in St. James Parish over the last 46 years, new projects have been built and continue to be approved in the majority-Black districts.³⁷

For decades, nearly every census tract in Cancer Alley has ranked in the top 5 percent nationally for cancer risk from toxic air pollution and in the top 10 percent for respiratory hazards.³⁸ The EPA has also attributed reproductive harm, among other risks, to toxic air pollution in Cancer Alley.³⁹

EPA data also reveal levels of toxic emissions in Cancer Alley from fossil fuel and petrochemical operations that exceed regulatory limits. The EPA provides on its website information for the last three years on compliance with the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act (RCRA) (which includes the storage, transportation, and disposal of hazardous waste, including petroleum).⁴⁰

Human Rights Watch reviewed these data for the three-year-period from October 2020 through November 2023 for twelve fossil fuel and petrochemical plants operating in Cancer Alley located nearby interviewees. Only one of these facilities was reported in compliance with all three federal laws during the entire three-year period, while “significant violations” (the highest level of violation) were common among all 12. Only two of the facilities were in compliance with the Clean Water Act during the entire three-

³⁵ Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights, to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022, p. 43, <https://s3.documentcloud.org/documents/23131324/20221012-final-letter-ldeq-ldh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf> (accessed October 27, 2023).

³⁶ *Ibid.*; Terrell and St. Julien, “Discriminatory outcomes of industrial air permitting in Louisiana.”

³⁷ Complaint, *Inclusive Louisiana v. St. James Parish*, No. 2:23-cv-00987 (E.D. La. filed March 21, 2023), paras. 5, 343.

³⁸ Kimberly A. Terrell and Gianna St. Julien, “Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana,” *Environmental Research Letters*, vol. 17 (2022), <https://doi.org/10.1088/1748-9326/ac4360> (accessed October 25, 2023).

³⁹ EPA Letter of Concern, p. 11.

⁴⁰ US Environmental Protection Agency Enforcement and Compliance History Online, <https://echo.epa.gov/> (accessed November 12, 2023).

year period, with three plants facing periods of “significant violation.” Four of the facilities were in “significant violation” of the Clean Air Act in every reporting period of the last three years, three of which were also simultaneously in “significant violation” of the Resource Conservation and Recovery Act in every period. Another refinery was in “significant violation” of the Clean Air Act for seven of the last twelve periods. One plant, further flagged as in “high priority violation” of the Clean Air Act, had faced six formal enforcement actions in the last three years, for a total of just \$300 in penalties.⁴¹

TRI data reveal that the fossil fuel and petrochemical industry release a range of hazardous and toxic pollutants into the air, water, and on land in Cancer Alley.⁴² These pollutants include polycyclic aromatic hydrocarbons (PAHs),⁴³ a group of highly toxic compounds with potential health effects including cancer, reproductive harms, birth defects, respiratory disease, autoimmune disease, and neurological effects⁴⁴; and “volatile organic compounds” (VOCs),⁴⁵ including benzene, toluene, and xylene. VOCs can contribute to the formation of ozone⁴⁶, an important component of smog, which can in turn cause

⁴¹ Human Rights Watch reviewed EPA EnviroFacts TRI Facility Reports, last updated November 28, 2023, <https://www.epa.gov/enviro/tri-search>, and EPA ECHO Detailed Facility Reports, <https://echo.epa.gov>, for twelve fossil fuel and petrochemical plants operating in Cancer Alley nearby interviewees for the three-year-period from October 2020 through November 2023 (copies of reports on file with Human Rights Watch).

⁴² Deep South Center for Environmental Justice, *The More Things Change, the More They Remain the Same*,” ps. 6-13 (accessed September 6, 2023); and Human Rights Watch reviewed 2021 EPA TRI Explorer Releases by geography and Waste Quantity Chemical Reports for each of the nine parishes of Cancer Alley, which show millions of pounds of toxic chemical releases that year, including benzene, toluene and xylene, See “TRI Explorer: Releases: Geography State Report,” EPA, https://enviro.epa.gov/triexplorer/release_geography?p_view=STGO&trilib=TRIQ1&sort=_VIEW_&sort_fmt=1&state=22&county=All+counties&chemical=NEW95&industry=ALL&year=2021&tab_rpt=1&fld=RELLBY&fld=TSFDSP (accessed September 6, 2023) and “TRI Explorer: Waste Quantity: Chemical Report,” EPA, https://enviro.epa.gov/triexplorer/quantity_chem?p_view=COCH&trilib=TRIQ1&sort=_VIEW_&sort_fmt=1&state=22&county=22093&chemical=All+chemicals&industry=ALL&year=2021&tab_rpt=3&fld=pprecon&fld=pprecof&fld=ppengon&fld=ppengof&fld=pptrton&fld=pptrtof&fld=pprela&fld=pprelb&fld=pprelc&fld=pprel&fld=pprel&fld=pprem, (accessed September 6, 2023) (on file with Human Rights Watch).

⁴³ Kimberly A. Terrell and Gianna St. Julien, “Discriminatory outcomes of industrial air permitting in Louisiana, United States.”

⁴⁴ Avani Bharatkumar Patel et al., “Polycyclic Aromatic Hydrocarbons,” *Front Microbiol*, vol. 11 (2020), <https://doi.org/10.3389/fmicb.2020.562813> (accessed October 27, 2023).

⁴⁵ Kimberly A. Terrell and Gianna St. Julien, “Discriminatory outcomes of industrial air permitting.”

⁴⁶ EPA, “What is Ozone?” last updated on July 11, 2023, <https://www.epa.gov/ozone-pollution-and-your-patients-health/what-ozone> (accessed January 10, 2024).

dangerous, acute, and chronic health conditions such as asthma, lung infections, bronchitis, and cancer.⁴⁷

Human Rights Watch reviewed 2021 EPA TRI Explorer Releases by geography and Waste Quantity Chemical Reports for each of the nine parishes of Cancer Alley, which showed millions of pounds of toxic chemical releases that year, including releases of benzene, toluene, and xylene.⁴⁸ Petroleum is the primary source of benzene, a human carcinogen.⁴⁹ Benzene can harm the immune system⁵⁰ and cause anemia and nervous system damage.⁵¹ The World Health Organization finds that there are no safe levels of benzene exposure.⁵² Toluene can affect the central nervous system, causing short term headaches, and has immune, kidney, liver, and reproductive effects.⁵³ Exposure to benzene and toluene can cause increased risk for miscarriage, low birth weight, preterm birth, abnormal menstrual cycles, and difficulty conceiving.⁵⁴ Xylene can irritate eyes, nose, skin, and throat, cause headaches, and in high doses, death.⁵⁵

Companies are required to report TRI emissions data to the EPA, which then makes the data public on its website. However, though companies report emitting millions of pounds of toxic chemicals in Cancer Alley each year, not all emissions are required to be reported

⁴⁷ EPA, "Health Effects of Ozone in the General Population," last updated on April 20, 2023, <https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population> (accessed January 10, 2024).

⁴⁸ See footnote 42.

⁴⁹ "Benzene," US Centers for Disease Control, <https://www.atsdr.cdc.gov/ToxProfiles/tp3-c1.pdf> (accessed October 27, 2023).

⁵⁰ Giovanni Adami, et al., "Association between long-term exposure to air pollution and immune-mediated diseases," *RMD Open* (2022), <https://doi.org/10.1136/rmdopen-2021-002055> (accessed October 27, 2023); Datis Kharrazian, "Exposure to Environmental Toxins and Autoimmune Conditions," *Integrative Medicine: A Clinician's Journal*, vol. 20 (2021), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8325494/> (accessed October 27, 2023).

⁵¹ Agency for Toxic Substances and Disease Registry, *ATSDR Toxzone: Benzene*, https://www.atsdr.cdc.gov/sites/toxzine/docs/benzene_toxzine.pdf (accessed October 27, 2023).

⁵² World Health Organization (WHO), *Exposure to Benzene: A Major Public Health Concern* (2019), <https://www.who.int/publications/i/item/WHO-CED-PHE-EPE-19.4.2> (accessed October 27, 2023).

⁵³ "Toluene," Agency for Toxic Substances and Disease Registry, March 3, 2016, <https://wwwn.cdc.gov/TSP/ToxProfiles/ToxProfiles.aspx?id=161&tid=29> (accessed October 27, 2023).

⁵⁴ Ellen Webb et al., "Developmental and reproductive effects of chemicals associated with unconventional oil and natural gas operations," *Reviews on Environmental Health*, vol. 29 (2014), <https://doi.org/10.1515/reveh-2014-0057>.

⁵⁵ Centers for Disease Control, "Xylene," June 21, 2019, <https://www.cdc.gov/niosh/topics/xylene/default.html> (accessed October 27, 2023).

and this self-reported data is routinely found to be undercounting actual emissions.⁵⁶ For example, oil refineries and petrochemical plants rarely install sensors to measure emissions (such as is required by US law for coal company smokestacks); instead, the data provided by most oil refineries and petrochemical plants is generally not based on actual real-time emissions but rather on predictions based on a single annualized sample, or entirely on mathematical models with no measured emissions.⁵⁷ Other operators are entirely exempt from these reporting requirements, including most fossil fuel extraction sites.⁵⁸ When real-world emissions are captured, they routinely find the industry-reported data oftentimes significantly undercounts actual toxic releases.⁵⁹

Peter DeCarlo, an associate professor of environmental health and engineering at Johns Hopkins University in Maryland, studies atmospheric air pollution with applications to ambient air quality. He told Human Rights Watch that based on his experience, “It’s almost expected that we would see higher emissions than are reported” by the companies, meaning that the TRI data are likely underestimating the actual exposure and health risks of people living and working in these areas.⁶⁰

DeCarlo and his team recently performed measurements of emissions from fossil fuel and petrochemical plants in Cancer Alley. Preliminary unpublished results for releases of ethylene oxide, for example, which can cause respiratory irritation and lung injury, headache, nausea, vomiting, diarrhea, shortness of breath, and cyanosis in association with acute exposure and which has been associated with the occurrence of cancer, reproductive effects, mutagenic changes, and neurotoxicity with chronic exposure⁶¹ were

⁵⁶ Environment America, *Wasting Our Waterways*, p. 3; Environmental Integrity Project, *Oil’s Unchecked Outfalls*, <https://environmentalintegrity.org/wp-content/uploads/2023/01/Oils-Unchecked-Outfalls-03.06.2023.pdf> (accessed October 25, 2023); Human Rights Watch interviews with Kimberly Terrell, Peter DeCarlo, and Robert Verchick.

⁵⁷ Human Rights Watch interviews in New Orleans, Louisiana with Robert Verchick, May 14, 2023, and Kimberly Terrell, February 2, 2023, and telephone interview with Peter DeCarlo, July 12, 2023.

⁵⁸ Environment America, *Wasting Our Waterways*, p.3.

⁵⁹ Human Rights Watch telephone interview with Peter DeCarlo, July 12, 2023; Ben Kunstman et al., “Environmental Justice and Refinery Pollution: Benzene Monitoring Around Oil Refineries,” Environmental Integrity Project, April 28, 2021. <https://environmentalintegrity.org/wp-content/uploads/2021/04/Benzene-report-4.28.21.pdf> (accessed October 25, 2023); Dante Mack, “Chemical plants in TX, LA exceed EPA action level for cancer-causing benzene,” *Oil & Gas Watch*, November 15, 2022, <https://news.oilandgaswatch.org/post/chemical-plants-in-tx-la-exceed-epa-action-level-for-cancer-causing-benzene> (accessed October 25, 2023).

⁶⁰ Human Rights Watch telephone interview with Peter DeCarlo, July 12, 2023.

⁶¹ “Ethylene Oxide,” US Department of Labor, <https://www.osha.gov/ethylene-oxide> (accessed October 25, 2023).

in significantly higher concentrations than what was reported by the companies to the EPA, DeCarlo explained.

Since 2018, the EPA has required oil refineries to install fence-line monitors that measure benzene at their perimeters where the emissions can reach communities. Data from these monitors show that company reports have underestimated actual benzene emissions by as much as 28-fold.⁶² Out of thousands of petrochemical plants nationwide, only 13 have had to install similar monitors as a result of federal action. Only four of these have provided enough data to be of use, revealing two plants, including one in Cancer Alley, with benzene emissions that exceeded EPA regulations.⁶³

Cancer Alley fossil fuel and petrochemical plants also pollute groundwater and release pollutants into the Mississippi River, the primary drinking water source for the region.

Six of the 10 largest sources of industrial water pollution in Louisiana are in Cancer Alley and include one oil refinery and five petrochemical plants (including chemical fertilizer manufacturers, the primary feedstock of which is fossil fuels).⁶⁴ Cancer Alley refineries are also among the top 10 most polluting refineries nationally for the amount of selenium, nickel, nitrogen and “total dissolved solids” released into waterways. From 2019 to 2021, only one of the five oil refineries operating in Cancer Alley was in compliance with Clean Water Act regulations throughout all three years.⁶⁵ Louisiana ranks fourth among all states for total and most toxic water releases by industry, including releases of cancer-causing chemicals and those known to have reproductive effects.⁶⁶

⁶² Sara Brodzinsky, “New Study: Refineries under-reported benzene emissions by as much as 28-fold,” *Oil & Gas Watch*, February 7, 2023, <https://news.oilandgaswatch.org/post/new-study-refineries-under-reported-benzene-emissions-by-as-much-as-28-fold> (accessed October 25, 2023).

⁶³ Mack, “Chemical plants in TX, LA exceed EPA action level for cancer-causing benzene,” *Oil & Gas Watch*.

⁶⁴ “Who are the top toxic water polluters in your state?” Environment America Research and Policy Center, April 25, 2023 <https://environmentamerica.org/center/resources/who-are-the-top-toxic-water-polluters-in-your-state/> (accessed October 25, 2023).

⁶⁵ Environmental Integrity Project, *Oil’s Unchecked Outfalls*, p. 27.

⁶⁶ “Wasting our Waterways: Toxic pollution and the unfulfilled promise of the Clean Water Act,” Environment America Research and Policy Center media release, September 28, 2022, <https://environmentamerica.org/center/resources/wasting-our-waterways/> (accessed October 25, 2023).

PFAS, or per- and polyfluoroalkyl substances, have been found in water quality testing in Cancer Alley, in one instance reaching as high as 268 times EPA safe drinking water levels.⁶⁷ PFAS are a group of manufactured chemicals that are typically fossil fuel derivatives. The CDC calls exposure to PFAS a “public health concern”⁶⁸ which could impact immune systems,⁶⁹ reproduction, thyroid, and liver function.⁷⁰ At over 1.6 million pounds, Louisiana has the second-highest amount of reported PFAS released by any state in the US in 2020, with the largest emissions from petrochemical plants in Cancer Alley.⁷¹

There is less data on toxic pollutants released into waterways than the air because there are fewer laws and reporting requirements for potential water pollution.⁷² EPA water standards for oil refineries, for example, are weak and outdated: they have not been revised in nearly four decades⁷³ and apply to only a handful of known pollutants, excluding many that are commonly emitted from these facilities, including benzene, mercury, and lead.⁷⁴

In addition to oil refineries and petrochemical plants, there are terminals and tank farms throughout Cancer Alley storing oil, gasoline, and other petroleum products in rows upon rows of gigantic cylinders towering some 40 to 50 feet high and ranging in diameter from some 70 feet to many times that size.⁷⁵ Human Rights Watch observed many residents’

⁶⁷ The Water Collaborative, *Louisiana Industrial Corridor Water Quality Project*, January 23, 2023, p. 29, <https://www.nolawater.org/water-testing-in-cancer-alley> (accessed October 25, 2023).

⁶⁸ “PFAS and Your Health,” Agency for Toxic Substances and Disease Registry, November 1, 2022, <https://www.atsdr.cdc.gov/pfas/> (accessed October 25, 2023).

⁶⁹ “What are the health effects of PFAS?” Agency for Toxic Substances and Disease Registry, November 1, 2022, <https://www.atsdr.cdc.gov/pfas/health-effects/index.html> (accessed October 25, 2023).

⁷⁰ “PFAS,” US Centers for Disease Control and Prevention, May 2, 2022, https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html (accessed October 25, 2023).

⁷¹ Anna Reade, “New EPA Data: Huge Amounts of PFAS Underreported and Burned,” National Resources Defense Council, October 21, 2021, <https://www.nrdc.org/bio/yiliqi/new-epa-data-huge-amounts-pfas-underreported-and-burned-o> (accessed October 25, 2023).

⁷² Environment America, *Wasting Our Waterways*, p. 3.

⁷³ Environmental Integrity Project, *Oil’s Unchecked Outfalls*, p. 4.

⁷⁴ *Ibid.*, p. 4.

⁷⁵ See Nustar St. James, “Specifications,” https://www.nustarenergy.com/Business/AssetSheets?assetid=TR_STJ_LA&assettype=Storage (accessed January 10, 2024); API Tank Size, Piping Designer, February 18, 2016, <https://www.piping-designer.com/index.php/disciplines/mechanical/stationary-equipment/88-tank/1527-api-tank-size> (accessed January 10, 2024); Menard, *Oil and Gas: St. James Terminal*, <https://www.menardusa.com/soil-expert-portfolio/st-james-terminal/> (accessed October 25, 2023); Ingrid Lobet, “Communities worry about health as states ignore climate pledges, build oil



Flares and smoke released in the wake of Hurricane Ida in August 2021 in Louisiana's Cancer Alley. © 2021 Julie Dermansky

homes virtually encircled by tanks, including in St. James' 5th District, where 87 percent of residents are Black.

In a recent study, the New Orleans-based environmental organization Healthy Gulf finds that fossil fuel and petrochemical operations are the source of the majority of pollution events after storms.⁷⁶ In 2021 alone, Hurricane Ida⁷⁷ resulted in more than 2,200 oil, gas, and chemical pollution releases, including across large swaths of Cancer Alley. At least 171 oil spills and 1 million pounds of pollutants were released into the air, among other releases,

infrastructure," *USA Today*, March 25, 2021, <https://www.usatoday.com/story/news/investigations/2021/03/25/health-concerns-despite-climate-commitments-states-ok-fuel-tanks/4769675001/> (accessed October 25, 2023); "Tank Storage," LOOP LLC, <https://www.loopllc.com/services/tank-storage> (accessed October 25, 2023).

⁷⁶ Naomi Yoder and Sheehan Moore, "Murky Waters," Healthy Gulf (2022), <https://healthygulf.org/wp-content/uploads/2022/06/Hurricane-Ida-Pollution-Report-Final.pdf> (accessed October 25, 2023).

⁷⁷ Category 4 Hurricane Ida caused catastrophic damage when it made landfall in southeastern Louisiana August 26-September 1, 2021. It followed a trajectory up through Cancer Alley, with the center of the storm in LaPlace, St. John Parish, on August 30th. See John L. Beven II et al., National Hurricane Center Tropical Cyclone Report, Hurricane Ida, August 26-September 1, 2021, April 4, 2022, https://www.nhc.noaa.gov/data/tcr/AL092021_Ida.pdf (accessed October 25, 2023).

from ruptured pipelines, refineries, petrochemical plants, tank farms, and LNG facilities across the state. Multiple refineries and chemical companies burned flares that formed large sooty black and orange flames, visible from many miles away, and “the sulfurous stench of rotten eggs pervaded for weeks after the storm.”⁷⁸ The study finds that without meaningful regulation and a transition off fossil fuels, this pollution trend identified over more than a decade from repeated storms, will worsen with the climate crisis.⁷⁹

⁷⁸ Yoder and Moore, “Murky Waters,” *Healthy Gulf*, p. 18.

⁷⁹ *Ibid.*, p. 2.

II. Findings

Everybody's sick and dying and it just keeps getting worse.

— Dominic Kruger, 45, interviewed in Ascension Parish, May 16, 2023

Human Rights Watch investigated the impact of the fossil fuel and petrochemical industry on the health of residents of Louisiana's Cancer Alley, and found communities facing cancer, maternal, reproductive, and newborn health harms, and severe respiratory ailments. They have had little ability to protect themselves from toxic pollution and insufficient recourse when polluters flouted laws. The response of government officials has ranged from inadequate to openly hostile. Death and disease permeate the area, with a disproportionate harm experienced by already marginalized communities of color, particularly those living closest to the plants.

Human Rights Watch interviewed 37 residents of Cancer Alley, seven of whom have been diagnosed with cancer, including breast, prostate, and liver cancers. All 37 residents report being impacted by cancer, which they describe as having ravaged their immediate families, loved ones, and members of their communities. Ten women shared their personal stories of maternal and reproductive health harms, while another dozen discussed those of immediate family members, friends, or neighbors, including low-birth weight, preterm birth, miscarriage, stillbirths, high-risk pregnancy and birth, and infertility.

Severe respiratory ailments were extremely common, including chronic asthma, bronchitis and coughs, childhood asthma, and persistent sinus infections. Residents said these ailments added stress to already at-risk pregnancies, resulted in children being rushed to emergency rooms and kept inside to avoid polluted air, missed days of work and school, sleepless nights due to wracking coughs, and the deaths of family members and friends.

Human Rights Watch found both the state and federal governments are failing to protect the environment, health, and other human rights of Louisiana residents from harms caused by the fossil fuel and petrochemical industry.

The prevalence of harm indicates that authorities at both the state and federal level are failing to respect, protect, and fulfil the human rights to life, health, access to information, and freedom from discrimination on the basis on race.

Identifying the cause of increased prevalence of cancer in a community is complicated. There are many different types of cancer, most of which have a long incubation period between exposure to a carcinogen and detection, and individuals may be exposed to multiple carcinogens over many years. The definition of a “cancer cluster” appears straightforward (a “greater-than-expected number of cancer cases that occurs within a group of people in a geographic area over a period of time”), but in reality it is very — and far-too often prohibitively — difficult to prove.⁸⁰ In Cancer Alley, for example, the small size of communities located around a specific plant can make it difficult to attribute incidence of cancer to a specific toxic exposure.

Delaying action until a causal link has been established between exposure and disease, particularly in cases where it takes years for latent diseases to manifest themselves, can lead to preventable human rights harms, including death, while the pursuit of unachievable evidence is sought. This approach also risks turning scientific research into a battleground since one of the ways that business interests can most effectively stymie action is by challenging, blocking, or controlling research to undermine achieving a scientific consensus.⁸¹

Human rights law protects the rights to life and health. Access to clean air is essential for the enjoyment of these and other rights. The US government has a duty to prevent or regulate activities that pose risks to human rights. This duty can extend to activities that have not been conclusively shown to cause harm where there is good reason to believe that they may. Because of the varied health outcomes associated with environmental harms and the long period it may take for health impacts to manifest, federal and state authorities should take precautionary measures based on the best available science. They

⁸⁰ “Cancer Clusters,” US Centers for Disease Control and Prevention, <https://www.cdc.gov/nceh/clusters/factsheet.htm> (accessed November 30, 2023); Linda Marsa, “Why Geographic Cancer Clusters are Impossible to Prove,” *Newsweek*, July 18, 2016. <https://www.newsweek.com/2016/07/29/geographic-cancer-clusters-industrial-polluters-481423.html> (accessed October 25, 2023).

⁸¹ See Human Rights Watch, *The Coal Mine Next Door: How the US Government’s Deregulation of Mountaintop Removal Threatens Public Health* (New York: Human Rights Watch, 2018), p. 36.

should also endeavor to carry out or support studies to identify the human rights risks in a definitive way.

The Human Health Toll

At 57, Angie Roberts carries herself like a much older woman. She moves with the care of someone who not only experiences frequent pain, but also worries that each movement will elicit more. Seated in her kitchen in St. James, husband Jerome and sister Valdez at her side, her grandson Peyton rushes by while her daughter, who works the night shift as a nurse, sleeps in the next room. Her son heads out the door in coveralls, cup in hand emblazoned with the name of the nearby petrochemical plant at which he's temporarily working.

The shades are drawn tight as they are most days. The "view" outside is of rows upon rows of towering oil storage tanks barely a stone's throw away. Their home sits at the end of a lane lined with hundreds of these massive tanks. Giant white pipelines crisscross the land. A train carrying fossil fuel products loudly lumbers by. Within a few miles are several other large fossil fuel and petrochemical operations.

They have lived here for 28 years.

The house was here first. The tank farms came later.

Roberts feels imprisoned. In 2019, she was diagnosed with breast cancer for which she underwent a mastectomy. Her doctor has now detected suspicious lumps in the remaining breast requiring regular mammography. She developed multiple sclerosis (fossil fuel and petrochemical emissions can increase the risk of autoimmune diseases such as MS⁸²), suffers from severe bouts of coughing which force her awake at night gasping for air, and has constant skin rashes. She blames the pollution from the plants. She wants to leave. But the price they would get for their home, were anyone interested in buying, has made moving impossible.

⁸² Giovanni Adami, et al., "Association between long-term exposure to air pollution and immune-mediated diseases," RMD Open (2022) doi:10.1136/rmdopen-2021-002055; Datis Kharrazian, "Exposure to Environmental Toxins and Autoimmune Conditions," Integrative medicine (Encinitas, California) vol. 20,2 (2021).

“Who would want to live here now?” she asks in dismay. “I’m dying here.”⁸³

Human Health Risks from Fuel and Petrochemical Facilities in Louisiana

The Environmental Protection Agency’s Risk-Screening Environmental Indicators (RSEI) Model is used as a relative measure to compare overall risk to human health (cancer and noncancerous) of toxic chemical releases from certain industrial facilities.⁸⁴ Human Rights Watch found that, among facilities that report to the EPA, fossil fuel and petrochemical facilities were responsible for 97 percent of the potential risks to human health (RSEI burden) in Louisiana. Just those in Cancer Alley alone were responsible for almost all--or 84 percent -- of the total RSEI burden for the whole state.⁸⁵ The map on the following page shows the areas where fossil fuel and petrochemical facilities have the highest RSEI scores. The area with the most blue circles is Cancer Alley.⁸⁶

⁸³ Human Rights Watch interview, St. James Parish, Louisiana, May 15, 2023.

⁸⁴ The RSEI score uses data reported by facilities on their chemical releases, factors in the toxicity weights of those specific chemicals, models how chemicals move and change in the environment and considers the size of the population exposed to these chemicals (within 3-mile radius). See EPA documentation and explanatory video, EPA, Understanding RSEI Results, last updated May 3, 2023, <https://www.epa.gov/rsei/understanding-rsei-results> (accessed January 10, 2024).

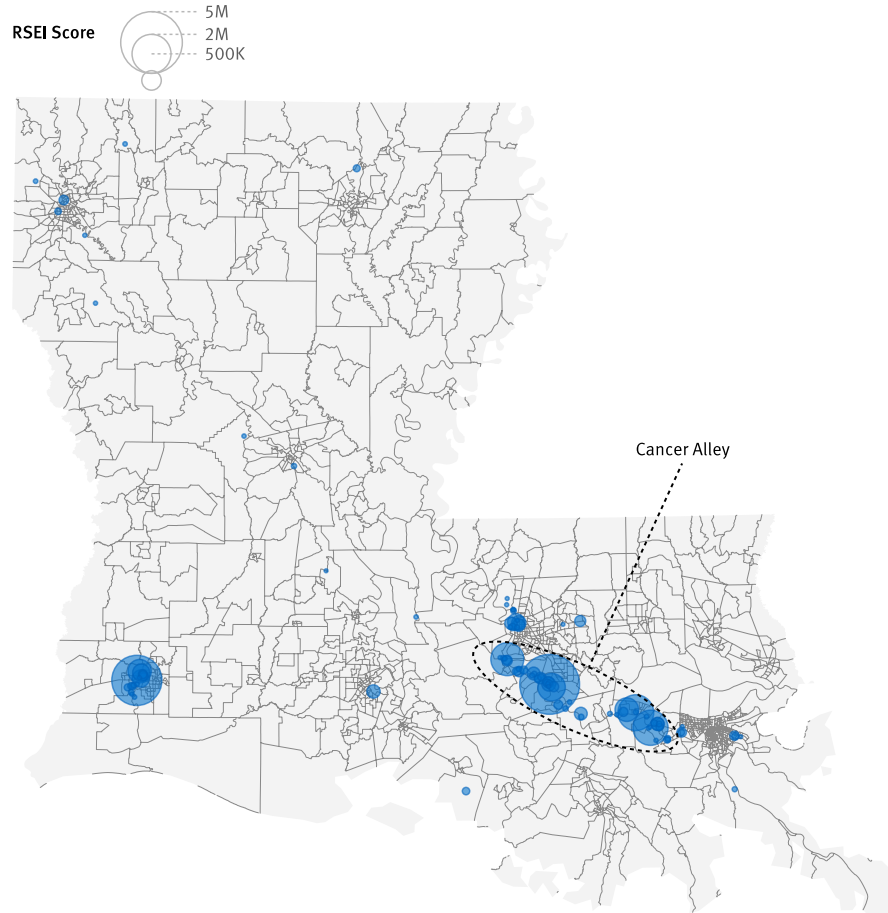
⁸⁵ Percentages computed from aggregated scores from 2017 through 2021.

⁸⁶ This map only includes facilities that report to the EPA’s toxic release inventory (TRI). TRI reporting forms must be filed by owners and operator of facilities that fall within a TRI-covered industry sector or is federally-owned or operated; has 10 or more full-time employee equivalents; and manufactures (including import) or processes more than 25,000 pounds or otherwise uses more than 10,000 pounds of a TRI-listed chemical during a calendar year. There are smaller fossil fuel and petrochemical facilities not included here.

Human Health Risks from Fossil Fuel and Petrochemical Plants in Louisiana

Risk-Screening Environmental Indicators (RSEI) Score = Toxicity weight of chemicals x estimated dose of chemical releases x population exposed

100 facilities with highest RSEI score in the state



RSEI is developed by EPA modeling: <https://www.epa.gov/rsei/understanding-rsei-results#what>
Source: Human Rights Watch analysis of EPA RSEI data: <https://www.epa.gov/rsei>

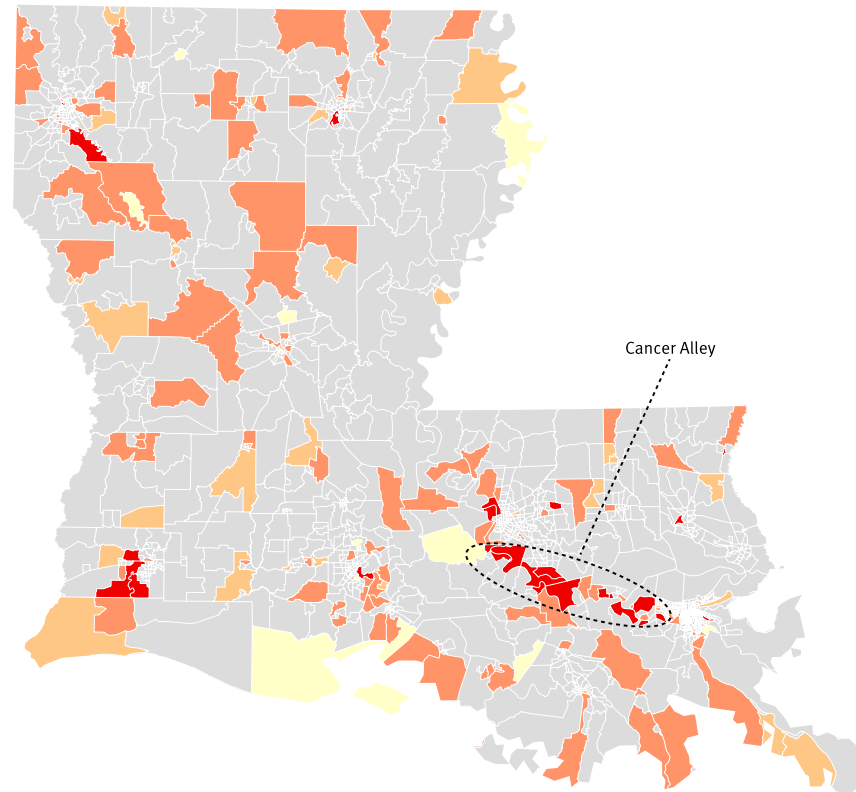
Human Rights Watch aggregated all of the US RSEI scores at the census tract level (a small geographic area for which the US Census Bureau maintains statistical information).⁸⁷ There are 15 census tracts in Cancer Alley that are at the 99th percentile in the country for RSEI scores. Another 18 tracts are between the 90th and 99th percentile. A total of over 124,000 people live in these tracts.⁸⁸

Health Risks from Toxic Releases from Fossil Fuel and Petrochemical Plants in Louisiana

Ranking within all US Census Tracts:

99th percentile = Census tract has higher risk score than 99% of all US census tracts

■ 99th percentile ■ 90th—99th percentile ■ 80th—90th percentile ■ < 80th percentile ■ All tracts with no RSEI score



Human Rights Watch analysis of EPA RSEI data: <https://www.epa.gov/rsei>

⁸⁷ The US Census Bureau designates small, relatively permanent statistical subdivisions of counties, each uniquely numbered and averaging about 4000 inhabitants each nationally. See US Census Bureau, Census Tracts, <https://www2.census.gov/geo/pdfs/education/CensusTracts.pdf> (accessed January 10, 2024).

⁸⁸ Human Rights Watch analysis of EPA RSEI data and US Census Bureau data. Census data from 2015-2020 5-year American Community Survey.

Cancer

Kaitlyn Joshua, 31, grew up in Baton Rouge and today lives in Geismar in Ascension Parish. She remembers in her youth hearing a lot more resistance by local community members to the term “Cancer Alley.” “But it’s wearing off,” she said. She has lost four great aunts to cancer, and the recent passing of both of her grandparents (from non-cancer ailments) weighed heavily on her mind. Joshua blames the fossil fuel and petrochemical plants that her aunts and grandparents lived next to in Baton Rouge their entire lives for their deaths. “It’s this very real experience of folks just dropping with it left and right,” that changed minds as more people came to realize, “People are getting cancer diagnoses as a result of industry being so close to our homes,” Joshua said.⁸⁹



Kaitlyn Joshua with her two-month-old son at their home in Geismar, Ascension Parish in Louisiana’s Cancer Alley. October 20, 2023. © 2023 Eli Reed for Human Rights Watch

⁸⁹ Human Rights Watch interview, Baton Rouge, Louisiana, March 29, 2023.



Leroy Frazier at his home in St. James Parish, in Louisiana's Cancer Alley. Frazier has been diagnosed with prostate cancer, among other ailments. May 15, 2023. ©2023 Antonia Juhasz/Human Rights Watch

Until a few years ago, Genevieve Butler, 66, lived not far from Angie Roberts in St. James. Butler also had breast cancer and a mastectomy, as did nearby resident Janice Ferchaud. Her neighbor, Brenda Bryant, 76, is also a breast cancer survivor, treated with radiation therapy.⁹⁰ Bryant's brother and next-door neighbor, Leroy Frazier, 69, has prostate cancer.⁹¹ Gail LeBoeuf lives in Convent, across the Mississippi River, and was diagnosed with liver cancer in January 2023.⁹² Younger women told Human Rights Watch they had lumpectomies and hysterectomies as precautions against developing cancer.

Raven Taylor grew up in St. John Parish and has had three lumpectomies to remove abnormal breast tissue.⁹³ Ashley Gagnard lives in Ascension Parish and has also had three lumpectomies. Two were found to be benign and one was malignant and required treatment.⁹⁴

⁹⁰ Human Rights Watch interview, St. James Parish, Louisiana, May 15, 2023.

⁹¹ Human Rights Watch interview, St. James Parish, Louisiana, May 15, 2023.

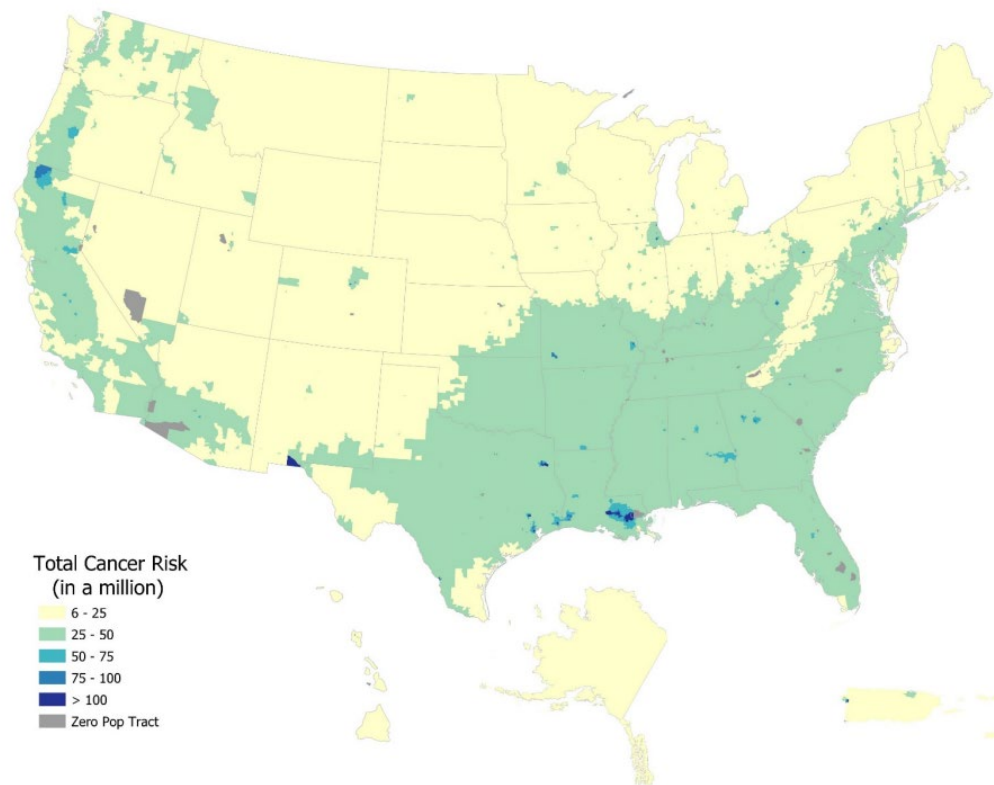
⁹² Human Rights Watch group interview, Convent, St. James Parish, Louisiana, March 28, 2023.

⁹³ Human Rights Watch interview, New Orleans, Louisiana, March 29, 2023.

⁹⁴ Human Rights Watch interview, Donaldsonville, Louisiana, May 17, 2023.

Twin sisters Jo and Joy Banner, 44, live in Wallace on the east bank of the Mississippi in St. John Parish. Their male cousin lived near and worked in the petrochemical plants for years before being diagnosed with breast cancer. He had a double mastectomy.⁹⁵

According to EPA data, nearly every census tract in Cancer Alley ranks in the top 5 percent nationally for cancer risk from toxic air pollution.⁹⁶ The census tract in St. John where Robert Taylor’s home sits and in which his children, including daughters Raven and Tish grew up, has the highest cancer risk in the US from toxic air pollution, more than seven times the national average.⁹⁷

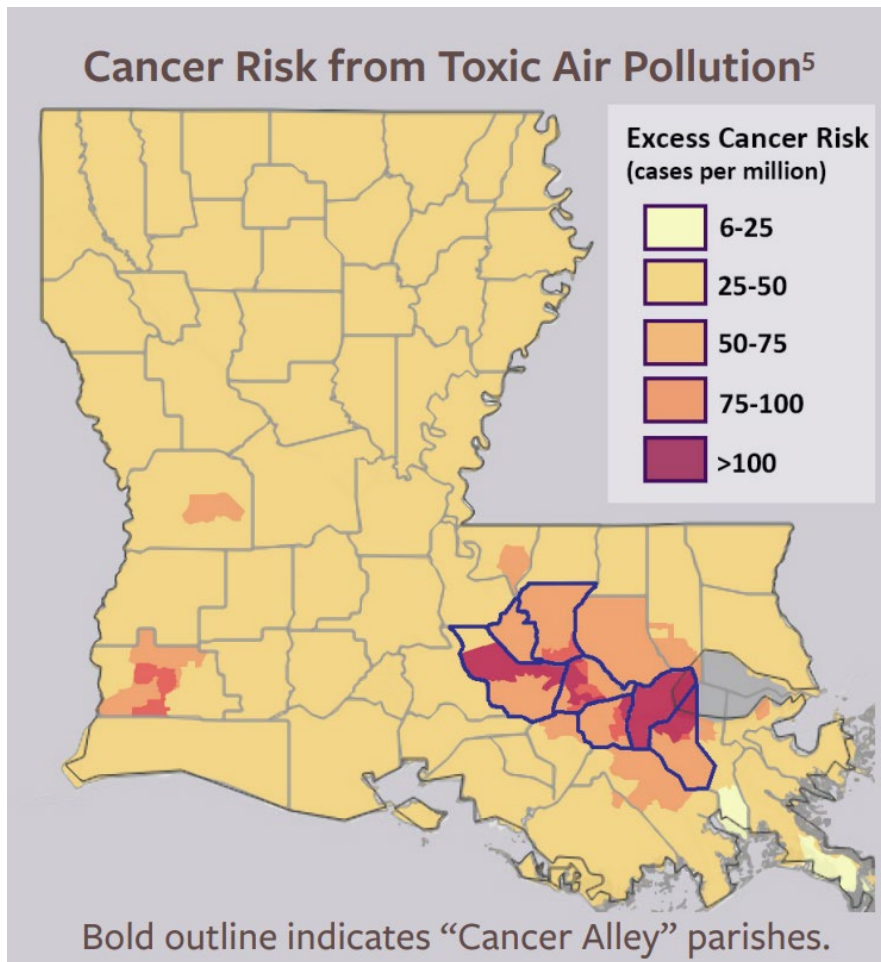


US Environmental Protection Agency National 2014 Air Toxics Assessment based on emissions of toxic air pollution from industrial sources. Cancer Alley is the cluster of dark blue in Louisiana, representing the area with the highest cancer risk in the nation. Source: US Environmental Protection Agency, “2014 NATA,” https://www.epa.gov/sites/default/files/2020-07/documents/nata_2014_summary_of_results.pdf (accessed January 10, 2024).

⁹⁵ Human Rights Watch interview, Wallace, Louisiana February 1, 2023.

⁹⁶ Terrell and St. Julien, “Discriminatory outcomes of industrial air permitting in Louisiana.”

⁹⁷ Maite Amorebieta, “Toxic School,” *NBC News*, March 16, 2023, <https://www.nbcnews.com/news/us-news/toxic-school-government-failed-black-residents-louisianas-cancer-alley-rcna72504> (accessed October 25, 2023).



From the Tulane Environmental Law Clinic, “Understanding Environmental Exposures and Cancer Disparities in Louisiana,” 2019. Virtually every census tract in Cancer Alley faces among the highest cancer risk in the nation from industrial emissions of toxic air pollution. Source: Tulane Environmental Law Clinic, “Understanding Environmental Exposures and Cancer Disparities in Louisiana,” 2019, <https://law.tulane.edu/sites/law.tulane.edu/files/files/Cancer%20Fact%20Sheet%202019%20FINAL.pdf> (accessed January 10, 2024).

The EPA finds that from 2014 through to 2018, the average estimated lifetime cancer risk from air toxics for residents of Cancer Alley was more than twice that of residents in other parts of Louisiana and that the highest cancer risk falls disproportionately on Cancer Alley’s Black residents. The EPA concludes, “Critically, based on the data EPA has reviewed thus far, Black residents of the Industrial Corridor Parishes continue to bear disproportionate elevated risks of developing cancer from exposure to current levels of toxic air pollution.”⁹⁸ (“Industrial Corridor” is sometimes used by government agencies to

⁹⁸ EPA Letter of Concern, p. 54.

refer to Cancer Alley.) The EPA lists cancers linked to the specific emissions from petrochemical and fossil fuel operations in Cancer Alley, including lymphoma, leukemia, breast cancer, and liver cancer.⁹⁹

The EPA finds that Black residents in St. John Parish face an increased risk of cancer due to petrochemical operations where they live. The EPA has raised particular concern about Fifth Ward Elementary School, finding that the children who attend the school on the fenceline of a massive petrochemical complex face an “increased lifetime cancer risk” due to the average annual concentration of toxic air emissions they are exposed to.¹⁰⁰

Just blocks away from Fifth Ward Elementary, Robert Taylor, 83, stands in front of his home and looks up and down the block, naming people struck by cancer. After a few minutes he gives up in exhaustion, saying, “There is no one who hasn’t had at least one family member who has died, in most cases, it’s two or more.”¹⁰¹ It seems easier to name who does not have a personal experience with cancer, but Taylor draws a blank, and instead starts to go through his own lengthy family list of people who have had cancer, starting with his wife. The cemetery where many of his family members reside is sandwiched between two nearby plants. Taylor's home was made uninhabitable by Hurricane Ida. His son and niece live in a trailer parked on the front yard while they try to rebuild, and Taylor lives nearby with his daughter, Tish. In 2016, Robert Taylor founded a nonprofit organization, Concerned Citizens of St. John, to advocate on behalf of residents.

Geraldine Watkins, 81, lives not far from the Taylors. “My grandson died of cancer at age 30,” she told Human Rights Watch, adding, “I’ve had more than 30 family members [that died], they died of throat cancer. They died of leukemia... You don’t just shrivel up, you know, it takes time for the body to disintegrate. There’s been breast cancer, there’s been testicular cancer, there’s been liver cancer. The cirrhosis of the liver — never drank alcohol. It's lung cancer — didn’t smoke a cigarette, didn’t work at the plants.”¹⁰²

⁹⁹ “Biden-Harris Administration Proposes to Strengthen Standards for Chemical and Polymers Plants, Dramatically Reduce Cancer Risks from Air Toxics,” EPA news release, April 6, 2023, <https://www.epa.gov/newsreleases/biden-harris-administration-proposes-strengthen-standards-chemical-and-polymers-plants> (accessed October 25, 2023).

¹⁰⁰ EPA Letter of Concern, p. 3.

¹⁰¹ Human Rights Watch interview, Reserve, St. John Parish, May 27, 2023.

¹⁰² Human Rights Watch interview, LaPlace, Louisiana, May 17, 2023.

Barbara Washington can personally name some 50 people who have died of cancer from her small community of Convent across the river on the east bank of the Mississippi in St. James Parish. Her list includes her sister. The two lived on the same lane on land originally purchased in 1874 by their great-great-great-grandmother Harriet Jones, who had been enslaved at a nearby plantation. Washington’s sister worked multiple jobs, including the night shift as a cleaning person for petrochemical plants. At age 56, she was diagnosed with stage four metastatic lung cancer. “She was not a smoker,” Washington quickly added. She died six months later. Cancer is a brutal way to die, and the chemotherapy was devastating. She died with her family gathered around her bed. As Washington looked down, her sadness was tinged with relief that her sister would no longer “have to be here suffering with us with all of this stuff going on.”¹⁰³



Barbara Washington, co-founder of Inclusive Louisiana, a non-profit organization, sets out signs along the levee of the Mississippi River in Convent, St. James Parish, in Louisiana’s Cancer Alley. Inclusive is party to a lawsuit seeking a moratorium against any new fossil fuel and petrochemical plants in St. James. ©2023 Antonia Juhasz/Human Rights Watch

¹⁰³ Human Rights Watch interviews, Convent, Louisiana, February 1 and March 28, 2023.

Like most communities along River Road, Washington lives on a small single lane of modest homes and trailers on either side which ends abruptly, cut off by fields, plants, or train tracks. Some homes are up on cement blocks. Several have blue tarps waving in the wind, protecting roofs torn off in tornadoes and hurricanes. The street is quiet, with many homes empty, their residents unable to return because the damage is too extensive and they cannot afford repairs, or because the increased frequency and intensity of storms means they can no longer afford or even receive insurance.

A plant looms nearby. Not far in any distance there are many more. “The air doesn't stay in one place,” Washington said. “So, we’re getting it from all over. We’re getting it from the north, east, and west all around. We’re getting it.”

Seated around a table with friends Gail LeBoeuf, 72, and Myrtle Felton, 69, the three women discuss death.¹⁰⁴ A few years ago, they formed a non-profit advocacy organization, Inclusive Louisiana. Within just four months in 2014, Felton’s husband, sister-in-law and brother-in-law all died, her husband of respiratory illness and her brother-in-law and sister-in-law, spouses, of cancer. Later, another sister's husband died of brain cancer. The three women easily spend 20 minutes simply going through the cancer lists of nearby residents, friends, neighbors, and family.

In a 2003 report for the EPA, the National Academy of Public Administration concluded that from 1995-1999, the cancer rates for Cancer Alley were significantly higher overall than the rest of Louisiana and the US, and that the rates for Black residents were significantly higher than for whites in each area, as were mortality rates.¹⁰⁵

The Louisiana Department of Environmental Quality (LDEQ) denies that residents of Cancer Alley experience disproportionate burdens of pollution or adverse health outcomes, including cancer.¹⁰⁶ Spokesman Greg Langley recently said, “LDEQ does not use the term

¹⁰⁴ Human Rights Watch group interview with Washington, LeBoeuf, and Felton, Convent, Louisiana, March 28, 2023.

¹⁰⁵ National Academy of Public Administration for the US Environmental Protection Agency, “Addressing Community Concerns: How Environmental Justice Relates to Land Use Planning and Zoning”, July 2003, p. 195, <https://www.epa.gov/sites/default/files/2015-02/documents/napa-land-use-zoning-63003.pdf> (accessed October 25, 2023).

¹⁰⁶ See for example, LDEQ 2020 Basis for Decision FG LA LLC Complex, January 6, 2020, pp. 64-66, DocID #11998452 <https://edms.deq.louisiana.gov/app/doc/view?doc=11998452> (accessed October 25, 2023).

cancer alley. That term implies that there is a large geographic area that has higher cancer incidence than the state average. We have not seen higher cancer incidence over large areas of the industrial corridor between Baton Rouge and New Orleans.”¹⁰⁷

Kimberly Terrell, a research scientist and director of community engagement at the Tulane University School of Law’s Environmental Law Clinic, told Human Rights Watch that Langley is wrong. The most relevant comparison is not the state of Louisiana, which has several areas with high concentrations of fossil fuel and petrochemical operations, but the US as a whole. More important, LDEQ is failing to account for proximity. Large swaths of the nine parishes that make up Cancer Alley do not have any industrial operations, having been spared these polluting industries for reasons which include systemic racism, she explains. Not only are the most polluting industries (fossil fuel and petrochemical operations) concentrated in Black communities, but they are permitted to emit an even greater scale of pollution. In a 2022 study, Terrell and co-author Gianna St. Julien found that from 2019 to 2021, LDEQ permitted industrial emissions of pollution that were 7- to 21-fold higher among Black communities than in predominately white communities.¹⁰⁸

Those communities within Cancer Alley living closest to the plants — known as fenceline communities — face the worst pollution and the worst health risks and outcomes. Terrell, like the federal government, use census tract data (rather than parish-level), allowing researchers to focus on those people living in closest proximity to the plants.

The controversy can also lead to silence. “A lot of people around here don't like to talk about their sickness. A lot of people die and when they're dead, we find out that they died with cancer,” said Pastor Harry Joseph of Mount Triumph Baptist Church in St. James Parish.¹⁰⁹

¹⁰⁷ James Bruggers, “Q&A: Cancer Alley Is Real, And Louisiana Officials Helped Create It, Researchers Find,” *Inside Climate News*, February 8, 2023, <https://insideclimatenews.org/news/08022023/louisiana-cancer-alley/> (accessed October 25, 2023).

¹⁰⁸ Kimberly A. Terrell and Gianna St. Julien, “Discriminatory outcomes of industrial air permitting in Louisiana,” *Environmental Challenges*, vol. 10(2023) <https://doi.org/10.1016/j.envc.2022.100672>.

¹⁰⁹ Human Rights Watch interview, St. James, Louisiana, March 26, 2023.

Maternal, Reproductive, and Newborn Health Harms

I cried the whole way from the hospital all the way to my house.

— Missie Bright, 44, Ascension Parish, describes her emotional response to experiencing a miscarriage while in her twenties, May 2023

Many of the residents of Cancer Alley Human Rights Watch interviewed experienced maternal, reproductive, and newborn health harms, and virtually all could name immediate family members, friends or neighbors who had, including low-birth weight, preterm birth, miscarriage, stillbirths, high risk pregnancy and birth, and infertility.

Premature birth (before 37 weeks of gestation) is the leading cause of death among infants in the US.¹¹⁰ Low birthweight (less than 5.5 pounds) can cause serious health problems, including trouble eating, gaining weight, and fighting off infections. Both conditions can increase the odds of infant mortality due to cardiovascular, respiratory, and other diseases—harms which can persist through adolescence and into adulthood, and of physical birth impairments, particularly to the central nervous and cardiovascular systems.¹¹¹

Ashley Gagnard, 46, was born and has spent her life in and around Donaldsonville, the parish seat of Ascension Parish.¹¹² Ascension Parish has the greatest amount of reported toxic air emission pollution in Cancer Alley, twice as much as the second highest parish.¹¹³ With 22 existing, it will also have the largest number of fossil fuel and petrochemical operations in Cancer Alley, including fertilizer and pesticide chemical manufacturers, if nine newly proposed major emitting facilities are built. (East Baton Rouge, with 28 existing and two proposed such facilities, will have the second-highest number).¹¹⁴

Gagnard has three adult children, all of whom were born at a low birth weight and two who were preterm pregnancies. Jason, 23, was born both preterm and low birthweight. He had

¹¹⁰ March of Dimes, “A Profile of Prematurity in the US,”

<https://www.marchofdimes.org/peristats/tools/prematurityprofile.aspx?reg=99> (accessed November 26, 2023).

¹¹¹ March of Dimes, “Low birthweight,” <https://www.marchofdimes.org/find-support/topics/birth/low-birthweight> (accessed August 25, 2023).

¹¹² Human Rights Watch interview, Donaldsonville, Louisiana, May 17, 2023.

¹¹³ Deep South Center for Environmental Justice, *The More Things Change, the More They Remain the Same*.

¹¹⁴ *Ibid.*

an undeveloped lung which has contributed to lifelong severe asthma that is exacerbated by air pollution. By the second grade at Donaldsonville Elementary, he was restricted from recess because of frequent severe asthma attacks which required that he be rushed to the hospital in an ambulance. Trips to the hospital persisted through the sixth grade. He still must manage his asthma with nebulizer treatments and a pump.

Gaignard's oldest daughter, Tuezde, 27, was also born at a low birth weight and with sleep apnea which persisted through her first year of life.

Gaignard's friend and colleague, Pam Ambeau, joined an interview conducted in Gaignard's house by phone. Both women have had partial hysterectomies (as has Gaignard's mother) and they described the procedure, which can be a preventative measure against the risk of cancer, as extremely common in Donaldsonville. The prevalence raises concerns for both women.¹¹⁵ They also describe a large number of miscarriages in the community. Two of Gaignard's sisters can no longer conceive, one of whom had a miscarriage and such a difficult pregnancy "that it almost killed her," Gaignard said. Gaignard listed family, friends, and neighbors who have miscarried. The association between reproductive health harms and the pollution from the fossil fuel and petrochemical industry "never dawned on me," Gaignard said, adding that this information is not well-known in her community.

A new study presented for the first time in this report and currently under peer review for publication in *Environmental Research: Health* journal finds that Cancer Alley is among areas in the state in which exposure to high amounts of toxic air pollution is associated with a significantly increased risk of adverse birth outcomes.¹¹⁶ The study notes that Louisiana has among the highest rates of low birthweight, preterm birth, and infant mortality in the US. It assessed birth outcomes in Louisiana between 2011 and 2020.

¹¹⁵ Human Rights Watch telephone interview, May 17, 2023. As Human Rights Watch and other groups have found, rural Black women in the American South receive unnecessary hysterectomies as a result of a history of racism and medical exploitation and abuse of Black people in the US healthcare system. Human Rights Watch, *"We Need Access:" Ending Preventable Deaths from Cervical Cancer in Rural Georgia* (New York: Human Rights Watch, 2022), <https://www.hrw.org/report/2022/01/20/we-need-access/ending-preventable-deaths-cervical-cancer-rural-georgia>.

¹¹⁶ Kimberly Terrell, Gianna St. Julien, Maeve E. Wallace, "Toxic Air Pollution and Residential Segregation Are Associated with Low Birthweight and PreTerm Birth Among Census Tracts in the US State of Louisiana (2011-2020)," submitted for peer reviewed journal publication, July 2023 (on file with Human Rights Watch).

Louisiana’s census tracts with the worst air pollution¹¹⁷ had rates of low birthweight as high as 27 percent, more than double the state average (11.3 percent) and more than triple the US average (8.5 percent). They found preterm births were as high as 25.3 percent, far above the corresponding state and national averages (13 percent and 10.5 percent, respectively).

The most polluted census tracts in Louisiana had a 25 percent higher risk of preterm birth and a 36 percent higher risk of low birthweight compared to the least polluted tracts. The authors estimate that, on average, 2,166 low birthweight and 3,583 preterm births annually across Louisiana were attributable to toxic air pollution exposure. The regions with the highest rates of adverse birth outcomes corresponded to those areas with the highest pollution. These included Cancer Alley.¹¹⁸

Residents throughout Cancer Alley shared many other examples of maternal and reproductive health harms with Human Rights Watch. Angie Roberts in St. James has had two high risk pregnancies and births, one requiring an emergency C-section after which her daughter spent two weeks in the Intensive Care Unit.¹¹⁹ Chasity White in St. James shared stories of family and friends who have experienced miscarriages.¹²⁰ Ke’Shawn Hicks is in his 20s and grew up near the fossil fuel petrochemical corridor in Baton Rouge. Two of his siblings were born premature, both of whom, like Hicks, had childhood asthma.¹²¹

Missie Bright has spent her entire life in Cancer Alley.¹²² A single mother of two, she worked for several years in the petrochemical industry, describing dangerous work with a lasting harmful impact on her health. “I did what I had to do to raise my children,” she said. Bright now works for the Louisiana Just Recovery Network, advocating for green energy jobs and training and employing workers to help rebuild homes destroyed in hurricanes.

¹¹⁷ As measured using Respiratory Hazard (RH) values for Louisiana census tracts from EPA’s 2017 AirToxScreen, a measure of overall air pollution burden from estimated concentrations of more than 40 different toxic air pollutants as well as diesel particulate matter. See Terrell, St. Julien, and Wallace, “Toxic Air Pollution and Residential Segregation.”

¹¹⁸ Terrell, St. Julien, and Wallace, “Toxic Air Pollution and Residential Segregation.”

¹¹⁹ Human Rights Watch interview, St. James Parish, Louisiana, May 15, 2023.

¹²⁰ Human Rights Watch interview, St. James, Louisiana, March 28, 2023.

¹²¹ Human Rights Watch interview, Baton Rouge, Louisiana, May 16, 2023.

¹²² Human Rights Watch interview, Gonzales, Louisiana, May 16, 2023.



Chasity White outside of her home in St. James Parish. Both her children suffer from respiratory ailments. “I know it’s from the pollution in the air,” she said. “The pollution is killing us.” March 28, 2023 ©2023 Antonia Juhasz/Human Rights Watch

Bright suffered a miscarriage in her 20s, and like many other women, blamed herself. She was unaware prior to her Human Rights Watch interview of the risks associated with fossil fuel and petrochemical operations and maternal and reproductive health and that these can be compounding factors contributing to miscarriage.

Kaitlyn Joshua and her twin sister, Angelle Bradford, 31, grew up in Baton Rouge before moving to Ascension Parish. The twins and their brother continued to spend a great deal of time in their grandparents’ homes in Baton Rouge near the plants, including most summers. Both Joshua and Bradford have experienced reproductive health harms. Joshua explained that her asthma is exacerbated by and puts a strain on pregnancy.¹²³

Joshua moved from Baton Rouge to Gonzales, and she now lives in Geismar in Ascension Parish, where “our literal backyard is a plant,” she said — one of many. Joshua was four

¹²³ Human Rights Watch interview, Baton Rouge, Louisiana, March 29, 2023.

months pregnant at the time of her interview with Human Rights Watch and was joined by her four-year-old daughter, Lauren. Joshua had also been pregnant in 2022, but at 11 weeks, she started experiencing severe pain and cramping, with such heavy bleeding and passage of tissue that her husband feared for her life. After two terrible weeks, in which they “couldn’t get the answers or health care” they sought, and during which heavy bleeding and piercing pains continued, she miscarried.

“I was really devastated for a long time,” Joshua said. After going public with her story in interviews with national media,¹²⁴ friends, family members, and people she didn’t know started reaching out, sharing their own experiences. “So many women in our circle have miscarried over the last couple years,” she said. “It wasn’t until that story dropped that people, girls I know, were flooding my inbox. ‘Oh my God! This happened to me.’”

Shamell Lavigne, 46, Sharon Lavigne’s daughter, has spent her entire life in Cancer Alley, growing up in the small community of Welcome in St. James before first moving to Baton Rouge and then Gonzales.¹²⁵ The fossil fuel and petrochemical plants have been a constant presence, steadily expanding in size and number, Shamell tells Human Rights Watch. She has always lived or worked near these operations and describes their pollution as omnipresent, saying, “You can’t escape it.”¹²⁶ Lavigne has fertility problems, suffering from insulin resistance and abnormal ovulation, and was told by her physician that she could not get pregnant. When she did get pregnant, only to suffer a miscarriage, she felt guilty and blamed herself, thinking that she had “picked up heavy boxes which must have been the cause.” She had not been told that there could be a connection between her reproductive health and her polluted environment.

¹²⁴ Rosemary Westwood, “Bleeding and in pain,” *NPR*, December 29, 2022, <https://www.npr.org/sections/health-shots/2022/12/29/1143823727/bleeding-and-in-pain-she-couldnt-get-2-louisiana-ers-to-answer-is-it-a-miscarriage> (accessed December 5, 2023).

¹²⁵ Human Rights Watch interview, Baton Rouge, Louisiana, May 16, 2023, and telephone interview, June 7, 2023.

¹²⁶ Human Rights Watch interview, Baton Rouge, Louisiana, May 16, 2023, and telephone interview, June 7, 2023.



Shamell Lavigne at her mother, Sharon Lavigne's home in Welcome, St. James Parish, in Louisiana's Cancer Alley, October 16, 2023. ©2023 Eli Reed for Human Rights Watch

Grateful for the birth of her daughter, Amerie Elizabeth, now an eight-year-old, she thinks aloud about the other women she knows in St. James who miscarried recently. It is yet another reason why the plants need to be shut down and held responsible for cleaning up the environment after they leave, she said. “You know, years ago I wouldn't have felt that way. But now that we know what they're doing to our bodies,” and the number of people who are dying, “it's just time,” Lavigne said.

Raven Taylor, 54 and a retired nurse, is Robert Taylor's daughter. She was born and spent most of her life in St. John, where she was assigned to bedrest during a very difficult and highly at-risk pregnancy after which her uterus was removed. It was only the beginning of her difficulties. Her colon and stomach were later removed, and she had three lumpectomies. She suffered decades of surgeries and misdiagnoses while her health rapidly deteriorated before learning she had a rare autoimmune disease similar to Lupus

called neuronal VGKC antibody syndrome. Fossil fuel and toxic chemical pollution emissions have been found to increase the risk of autoimmune disease.¹²⁷

Taylor shares her anger and frustration that her physicians never asked about her environment nor suggested that she move. “I had to figure that out on my own,” she told Human Rights Watch, saying she did so only when “I began steadily losing body parts.”¹²⁸

Taylor has weekly IVIG infusions via a port which goes directly into her heart. She is frail, tires easily, and concerned about infection, so she rarely leaves her New Orleans apartment, where she lives alone, missing out on time with her children and grandchildren. She spends a lot of time on the phone with her mother, who moved to California after she too became ill in St. John. “My mom was diagnosed with breast cancer and from breast cancer, she just went downhill getting more and more conditions,” she said, adding that their lives were “stolen” by industrial pollution from the fossil fuel and petrochemical industry.

Louisiana Bucket Brigade Chalmette Study

The research of Terrell, St. Julien, and Wallace is supported by unpublished data from a 2004 household survey conducted by the environmental organization Louisiana Bucket Brigade. The survey, which used non-probabilistic sampling, was completed by 258 people in 124 households in the small community of Chalmette located just east of New Orleans and immediately adjacent to Cancer Alley and the site of two large fossil fuel facilities. Almost all respondents identified as white, 54 percent female, and with an average age of 47. A quarter of those surveyed had lived in their home for more than 20 years. Of those respondents who had been pregnant, 26 percent reported that they had had at least one miscarriage, far greater than the

¹²⁷ Giovanni Adami, et al., “Association between long-term exposure to air pollution and immune-mediated diseases,” *RMD Open* (2022), <https://doi.org/10.1136/rmdopen-2021-002055> (accessed October 27, 2023); Datis Kharrazian, “Exposure to Environmental Toxins and Autoimmune Conditions,” *Integrative Medicine: A Clinician’s Journal*, vol. 20 (2021), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8325494/> (accessed October 27, 2023).

¹²⁸ Human Rights Watch interview, New Orleans, Louisiana, March 29, 2023.

national rate at the time of approximately 15 percent.¹²⁹ Two women reported four miscarriages each and one woman reported six miscarriages. Thirty-five percent reported experiencing problems with a pregnancy.¹³⁰

St. Gabriel Miscarriage Study

In 1990, Boston University epidemiologist Richard Clapp was hired by Louisiana’s attorney general to review a miscarriage study. In an interview with Human Rights Watch in June 2023, Clapp described the unpublished analysis, explaining that he and colleague Dan Wartenberg, a specialist in statistical methods, found that women living in Cancer Alley’s St. Gabriel, in Iberville Parish, and within a half mile of a petrochemical plant, had a significantly higher rate of miscarriage than national averages.¹³¹

“My concern is for these young women who are now coming up behind me, that are living under the shadow of a petrochemical plant, the ones that can get out do get out. But there are so many that cannot move. And then here’s the deal in Louisiana, where are they gonna move to?” From one end of Cancer Alley to the other, “there are petrochemical plants!” said Debra Martin of Lutcher in St. James Parish.¹³²

Respiratory Ailments

Can you please get my grandmother and grandfather out of Convent? Can you please find them a house, or they will die. It's getting too hard to breathe.

—Text message to Missie Bright, 44, Gonzales, from her son, May 2023

¹²⁹ Kevin Lang and Ana Nuevo-Chiquero, “Trends in self-reported spontaneous abortions: 1970-2000.” *Demography* vol. 49,3 (2012): 989-1009. doi:10.1007/s13524-012-0113-0, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3787708/> (accessed January 5, 2024).

¹³⁰ Copies of paper surveys conducted with IRB review provided to HRW, which analyzed the data (on file with Human Rights Watch).

¹³¹ Human Rights Watch telephone interview, June 26, 2023. For more on the St. Gabriel Miscarriage Study, see Barbara Allen, *Uneasy Alchemy*, pp. 127-132.

¹³² Human Rights Watch interview, Lutcher, Louisiana, May 11, 2023.

Almost all residents Human Rights Watch interviewed reported being diagnosed with or suffering from serious respiratory ailments. Severe asthma, chronic bronchitis, and chronic coughs are common, as are persistent sinus infections, headaches, shortness of breath, coughs, watery, itchy, and sore eyes, and nasal drip. Residents said these ailments added stress to already at-risk pregnancies, resulted in children regularly being rushed to emergency rooms in ambulances and kept inside to avoid polluted air, frequent missed days of work and school, sleepless nights due to wracking coughs, and the deaths of family members and friends. They described the stress of worry about their health and that of loved ones.

There is a well-established link between air pollution — in particular, the air pollution generated from fossil fuels — and respiratory disease.¹³³

Human Rights Watch analyzed EPA TRI data and found that nearly 90 percent of Particulate Matter (PM 2.5) for which industry is the origin in Cancer Alley is from fossil fuel and petrochemical operations.¹³⁴

Shortly after moving to Edgard in St. John, Imani Mathieu, 72, started experiencing watery and itchy eyes, coughing, nasal and respiratory issues requiring prescription medication. After five years, she was diagnosed with asthma for the first time in her life. She described extreme difficulty sleeping due to coughs and other breathing difficulties requiring the use of an asthma pump and nebulizer. “You know it’s not healthy at all,” she said of where she lives, adding that all of her respiratory issues are intensified when “the plants are polluting.”¹³⁵

¹³³ For examples, see Karn Vohra et al., “Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem,” *Environmental Research*, vol. 195 (2021), <https://doi.org/10.1016/j.envres.2021.110754>; see also Kimberly Terrell and Wesley James, “Racial Disparities in Air Pollution Burden and COVID-19 Deaths in Louisiana, USA,” *Environmental Justice*, vol. 15 (2022), <https://doi.org/10.1089/env.2020.0021>; “Ambient (outdoor) air pollution,” WHO, [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health) (accessed October 27, 2023); WHO Air Quality Guidelines, September 2021, https://www.c4oknowledgehub.org/s/article/WHO-Air-Quality-Guidelines?language=en_US (accessed October 27, 2023).

¹³⁴ Human Rights Watch analysis of EPA, TRI Program data, see <https://www.epa.gov/toxics-release-inventory-tri-program/find-understand-and-use-tri> (accessed January 10, 2023). (Analysis code on file with Human Rights Watch.)

¹³⁵ Human Rights Watch telephone interview, June 7, 2023

Some emissions are obvious, such as dark plumes of black smoke and blazing yellow flares. At other times toxins can be released within otherwise innocuous clouds of vaporous white smoke, or are entirely invisible to the naked eye, leaving only noxious odors as a clue.

Residents get creative when describing the persistent bad smells: “Rotten eggs,” “horrible,” and “chemically” are common. “It’s a foul odor,” said Stephenie Oubert, 71. She likens the smell to menstrual blood “when you take off a dirty Kotex,” she said. “That’s just how bad it smells.”¹³⁶

The plants largely operate 24 hours a day seven days a week, and “the problems, smells, spills, happen so often, you just take it for granted,” said Brenda Bryant.¹³⁷ Like many other residents, Bryant said that she suspected that the worst pollution events occur at night, “when they don’t think anyone is watching.” Even when sleeping, residents described being forced awake with severe bouts of coughing or other symptoms and know “it must be the plants,” as Mathieu said.¹³⁸

If residents have questions or concerns about industry operations, they are supposed to contact the Louisiana Department of Environmental Quality (LDEQ). But instead of acting as a trusted source of information, residents instead described profound frustration with the agency. Residents said that if they call LDEQ to report a problem with a facility, “they’re not going to help you,” said Genevieve Butler of St. James Parish. If they come to investigate, “they’ll come days later, when it’s over.”¹³⁹ Brenda Bryant said that trying to raise a concern with LDEQ is like “going up against a brick wall.”¹⁴⁰ The lack of information and action leads many residents not to bother contacting the agency.

Oubert, who lives not far from Mathieu, grew up and raised her children in the small community of Wallace on the west bank of the river in St. John Parish. She was diagnosed at a young age with bronchitis, which she still suffers from. Her children left Wallace but

¹³⁶ Human Rights Watch interview, Wallace, Louisiana, May 14, 2023.

¹³⁷ Human Rights Watch interview, St. James Parish, Louisiana, May 15, 2023.

¹³⁸ Human Rights Watch telephone interview, June 7, 2023.

¹³⁹ Human Rights Watch telephone interview, June 3, 2023.

¹⁴⁰ Human Rights Watch interview, St. James Parish, Louisiana, May 15, 2023.

remained in Cancer Alley, where they have raised their own children. “This area is just terrible when it comes to asthma,” she said. Oubert’s eldest son was diagnosed with asthmatic bronchitis during childhood, and each of her three children has at least one child that now has asthma. Her 10-year-old granddaughter, who lives in Geismar, has asthma for which she takes two medications and requires a breathing treatment daily. Oubert said that the doctor recommends that her granddaughter only go outside at certain times “when the air is cleaner.” Her granddaughter loves to play, especially basketball, “but she has to stay inside,” Oubert said.¹⁴¹

Children are physiologically more vulnerable to air pollution than adults because their brains, lungs, and other organs are still developing and because their breathing rate is often higher and they are more likely than adults to breathe through their mouths, taking in more pollutants.¹⁴²

Tish Taylor’s children were born in St. John and diagnosed from birth with respiratory ailments that were later diagnosed as asthma. Her 1-year-old granddaughter already suffers from respiratory difficulties. “It’s the same with every child here,” she said.¹⁴³



Stephanie Oubert, in the historic Black community of Wallace in Cancer Alley. Oubert, her children, and grandchildren have suffered respiratory ailments throughout their lives. Her granddaughter has asthma and must stay indoors when pollution is high. May 13, 2023 @2023 Antonia Juhasz/Human Rights Watch

¹⁴¹ Human Rights Watch interview, Wallace, Louisiana, May 14, 2023.

¹⁴² UNICEF, “Childhood Air Pollution Exposure Key Messages,” June 2022, https://www.unicef.org/media/123156/file/Childhood_Air_Pollution_Key_Messages_2022.pdf (accessed October 27, 2023).

¹⁴³ Human Rights Watch interview, LaPlace, Louisiana, May 27, 2023.

“We grew up with all of these plants around us. It was just a way of life. We knew as kids that when we played outside, we could get a smell in the air, and we'd be like, ‘Okay, we gotta go inside and close your doors and close your windows.’ And that was just second nature to us as kids growing up. But we had no idea how bad this was for us,” Taylor’s sister, Raven Taylor, said.¹⁴⁴

In 2015, studies conducted by the Metropolitan Hospital Council of New Orleans and the New Orleans and East Jefferson General Hospital, found that asthma hospitalization rates among children in St. John Parish from 2011 to 2015 were more than double the US national rates.¹⁴⁵ After the 2015 findings were widely reported, St. John was dropped from subsequent studies, according to an analysis by Vickie Boothe, an environmental epidemiologist who retired after a combined 33-year tenure working for the US EPA and US Centers for Disease Control and Prevention (CDC).¹⁴⁶

That same year, the St. John Parish School Board asked the Louisiana Department of Health to investigate reports of children suffering a variety of health ailments at the East St. John Elementary School Leon Godchaux site located nearby a massive oil refinery and multiple petrochemical plants.¹⁴⁷ The LDH investigation concluded that the school should be moved “at the earliest possible time,” noting that “the school is located in a high risk area situated among several industrial facilities that produce air-borne particulates and the risk of chemical releases.”¹⁴⁸ The children had reported multi-day outbreaks of “asthma-like respiratory symptoms” including complaints of “chest tightness, nausea, vomiting, burning eyes/nose, dizziness, fever, and weakness.”¹⁴⁹ It took two years before the children were finally moved. The youngest students (in preschool through fourth grade) were sent to St. John’s Fifth Ward Elementary School, located next to a massive

¹⁴⁴ Human Rights Watch interview, New Orleans, Louisiana, March 29, 2023.

¹⁴⁵ East Jefferson General Hospital, *East Jefferson General Hospital: Community Health Needs Assessment*, November 2015, p. 42 (on file with Human Rights Watch); Metropolitan Hospital Council of New Orleans, *Metropolitan Hospital Council of New Orleans: Community Health Needs Assessment*, October 2015, p. 52 (on file with Human Rights Watch).

¹⁴⁶ “Title VI LDOH Report,” submitted by Vickie Boothe, January 5, 2023 update, on file with Human Rights Watch; Human Rights Watch telephone interview with Vickie Booth, June 27, 2023.

¹⁴⁷ *Ibid.*

¹⁴⁸ “Action Plan, Denka Performance Elastomer, LLC—Pontchartrain Facility, LaPlace, St. John the Baptist Parish, Louisiana,” June 2016, US Environmental Protection Agency, p.5, <https://www.epa.gov/sites/default/files/2016-06/documents/epa-laplace-action-plan.pdf> (accessed January 10, 2024).

¹⁴⁹ *Ibid.*

petrochemical plant. Both the school and the plant are in the census tract with the highest cancer risk in the United States.¹⁵⁰

Barbara Washington's voice is made gravelly by severe bronchitis and a chronic cough which has caused her great distress for the last two years. She uses one inhaler to treat difficulty breathing and another to prevent coughing attacks, and takes other prescription medications to relieve sneezing, itchy and watery eyes, and nasal congestion, among other conditions. She blames the plants and their pollution. "All of that's gone into my lungs," she said.¹⁵¹

Debra Martin, another lifelong resident of Cancer Alley, lives in Lutchet in St. James Parish. A former lab technician in a petrochemical plant, she has been diagnosed with chronic pulmonary sarcoidosis, a rare and potentially fatal inflammatory respiratory disease that mimics asthma and may be triggered by environmental factors such as gas emissions, pollution, heavy metals, and fumes.¹⁵²

Ke'Shawn Hicks is in his twenties and grew up near the fossil fuel petrochemical corridor in Baton Rouge. He and his siblings all had childhood asthma. When he moved away from the fossil fuel petrochemical area, his asthma improved, he said.¹⁵³

Kaitlyn Joshua and her twin sister, Angelle Bradford, have suffered from chronic asthma since childhood. The two are committed to helping Cancer Alley. In addition to pursuing a law degree, Joshua is a campaigner at Earthworks, while Bradford is a PhD student in cardiovascular physiology and volunteers with the Sierra Club. Joshua's pulmonologist prescribes a varying series of medications and health regimes to try to keep her asthma in check, but she still ends up spending a lot of time and money in urgent care. She has the

¹⁵⁰ Human Rights Watch telephone interview with Vickie Booth, June 27, 2023.

¹⁵¹ Human Rights Watch interviews, Convent, Louisiana, February 1 and March 28, 2023.

¹⁵² Human Rights Watch interview, Lutchet, Louisiana, May 11, 2023. See, Joana Fernandes, "Airborne Pollutants May Trigger Sarcoidosis, Study Suggests," *Sarcoidosis News*, May 12, 2017, <https://sarcoidosisnews.com/news/sarcoidosis-may-be-linked-to-pollution-study-suggests/> (accessed October 27, 2023); "Pulmonary Sarcoidosis," John Hopkins Medicine, <https://www.hopkinsmedicine.org/health/conditions-and-diseases/pulmonary-sarcoidosis> (accessed October 25, 2023).

¹⁵³ Human Rights Watch interview, Baton Rouge, Louisiana, May 16, 2023.

rare physician who tells her outright, “Kaitlyn, it’s where you live. It’s the air quality. You’re going to have to move out of there,” she told Human Rights Watch.¹⁵⁴

Chasity White, 46, lives in St. James Parish just down River Road from Sharon Lavigne.¹⁵⁵ Her 2-year-old daughter has difficulty breathing, irritated eyes, and a runny nose, especially when outside. Too young for an asthma diagnosis, her daughter is having her tonsils removed and will be tested when she is old enough. White has seen these symptoms before, when her son was first diagnosed with asthma at five years old. “I know it’s from the pollution in the air,” she said, adding, “The pollution is killing us. We’ve had enough.”

Government Failure

Regulatory Agencies

Dozens of federal, state, and local government agencies are authorized to exercise regulatory oversight of the fossil fuel and petrochemical industry in Louisiana. Those with the primary responsibilities related to the concerns raised in this report are the Louisiana Department of Environmental Quality (LDEQ), the Louisiana Department of Health (LDH), and the US Environmental Protection Agency (EPA).

Louisiana Department of Environmental Quality and Louisiana Department of Health

My experience of the last twenty years is that state officials consistently cover for the petroleum industry and the polluters.

—Anne Rolfes, Director, Louisiana Bucket Brigade, March 2023

For decades, the state of Louisiana has repeatedly failed to address the harms of fossil fuel operations and petrochemical plants, to enforce the minimum standards set by the federal government, and to protect the environment and human health.

Residents and issue experts interviewed in the course of researching this report told Human Rights Watch that LDEQ and the Louisiana state government more generally are

¹⁵⁴ Human Rights Watch interview, Baton Rouge, Louisiana, March 29, 2023.

¹⁵⁵ Human Rights Watch interview, St. James, Louisiana, March 28, 2023.

failing to fulfil their responsibility for the enactment and enforcement of laws which would sufficiently protect the human rights of residents.

As a result, many recommended that the EPA initiate an investigation to determine whether to withdraw its authorization for state enforcement under Louisiana’s Clean Air Act program. Former EPA Regional Administrator, Judith Enck, told Human Rights Watch, “People are getting sick because state agencies won’t enforce the law” and said the federal government should “absolutely” take authority back from LDEQ.¹⁵⁶ A comprehensive review of all petitions for withdrawal filed with the EPA through 2011 found that, while the EPA has never withdrawn state authorization, the petition process yields significant results, concluding that “substantive outcomes overall are remarkable.”¹⁵⁷ Lisa Jordan, a clinical law professor and director of the Tulane University Environmental Law Clinic in New Orleans, agrees and supports a withdrawal investigation.¹⁵⁸ In 2001, the clinic filed a petition asking EPA to withdraw Louisiana’s National Pollutant Discharge Elimination System program. It led to an EPA investigation and “marked improvement” by the state, according to the EPA.¹⁵⁹

Those interviewed routinely described state government officials as actively and outwardly “hostile” to their interests, acting as a “rubber stamp” for, “acquiescing to,” and having a “revolving door” with the industry. The results, they said, are sacrifice zones in which marginalized communities are inundated with toxic pollutants.

“DEQ has been actively hostile to communities in Cancer Alley for a long, long time,” Ruhan Nagra, a law professor and co-founder of the University Network for Human Rights, told Human Rights Watch.¹⁶⁰

In 2011, the EPA Office of Inspector General identified Louisiana Department of Environmental Quality (LDEQ) as having the lowest enforcement activity of the Clean Air

¹⁵⁶ Human Rights Watch telephone interview June 23, 2023.

¹⁵⁷ Emily Hammond and David L. Markell, “Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out,” *Harvard Environmental Law Review*, vol. 37 (2013), pp. 351-353, <https://ir.law.fsu.edu/cgi/viewcontent.cgi?article=1058&context=articles> (accessed January 10, 2024).

¹⁵⁸ Human Rights Watch telephone interviews June 1, 2023 and January 5, 2024.

¹⁵⁹ *Ibid.*, p.353.

¹⁶⁰ Human Rights Watch remote interview, March 14, 2023.

Act, Resource Conservation and Recovery Act, and Clean Water Act among the five states and 66 tribal nations in EPA’s Region 6.¹⁶¹ Louisiana also ranked in the bottom quartile of all US states for enforcement of the Clean Air Act and the Resource Conservation and Recovery Act and in the second-worst quartile for the Clean Water Act.¹⁶² Louisiana’s poor performance was attributed to the state’s “lack of resources, natural disasters, and a culture in which the state agency [LDEQ] is expected to protect industry.”¹⁶³

Louisiana State Senator Cleo Fields described LDEQ as “like partners” with the fossil fuel and petrochemical companies it is required to regulate. “I think DEQ has failed us miserably. And the people of the river parishes and the people of this state in general need relief and they need it now,” he told Human Rights Watch.¹⁶⁴

A 2021 audit by the Louisiana state government found that LDEQ failed to adequately track facilities’ emissions reports, including facilities that failed to submit reports entirely. When assessed, civil penalties were not adequately tracked, including whether they were paid. The time it took for LDEQ to issue enforcement actions after a known violation more than doubled between 2015 and 2019, to nearly 20 months, though it took the agency as long as nine years to pursue enforcement after finding violations during this period.¹⁶⁵ LDEQ’s fines, which statutorily range from \$100 to \$32,500 per day the violation continues¹⁶⁶, are too small to deter breaches of emissions standards.¹⁶⁷ LDEQ agreed with many of the auditor’s findings and recommendations and has said that it “offered concrete solutions of

¹⁶¹EPA Office of Inspector General, *EPA Must Improve Oversight of State Enforcement: EPA Report No. 12-P-0113*, pp. 16, 70, December 9, 2011, <https://www.epa.oig.gov/sites/default/files/2015-10/documents/20111209-12-p-0113.pdf> (accessed October 25, 2023).

¹⁶² *Ibid.*

¹⁶³ *Ibid.*, p. 16.

¹⁶⁴ Human Rights Watch interview, Baton Rouge, Louisiana, May 16, 2023.

¹⁶⁵ Louisiana Legislative Auditor, *Monitoring and Enforcement of Air Quality Department of Environmental Quality*, January 20, 2021, p.3, [https://app.lla.state.la.us/PublicReports.nsf/0/4F3372ABDDFoF271862586630067C25D/\\$FILE/00022660A.pdf?OpenElement&.7773098](https://app.lla.state.la.us/PublicReports.nsf/0/4F3372ABDDFoF271862586630067C25D/$FILE/00022660A.pdf?OpenElement&.7773098) (accessed October 25, 2023).

¹⁶⁶ Louisiana Department of Environmental Quality, *Settlement Agreements*, <https://www.deq.louisiana.gov/assets/docs/General/Enforcement/Settlement-Offer-Brochure.pdf> (accessed January 10, 2024).

¹⁶⁷ Gordon Russell, “Polluter’s Paradise: In “Cancer Alley,” *ProPublica*, December 19, 2019, <https://www.propublica.org/article/in-cancer-alley-toxic-polluters-face-little-oversight-from-environmental-regulators> (accessed October 25, 2023).

how it would improve and/or rectify them.”¹⁶⁸ A bill introduced in the Louisiana House of Representatives in 2022 that would have increased penalties assessed by LDEQ did not pass.¹⁶⁹

A 2021 study on enforcement of environmental crimes in Louisiana found that from 2004 to 2014, punishments for environmental violations were rare and ineffective at preventing further violations, finding fault with both state and federal officials.¹⁷⁰

Rather than serve their interests, residents frequently described LDEQ and LDH as deriding and undermining their concerns. Rolfe told Human Rights Watch that for decades when they’d bring evidence of human health harms to LDH, people were told it was their own fault, that they eat too much fried chicken and smoke.¹⁷¹

LDEQ’s permitting decisions are frequently cited for failing to uphold federal laws and standards. Permits determine if, where, and how companies operate, including how much toxic emissions are permissible. LDEQ’s permits have contributed to Louisiana being the most toxic state in the nation with a disproportionate burden borne by people of color resulting in human health harm.¹⁷² These findings have been supported by residents, courts, and federal agencies. Lisa Jordan, a clinical law professor and director of the Tulane University Environmental Law Clinic, told Human Rights Watch that LDEQ almost never denies a permit, and when granted, “the industry gets what it wants.” When violations occur, “LDEQ is absolutely horrible at enforcement,” she said.¹⁷³

However, the permitting process can afford unique opportunities for federal oversight and public intervention. Under the Clean Air Act, the EPA must review and can object to state

¹⁶⁸ Chuck Carr Brown, Louisiana DEQ, Letter to Lillian Sotolongo Dorka, EPA, Re: Response to Concerned Citizens of St. John, et al., Complaint Filed under Title VI of the Civil Rights Act of 1964, 42 USC (Complaint No: 01R-22-R6), June 3, 2022. Docket ID #13335907 (on file with Human Rights Watch).

¹⁶⁹ “Louisiana House Bill 398 (Prior Session Legislation),” LegiScan, <https://legiscan.com/LA/bill/HB398/2022> (accessed October 25, 2023).

¹⁷⁰ Michael J. Lynch, “Punishing Environmental Offenders: Criminal Environmental Sentencing in Louisiana, 2004-2014,” *Journal of Crime and Justice*, vol. 45 (2022): 183, <https://doi.org/10.1080/0735648X.2021.1903968> (accessed October 25, 2023).

¹⁷¹ Human Rights Watch interview, New Orleans, Louisiana, March 23, 2023.

¹⁷² Terrell and St. Julien, “Discriminatory outcomes of industrial air permitting in Louisiana, United States.”

¹⁷³ Human Rights Watch telephone interview, June 1, 2023.

air permits¹⁷⁴, and the public is required to have an opportunity to provide input, including through public hearings.¹⁷⁵ Under the Title VI of the US Civil Rights Act, the permits cannot have a discriminatory effect,¹⁷⁶ such as exposing Black communities to more pollution than white communities.

Earthjustice, a nonprofit environmental law organization, filed a petition with the EPA in 2023 setting forth ways by which LDEQ's permitting actions have created sacrifice zones that disproportionately harm frontline communities of color and low-income communities, "brutalizing environmental justice."¹⁷⁷ The state's "failings are not simply the product of poor individual permitting decisions," the petition contended. "These errors and omissions are repeated in permit after permit and reflect statewide policies" that ignore, misapply, and abuse Clean Air Act mandates.¹⁷⁸ Earthjustice filed the petition on behalf of Louisiana-based nonprofit advocacy organizations, RISE St. James (founded by Sharon Lavigne), Vessel Project, For a Better Bayou, Deep South Center for Environmental Justice, Healthy Gulf, Louisiana Bucket Brigade, and Sierra Club. The Petition calls on the EPA to use its authority under the Clean Air Act to find and issue notice that Louisiana is "failing properly to implement the Clean Air Act."¹⁷⁹

When LDEQ conducted its analysis of the location where a new plant would be built not far from Sharon Lavigne's home in Welcome in St. James Parish, it concluded "there would be no 'fenceline' community impacted."¹⁸⁰ The EPA found that this conclusion was "clearly contradicted by the exhibits attached to the permit" and observed more generally that LDEQ had not considered the amount of toxic releases, emissions, or baseline

¹⁷⁴ 1990 Clean Air Act Amendment, Title V. EPA, "1990 Clean Air Act Amendment Summary: Title V," last updated on October 13, 2023, <https://www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary-title-v> (accessed January 10, 2024).

¹⁷⁵ Clean Air Act and Administrative Procedures Act. EPA, "Clean Air Act Overview," Last updated on June 26, 2023, <https://www.epa.gov/clean-air-act-overview/developing-clean-air-programs-through-dialogue> (accessed January 10, 2024).

¹⁷⁶ EPA, External Civil Rights, "Federal Civil Rights Laws (Including Title VI) and EPA's Non-Discrimination Regulations," last updated on October 23, 2023, <https://www.epa.gov/external-civil-rights/federal-civil-rights-laws-including-title-vi-and-epas-non-discrimination>, (accessed January 10, 2024).

¹⁷⁷ Earthjustice, "Petition for Action Regarding Deficiencies in the Louisiana and Texas Clean Air Act Programs," petition to EPA, 2023, p. 2, <https://earthjustice.org/wp-content/uploads/2023/05/petition-epa-under-caa-title-vi-re-sils.pdf> (accessed October 25, 2023).

¹⁷⁸ *Ibid.*, p.1.

¹⁷⁹ *Ibid.*, p.2.

¹⁸⁰ EPA Letter of Concern, p. 52.

concentrations of pollutants in the area.¹⁸¹ The EPA concluded that LDEQ’s “analysis is too flawed in design and implementation” to be relied upon.¹⁸²

RISE St. James joined with several other organizations to sue, arguing LDEQ had acquiesced to industry by rubber-stamping the permit approvals, and seeking the repeal of all 14 air permits. In a scathing ruling in favor of RISE St. James in 2022, District Court Judge Trudy White found that LDEQ failed “to weigh, or in some cases even acknowledge, the full range of environmental harms resulting from its permit action,”¹⁸³ rendering its conclusion that “the social and economic benefits of the proposed project will greatly outweigh its adverse environmental impacts’ arbitrary and capricious.”¹⁸⁴

The court found that LDEQ failed to act “with diligence, fairness and faithfulness... when making a decision that affects environmental resources (here the very air people living near the [] site will be forced to breathe)”¹⁸⁵ and that LDEQ violated its public trustee duty. The judge also addressed climate change, writing, “LDEQ must take special care to consider the impact of climate-driven disaster fueled by greenhouse gasses on environmental justice communities and their ability to recover.”¹⁸⁶

In a powerfully worded section, Judge White directly quoted Sharon Lavigne’s description of living on “sacred lands.” Judge White said:

The spirit of those words to Sharon Lavigne and the other Welcome residents, is that the blood, sweat, and tears of their Ancestors *is tied to the land*. Remarkably, the Black residents of Welcome are descendants of men and women who were kidnaped from Africa; who survived the Middle Passage; who were transported to a foreign land; and, then sold

¹⁸¹ Ibid.

¹⁸² Ibid., p. 53.

¹⁸³ *RISE St. James v. Louisiana Department of Environmental Quality*, No. C-69402927 (La. 19th Jud. Dist. Ct. September 12, 2022), p. 31, https://static1.squarespace.com/static/5eed506b38da704895463871/t/63291d541be4b547d10a69e4/1663638895928/for_mosaruling.091422.pdf (accessed October 25, 2023).

¹⁸⁴ Ibid.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

on auction blocks and enslaved. Their Ancestors worked the land with the hope and dream of passing down productive agricultural untainted land along the Mississippi to their families.¹⁸⁷

The judge vacated the permits, finding that their issuance “prejudice substantial rights,” including state constitutional rights with respect to natural resources and the environment.¹⁸⁸ LDEQ has appealed the judgement.

Each year since 2020, State Senator Cleo Fields has introduced a bill to require companies to install fence-line monitors on their plants to measure pollutant emissions and report the data publicly.¹⁸⁹ Each year, the bill failed to muster enough votes to become law. Fields tells Human Rights Watch that he blames the industry “having their way in the legislature. No other reason. Why would industry oppose the bill? Obviously because they're doing something wrong. Obviously, because they don't want you to know what you're breathing.”¹⁹⁰

In a 2022 report, EPA concluded that LDEQ and LDH failed to provide adequate access to critical information to Cancer Alley residents. “It appears that, for years, LDEQ... failed to provide accurate and complete information to residents” most affected by harmful toxic emissions, EPA found, and LDEQ “relied on inaccurate and incomplete information regarding the cancer risk to the most affected residents.”¹⁹¹ EPA expressed concern that LDEQ’s permits process has denied residents impacted by fossil fuel and petrochemical operations in Cancer Alley access to information, the ability to influence operations through comment process, and the potential to appeal permits to the EPA.¹⁹²

LDH is responsible for providing accurate, relevant, and timely information about health risks associated with exposure to hazardous air pollutant emissions. EPA cited several LDH deficiencies in fulfilling this mandate, including its failure to: provide accurate and reliable

¹⁸⁷ *Ibid.*, p. 2.

¹⁸⁸ *Ibid.*, p. 34.

¹⁸⁹ SLS 23RS-104, Senate Bill No. 35 by Senator Fields, “Environmental Quality. Requires air monitoring systems in certain permitted facilities,” August 1, 2023, <https://legis.la.gov/legis/ViewDocument.aspx?d=1303691> (accessed January 9, 2024).

¹⁹⁰ Human Rights Watch interview Baton Rouge, Louisiana, May 16, 2023.

¹⁹¹ EPA Letter of Concern, p. 34.

¹⁹² *Ibid.*, p. 19.

information central to decision making, properly educate residents and health care professionals implement, implement study recommendations, and advise local and state entities such as the School Board and LDEQ.

LDEQ has also failed to effectively serve as the point of public contact for information about industry operations, including the release of harmful pollutants. On August 25, 2023, a massive fire at a refinery in St. John Parish near the homes of Robert Taylor, Tish Taylor, and Geraldine Watkins released copious amounts of thick billowing black smoke visible from satellites.¹⁹³ Despite evacuation orders issued for thousands of residents, including two schools and a senior center, residents said that no alarms sounded to alert the community, and, at the time of writing, details of how much or which pollutants were released have not been made public despite repeated requests from journalists and residents.¹⁹⁴

US Environmental Protection Agency (EPA)

Our state has a track record of failing to comply with environmental regulations and we do not trust the state will act in good faith and listen to the concerns of the communities. So, our efforts are focused on appealing to federal policymakers and making sure they hear our experiences.

—Dr. Beverly Wright, Deep South Center for Environmental Justice, New Orleans, July 2023

The mission of the US Environmental Protection Agency (EPA) is to protect human health and the environment and to ensure “clean air, land and water” in the United States.¹⁹⁵ The EPA is responsible for ensuring that federal environmental mandates are met and that its programs are consistently applied nationwide. It authorizes and relies on states to do the

¹⁹³ Bill Line (@bill_line), “View of Louisiana Refinery fire from GOES-East. Fire hot spot and very dark smoke are apparent in the satellite imagery,” posted on X, August 25, 2023, https://twitter.com/bill_line/status/1695116679846752652?s=20 (accessed October 25, 2023).

¹⁹⁴ Sara Sneath and Julie Dermansky, “Marathon Refinery fire illustrates how industry goes quiet during a crisis,” *Louisiana Illuminator*, September 5, 2023, <https://lailluminator.com/2023/09/05/marathon-fire/> (accessed October 25, 2023).

¹⁹⁵ EPA, “Our Mission and What We Do,” last updated on May 23, 2023, <https://www.epa.gov/aboutepa/our-mission-and-what-we-do> (accessed October 25, 2023).

bulk of enforcement, delegating much of this role to state agencies.¹⁹⁶ States can add their own laws, but these cannot be weaker than the national floor. In Louisiana, the lead state agency to which the EPA has delegated authority is the LDEQ.

The EPA has not adequately ensured that federal laws and regulations are enforced in Louisiana, and as such, is failing to protect the air, land, water, and health of Louisiana residents from harms caused by the fossil fuel and petrochemical industry. Although the EPA delegates a great deal of enforcement authority to the states, it retains oversight over state actions and has many tools to ensure states and polluters uphold national laws and regulations.¹⁹⁷ The EPA should use its authority under the Clean Air Act to order fossil fuel and petrochemical facilities posing an imminent and substantial endangerment to human health and the environment to immediately pause all operations until they can operate in accordance with the law, object to permits which would result in a disproportionate burden of harm in already overburdened communities, and initiate an investigation into withdrawal of state authorization for Louisiana’s Clean Air Act program. It should use its authority under the Clean Water Act to ensure compliance to federal minimum standards are upheld in Louisiana and to update the Effluent Limitation Guidelines to place stronger limits and controls on pollution from fossil fuel and petrochemical operations.

As a practical matter, EPA’s ability to enforce the Clean Air Act, the Clean Water Act, and other federal laws is constrained by its resources. The agency has been hamstrung for decades by inadequate funding and staff.¹⁹⁸ The EPA was gutted during the Trump Administration, “and it’s incredibly hard to build back,” says Robert Verchick, former US EPA deputy associate administrator for policy, who now teaches environmental law at the Loyola University College of Law.¹⁹⁹ For example, the EPA’s 2018 budget in real dollars (adjusted for inflation) was less than half of what it was in the late 1970s, despite facing a

¹⁹⁶ EPA Office of Inspector General, *EPA Must Improve Oversight of State Enforcement: EPA Report No. 12-P-0113*, pp. 1-2, December 9, 2011, <https://www.epaoig.gov/sites/default/files/2015-10/documents/20111209-12-p-0113.pdf> (accessed October 25, 2023).

¹⁹⁷ US EPA Office of Inspector General, “EPA Must improve Oversight of State Enforcement,” Report No. 12-P-0113, January 30, 2012. <https://www.epa.gov/sites/default/files/2015-10/documents/20111209-12-p-0113.pdf> (accessed January 9, 2024).

¹⁹⁸ David Coursen, former EPA attorney, “The terrible environmental costs of stagnant EPA funding,” *The Hill*, May 24, 2021, <https://thehill.com/opinion/energy-environment/555145-the-terrible-environmental-costs-of-stagnant-epa-funding/> (accessed January 6, 2024); Robert Verchick, Human Rights Watch interview, New Orleans, Louisiana, May 14, 2024.

¹⁹⁹ Human Rights Watch interview, New Orleans, Louisiana, May 14, 2023.

much larger mandate.²⁰⁰ The Biden-Harris administration requested the highest budget for the EPA in at least the last 23 years and has funded the agency at the highest level in more than a decade. Even so, the agency’s current budget is less, adjusted for inflation, than the amount budgeted each year since at least 2000.²⁰¹ As a result, the EPA still lacks the necessary staff and budget to fulfil its mandate.

The actions of the EPA under the Biden-Harris administration reflect the administration’s inconsistent approach overall to the climate crisis, fossil fuels, and petrochemicals. The human rights of Louisiana’s residents are directly impacted by these uneven and at times contradictory initiatives. Just seven days into the new administration, President Joseph Biden signed a sweeping executive order, establishing jobs programs to build-out the green economy, tackle the climate crisis, and instructing the Department of Interior to pause all new fossil fuel leasing in federal waters and lands.²⁰² In his speech announcing the order, he became the first US president to use the term “Cancer Alley,” explaining that “environmental justice will be at the center of all we do” especially in “the hard-hit areas like Cancer Alley in Louisiana.”²⁰³ The administration then worked with Congress to enact the Inflation Reduction Act, the most far-reaching climate legislation in US history.²⁰⁴ Yet, the administration has also encouraged — and issued permits allowing — an expansion of all forms of fossil fuel operations, including carbon capture and storage and liquified

²⁰⁰ Keith Gaby, “EPA’s budget has been devastated for decades: Here’s the math,” *The Hill*, January 24, 2018, <https://thehill.com/opinion/energy-environment/370334-epas-budget-has-been-devastated-for-decades-heres-the-math/> (accessed December 14, 2023).

²⁰¹ For EPA requested and allocated budgets, see EPA, “Historical Planning, Budget, and Results Reports: Budget Summaries,” <https://www.epa.gov/planandbudget/archive> (accessed October 25, 2023).

²⁰² Executive Order 14008, “Tackling the Climate Crisis at Home and Abroad,” President Joseph Biden, January 27, 2021. <https://www.energy.gov/sites/default/files/2021/02/f83/eo-14008-tackling-climate-crisis-home-abroad.pdf> (accessed January 10, 2024).

²⁰³ The White House, “Remarks by President Biden,” January 27, 2021, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/01/27/remarks-by-president-biden-before-signing-executive-actions-on-tackling-climate-change-creating-jobs-and-restoring-scientific-integrity/> (accessed October 25, 2023).

²⁰⁴ The White House, Inflation Reduction Act Guidebook, November 28, 2023, <https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/> (accessed January 6, 2023).

natural gas operations in Louisiana.²⁰⁵ Under Biden, the US reached the largest monthly production records of both oil and gas in the US history.²⁰⁶

At the same time, actions taken by Louisiana’s political leadership under the heavy influence of the fossil fuel industry have constrained the policy options available to the federal government. A 2022 *New York Times* investigation identified Louisiana’s Jeff Landry as a leader among a group of attorneys general coordinating legal challenges to “pre-empt efforts by President Biden to deliver on his promise to pivot the country away from fossil fuels.”²⁰⁷ Landry told the paper that the group met regularly with the oil, gas, and coal industries.²⁰⁸ In June 2022, the group scored a victory when the US Supreme Court severely constrained the EPA’s authority to regulate pollution under the Clean Air Act.²⁰⁹ Two months later, Landry’s effort to overturn Biden’s fossil fuel leasing ban²¹⁰ led a federal judge to issue a permanent injunction preventing the ban from going into effect.²¹¹ Landry had also led the successful effort in 2016 to strike down the Obama administration’s Clean

²⁰⁵ Clint Rainey, “The flight against Big Oil has a new target, and it’s leaving the home front,” *Fast Company*, October 17, 2023, <https://www.fastcompany.com/90968633/fight-against-big-oil-fossil-fuels-Ing-exports-biden-administration> (accessed January 10, 2024); Louisiana,” Energy Information Administration (EIA), last updated June 15, 2023, <https://www.eia.gov/beta/states/states/la/analysis> (accessed October 25, 2023); Timothy Puko, “Why these environmentalists are resisting part of Biden’s climate push,” *Washington Post*, June 22, 2023, updated on June 25, 2023, <https://www.washingtonpost.com/nation/2023/06/22/biden-carbon-capture-climate-environmentalists/> (accessed January 10, 2024).

²⁰⁶ US Field Production of Crude, Energy Information Administration, last updated December 29, 2023, <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPUS1&f=M> (accessed January 6, 2024); US Natural Gas Gross Withdrawals, Energy Information Administration, last updated January 29, 2023, <https://www.eia.gov/dnav/ng/hist/n901ous2m.htm> (accessed January 6, 2024).

²⁰⁷ Coral Davenport, “Republican drive to tilt courts against climate action reaches a crucial moment,” *New York Times*, June 19, 2022 <https://www.nytimes.com/2022/06/19/climate/supreme-court-climate-epa.html> (accessed January 9, 2024).

²⁰⁸ *Ibid.*

²⁰⁹ *West Virginia v. Environmental Protection Agency*, No. 20-1530 (US June 30, 2022). See also, Coral Davenport, “Republican drive to tilt courts against climate action reaches a crucial moment,” *New York Times*, June 19, 2022, <https://www.nytimes.com/2022/06/19/climate/supreme-court-climate-epa.html> (accessed January 9, 2024); Valerie Volcovici, “U.S. Supreme Court limits federal power to curb carbon emissions,” *Reuters*, July 1, 2022, <https://www.reuters.com/legal/government/us-supreme-court-limits-federal-power-curb-carbon-emissions-2022-06-30/> (accessed October 25, 2023).

²¹⁰ Niina H. Farah, “14 states challenge Biden oil leasing plan,” *EnergyWire*, March 25, 2021, <https://www.eenews.net/articles/14-states-challenge-biden-oil-leasing-plan/> (accessed October 25, 2023).

²¹¹ *Louisiana v. Biden*, Memorandum Ruling, Case No. 2:21-CV-00778 (W.D. La. August 18, 2022). See also Clare Mindock, “Judge Doubles Down on Blocking Oil, Gas Pause in 13 States,” *Reuters*, August 19, 2022, <https://www.reuters.com/legal/litigation/judge-doubles-down-blocking-biden-oil-gas-pause-13-states-2022-08-19/> (accessed December 14, 2023).

Power Plan to regulate greenhouse gas emissions from power plants, with lasting limitations on US policy.²¹² Landry was elected governor of Louisiana in October 2023 and took office on January 8, 2024.

Despite these setbacks, the Biden administration has taken many positive steps impacting Cancer Alley residents. Biden appointed environmental justice movement leaders and luminaries to key posts, including Interior Secretary Deb Haaland, EPA Region 6 Administrator Earthea Nance, and White House Environmental Justice Advisory Council members including Dr. Beverly Wright, Juan Parras of the Texas Environmental Justice Advocacy Services, and Dr. Robert Bullard of Texas Southern University.²¹³

Wright told Human Rights Watch that the administration “has made an invaluable and historic investment in the environmental justice movement, from establishing the Justice40 initiative to enforcing policies that will strengthen air quality standards.”²¹⁴ President Biden’s Executive Order on Tackling the Climate Crisis at Home and Abroad²¹⁵ announced the Justice40 initiative,²¹⁶ which aims to deliver 40 percent of the overall benefits of federal climate, clean energy, clean water, and other investments to marginalized communities overburdened by pollution, including by channeling nearly \$30 billion in federal spending to these communities, among them Cancer Alley, by May

²¹² Human Rights Watch interview with Rob Verchick, New Orleans, Louisiana, May 14, 2023. See also, Hoang Tran, “Louisiana attorney general stands against the Clean Power Plan,” *Louisiana Record*, April 11, 2016, <https://louisianarecord.com/stories/510712441-louisiana-attorney-general-stands-against-the-clean-power-plan> (accessed October 25, 2023); Lylla Younes and Jake Bittle, “Louisiana’s new governor is one of the fossil fuel industry’s biggest defenders,” *Grist*, November 8, 2023, <https://grist.org/elections/louisianas-new-governor-is-one-of-the-fossil-fuel-industrys-biggest-defenders/> (accessed October 25, 2023).

²¹³ White House Council on Environmental Quality, *White House Environmental Justice Advisory Council Contact List* (May 2023) <https://www.epa.gov/system/files/documents/2023-06/WHEJAC%20Membership%20List%20June%202023.pdf> (accessed October 25, 2023).

²¹⁴ Emailed response to questions from Human Rights Watch, July 14, 2023 (on file with Human Rights Watch).

²¹⁵ President Joe Biden, “Executive Order on Tackling the Climate Crisis at Home and Abroad,” The White House, January 27, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/> (accessed October 25, 2023).

²¹⁶ Shalanda Young et al., “The Path to Achieving Justice40,” The White House, July 20, 2021, <https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/> (accessed October 25, 2023).



Residents of Louisiana’s Cancer Alley attend a Christmas Day parade while smoke and flares rise from fossil fuel and petrochemical plants behind them. December 3, 2023. © 2023 Julie Dermansky

2023.²¹⁷ The Deep South Center for Environmental Justice received \$13 million to help community-based organizations access Justice40 funding.²¹⁸

Both Robert Taylor and Sharon Lavigne attended a White House Rose Garden ceremony when President Biden signed an executive order directing all federal agencies to incorporate the pursuit of environmental justice into their missions, recognizing “entrenched disparities that are often the legacy of racial discrimination and segregation” in communities that “experience disproportionate and adverse human health or

²¹⁷ The White House, “FACT SHEET: Biden-Harris Administration Holds Justice40 Week of Action,” May 23, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/fact-sheet-biden-harris-administration-holds-justice40-week-of-action-to-highlight-historic-investments-in-overburdened-and-underserved-communities/> (accessed October 25, 2023).

²¹⁸ EPA Region 4 Press Office, “EPA announces \$13M grant to Deep South Center for Environmental,” EPA, August 15, 2023, <https://www.epa.gov/newsreleases/epa-announces-13m-grant-deep-south-center-environmental-justice-help-communities> (accessed October 25, 2023).

environmental burdens.”²¹⁹ It expands upon President Bill Clinton’s original 1994 Environmental Justice Executive Order in several ways,²²⁰ including in its requirement that agencies consider the “cumulative impacts of pollution and other burdens like climate change” in decision-making, a critical new step.²²¹ Existing regulatory procedures typically consider the added pollution burden of a new or expanded petrochemical plant or other operation in isolation, rather than in combination with emissions from existing sources.

EPA Secretary Michael Regan has visited Cancer Alley on several occasions, touring St. James with Sharon Lavigne, standing beside Robert Taylor at press conferences, and talking with Geraldine Watkins. The EPA has taken actions directly responding to their demands and those of other Cancer Alley residents and those in similarly placed areas of Louisiana. At targeted facilities, it has increased direct monitoring, inspections, and taken corrective actions,²²² including at an oil storage facility²²³ in St. James and petrochemical plants in St. James,²²⁴ St. John²²⁵ and Lake Charles.²²⁶

²¹⁹ Executive Order on Revitalizing Our Nation’s Commitment to Environmental Justice for All, The White House, April 21, 2023, <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/> (accessed October 25, 2023).

²²⁰ Duke K. McCall et al., “President Biden directs agencies to increase environmental justice efforts,” *Morgan Lewis*, May 9, 2023, <https://www.morganlewis.com/pubs/2023/05/president-biden-directs-agencies-to-increase-environmental-justice-efforts> (accessed January 8, 2024).

²²¹ Rebeka Dawit, “What President Biden’s recent Executive Order means for our Environmental Justice work,” *Crag Law Center*, May 31, 2023, <https://crag.org/what-president-bidens-recent-executive-order-means-for-our-environmental-justice-work> (accessed October 25, 2023).

²²² EPA, “EPA Administrator Regan Announces Bold Actions,” January 26, 2022, <https://www.epa.gov/newsreleases/epa-administrator-regan-announces-bold-actions-protect-communities-following-journey> (accessed October 25, 2023).

²²³ Complaint, *Inclusive Louisiana v. St. James Parish*, Case No. 2:23-cv-00987 (E.D. La. filed March 21, 2023).

²²⁴ “EPA Administrator Regan Announces Bold Actions,” EPA press release, January 26, 2022.

²²⁵ Complaint, *United States of America v. Denka Performance Elastomer, LLC and Dupont Specialty Products USA, LLC*, Case No. 2:23-cv-735, (E.D. La. filed February 28, 2023), <https://www.justice.gov/opa/pr/justice-department-files-complaint-alleging-public-health-endangerment-caused-denka> (accessed October 25, 2023).

²²⁶ Complaint, *United States of America v. Westlake Chemical OPCO LP*, Case No. 2:22-cv-01577-JDC-KK (W.D. La. filed June 9, 2022), <https://www.justice.gov/opa/press-release/file/1511956/download> (accessed October 25, 2023).



Smoke and flares in the wake of Hurricane Ida in September 2021 in Louisiana’s Cancer Alley. © 2021 Julie Dermansky

The administration has proposed new rules, which, if adopted, could provide vital improvements, including a rule requiring states to close loopholes in permits that allow companies to emit unlimited amounts of toxic air pollution during emergencies while avoiding liability.²²⁷ Another proposed rule would require petrochemical facilities utilizing chemicals identified as among the most harmful in Cancer Alley, including ethylene oxide, chloroprene, and benzene, to install fenceline monitors for these pollutants, publicly publish these data, and take corrective measures if illegal levels are found.²²⁸

In 2022, EPA responded to local demands by opening an investigation into allegations that LDEQ and LDH had violated Title VI of the US Civil Rights Act by discriminating on the basis

²²⁷“EPA Closes Loopholes Companies Use to Release Unlimited Air Pollution During Malfunctions,” Earthjustice press release, July 14, 2023, <https://earthjustice.org/press/2023/epa-closes-loopholes-companies-use-to-release-unlimited-air-pollution-during-malfunctions> (accessed October 25, 2023).

²²⁸ “Biden-Harris Administration Proposes to Strengthen Standards for Chemical and Polymers Plants,” EPA news release, April 6, 2023, <https://www.epa.gov/newsreleases/biden-harris-administration-proposes-strengthen-standards-chemical-and-polymers-plants> (accessed October 25, 2023).

of race, “subjecting Black residents to ongoing disproportionate and adverse health and environmental impacts” in Cancer Alley.²²⁹ Three separate complaints had been filed by Earthjustice, the Lawyers’ Committee for Civil Rights, and Tulane Environmental Law Clinic on behalf of Concerned Citizens of St. Joh, RISE St. James, Inclusive Louisiana, Louisiana Bucket Brigade, and Stop the Wallace Grain Terminal.

In a letter to LDEQ Secretary Chuck Carr Brown and LDH Secretary Courtney Phillips, EPA said its initial investigation raised “significant evidence suggesting that the Departments’ actions or inactions have resulted and continue to result in disparate adverse impacts on Black residents of St. John the Baptist Parish, St. James Parish, and the Industrial Corridor.”²³⁰ The EPA added, “There appears to be a causal link between LDEQ’s actions and inactions in administering its air permitting program and the adverse and disproportionate distribution of the cancer and toxicity risks” by race.²³¹

The 56-page letter reviews the extensive evidence of human health risks and harms resulting from exposure to toxic pollution from fossil fuel and petrochemical plants referenced throughout this report. The findings mirror and support those of academic research and of community residents and advocates who describe being regularly maligned by LDEQ and LDH for sharing identical findings. EPA expressed concern about LDEQ’s interactions with residents, noting an incident in which an LDEQ official referred to Robert Taylor and Concerned Citizens of St. John as engaging in “fear mongering” when they were citing evidence identified by federal agencies.²³²

Following the public release of the EPA letter, LDEQ Secretary Brown and LDH Secretary Phillips resigned.²³³

²²⁹ EPA Letter of Concern, p. 41.

²³⁰ *Ibid.*, p. 2.

²³¹ *Ibid.*, p. 34.

²³² *Ibid.*, pp. 20-21.

²³³ Office of the Governor, “Gov. Edwards Accepts Resignation of LDEQ Sec. Chuck Carr Brown, Names Interim Secretary,” March 16, 2023, <https://gov.louisiana.gov/index.cfm/newsroom/detail/4018> (accessed October 25, 2023); Office of the Governor, “Gov. Edwards Accepts Resignation of LDH Sec. Courtney N. Phillips, Appoints Successor,” April 3, 2023, <https://gov.louisiana.gov/index.cfm/newsroom/detail/4051> (accessed October 25, 2023).

Drafts of an Informal Resolution Agreement between EPA and LDEQ obtained by media outlet, Grist, reveal that the EPA was negotiating significant improvements in Louisiana’s permitting process to address disparate impacts in overburdened communities and the creation of sacrifice zones which could have been precedent-setting for the United States as a whole.²³⁴ It required a cumulative impact assessment taking into account all sources of pollution and the status of the community, including race and health status. Permits would have to be denied if officials could not prove that the operations would not disproportionately harm people of color.

Before an agreement could be reached, on May 24, 2023, Jeff Landry, then the Louisiana attorney general and now the state’s governor, sued the federal government, claiming that the US Supreme Court’s 2001 decision in *Alexander v. Sandoval* requires EPA to prove intentional discrimination, and that “discriminatory effect” is not an enforceable legal standard under Title VI.²³⁵ Following the decision, the US Department of Justice issued a memorandum that reaffirmed the federal government enforcement of the disparate impact regulations under Title VI.²³⁶

Landry’s claim is unsubstantiated by both US and international human rights law. EPA has a duty to enforce regulations that protect people from environmental hazards, including those that disparately harm marginalized communities. The US bears this obligation not only under Title VI of the US Civil Rights Act, but also as a state party to the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD), which obligates governments to address both intentional racial discrimination and disparate impacts on specific racial groups.

Landry’s suit came in the wake of two US Supreme Court rulings which he had campaigned for, *West Virginia v. EPA* and *Sackett et ux. V. EPA*, curtailing the EPA’s regulatory power to

²³⁴ Lylla Younes, “The EPA was on the cusp of cleaning up ‘Cancer Alley.’ Then it backed down,” Grist, June 28, 2023 <https://grist.org/equity/civil-rights-cancer-alley-louisiana-epa/> (accessed October 25, 2023); Informal Resolution Agreement Between the Louisiana Department of Environmental Quality and the United States Environmental Protection Agency, January 23, 2023, <https://s3.documentcloud.org/documents/23864144/20230123-ldeq-ira-draft-shared-w-ldeq-docx.pdf> (accessed October 25, 2023).

²³⁵ *Louisiana v. US Environmental Protection Agency*, Case No. 2:23-cv-00692-JDC-KK (W.D. La. filed May 24, 2023), <https://fingfx.thomsonreuters.com/gfx/legaldocs/klpygyorzpg/1.pdf> (accessed October 25, 2023).

²³⁶ United States Department of Justice, “Federal Coordination and Compliance Section,” <https://www.justice.gov/crt/federal-coordination-and-compliance-section-201> (accessed October 25, 2023).

address greenhouse gas emissions, air, and water pollution,²³⁷ and less than one month before the Court ruled to severely limit, if not effectively end, the use of affirmative action in college admissions.²³⁸ It appears to have had a chilling effect on the EPA.

One month after Landry filed the complaint, the EPA abruptly closed its Title VI investigation without making findings, providing relief for the communities, or compelling Louisiana to make any commitments of its own. EPA said that it actively engaged in informal negotiations with the agencies, yet no agreement was signed. EPA promised to conduct its own actions but would not impose obligations on LDEQ or LDH. In an email to Human Rights Watch, EPA spokesperson Dominique Joseph, wrote that “EPA remains fully committed to improving environmental conditions in St. John the Baptist and St. James Parishes” and listed accomplishments described above and plans for future work.²³⁹

EPA submitted a lengthy reply in US District Court, calling for a dismissal of Landry’s suit, which, EPA says, would invalidate federal anti-discrimination regulations that date back over half a century.²⁴⁰ It argues that because it dropped the Title VI investigation and settlement negotiations, there is no grounds for the suit to continue.

In response to questions on the findings of this report, EPA, LDEQ, and LDH in separate letters to Human Rights Watch on October 31, 2023 (see Annex B) cited the ongoing federal litigation as reason for an inability to provide detailed feedback.

In its response, EPA reiterated its commitment to advancing environmental justice. It has initiated a cumulative impact assessment within the hardest hit area of St. John, which it expects will “yield important information to address significant pollution exposure for this

²³⁷ Andrew Chung, “US Supreme Court rulings darken forecast for EPA powers,” *Reuters*, May 31, 2023, <https://www.reuters.com/world/us/us-supreme-court-rulings-darken-forecast-epa-powers-2023-05-31/> (accessed January 8, 2024).

²³⁸ Amy Howe, “Supreme Court strikes down affirmative action programs in college admissions,” *SCOTUSBlog*, June 29, 2023, <https://www.scotusblog.com/2023/06/supreme-court-strikes-down-affirmative-action-programs-in-college-admissions/> (accessed January 8, 2024).

²³⁹ Emailed correspondence with Human Rights Watch, Dominique Joseph, Office of Public Affairs, US EPA, June 28, 2023 (on file with Human Rights Watch).

²⁴⁰ Defendants’ Reply in Support of Defendants’ Cross-Motion to Dismiss or, in the Alternative, for Summary Judgment, *Louisiana v. EPA*, Case No. 2:23-cv-00692-JDC-KK (W.D. La. filed October 10, 2023), p.13 (on file with Human Rights Watch).

and other Industrial Corridor communities.”²⁴¹ EPA notes that, in general, industrial permitting has historically been sited to add to the pollution burden in already vulnerable communities but argues that permitting practices “must necessarily be addressed on a case-by-case basis.”²⁴²

LDH said that it “expressly disputes and disagrees with multiple statements and allegations contained in the [Human Rights Watch] Letter, to the extent that they relate to LDH.”²⁴³ LDH enclosed its letter to the EPA responding to the Title VI complaint in which it called characterizations of LDH exercising racial bias in St. John “nonsensical” and “frankly absurd.”²⁴⁴ LDH denies that it has failed to provide residents with the necessary information about health threats, or “to make necessary recommendations to all relevant government agencies and affected communities regarding measures to reduce and prevent exposure to hazardous air pollutant emissions.”²⁴⁵

In a brief letter, LDEQ explained that its permitting decisions “rely on science-based standards which have been determined to be protective of human health and the environment. LDEQ complies with all applicable state and federal laws, including the Civil Rights Act of 1964, as amended.”²⁴⁶ Both LDEQ and LDH referred Human Rights Watch to earlier responses submitted to the initial Title VI complaints that argued that the complaints were without merit.²⁴⁷ In the letters, both agencies deny both discriminatory intent and discriminatory effect or impact in and from their programs and activities. LDEQ references several actions it has taken which it claims resulted in both significant

²⁴¹ Theresa Segovia, Principal Deputy Assistant Administrator, EPA Office of Environmental Justice and External Civil Rights letter to Human Rights Watch, October 31, 2023 (on file with Human Rights Watch, see Annex B).

²⁴² *Ibid.*

²⁴³ David, L. McCay, Staff Attorney, LDH, letter to Human Rights Watch, October 31, 2023 (on file with Human Rights Watch, see Annex B).

²⁴⁴ David, L. McCay, Staff Attorney, LDH, Letter to Lilian Sotolongo Dorka, EPA, Complaint No. 02R-22-R6, June 6, 2022 (on file with Human Rights Watch).

²⁴⁵ *Ibid.*

²⁴⁶ Jill C. Clark, General Counsel, Louisiana DEQ, letter to Human Rights Watch, October 31, 2023 (on file with Human Rights Watch, see Annex B).

²⁴⁷ David L. McCay, Staff Attorney, LDH, Letter to Lilian Sotolongo Dorka, EPA, Complaint No. 02R-22-R6 (on file with Human Rights Watch); Carr Brown, Louisiana DEQ, Letter to Lilian Sotolongo Dorka, EPA, DID #13335907 (on file with Human Rights Watch); Chuck Carr Brown, Louisiana DEQ, Letter to Lilian Sotolongo Dorka, EPA, Re: Response to Stop Wallace Grain Terminal, et al., Complaint Filed under Title VI of the Civil Rights Act of 1964, 42 USC, Complaint No: 04R-22-R6, June 20, 2022. Docket ID #13335908 (on file with Human Rights Watch).

reductions of toxic emissions and reduced risk of health harms in LaPlace between 2014 and 2019 and claims a 20 percent overall improvement in the number of good air quality days in Louisiana between 2008 and 2018. It concludes that while committed to environmental justice, “LDEQ regulates the environment; it is not responsible for the historic injustices of the past.”²⁴⁸

Residents of Cancer Alley are frustrated and dismayed by the EPA's decision to drop its investigation into LDEQ and LDH. They continue to demand more aggressive action by the agency and the federal government as a whole.

“I believe strongly that there has been a systemic failure within the Louisiana State government as exhibited by the actions of the Health Department and LDEQ, and that the resignations of the secretaries are not a fix for this issue. I believe it's come after years of hiring practices and training practices, and both specific rules and guidances and of conduct and the unwritten rules and guidances. And I believe the only way there's going to be change is through legal actions that require that change,” Vickie Boothe, an environmental epidemiologist with 33 years in combined tenure at the EPA and the CDC, told Human Rights Watch. She said the reason for these failings is “the power of the industry... obviously.”²⁴⁹

²⁴⁸ Chuck Carr Brown, Louisiana DEQ, Letter to Lilian Sotolongo Dorka, EPA, Re: Response to Stop Wallace Grain Terminal, et al., Complaint Filed under Title VI of the Civil Rights Act of 1964, 42 USC, Complaint No: 04R-22-R6, June 20, 2022. Docket ID #13335908, p. 10 (on file with Human Rights Watch).

²⁴⁹ Human Rights Watch telephone interview, June 27, 2023.

III. United States' Domestic and International Obligations

International Human Rights Law Obligations

International human rights law obligates the United States' government to protect the rights of those within its jurisdiction from harm, including harms linked to fossil fuel and petrochemical operations.

The US has ratified the International Covenant on Civil and Political Rights (ICCPR) and the International Convention on the Elimination of All Forms of Racial Discrimination (ICERD).²⁵⁰ The US has signed, but not ratified, the International Covenant on Economic, Social and Cultural Rights (ICESCR), the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the Convention on the Rights of the Child (CRC), and the Convention on the Rights of Persons with Disabilities (CRPD).²⁵¹ Though it is not formally bound by their provisions, as a signatory to these treaties, the US has an obligation to refrain from taking steps that undermine their “object and purpose.”²⁵²

Rights to Life and Health

The right to life is recognized in human rights law, including in treaties ratified by the United States.²⁵³ As the Human Rights Committee has observed, among the most pressing

²⁵⁰ International Covenant on Civil and Political Rights (ICCPR), December 16, 1966, 999 U.N.T.S. 171 (entered into force March 23, 1976; ratified by the United States June 8, 1992); International Convention on the Elimination of All Forms of Racial Discrimination, March 7, 1966, 660 U.N.T.S. 195 (entered into force January 4, 1969; ratified by the United States October 21, 1994).

²⁵¹ International Covenant on Economic, Social and Cultural Rights (ICESCR), December 16, 1966, 993 U.N.T.S. 3 (entered into force January 3, 1976; signed by the United States October 5, 1977); Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), December 18, 1979, 1249 U.N.T.S. 13 (entered into force September 3, 1981; signed by the United States July 17, 1980); Convention on the Rights of the Child, 1577 U.N.T.S. 3 (entered into force September 2, 1990; signed by the United States February 16, 1995); Convention on the Rights of Persons with Disabilities, December 13, 2006, 2515 U.N.T.S. 3 (entered into force May 3, 2008; signed by the United States July 30, 2009).

²⁵² See Vienna Convention on the Law of Treaties art. 18(a), May 23, 1969, 1155 U.N.T.S. 331 (entered into force Jan. 27, 1980). The United States is not a party to the Vienna Convention, but the US Department of State has taken the position that, “[t]he United States considers many of the provisions of the Vienna Convention on the Law of Treaties to constitute customary international law on the law of treaties.” US Department of State, “Vienna Convention on the Law of Treaties,” <https://2009-2017.state.gov/s/l/treaty/faqs/70139.htm> (accessed January 9, 2023.)

²⁵³ See United Nations General Assembly, Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment: Note by the Secretary-General, A/74/161, July 15, 2019, <https://www.ohchr.org/en/special-procedures/sr-environment/safe-climate-report> (accessed October 25, 2023).

threats to this right come from environmental degradation, climate change, and unsustainable development.²⁵⁴ The right to health is also recognized and is inseparable from other human rights.²⁵⁵ The ICESCR specifies that everyone has a right “to the enjoyment of the highest attainable standard of physical and mental health.”²⁵⁶ The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) also includes provisions on the right to health.²⁵⁷

The Committee on Economic, Social and Cultural Rights (CESCR), the U.N. body responsible for issuing authoritative interpretations of and monitoring compliance with the ICESCR, has interpreted the ICESCR’s goals as including “the prevention and reduction of the population’s exposure to harmful substances ... and harmful chemicals or other detrimental environmental conditions that directly or indirectly impact upon human health.”²⁵⁸ The committee has determined that states have a “core obligation” to “provide education and access to information concerning the main health problems in the community, including methods of preventing and controlling them.”²⁵⁹

In addition, the committee has concluded that “[t]he realization of women’s right to health requires the removal of all barriers interfering with access to health services, education and information, including in the area of sexual and reproductive health.”²⁶⁰ The committee regards ensuring reproductive health care as a “core obligation to ensure the satisfaction of, at the very least, minimum essential levels” of the right to health and also affirmed the need for states to develop and implement comprehensive strategies to promote women’s right to health with interventions aimed not only at treating, but also at preventing diseases affecting women. Obligations of “comparable priority” to core

²⁵⁴ Ibid.

²⁵⁵ Tedros Adhanom Ghebreyesus, WHO Director-General, “Health is a Fundamental Human Right,” WHO, December 10, 2017, <https://www.who.int/news-room/commentaries/detail/health-is-a-fundamental-human-right> (accessed October 25, 2023).

²⁵⁶ International Covenant on Economic, Social and Cultural Rights (ICESCR), art. 12(1).

²⁵⁷ CEDAW, arts. 10(h), 11(f), 12, 14(2)(b).

²⁵⁸ UN Committee on Economic, Social and Cultural Rights, General Comment No. 14: The Right to the Highest Attainable Standard of Health, U.N. Doc. E/C.12/2000/4 (2000), para. 15, <https://digitallibrary.un.org/record/425041> (accessed October 25, 2023).

²⁵⁹ Ibid., para. 44(d).

²⁶⁰ Ibid., para. 21.

obligations include maternal and child health and providing appropriate training for health personnel.²⁶¹

CESCR finds that states are required to adopt measures against environmental and occupational health hazards and should formulate and implement national policies aimed at reducing and eliminating pollution of air, water and soil, including pollution by heavy metals.²⁶² CESCR recognizes the “the right of everyone to... safe and healthy working conditions.”²⁶³

The Committee on the Rights of the Child has concluded that children’s right to health includes “a right to grow and develop to their full potential and live in conditions that enable them to attain the highest standard of health.”²⁶⁴ State obligations under the Convention on the Rights of the Child include appropriate measures “to combat disease ... taking into consideration the dangers and risks of environmental pollution.”²⁶⁵ The Committee on the Rights of the Child has concluded that to fulfil this obligation, “States must ensure a clean, healthy and sustainable environment in order to respect, protect and fulfil children’s rights”²⁶⁶ and should immediately take action to “equitably phase out the use of coal, oil, and natural gas.”²⁶⁷ In addition, States have a duty to take “preventive measures to protect children against reasonably foreseeable environmental harm and violations of their rights, paying due regard to the precautionary principle.”²⁶⁸ In particular, the committee has warned that delaying a rapid phase-out of fossil fuels “will result in greater foreseeable harm to children’s rights.”²⁶⁹

²⁶¹ Ibid., paras. 43 and 44(a).

²⁶² Ibid., paras. 14 and 36.

²⁶³ Ibid., para. 12.

²⁶⁴ UN Committee on the Rights of the Child, General Comment No. 15 (2013): The Right of the Child to the Enjoyment of the Highest Attainable Standard of Health, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G13/428/14/PDF/G1342814.pdf?OpenElement> (accessed January 9, 2024).

²⁶⁵ Ibid., para. 2(c).

²⁶⁶ United Nations Office of the High Commissioner of Human Rights, CRC/C/GC/26: General comment No. 26 (2023) on children’s rights and the environment with a special focus on climate change, <https://www.ohchr.org/en/documents/general-comments-and-recommendations/crcgc26-general-comment-no-26-2023-childrens-rights> (accessed December 5, 2023), para. 63.

²⁶⁷ Ibid., para. 65 (d).

²⁶⁸ Ibid., paras. 68 and 69.

²⁶⁹ Ibid., para. 98 (d).

Right to a Healthy Environment

The United Nations General Assembly adopted a resolution on July 28, 2022, declaring access to a clean, healthy, and sustainable environment a universal human right.²⁷⁰ The resolution, which followed recognition of the right by the Human Rights Council in October 2021, affirms “the importance of a clean, healthy and sustainable environment for the enjoyment of all human rights.”²⁷¹ The United States voted in favor of the resolution.²⁷²

The US has not recognized the right to a healthy environment in its constitution or national legislation. However, the constitutions of six states—Pennsylvania, Montana, Massachusetts, Illinois, Hawaii, and New York—now recognize the right.²⁷³ In 2023, members of the US House and Senate introduced legislation, the A. Donald McEachin Environmental Justice for All Act, which would recognize the right.²⁷⁴

Clean Air

UN Special Rapporteur on human rights and the environment David Boyd identified the ability to breathe clean air as one of the constituent elements of the right to a healthy and sustainable environment and that air pollution causes widespread violations of this right. “Surely if there is a human right to clean water, there must be a human right to clean air. Both are essential to life, health, dignity and wellbeing,” Boyd wrote.²⁷⁵

²⁷⁰ UN General Assembly, “The Human Right to a Clean, Healthy and Sustainable Environment,” Resolution 76/300, A/RES/76/300, header <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/442/77/PDF/N2244277.pdf?OpenElement> (accessed October 25, 2023)

²⁷¹ *Ibid.*

²⁷² *Ibid.* For vote record, see United Nations, “The human right to a clean, healthy and sustainable environment: resolution/adopted by the General Assembly.”

²⁷³ John Dernbach, “The Environmental Rights Provisions of US State Constitutions,” Widener Law Commonwealth Research Paper No. 2305, June 8, 2023. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4390853 (accessed October 25, 2023).

²⁷⁴ Office of Congressman Raúl Grijalva, “Ranking Member Grijalva, Rep. Lee, Senators Duckworth and Booker Introduce the A. Donald McEachin Environmental Justice For All Act,” March 22, 2023, <https://grijalva.house.gov/ranking-member-grijalva-rep-lee-senators-duckworth-and-booker-introduce-the-a-donald-mceachin-environmental-justice-for-all-act/> (accessed October 25, 2023).

²⁷⁵ UN Human Rights Council, Issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, Report of the Special Rapporteur, A/HRC/40/55, January 8, 2019, para. 17, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G19/002/54/PDF/G1900254.pdf?OpenElement> (accessed October 25, 2023).

Boyd describes the foreseeable adverse effects of poor air quality on the enjoyment of human rights. In a joint statement issued in 2017, a group of United Nations experts said that air pollution “can no longer be ignored. States have a duty to prevent and control exposure to toxic air pollution and to protect against its adverse effects on human rights.”²⁷⁶

Boyd specifically targets the adverse effect of the fossil fuel and petrochemical industries on the right to clean air, concluding that a rapid shift away from fossil fuels to renewables such as solar and wind is central to reducing air pollution. Boyd says that to protect the right to clean air, States should establish national air quality action plans that include a prohibition on the construction of new fossil fuel power plants and the replacement of existing fossil fuel power plants with renewable sources of energy (by 2030 in high-income nations and 2050 elsewhere), elimination of all remaining fossil fuel subsidies; Conducting assessments of the environmental, health and human rights implications of new projects, policies and plans that could cause air pollution; and refusal to issue permits for new polluting facilities or activities in areas that are air pollution hotspots until air quality in such areas meets national standards and would continue to meet those standards despite the additional pollution.²⁷⁷

Right of Access to Information

Information is a prerequisite for the exercise of other rights, including the right to health and the right to a healthy environment.²⁷⁸ The Human Rights Committee has clarified that the right to information includes the right of access to information held by public bodies and obligates states to ensure easy, prompt, effective, and practical access to government-held information that is of public interest.²⁷⁹ The right to information extends to information about toxic exposures and threats.

²⁷⁶ Ibid.

²⁷⁷ Ibid.

²⁷⁸ UN Special Rapporteur on Human Rights and the Environment, Right to a Healthy Environment: Good Practices, U.N. Doc. A/HRC/37/59, <https://wedocs.unep.org/bitstream/handle/20.500.11822/32450/RHE.pdf> (accessed October 25, 2023).

²⁷⁹ UN Human Rights Committee, General Comment No. 34: Freedoms of Opinion and Expression, U.N. Doc. CCPR/C/GC/34 (2011), paras. 18-19. The Human Rights Committee also noted that the right to information is addressed in other articles of the ICCPR, including arts. 2, 10, 14, and 17.

Rights to Equality and Non-Discrimination

The right to nondiscrimination is a principle that permeates all other human rights, guaranteeing that they are exercised without discrimination of any kind, including on the basis of race, color, and sex.²⁸⁰ Nondiscrimination is a fundamental principle of human rights law, including rights set forth in the ICCPR and the ICERD, both of which the US has ratified. The federal, state, and local governments in the US are obligated to address all forms of racial discrimination, including discrimination in access to health care and environmental determinants of health. Under the ICERD, governments are obligated to address intentional racial discrimination as well as laws, policies, and practices that result in a disparate impact on particular racial groups.²⁸¹

Following a 2022 hearing in Geneva at which Cancer Alley residents Tish Taylor, Barbara Washington, Myrtle Felton, and Jo Banner testified, the Committee on the Elimination of Racial Discrimination (CERD) released a report acknowledging recent positive efforts by the United States “to address the longstanding effects of pollution and climate change on disadvantaged communities, including racial and ethnic groups.”²⁸² The Committee expressed concern at the “disproportionate health, socioeconomic, and cultural impact of climate change, natural disasters and pollution – the latter caused by extractive and manufacturing industries, such as petrochemical facilities and methanol complexes, as, for instance, in the case of ‘Cancer Alley’ in Louisiana, and by radioactive and toxic waste – on racial and ethnic minorities and indigenous peoples.”²⁸³

The Committee expressed concern about maternal health and the impacts of systemic racism. It reiterated a recommendation that the US “ensure that federal legislation prohibiting environmental pollution is effectively enforced,” and recommended that the US “consider adopting moratoriums on the authorization of new heavy industry facilities and the expansion of existing ones, such as petrochemical plants.” It called on the US to

²⁸⁰ See WHO, “Human Rights,” December 10, 2022, <https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health> (accessed October 25, 2023).

²⁸¹ International Convention on the Elimination of All Forms of Racial Discrimination, art. 2(2).

²⁸² UN Committee on the Elimination of Racial Discrimination, Concluding Observations: United States of America, U.N. Doc. CERD/C/USA/CO/10-12 (September 12, 2022), para. 45, <https://www.ohchr.org/en/documents/concluding-observations/cerdcusaco10-12-concluding-observations-combined-tenth-twelfth> (accessed January 9, 2024).

²⁸³ *Ibid.*

“protect historical sites of cultural significance for these communities from harm by extractive and manufacturing industries.”²⁸⁴

²⁸⁴ *Ibid.*, para. 46.

IV. Conclusion

We are human beings just like everybody else. We want to live. We want clean water, clean air, clean soil. That's all we ask, and to have a community. Instead of putting plants here, put people here, make it thrive.

—Chasity White, 43, Saint James Parish, March 2023

A historical marker stands not far from Sharon Lavigne’s home in Welcome. It heralds the 1872 founding of the Settlement of Freetown by people who were formerly enslaved on nearby plantations, who began cultivating the land with sugarcane farms. Lavigne still lives on the original 40 acres purchased by her grandfather.²⁸⁵ Every resident of Cancer Alley interviewed for this report descends from a family that lived there before the fossil fuel and petrochemical plants. Many recall welcoming the arrival of the plants, believing in promises of jobs, wealth, and economic development. Nine people interviewed for this report have worked in the plants, and most have family members who have done so.

Yet virtually all now describe what can be best summarized as “a curse” that has offered limited employment, wealth to a few but not those within their communities, while they have endured a poisoning of their air, land, water, and bodies. They blame the industry for robbing them of health, generational wealth, community, culture, history, and the lives of family and friends.

“It’s economic devastation masquerading as economic development,” Anne Rolfes of the Louisiana Bucket Brigade told Human Rights Watch.

When asked about solutions and alternatives, most begin by describing a time “before the plants,” when they could grow food from gardens that no longer yield, pick nuts and fruit off of trees that are now barren, drink water from taps and fish from a river now too polluted to use, and before the industry literally moved into and pushed out schools, post

²⁸⁵ Human Rights Watch interview, St. James Parish, Louisiana, March 13, 2023.

offices, grocery stores, and restaurants. When asked about a “green economy,” they retort that they had one, but it was stolen from them. Now, they are ready to have it back.

Some, like Angie Roberts, want to be bought out by companies in order to escape. They are too ill, have lost too much, or are too exhausted from fighting what feels like a losing battle, or at least one that they feel they would surely die trying to win.

Yet, even residents ready to leave resent those who suggest that they should move to make way for more industry, when it was the industry that invaded their community. They support those who are standing up and leading the fight to reclaim the River Parishes and help them thrive.

In 2022, members of RISE St. James, Inclusive Louisiana, and Mount Triumph Baptist Church sued the St. James Parish council, denouncing an “environmental and public health emergency” in the community and calling for a moratorium on any new heavy industry, including fossil fuel, petrochemical plants, and related infrastructure in St. James.²⁸⁶

Citing decades of environmental racism and discriminatory building of industrial facilities in predominantly Black communities, they said that “a legacy of slavery and white supremacy in Louisiana and St. James Parish specifically”²⁸⁷ forced “plaintiffs’ members [to] reside in some of the most polluted, toxic — and lethal — census tracts in the country.”²⁸⁸ While no new facilities have been built in the majority white communities in St. James Parish over the last 46 years, new projects continue to be greenlit in the majority Black districts. When the judge dismissed the case in 2023 largely on procedural grounds,²⁸⁹ they promptly filed an appeal. “It’s far from over,” Pam Spees of the Center for Constitutional Rights and an attorney on the case told Human Rights Watch in January 2024. “There’s a lot that’s favorable in the ruling supporting moratoria,” she said.²⁹⁰

²⁸⁶ Complaint, *Inclusive Louisiana v. St. James Parish*, No. 2:23-cv-00987 (E.D. La. filed March 21, 2023).

²⁸⁷ *Ibid.*, p.8.

²⁸⁸ *Ibid.*, p.2.

²⁸⁹ *Inclusive Louisiana v. St. James Parish*, Civ. Action No. 23-987 (E.D. La. filed October 16, 2023), <https://fingfx.thomsonreuters.com/gfx/legaldocs/klvyzymagpg/Louisiana%20racism%20dismissal.pdf> (accessed January 2, 2024).

²⁹⁰ Human Rights Watch phone interview and email correspondence, January 5, 2024.



Gail LeBoeuf and members of Inclusive Louisiana, RISE St. James, and Mount Triumph Baptist Church speak at a press conference announcing a legal suit requesting a moratorium on any new fossil fuel or petrochemical plants in St. James Parish in Cancer Alley, March 21, 2023. © 2023 Antonia Juhasz/Human Rights Watch

The groups have also launched a new campaign to solicit community-wide participation to develop a new economy in St. James that is not weighed down by pollution and a dying industry.

This campaign is likely the first attempt to implement a fossil fuel and petrochemical moratorium on an entire community in the US and it is a model other communities, states, and countries can follow.

Rather than invest in expansion or carbon capture and storage²⁹¹, the tighter regulatory oversight recommended in this report should necessitate that while they continue to operate, fossil fuel and petrochemical companies will invest in robust safety, monitoring, reporting, pollution control, and cleaning up the pollution from existing operations. In

²⁹¹ “Confronting the Myth of Carbon-Free Fossil Fuels,” Center for International Environmental Law, <https://www.ciel.org/wp-content/uploads/2021/07/Confronting-the-Myth-of-Carbon-Free-Fossil-Fuels.pdf> (accessed January 10, 2024).

addition, to support the rapid phase-out of the fossil fuel industry and a safe and secure transition, Human Rights Watch proposes new federal programs modeled on the 2022 Inflation Reduction Act.²⁹²

Those who want to be bought out should be. A federal remediation and relocation plan could work with companies, local governments, and local community-based organizations to ensure that international norms for best practices of relocation are followed.²⁹³

Building off of the Orphaned Well Program²⁹⁴, as more fossil fuel and petrochemical operations shut down, federal and state governments should then work with companies to jointly pay for local workers to be employed to clean up their sites, restore waterways and lands, and foster greater community resilience by building localized small-scale renewable energy sources²⁹⁵, such as the community-led Louisiana Lighthouse Project.²⁹⁶

“I would like to see the end of fossil fuels,” said Sharon Lavigne. “If that’s going to make me live a longer life, breathe clean air, drink clean water, they should shut them down.”²⁹⁷

²⁹² The White House, “Inflation Reduction Act Guidebook,” January 2023,

<https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/> (accessed January 8, 2024).

²⁹³ See for example, Ruhan Nagra et al., “They Didn’t Pay Us for Our Memories,” University Network for Human Rights, November 2021,

https://static1.squarespace.com/static/5b3538249d5abb21360e858f/t/61982a3fdc635f094c042e4d/1637362243271/Mossville_FINAL_upload+PDF.pdf (accessed October 25, 2023).

²⁹⁴ US Department of the Interior, “Orphaned Wells,” <https://www.doi.gov/orphanedwells> (accessed January 8, 2024).

²⁹⁵ Antonia Juhasz, “To Keep the Lights On,” *National Geographic*, September 8, 2021.

<https://www.nationalgeographic.com/environment/article/to-keep-the-lights-on-new-orleans-grid-needs-to-change-here-is-how> (accessed October 25, 2023).

²⁹⁶ See for example, Together New Orleans, Community Light House Project, <https://www.togethernola.org/home> (accessed October 25, 2023).

²⁹⁷ Human Rights Watch interview, St. James Parish, Louisiana, March 13, 2023.

Acknowledgements

This report was researched and written by Antonia Juhasz, senior researcher on fossil fuels in the Environment and Human Rights division at Human Rights Watch.

This report was reviewed and edited by Richard Pearshouse, director of the Environment and Human Rights division; Felix Horne, senior researcher in the Environment and Human Rights division; Tanya Greene, director of US Program; Cristina Becker, associate director in US Program; Juliane Kippenberg, associate director in the Children's Rights division; Julia Bleckner, senior researcher in Asia Division and Global Health Initiative; Skye Wheeler, senior researcher in the Women's Rights division; Jim Wormington, senior researcher in the Economic Justice and Rights division; and Matt McConnell, researcher in the Economic Justice and Rights division. Michael Bochenek, senior legal advisor, and Babatunde Olugboji, deputy Program director, provided legal and program review for Human Rights Watch.

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Annex A

Letter from Human Rights Watch to US Environmental Protection Agency

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October 18, 2023

The Honorable Michael Regan
Administrator
US Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460



HRW.org

Sent by email and Postal Service

Dear Administrator Regan:

I am contacting you on behalf of Human Rights Watch, an independent, nongovernmental organization that monitors violations of human rights and non-state actors in more than 90 countries around the world. We write now to request information about Environmental Protection Agency (EPA) policies and activities. We hope that the EPA will respond to the questions below so that the department's views are accurately reflected in our reporting. We will make every effort to reflect responses we receive within 2 weeks of the date of this letter, by 5pm CDT, October 31, 2023.

Human Rights Watch is preparing a report on the human rights impacts of the fossil fuel and petrochemical industry operating in the area commonly referred to as "Cancer Alley" (and which the Louisiana government identifies as "the Industrial Corridor" of Louisiana). "Cancer Alley" is an 85-mile stretch of communities living along the banks of the Mississippi river in Ascension, East Baton Rouge, Iberville, Jefferson, Orleans, St. Charles, St. James, St. John the Baptist, and West Baton Rouge Parishes. It is the site of some 200 industrial operations which are primarily fossil fuel and petrochemical operations.

Human Rights Watch examined the extensive scientific literature on risks and rates of cancer and other health harms reported in Cancer Alley and interviewed elected officials and other government representatives, including current and former officials from the US EPA and Centers for Disease Control and Prevention (CDC). Human

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Rights Watch also spoke with physicians, academics, lawyers, health care providers, advocates, members of nongovernmental organizations (NGO) in the region, and also interviewed 37 Cancer Alley residents.

Our research to date has documented serious human rights concerns in Cancer Alley experienced by those living and working in closest proximity to fossil fuel and petrochemical operations, with a disproportionate burden on the area's Black residents.

The prevalence of harm indicates that authorities at both the state and federal level are failing to respect, protect, and fulfil the human rights to life, health, freedom from discrimination on the basis of gender and race, and access to information, as well as specific children's rights.

In line with existing evidence linking fossil fuel and petrochemical pollution with increased risk of from cancer, maternal and reproductive health harms, and severe respiratory ailments (among other health harms), residents of Cancer Alley interviewed by Human Rights Watch shared cancer diagnoses, including breast, prostate, and liver cancers. All of those interviewed reported being impacted by cancer, which they describe as harming their immediate families, loved ones, and communities. Women shared their personal stories of maternal and reproductive health harms, as well as those of immediate family members, friends, or neighbors, including low-birth weight, preterm birth, miscarriage, stillbirths, high risk pregnancy and birth, and infertility. Severe respiratory ailments were extremely common, including chronic asthma, bronchitis and coughs, childhood asthma, and persistent sinus infections. Residents shared how these ailments added stress to already at-risk pregnancies, resulted in children being rushed to emergency rooms and kept inside to avoid polluted air, missed days of work and school, sleepless nights due to wracking coughs, and the deaths of family members and friends.

These findings are broadly consistent with findings on these issues by your agency as well as international and US experts.

For example:

- In 2022, the UN Special Rapporteur on human rights and the environment identified Cancer Alley as one of several global "sacrifice zones," among the most

polluted and hazardous places on earth, illustrating egregious human rights violations.¹

- Nearly every census tract in Cancer Alley ranks in the top 5 percent nationally for cancer risk from toxic air pollution and in the top 10 percent for respiratory hazards.² Cancer Alley also has the census tract with the highest cancer risk in the country at nearly seven times the national average.³ EPA has also attributed toxic air pollution in Cancer Alley to increased risks of reproductive harm.⁴ Since at least 2016, residents of Cancer Alley have been exposed to greater than 10 times the level of hazardous air pollutants than residents living elsewhere in the state. Black residents in Cancer Alley face even higher rates of exposure than white residents.⁵
- EPA's Toxic Release Inventory data demonstrates levels of toxic emissions in Cancer Alley from fossil fuel and petrochemical operations that regularly exceed regulatory limits, with companies in persistent and consistent "significant violation" and noncompliance of the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act.
- Between 2019 and 2021, only one of the five oil refineries operating in Cancer Alley was in compliance with Clean Water Act regulations throughout all three years.⁶
- In 2011, the EPA Office of Inspector General identified Louisiana as the worst performing state with the lowest enforcement activity of the Clean Air Act (CAA), Resource Conservation and Recovery Act (RCRA) and Clean Water Act (CWA) among the five states in EPA's Region 6. LDEQ also ranked in the bottom quartile of all US states for enforcement of the CAA and the RCRA and in the second worst quartile for the CWA. Louisiana's poor performance was attributed, in part, to "a culture in which the state agency [LDEQ] is expected to protect industry."⁷

¹ United Nations Human Rights Council, The right to a clean, healthy and sustainable environment: non-toxic environment, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/49/53, January 12, 2022, <https://www.ohchr.org/en/documents/thematic-reports/a-hrc-49-53-right-clean-healthy-and-sustainable-environment-non-toxic>.

² Kimberly A. Terrell and Gianna St. Julien, "Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana," *Environmental Research Letters*, vol. 17 (2022), accessed September 8, 2023, <https://doi.org/10.1088/1748-9326/ac6360>.

³ Maite Amorebieta, Toxic School, NBC News, March 16, 2023, <https://www.nbcnews.com/news/us-news/toxic-school-government-failed-black-residents-louisianas-cancer-alley-rcna72504>

⁴ Letter of Concern from Lillian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022, <https://s3.documentcloud.org/documents/23131326/20221012-final-letter-lddq-ldh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf>

⁵ Letter of Concern from Lillian S. Dorka.

⁶ Louisa Markow, et. al, *Oil's Unchecked Outfalls*, Environmental Integrity Project, January 26, 2023, <https://environmentalintegrity.org/wp-content/uploads/2023/01/Oils-Unchecked-Outfalls-03.06.2023.pdf>

⁷ EPA Office of Inspector General, *EPA Must Improve Oversight of State Enforcement: EPA Report No. 12-P-0113*, December 9, 2011, <https://www.epaoig.gov/sites/default/files/2015-10/documents/20111209-12-p-0113.pdf>

- In 2023, EPA identified a lack of adequate access to vital information afforded to Cancer Alley residents by LDEQ and LDH. “It appears that, for years... LDEQ failed to provide accurate and complete information to residents” most affected by harmful toxic emissions, EPA found, and LDEQ “relied on inaccurate and incomplete information regarding the cancer risk to the most affected residents.” EPA expressed concern that LDEQ’s permits process has denied residents impacted by fossil fuel and petrochemical operations in Cancer Alley access to information, the ability to influence operations through comment process, and the potential to appeal permits to the EPA.⁸
- EPA cited several LDH deficiencies in fulfilling this mandate, including: failure to provide accurate and reliable information central to decision making; failure to properly educate residents and health care professionals; Failure to implement study recommendations; and Failure to advise local and state entities such as the School Board and LDEQ.⁹
- In 2022, EPA opened an investigation into allegations that LDEQ and LDH had violated the US Civil Rights Act by discriminating on the basis of race, “subjecting Black residents to ongoing disproportionate and adverse health and environmental impacts” in Cancer Alley. Two separate complaints had been filed by Earthjustice and Tulane Environmental Law Clinic on behalf of RISE St. James, Inclusive Louisiana, Louisiana Bucket Brigade, Stop the Wallace Grain Terminal, and Concerned Citizens of St. John. After the investigation began, LDEQ Secretary Brown and LDH Secretary Phillips resigned. The EPA subsequently closed the investigation, explaining that it actively engaged in informal and ongoing negotiations with the agencies.¹⁰

Human Rights Watch also found various positive steps taken by your agency and the Biden-Harris administration addressing concerns raised by the residents of Cancer Alley and other similarly placed communities hard hit by fossil fuel and petrochemical operations and to confront the worsening climate crisis.

Yet, based on our analysis to date, these identified harms persist and are the result of a failure of the state of Louisiana to adequately regulate the fossil fuel and petrochemical industry, and a failure of the federal government to protect and promote human rights, ensure that regulations of the fossil fuel and petrochemical industry in Louisiana are adequate and enforced, and that information about risks to human health is available. We

⁸ Letter of Concern from EPA Dorka, October 12, 2022.

⁹ Letter of Concern from EPA Dorka, October 12, 2022.

¹⁰ Letter of Concern from EPA Dorka, October 12, 2022.

are particularly concerned that LDEQ is failing in its mandate to adequately uphold and enforce the Clean Air Act in Louisiana.

We write now to request information about EPA's policies and activities in those communities within Louisiana's Cancer Alley living and working in closest proximity to fossil fuel and petrochemical operations. Human Rights Watch is committed to producing material that is well-informed and objective. We seek this information to ensure that our reporting properly reflects the views and practices of EPA.

In addition to the information requested below, please include any other materials or information that would be important to understand this issue.

We hope that EPA will respond to the questions on the following pages so that the agency's views are accurately reflected in our reporting. We will make every effort to reflect responses we receive within 2 weeks of the date of this letter, **by 5pm CDT, October 31, 2023**. We would also welcome an opportunity to discuss these issues with you or other EPA representatives. If you would like to arrange such a discussion, please contact Antonia Juhasz [REDACTED]

Thank you in advance for your time in addressing these urgent matters.

Sincerely,

[REDACTED]

Antonia Juhasz
Senior Researcher, Environment and Human Rights
Human Rights Watch

We would appreciate any information you can provide regarding the following:

1. Has the EPA taken or considered taking any actions to change its process for issuing permits for additional operations and expansions of existing operations in Cancer Alley and other similarly placed communities to ensure that these already overburdened communities are not exposed to additional burdens?
2. When accessing to grant a permit, how does EPA consider the amount of toxic releases, emissions, or baseline concentrations of pollutants currently in the area and what the cumulative impact of new emissions will be?
3. In light of the worsening climate crisis, has EPA considered denying new permits for additional operations and expansions of existing fossil fuel and petrochemical operations in Cancer Alley?
4. How does EPA respond to the demand¹¹ made by RISE St. James, Inclusive Louisiana, and the Mount Triumph Baptist Church for a Parish-wide moratorium in St. James on new or expanded industrial operations, including all fossil fuel and petrochemical operations?
5. Will EPA require all petrochemical and fossil fuel facilities to install fence-line air pollution monitors, make data immediately publicly available, limit excessive flaring, install leak detection systems which alert the public, take immediate and comprehensive action against violators?
6. In light of the well-documented failures of LDEQ, and given that EPA authorizes LDEQ's state enforcement of federal law, will EPA consider initiating an investigation into withdrawal of state authorization for Louisiana's Clean Air Act program (or parts therein) under the LDEQ?
7. Will EPA consider working with CDC and HHS to fund a community-led participatory comprehensive door-to-door epidemiological health survey of census tracts where residents face the highest pollution burdens in Louisiana, including Cancer Alley, focused on proximity to polluting operations, include oil storage tank farms?
8. Will EPA allocate funding to community-based organizations for public and health care provider awareness and outreach campaigns on the health harms of exposure to fossil fuel and petrochemical operations (including reproductive health, cancers, and respiratory ailments among adults and children.)
9. Will EPA consider investigations into the specific harms associated with fossil fuel and petrochemical operations in Louisiana and take steps to help ensure that the necessary data for such an investigation is provided by local, state and federal agencies?

¹¹ *Inclusive Louisiana, et al. v. St. James Parish, et al.*, United States District Court Eastern District of Louisiana, Case No. 2:23-cv-00987, Complaint, March 21, 2023, https://ccrjustice.org/sites/default/files/attach/2023/03/Moratorium_Complaint.pdf.

10. What steps is EPA taking to update Clean Water Act regulations to eliminate toxic water pollution emanating from fossil fuel and petrochemical operations?
11. Will EPA consider implementing and supporting moratoria on new or expanded fossil fuel and petrochemical operations across the United States beginning a rights-respecting rapid phase out of existing operations and ending fossil fuel subsidies?
12. In light of EPA's decision to close its investigation into allegations that LDEQ and LDH had violated the US Civil Rights Act by discriminating on the basis of race, "subjecting Black residents to ongoing disproportionate and adverse health and environmental impacts" in Cancer Alley, explaining that EPA actively engaged in informal and ongoing negotiations with the agencies, can EPA provide information on those ongoing negotiations and how they will address the ongoing failures identified in its letter?¹²
13. Has EPA taken any steps to support a just transition of workers, communities, and industry away from fossil fuels and petrochemicals towards a renewable economy and begin a rights-respecting rapid phase out of existing fossil fuel and petrochemical operations in Cancer Alley? If so, please provide details.

¹² Letter of Concern from EPA Dorka, October 12, 2022.

Letter from Human Rights Watch to Louisiana Department of Environmental Quality

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Andrew Zoll

October 18, 2023

Roger W. Gingles

Secretary

Louisiana Department of Environmental Quality

P.O. Box 4301

Baton Rouge, LA 70821-4301

Sent by Email and Postal Service

Dear Secretary Gingles:

I am contacting you on behalf of Human Rights Watch, an independent, nongovernmental organization that monitors violations of human rights and non-state actors in more than 90 countries around the world. We write now to request information about the Louisiana Department of Environmental Quality's (LDEQ) policies and activities. We hope that LDEQ will respond to the questions below so that the department's views are accurately reflected in our reporting. We will make every effort to reflect responses we receive within 2 weeks of the date of this letter, by 5pm CDT, October 31, 2023.

Human Rights Watch is preparing a report on the human rights impacts of the fossil fuel and petrochemical industry operating in the area commonly referred to as "Cancer Alley" (and which the Louisiana government identifies as "the Industrial Corridor" of Louisiana). "Cancer Alley" is an 85-mile stretch of communities living along the banks of the Mississippi river in Ascension, East Baton Rouge, Iberville, Jefferson, Orleans, St. Charles, St. James, St. John the Baptist, and West Baton Rouge Parishes. It is the site of some 200 industrial operations which are primarily fossil fuel and petrochemical operations.

Human Rights Watch examined the extensive scientific literature on risks and rates of cancer and other health harms reported in Cancer Alley and interviewed elected officials and other government representatives, including current and former officials from the US Environmental Protection Agency (EPA) and Centers for Disease



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Control and Prevention (CDC). Human Rights Watch also spoke with physicians, academics, lawyers, health care providers, advocates, members of nongovernmental organizations (NGO) in the region, and interviewed 37 Cancer Alley residents.

Our research to date has documented serious human rights concerns in Cancer Alley experienced by those living and working in closest proximity to fossil fuel and petrochemical operations, with a disproportionate burden on the area's Black residents.

The prevalence of harm indicates that authorities at both the state and federal level are failing to respect, protect, and fulfil the human rights to life, health, freedom from discrimination on the basis on gender and race, and access to information, as well as specific children's rights.

In line with existing evidence linking fossil fuel and petrochemical pollution with increased risk of from cancer, maternal and reproductive health harms, and severe respiratory ailments (among other health harms), residents of Cancer Alley interviewed by Human Rights Watch shared cancer diagnoses, including breast, prostate, and liver cancers. All of those interviewed reported being impacted by cancer, which they describe as harming their immediate families, loved ones, and communities. Women shared their personal stories of maternal and reproductive health harms, as well as those of immediate family members, friends, or neighbors, including low-birth weight, preterm birth, miscarriage, stillbirths, high risk pregnancy and birth, and infertility. Severe respiratory ailments were extremely common, including chronic asthma, bronchitis, and coughs, childhood asthma, and persistent sinus infections. Residents shared how these ailments added stress to already at-risk pregnancies, resulted in children being rushed to emergency rooms and kept inside to avoid polluted air, missed days of work and school, sleepless nights due to wacking coughs, and the deaths of family members and friends.

There is a strong perception among residents, advocates, researchers, and other experts that LDEQ is far too frequently acting in concert with the industries it is supposed to be regulating to the great detriment of residents, rather than serving residents' interests. Residents described great frustration with LDEQ as the point of public contact for information about industry operations, including the release of harmful pollutants, leading most of those interviewed to forgo contacting the agency at all. Those interviewed by Human Rights Watch also described LDEQ as "actively hostile to communities in Cancer Alley"¹ and "like partners" with the fossil fuel and petrochemical companies it is required

¹ Human Rights Watch interview with Ruhan Nagra, Associate Professor of Law and co-founder of the University Network for Human rights, March 14, 2023.

to regulate.² LDEQ's permitting decisions are a frequent source of complaint, with interviewees noting that the agency almost never denies a permit, and when granted, "the industry gets what it wants" and when violations occur, "LDEQ is absolutely horrible at enforcement."³

These findings are broadly consistent with other findings on these issues.

For example:

- In 2022, the UN Special Rapporteur on human rights and the environment identified Cancer Alley as one of several global "sacrifice zones," among the most polluted and hazardous places on earth, illustrating egregious human rights violations.⁴
- Nearly every census tract in Cancer Alley ranks in the top 5 percent nationally for cancer risk from toxic air pollution and in the top 10 percent for respiratory hazards.⁵ Cancer Alley also has the census tract with the highest cancer risk in the country at nearly seven times the national average.⁶ EPA has also attributed toxic air pollution in Cancer Alley to increased risks of reproductive harm.⁷ Since at least 2016, residents of Cancer Alley have been exposed to greater than 10 times the level of hazardous air pollutants than residents living elsewhere in the state. Black residents in Cancer Alley face even higher rates of exposure than white residents.⁸
- EPA's Toxic Release Inventory data demonstrates levels of toxic emissions in Cancer Alley from fossil fuel and petrochemical operations that routinely exceed regulatory limits, with companies in persistent and consistent "significant violation" and noncompliance of the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act.

² Human Rights Watch interview with Senator Cleo Fields, May 16, 2023.

³ Human Rights Watch interview with Lisa Jordan, Clinical Law Professor and Director of the Tulane University Environmental Law Clinic, June 1, 2023.

⁴ United Nations Human Rights Council, The right to a clean, healthy and sustainable environment: non-toxic environment, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/49/53, January 12, 2022, <https://www.ohchr.org/en/documents/thematic-reports/ahrc4953-right-clean-healthy-and-sustainable-environment-non-toxic>.

⁵ Kimberly A. Terrell and Gianna St. Julien, "Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana," *Environmental Research Letters*, vol. 17 (2022), accessed September 8, 2023, <https://doi.org/10.1088/1748-9326/ac6360>.

⁶ Maite Amorebieta, Toxic School, NBC News, March 16, 2023, <https://www.nbcnews.com/news/us-news/toxic-school-government-failed-black-residents-louisianas-cancer-alley-rcna72504>

⁷ Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022, <https://s3.documentcloud.org/documents/2313324/20221012-final-letter-ldcq-ldh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf>

⁸ Letter of Concern from Lilian S. Dorka.

- Between 2019 and 2021, only one of the five oil refineries operating in Cancer Alley was in compliance with Clean Water Act regulations throughout all three years.⁹
- In 2011, the EPA Office of Inspector General identified Louisiana as the worst performing state with the lowest enforcement activity of the Clean Air Act (CAA), Resource Conservation and Recovery Act (RCRA) and Clean Water Act (CWA) among the five states in EPA's Region 6. LDEQ also ranked in the bottom quartile of all US states for enforcement of the CAA and the RCRA and in the second worst quartile for the CWA. Louisiana's poor performance was attributed, in part, to "a culture in which the state agency [LDEQ] is expected to protect industry."¹⁰
- A 2021 audit by the Louisiana state government found that LDEQ failed to adequately track facilities' emissions reports, including from those facilities that failed to submit reports entirely. When operators were fined, LDEQ did not adequately track penalties, including whether they were paid. The time it took for LDEQ to issue enforcement actions after a known violation more than doubled between 2015 and 2019, to nearly 20 months, though it could take as long as nine years.¹¹ LDEQ's fines are also routinely identified in research and interviews as too infrequent and too small to make an impact.¹²
- In 2022, then-Judicial District Court Judge Trudy White vacated permits issued by LDEQ for a petrochemical operations, finding LDEQ failed "to weigh, or in some cases even acknowledge, the full range of environmental harms resulting from its permit action," and ruled that "LDEQ must take special care to consider the impact of climate-driven disaster fueled by greenhouse gasses on environmental justice communities and their ability to recover."¹³
- In 2023, EPA identified a lack of adequate access to vital information afforded to Cancer Alley residents by LDEQ. "It appears that, for years... LDEQ failed to provide

⁹ Louisa Markow, et. al, *Oil's Unchecked Outfalls*, Environmental Integrity Project, January 26, 2023,

<https://environmentalintegrity.org/wp-content/uploads/2023/01/Oils-Unchecked-Outfalls-03.06.2023.pdf>

¹⁰ EPA Office of Inspector General, *EPA Must Improve Oversight of State Enforcement: EPA Report No. 12-P-0113*, December 9, 2011, <https://www.epa.oig.gov/sites/default/files/2015-10/documents/20111209-12-p-0113.pdf>

¹¹ Louisiana Legislative Auditor, *Monitoring and Enforcement of Air Quality Department of Environmental Quality*, January 20, 2021, at

p.3-13, [https://app.lia.state.la.us/PublicReports.nsf/0/4F3372ABDDFoF271862586630067C25D/\\$FILE/00022660A.pdf?OpenElement&.7723098](https://app.lia.state.la.us/PublicReports.nsf/0/4F3372ABDDFoF271862586630067C25D/$FILE/00022660A.pdf?OpenElement&.7723098).

¹² Gordon Russell, "Polluter's Paradise: In 'Cancer Alley,' Toxic Polluters Face Little Oversight from Environmental Regulators," *ProPublica*, December 19, 2019, <https://www.propublica.org/article/in-cancer-alley-toxic-polluters-face-little-oversight-from-environmental-regulators>; For example, Human Rights Watch interview with Lisa Jordan, Clinical Law Professor and Director of the Tulane University Environmental Law Clinic, June 1, 2023 and Human Rights Watch interview with Senator Cleo Fields, May 16, 2023; EPA TRI ECHO reported data.

¹³ *RISE St. James et al. v. Louisiana Department of Environmental Quality*, No. C-69402927, Judgment (La. 19th Judicial Dist. Ct. Parish of East Baton Rouge September 12, 2022), pp. 1-2, https://static1.squarespace.com/static/5eed506b38da704895463871/t/63291d541be4b547d10a69e4/1663638895928/for-mosaruling_091422.pdf.

accurate and complete information to residents” most affected by harmful toxic emissions, EPA found, and LDEQ “relied on inaccurate and incomplete information regarding the cancer risk to the most affected residents.” EPA expressed concern that LDEQ’s permits process has denied residents impacted by fossil fuel and petrochemical operations in Cancer Alley access to information, the ability to influence operations through comment process, and the potential to appeal permits to the EPA.¹⁴

- In 2022, EPA opened an investigation into allegations that LDEQ and LDH had violated the US Civil Rights Act by discriminating on the basis of race, “subjecting Black residents to ongoing disproportionate and adverse health and environmental impacts” in Cancer Alley. Two separate complaints had been filed by Earthjustice and Tulane Environmental Law Clinic on behalf of RISE St. James, Inclusive Louisiana, Louisiana Bucket Brigade, Stop the Wallace Grain Terminal, and Concerned Citizens of St. John. After the investigation began, LDEQ Secretary Brown and LDH Secretary Phillips resigned. The EPA subsequently closed the investigation, explaining that it actively engaged in informal and ongoing negotiations with the agencies.¹⁵

Based on our analysis to date, these harms are the result of a failure of the state of Louisiana to adequately regulate the fossil fuel and petrochemical industry, to ensure that regulations of the fossil fuel and petrochemical industry in Louisiana are adequate and enforced, that information about risks to human health is available, and a failure of the federal government to protect and promote human rights. We are particularly concerned that LDEQ is failing in its mandate to adequately uphold and enforce the Clean Air Act in Louisiana.

We write now to request information about LDEQ’s policies and activities in those communities within Louisiana’s Cancer Alley living and working in closest proximity to fossil fuel and petrochemical operations. Human Rights Watch is committed to producing material that is well-informed and objective. We seek this information to ensure that our reporting properly reflects the views and practices of LDEQ.

In addition to the information requested below, please include any other materials or information that would be important to understand this issue.

¹⁴ Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022, <https://s3.documentcloud.org/documents/23131326/20221012-final-letter-ldeq-lbh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf>

¹⁵ Letter of Concern from EPA Dorka, October 12, 2022.

We hope that LDEQ will respond to the questions on the following pages to enable us to reflect the department's views in our reporting. We will make every effort to reflect responses we receive within 2 weeks of the date of this letter, **by 5pm CDT, October 31, 2023**. We would also welcome an opportunity to discuss these issues with you or other LDEQ representatives. If you would like to arrange such a discussion, please contact Antonia Juhasz [REDACTED].

Thank you in advance for your time in addressing these urgent matters.

Sincerely,

[REDACTED]

Antonia Juhasz
Senior Researcher, Environment and Human Rights
Human Rights Watch

We would appreciate any information you can provide regarding the following:

1. How does LDEQ assess risks to human health in its permitting decisions? If a human health assessment is not made, why not?
2. When assessing whether to grant a permit, does LDEQ consider the amount of toxic releases, emissions, or baseline concentrations of pollutants currently in the area and what the cumulative impact of new emissions will be?
3. Has LDEQ taken or considered taking any actions to change its process for issuing permits for additional operations and expansions of existing operations in Cancer Alley to ensure these already overburdened communities are not exposed to additional burdens?
4. When considering granting new permits for fossil fuel and petrochemical operations, does LDEQ include an assessment of greenhouse gas emissions from those facilities?
5. What is LDEQ's response to studies¹⁶ that have identified that those living or working in close proximity to industrial sources of pollution within Cancer Alley (aka the "Industrial Corridor") of Louisiana have higher incidence and/risk of health harms than those living further away?
6. In assessing health harms associated with industrial pollution, does LDEQ take proximity to sources of pollution into account? If LDEQ does not take proximity into account, please explain why not.
7. What steps is the agency taking to address findings of elevated cancer, respiratory, and maternal and reproductive health risk from toxic air pollution in nearly every census tract in Cancer Alley? And what steps is the agency taking to reduce exposure to harmful pollution in Cancer Alley?
8. What steps is the agency taking to address the disproportionate impacts of identified health harms and risks on the area's Black residents? And to address findings of nongovernmental organizations that the agency has violated US Civil Rights Act by discriminating on the basis of race, "subjecting Black residents to ongoing disproportionate and adverse health and environmental impacts" in Cancer Alley?
9. What steps has the agency taken to improve core services in response to the EPA's informal investigation as detailed in the Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022?

¹⁶ For example, EPA studies cited above and Kimberly A. Terrell and Gianna St. Julien, "Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana," *Environmental Research Letters*, vol. 17 (2022), accessed September 8, 2023, <https://doi.org/10.1088/1748-9326/ac4360>.

10. What proportion of LDEQ's budget is derived from fees, fines, and other sources of income from those industries which it regulates? What proportion of these are from fossil fuel and petrochemical operators? Has LDEQ identified any conflicts of interest arising from the current model?
11. Has LDEQ considered following the federal government's example at the Interior Department's former MMS of separating LDEQ into two agencies: one which accepts fines, fees, and other sources of income from those it regulates and another which regulates these industries?
12. How does LDEQ respond to the demand¹⁷ made by RISE St. James, Inclusive Louisiana, and the Mount Triumph Baptist Church for a Parish-wide moratorium in St. James on new or expanded industrial operations, including all fossil fuel and petrochemical operations?
13. Will LDEQ require all petrochemical and fossil fuel facilities to install fence-line air pollution monitors, make data immediately publicly available, limit excessive flaring, install leak detection systems which alert the public, take immediate and comprehensive action against violators?
14. Has LDEQ taken any steps to support a just transition of workers, communities, and industry away from fossil fuels and petrochemicals towards a renewable economy and begin a rights-respecting rapid phase out of existing fossil fuel and petrochemical operations? If so, please provide details.

¹⁷ *Inclusive Louisiana, et al. v. St. James Parish, et al.*, United States District Court Eastern District of Louisiana, Case No. 2:23-cv-00987, Complaint, March 21, 2023, https://ccrjustice.org/sites/default/files/attach/2023/03/Moratorium_Complaint.pdf.

Letter from Human Rights Watch to Louisiana Department of Health

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October 18, 2023

Stephen R. Russo, JD
Secretary
Louisiana Department of Health
628 N. 4th Street
Baton Rouge, LA 70802

Sent by Email and Postal Service

Dear Secretary Russo:

I am contacting you on behalf of Human Rights Watch, an independent, nongovernmental organization that monitors violations of human rights and non-state actors in more than 90 countries around the world. We write now to request information about the Louisiana Department of Health's (LDH) policies and activities. We hope that LDH will respond to the questions below so that the department's views are accurately reflected in our reporting. We will make every effort to reflect responses we receive within 2 weeks of the date of this letter, by 5pm CDT, October 31, 2023.

Human Rights Watch is preparing a report on the human rights impacts of the fossil fuel and petrochemical industry operating in the area commonly referred to as "Cancer Alley" (and which the Louisiana government identifies as "the Industrial Corridor" of Louisiana). "Cancer Alley" is an 85-mile stretch of communities living along the banks of the Mississippi river in Ascension, East Baton Rouge, Iberville, Jefferson, Orleans, St. Charles, St. James, St. John the Baptist, and West Baton Rouge Parishes. It is the site of some 200 industrial operations which are primarily fossil fuel and petrochemical operations.

Human Rights Watch examined the extensive scientific literature on risks and rates of cancer and other health harms reported in Cancer Alley and interviewed elected officials and other government representatives, including current and former officials from the US Environmental Protection Agency (EPA) and Centers for Disease Control and Prevention (CDC). Human Rights Watch also spoke with



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physicians, academics, lawyers, health care providers, advocates, members of nongovernmental organizations (NGO) in the region, and interviewed 37 Cancer Alley residents.

Our research to date has documented serious human rights concerns in Cancer Alley experienced by those living and working in closest proximity to fossil fuel and petrochemical operations, with a disproportionate burden on the area's Black residents.

The prevalence of harm indicates that authorities at both the state and federal level are failing to respect, protect, and fulfil the human rights to life, health, freedom from discrimination on the basis on gender and race, and access to information, as well as specific children's rights.

In line with existing evidence linking fossil fuel and petrochemical pollution with increased risk of from cancer, maternal and reproductive health harms, and severe respiratory ailments (among other health harms), residents of Cancer Alley interviewed by Human Rights Watch shared cancer diagnoses, including breast, prostate, and liver cancers. All of those interviewed reported being impacted by cancer, which they describe as harming their immediate families, loved ones, and communities. Women shared their personal stories of maternal and reproductive health harms, as well as those of immediate family members, friends, or neighbors, including low-birth weight, preterm birth, miscarriage, stillbirths, high risk pregnancy and birth, and infertility. Severe respiratory ailments were extremely common, including chronic asthma, bronchitis and coughs, childhood asthma, and persistent sinus infections. Residents shared how these ailments added stress to already at-risk pregnancies, resulted in children being rushed to emergency rooms and kept inside to avoid polluted air, missed days of work and school, sleepless nights due to wracking coughs, and the deaths of family members and friends.

There is a strong perception among residents, advocates, researchers, and other experts that LDH far too often derides and undermines residents' concerns, rather than serving residents' interests. In one example, Anne Rolfes, Executive Director of the Louisiana Bucket Brigade, told Human Rights Watch that when they'd bring evidence of human health harms to LDH, people were told it was their own fault, that they eat "too much fried chicken and you smoke."

These findings are broadly consistent with other findings on these issues.

For example:

- In 2022, the UN Special Rapporteur on human rights and the environment identified Cancer Alley as one of several global “sacrifice zones,” among the most polluted and hazardous places on earth, illustrating egregious human rights violations.¹
- Nearly every census tract in Cancer Alley ranks in the top 5 percent nationally for cancer risk from toxic air pollution and in the top 10 percent for respiratory hazards.² Cancer Alley also has the census tract with the highest cancer risk in the country at nearly seven times the national average, according to the EPA.³ The EPA has also attributed toxic air pollution in Cancer Alley to increased risks of reproductive harm.⁴ Since at least 2016, residents of Cancer Alley have been exposed to greater than 10 times the level of hazardous air pollutants than residents living elsewhere in the state. Black residents in Cancer Alley face even higher rates of exposure than white residents.⁵
- EPA’s Toxic Release Inventory data demonstrates levels of toxic emissions in Cancer Alley from fossil fuel and petrochemical operations that regularly exceed regulatory limits, with companies in persistent and consistent “significant violation” and noncompliance of the Clean Air Act, the Clean Water Act, and the Resource Conservation and Recovery Act.
- Between 2019 and 2021, only one of the five oil refineries operating in Cancer Alley was in compliance with Clean Water Act regulations throughout all three years.⁶
- In 2023, EPA identified a lack of adequate access to vital information afforded to Cancer Alley residents by LDH. EPA cited several LDH deficiencies in fulfilling this mandate, including: failure to provide accurate and reliable information central to

¹ United Nations Human Rights Council, The right to a clean, healthy and sustainable environment: non-toxic environment, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/49/53, January 12, 2022, <https://www.ohchr.org/en/documents/thematic-reports/ahrc4953-right-clean-healthy-and-sustainable-environment-non-toxic>.

² Kimberly A. Terrell and Gianna St. Julien, “Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana,” *Environmental Research Letters*, vol. 17 (2022), accessed September 8, 2023, <https://doi.org/10.1088/1748-9326/ac4360>.

³ Maite Amorebieta, Toxic School, NBC News, March 16, 2023, <https://www.nbcnews.com/news/us-news/toxic-school-government-failed-black-residents-louisianas-cancer-alley-rcna72504>

⁴ Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022, <https://s3.documentcloud.org/documents/23131326/20221012-final-letter-ldeq-lbh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf>

⁵ Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022, <https://s3.documentcloud.org/documents/23131326/20221012-final-letter-ldeq-lbh-01r-22-r6-02r-22-r6-04r-22-r6-4.pdf>

⁶ Louisa Markow, et. al, *Oil’s Unchecked Outfalls*, Environmental Integrity Project, January 26, 2023, <https://environmentalintegrity.org/wp-content/uploads/2023/01/Oils-Unchecked-Outfalls-03.06.2023.pdf>

decision making; failure to properly educate residents and health care professionals; failure to implement study recommendations; and failure to advise local and state entities such as the School Board and LDEQ.⁷

- In 2022, EPA opened an investigation into allegations that LDEQ and LDH had violated the US Civil Rights Act by discriminating on the basis of race, "subjecting Black residents to ongoing disproportionate and adverse health and environmental impacts" in Cancer Alley. Two separate complaints had been filed by Earthjustice and Tulane Environmental Law Clinic on behalf of RISE St. James, Inclusive Louisiana, Louisiana Bucket Brigade, Stop the Wallace Grain Terminal, and Concerned Citizens of St. John. After the investigation began, LDEQ Secretary Brown and LDH Secretary Phillips resigned. The EPA subsequently closed the investigation, explaining that it actively engaged in informal and ongoing negotiations with the agencies.⁸

Based on our analysis to date, these harms are the result of a failure of the state of Louisiana to adequately regulate the fossil fuel and petrochemical industry, to ensure that regulations of the fossil fuel and petrochemical industry in Louisiana are adequate and enforced, that information about risks to human health is available, and a failure of the federal government to protect and promote human rights.

We write now to request information about LDH's policies and activities in those communities within Louisiana's Cancer Alley living and working in closest proximity to fossil fuel and petrochemical operations. Human Rights Watch is committed to producing material that is well-informed and objective. We seek this information to ensure that our reporting properly reflects the views and practices of LDH.

In addition to the information requested below, please include any other materials or information that would be important to understand this issue.

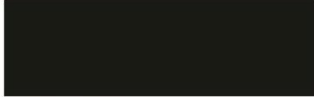
We hope that LDH will respond to the questions on the following pages so that the department's views are accurately reflected in our reporting. We will make every effort to reflect responses we receive within 2 weeks of the date of this letter, **by 5pm CDT, October 31, 2023**. We would also welcome an opportunity to discuss these issues with you or other LDH representatives. If you would like to arrange such a discussion, please contact Antonia Juhasz [REDACTED]

⁷ Letter of Concern from EPA Dorka, October 12, 2022.

⁸ Letter of Concern from EPA Dorka, October 12, 2022.

Thank you in advance for your time in addressing these urgent matters.

Sincerely,



Antonia Juhasz
Senior Researcher
Environment and Human Rights Division
Human Rights Watch

We would appreciate any information you can provide regarding the following:

1. What is LDH's response to studies⁹ that have identified that those living or working in close proximity to industrial sources of pollution within Cancer Alley (aka the "Industrial Corridor") of Louisiana have higher incidence and/risk of health harms than those living further away?
2. In assessing health harms associated with industrial pollution, does LDH take proximity to sources of pollution into account? If LDH does not take proximity into account, please explain why not?
3. What steps is the agency taking to address findings of elevated cancer, respiratory, and maternal and reproductive health risk from toxic air pollution in nearly every census tract in Cancer Alley? And what steps is the agency taking to reduce exposure to harmful pollution in Cancer Alley?
4. What steps is the agency taking to address the disproportionate impacts of identified health harms and risks on the area's Black residents? And to address findings of nongovernmental organizations that the agency has violated US Civil Rights Act by discriminating on the basis of race?
5. What action has the agency taken to improve core services in response to the EPA's informal investigation as detailed in the Letter of Concern from Lilian S. Dorka, EPA deputy assistant administrator for external civil rights to Dr. Chuck Carr Brown, Louisiana Department of Environmental Quality (LDEQ) secretary, and Dr. Courtney N. Phillips, Louisiana Department of Health (LDH) secretary, October 12, 2022? Including EPA's findings of failure by the agency to provide accurate and reliable information central to decision making; failure to properly educate residents and health care professionals; failure to implement study recommendations; and failure to advise local and state entities such as the School Board and LDEQ?
6. How does LDH respond to concerns of residents that the agency fails to address their interests but instead, "derides and undermines" their concerns?
7. Will LDH allocate funding to community-based organizations for public and health care provider awareness and outreach campaigns on the health harms of exposure to fossil fuel and petrochemical operations (including reproductive health, cancers, and respiratory ailments.)?
8. Has LDH taken any steps to support a just transition of workers, communities, and industry away from fossil fuels and petrochemicals towards a renewable economy and begin a rights-respecting rapid phase out of existing fossil fuel and petrochemical operations? If so, please provide details.

⁹ For example, EPA studies cited above and Kimberly A. Terrell and Gianna St. Julien, "Air pollution is linked to higher cancer rates among black or impoverished communities in Louisiana," *Environmental Research Letters*, vol. 17 (2022), accessed September 8, 2023, <https://doi.org/10.1088/1748-9326/ac4360>.

Annex B

Letter from US Environmental Protection Agency to Human Rights Watch



OFFICE OF ENVIRONMENTAL JUSTICE AND EXTERNAL CIVIL RIGHTS
WASHINGTON, D.C. 20460

October 31, 2023

Antonia Juhasz
Senior Researcher, Environment and Human Rights
Human Rights Watch
[REDACTED]

Dear Ms. Juhasz:

This is in response to your October 18, 2023, letter to Environmental Protection Agency (EPA) Administrator, Michael Regan. In your letter, you state that Human Rights Watch (HRW) is preparing a report on the “human rights impacts of the fossil fuel and petrochemical industry operating in the area commonly referred to as “Cancer Alley” (and which the Louisiana government identifies as “the Industrial Corridor” of Louisiana).” You ask that EPA respond to a series of questions by October 31, 2023.

First, it is important to emphasize that the Biden Administration and EPA are moving urgently, with an unprecedented commitment to advancing environmental justice and civil rights to ensure every person in this country has clean air to breathe, clean water to drink, and the chance to lead a healthy, fulfilling life. Administrator Regan has personally visited St. John the Baptist Parish and St. James Parish to meet with residents and see firsthand the impacts of pollution from facilities in “Cancer Alley.” Further, EPA remains fully committed to improving environmental conditions in St. John the Baptist, St. James, other parishes throughout Louisiana’s Industrial Corridor, and other communities with environmental justice concerns. Community participation has been critical to identifying both problems and solutions, and we look forward to our continued partnership with the residents in these parishes as we continue our efforts to improve public health and the environment. The lived experiences of impacted communities must be central in EPA decision-making, and EPA remains committed to working closely with community leaders in these communities.

As the Administrative Closure Letters issued by EPA’s Office of External Civil Rights Compliance (OECRC), on June 27, 2023, explain, EPA is taking an “all of EPA” approach, including several important actions, using the best available science to address toxic chloroprene and ethylene

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oxide (EtO) emissions, and to improve conditions for these communities while continuing to engage and involve them. First, on December 20, 2022, EPA issued a consent agreement and final order (CAFO) under the Resource Conservation and Recovery Act (RCRA) ordering the Denka Performance Elastomer LLC (Denka) to improve waste management practices to lower chloroprene emissions. This has already resulted in changes at the plant that reduced emissions in the surrounding communities.

Second, on February 28, 2023, EPA filed in federal court a Clean Air Act (CAA) § 303 civil complaint against Denka to compel immediate measures to eliminate the imminent and substantial endangerment posed by its chloroprene emissions and address and mitigate the harm to public health. EPA's CAA § 303 civil complaint and OECRC's Letter of Concern relied on data from the same chloroprene monitors and reached similar conclusions about cancer risk to residents living near Denka due to chloroprene emissions.

Third, and more broadly, on April 25, 2023, EPA published a proposed rule under Section 112 of the CAA to significantly reduce emissions of toxic and other harmful air pollutants, including chloroprene and EtO, from Denka and other chemical plants nationwide. EPA's proposed rule would reduce by 96% the number of people with elevated excess lifetime cancer risk due to breathing air toxics near these chemical plants. EPA is required by court order, issued by the District Court of the District of Columbia in *Texas Environmental Justice Advocacy Services, et al. v. Regan*, No. 1:20-cv-07733, to issue a final rule by March 29, 2024.

Fourth, EPA is initiating a cumulative impact assessment (CIA) for the St. John the Baptist Parish community near Denka in particular, based on the significant pollution exposure for this community. This analysis will include the totality of exposures to combinations of chemicals and non-chemical stressors and their effects on health, well-being, and quality of life outcomes, and will include community engagement that centers the lived experiences of community members throughout the process. Conducting a CIA involves evaluating various types of data, including health and environmental data to inform decision-making. CIAs help characterize the current baseline cumulative health risks and burdens, and the potential state of vulnerability or resilience of a community. Given that this CIA will be based on the best available science, we expect it will yield important information to address significant pollution exposure for this and other Industrial Corridor communities.

In general, with respect to permitting of industrial and other facilities, EPA recognizes that, historically, industrial facilities have been sited, have expanded, and have added to the pollution burden in already vulnerable communities. Permitting practices are governed by a broad, diverse range of federal and state agency statutory and regulatory requirements, often under complex federal-state cooperative federalism frameworks. These requirements and federal-state permitting relationships must necessarily be addressed on a case-by-case basis.

EPA feels strongly that by considering the principles of environmental justice, complying with federal civil rights laws, and complying with applicable state environmental justice and civil

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rights policies and laws, environmental permitting programs will better identify and address discriminatory or unfair permitting processes that affect the health and well-being of overburdened and underserved communities.

With respect to funding available to community-based organizations, EPA has recently made unprecedented investments in communities to remove longstanding barriers and build a healthier future for all. On October 24, 2023, EPA announced nearly \$128 million to fund 186 projects across the country that advance environmental justice as part of President Biden's Investing in America agenda. The recipient organizations, which EPA has selected through its Environmental Justice Collaborative Problem Solving Cooperative Agreement and Environmental Justice Government-to-Government programs, will use the funds to ensure disadvantaged communities that have historically suffered from underinvestment have access to clean air and water and climate resilience solutions. Together, these community-driven projects will improve the health, equity, and resilience of communities while setting a blueprint for local solutions that can be applied across the nation. In the coming weeks EPA will announce additional opportunities for communities and their partners to access even greater amounts of funding to support community-driven initiatives to create healthier, safer, more prosperous futures.

Thank you for the opportunity to respond. I hope you will find the above information helpful. Due to pending litigation and other considerations, we have provided as much information as possible. EPA welcomes the opportunity to continue a dialogue with HRW related to this very important environmental justice and civil rights work.

Sincerely,



Theresa Segovia
Principal Deputy Assistant Administrator
Office of Environmental Justice and External Civil Rights

Cc:
Michael Regan
Administrator
U.S. EPA

Jeffrey Prieto
General Counsel
U.S. EPA

Letter from Louisiana Department of Environmental Quality to Human Rights Watch

JOHN BEL EDWARDS
GOVERNOR



ROGER W. GINGLES
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY
LEGAL AFFAIRS DIVISION

October 31, 2023

Antonia Juhasz
Senior Researcher, Environmental & Human Rights
Human Rights Watch
350 Fifth Avenue, 34th Floor
New York, NY 10118-3299

Via email: [REDACTED]

Re: Response to Letter dated October 18, 2023

Dear Ms. Juhasz:

The Louisiana Department of Environmental Quality (LDEQ) acknowledges receipt of your correspondence dated October 18, 2023, requesting LDEQ's input into a report that your office is preparing on the Louisiana Industrial Corridor. This letter serves as LDEQ's response.

LDEQ's mission is to provide service to the people of Louisiana through comprehensive environmental protection in order to promote and protect health, safety and welfare. Consistent with its mission, all LDEQ permitting decisions rely upon science-based standards which have been determined to be protective of human health and the environment. LDEQ complies with all applicable state and federal laws, including the Civil Rights Act of 1964, as amended. LDEQ also commits to adopt and enforce any new final and effective standards that EPA promulgates applicable to regulated facilities in the Industrial Corridor.

Your letter references two complaints alleging violation of Title VI of the Civil Rights Act of 1964 lodged with the U.S. EPA's Office of External Civil Rights in 2022. EPA has resolved both of these complaints, fully and finally closing the agency's investigations into the allegations of discrimination. As EPA noted in court documents, it found no evidence of discrimination or other violation of Title VI by either LDEQ or LDH.¹ Furthermore, LDEQ provided detailed written responses to the complaints and engaged in months-long discussions with EPA personnel regarding these complaints. LDEQ's responses to these complaints are public record and are accessible on LDEQ's Electronic Document Management System (EDMS), Docket ID Numbers 13335907 and 13335908. LDEQ believes its written responses address the issues raised in your letter. Any other public records related to these matters also may be obtained by making a public records request under the Louisiana Public Records Act. Procedures for making such a request are available on LDEQ's public website (<https://www.deq.louisiana.gov/>)

Finally, please be advised that there currently is ongoing federal litigation involving these matters in the United States District Court, Western District of Louisiana, Lake Charles Division (*State of Louisiana v. U.S. Environmental Protection Agency et al.*, (Civil Action No. 2:23-cv-00692)). Because of this litigation, LDEQ will not provide any further comment on these matters.

Sincerely,

[REDACTED]
✓ Jill C. Clark
General Counsel

¹ See "Defendants' Notice of Resolution of Title VI Complaints," Filed in *State of Louisiana v. U.S. Environmental Protection Agency et al.* (USDC, Western District of Louisiana, Civil Action No. 2:23-cv-00692).

Letter from Louisiana Department of Health to Human Rights Watch

John Bel Edwards
GOVERNOR



Stephen R. Russo, JD
SECRETARY

State of Louisiana
Louisiana Department of Health
Bureau of Legal Services

October 31, 2023

Antonia Juhasz
Human Rights Watch
350 Fifth Avenue, 34th Floor
New York, NY 10118-4700
(via email only: [REDACTED])

Dear Ms. Juhasz:

The Louisiana Department of Health (LDH) is in receipt of your letter dated October 18, 2023 (the "Letter") which seeks LDH's responses to certain questions posed therein regarding LDH's policies and activities concerning the residents of those communities located within the "Industrial Corridor" of Louisiana. In response to the Letter, LDH hereby addresses certain matters and issues raised therein.

First, LDH expressly disputes and disagrees with multiple statements and allegations contained in the Letter, to the extent that they purport to relate to LDH, including, though certainly not limited to, the following:

- "The prevalence of harm indicates that authorities at both the state and federal level are failing to respect, protect, and fulfill the human rights to life, health, freedom from discrimination on the basis of gender and race, and access to information, as well as specific children's right".
- "There is a strong perception among residents, advocates, researchers, and other experts that LDH far too often derides and undermines residents' concerns, rather than serving residents interests."
 - LDH does not necessarily dispute that such a "perception" exists in the minds of some, but LDH *does* dispute the accuracy and validity of such perception.

The Letter's allegations against LDH concerning "failure to properly educate residents" and the "failure to provide accurate and reliable information central to decision making" are sourced to the Letter of Concern dated October 12, 2022 that EPA sent to LDH. Although LDH thereafter engaged in discussions with EPA concerning that Letter of Concern (regarding Complaint No 02R-22-R6), LDH did not agree with the allegations in the Letter of Concern or Complaint. Indeed, LDH's letter responding to said Complaint, dated June 6, 2022 (see attached copy), detailed and set forth LDH's participation in

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Ms. Antonia Juhasz
October 31, 2023
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meetings, briefings, studies, events, and correspondence intended to inform relevant governmental entities and affected members of the public concerning the risks related to chloroprene and other chemicals in St. John the Baptist Parish. Importantly, as you may be aware, that Letter of Concern (regarding Complaint No. 02R-22-R6) was later administratively closed by the EPA.

LDH's Office of Public Health (OPH) performs the functions of the state that relate to the general health of the people of the state. OPH's Section of Environmental Epidemiology and Toxicology (SEET) is to respond to inquiries concerning morbidity and mortality associated with environmental chemicals by:

- Identifying chemicals in the environment which are likely to cause adverse health effects;
- Evaluating the extent of human exposure to these chemicals and the resultant adverse health effects;
- Making recommendations for the prevention and reduction of exposure to hazardous chemicals; and
- Promoting a better public understanding of the health effects of chemicals in the environment.

Much of SEET's work is coordinated and/or conducted in conjunction with its federal partners/equivalents [e.g. EPA, Agency for Toxic Substances and Disease Registry (ATSDR)] and with the Louisiana Department of Environmental Quality (LDEQ). However, if and when EPA issues new rules or standards, SEET will provide guidance as warranted on the effects of violations thereof.

This letter is functionally intended to be general in nature. It is not intended to constitute a full exposition and analysis of the laws and statutes that regulate and concern chemical pollution and emissions in Louisiana. Please note that the omission in this letter of an explicit denial or refutation of any particular "allegation" in the Letter should not be construed as agreement therewith.

Further, due to the pending litigation in the matter of *State of Louisiana v. U.S. Environmental Protection Agency et al.*, (Civil Action No. 2:23-cv-00692, USDC, Western District of Louisiana), LDH will not provide further comment on these matters.

Sincerely,

LDH Bureau of Legal Services

By:

David McKay

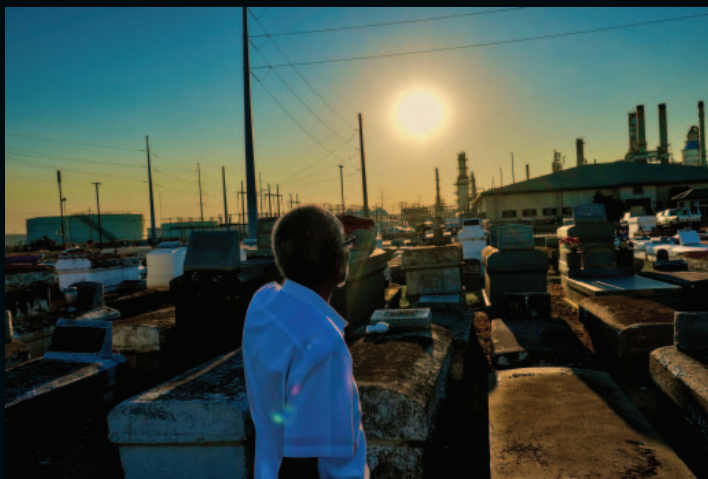
“We’re Dying Here”

The Fight for Life in a Louisiana Fossil Fuel Sacrifice Zone

“Cancer Alley” refers to an approximately 85-mile stretch of communities along the banks of the Mississippi River in Louisiana between New Orleans and Baton Rouge where communities exist side-by-side with some 200 fossil fuel and petrochemical operations.

“We’re Dying Here”: The Fight for Life in a Louisiana Fossil Fuel Sacrifice Zone documents the impact of extreme pollution from the fossil fuel and petrochemical industry on residents of Cancer Alley. They face severely elevated burdens and risks of cancer, reproductive, maternal, and newborn health harms, as well as respiratory ailments. These harms are disproportionately borne by the area’s Black residents. The report finds that authorities at both the state and federal levels are failing to respect, protect, and fulfil the rights to life, health, freedom from racial discrimination, and access to information.

The report calls on local, state, and federal authorities to support moratoria on new or expanded fossil fuel and petrochemical operations in Cancer Alley, increase and enforce existing regulations on current operators, and support a transition away from (and phase-out) of fossil fuels. The Louisiana Department of Environmental Quality should not grant permits in already overburdened communities. The United States Environmental Protection Agency should initiate an investigation into the withdrawal of state authorization for Louisiana’s Clean Air Act program.



(cover) **Robert Taylor in Reserve,
in Louisiana’s Cancer Alley.**

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