

LEVERAGING AIR QUALITY DATA TO COMBAT POLLUTION

A Guide To Finding Data
And Using It In Legal Actions

 The University of Texas at Austin
Environmental Clinic
School of Law

 Environmental
Defense
Fund



Authors:

Josh McClain, Environmental Clinic Student

Meg Solley, Environmental Clinic Student

Kelly Haragan, Environmental Clinic Director

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The Environmental Clinic
The University of Texas at Austin School of Law
environmentalclinic@law.utexas.edu

Designer, Herbert Frimpong

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ACKNOWLEDGMENTS

This Guide was made possible thanks to the work of Environmental Clinic students Meg Solley and Josh McClain. Special thanks also to Lauren Padilla, Samatha Liskow, Libby Mohr, Daniel Peters, Michelle Allen, and Adrienne Parks at the Environmental Defense Fund for helping identify relevant data sets and for their review and helpful edits to this Guide. Thanks also to Rita Stramel, with the Environmental Clinic, for her assistance with editing.

GLOSSARY OF ABBREVIATIONS

- **AEGL** Acute Exposure Guideline Level
- **ALOHA** Areal Locations of Hazardous Atmospheres
- **AMA** Ambient Monitoring Archive
- **AMCV** Air Monitoring Comparison Values (TX)
- **AMTIC** Ambient Monitoring Technology Information Center
- **ANMP** Annual Network Monitoring Plan
- **ANPR** Advanced Notice of Proposed Rulemaking
- **APA** Administrative Procedures Act
- **AQI** Air Quality Index
- **AQS** Air Quality Systems
- **ATSDR** Agency for Toxic Substances and Disease Registry
- **BACT** Best Available Control Technology
- **CAA** Clean Air Act
- **CAMP** Community Air Monitoring Program (Harris Co., TX)
- **CAMPD** Clean Air Markets Program Data
- **CDC** Centers for Disease Control and Prevention
- **CEQ** Council on Environmental Quality
- **CO** Carbon Monoxide
- **CSB** Chemical Safety Board
- **DOJ** Department of Justice
- **DOT** Department of Transportation
- **DSHS** Department of State Health Services (TX)
- **ECHO** Enforcement and Compliance History Online
- **EDF** Environmental Defense Fund
- **EDMS** Electronic Document Management System (LA)
- **EJScreen** Environmental Justice Screening and Mapping Tool
- **EPA** Environmental Protection Agency
- **ECRCO** External Civil Rights Compliance Office
- **ERIC** Emissions Reporting and Inventory Center (LA)
- **ESL** Effects Screening Level (TX)
- **EtO** Ethylene Oxide
- **GeoTAM** Geographical Texas Air Quality Monitoring

- **GHG** Greenhouse Gas
- **GHGRP** Greenhouse Gas Reporting Program
- **GMAP** Geospatial Measurement of Air Pollution
- **HAP** Hazardous Air Pollutant
- **HUD** Department of Housing and Urban Development
- **IRIS** Integrated Risk Information System
- **LDEQ** Louisiana Department of Environmental Quality
- **LAER** Lowest Achievable Emission Rate
- **LEAN** Louisiana Environmental Action Network
- **MACT** Maximum Achievable Control Technology
- **MAERT** Maximum Allowable Emission Rate Table (TX)
- **MNSR** Minor New Source Review
- **NAAQS** National Ambient Air Quality Standards
- **NANSR** Nonattainment New Source Review
- **NAPD** Notice of Application and Preliminary Decision (TX)
- **NCI** National Cancer Institute
- **NEI** National Emissions Inventory
- **NESHAP** National Emission Standards for Hazardous Air Pollutants
- **NO₂** Nitrogen Dioxide
- **NO_x** Nitrogen Oxides
- **NORI** Notice of Receipt and Intent to Obtain Permit (TX)
- **NPP** Neighborhood Participation Plan (LA)
- **NRC** National Response Center
- **NSPS** New Source Performance Standard
- **NSR** New Source Review
- **O₃** Ozone
- **OIRA** Office of Information and Regulatory Affairs
- **PAH** Polycyclic Aromatic Hydrocarbons
- **Pb** Lead
- **PHA** Public Health Assessment
- **PM** Particulate Matter
- **PM_{2.5}** Particulate Matter 2.5 micrometers in diameter and smaller
- **PM₁₀** Particulate Matter 10 micrometers in diameter and smaller
- **ppb** Parts Per Billion

- **PSD** Prevention of Significant Deterioration
- **RACT** Reasonably Available Control Technology
- **REL** Reference Exposure Level
- **RMP** Risk Management Plan
- **RN** Regulated Entity Number (TX)
- **RSEI** Risk-Screening Environmental Indicators
- **SCAQMD** South Coast Air Quality Management District
- **SCRAM** Support Center for Regulatory Atmospheric Modeling
- **SIL** Significant Impact Level
- **SIP** State Implementation Plan
- **SO₂** Sulfur Dioxide
- **SOAH** State Office of Administrative Hearings (Texas)
- **TAMIS** Texas Air Monitoring Information System
- **TAP** Toxic Air Pollutants (LA)
- **TCEQ** Texas Commission on Environmental Quality
- **TEMPO** Tropospheric Emissions: Monitoring of Pollution
- **TIP** Tribal Implementation Plan
- **TRI** Toxic Release Inventory
- **TROPOMI** Tropospheric Monitoring Instrument
- **ug/m³** Micrograms Per Cubic Meter

INTRODUCTION

Today, there are more ways than ever before to identify what is in the air, who is emitting it, and how communities are affected by what they breathe. Many publicly available data sources provide information about air pollution, ranging from community monitoring data to satellite-collected air quality measurements. This data can help communities take action to improve and protect air quality—including by supporting legal claims. However, the number and diversity of available data sources can be overwhelming.

This Guide identifies federal, Texas, and Louisiana data sources that include information about air emissions, air quality, air permits, air modeling tools, and health impacts of air pollution. It then provides examples of how this data might be used in legal actions to improve air quality. While the Guide identifies many useful data sources and the more common legal actions to address air pollution, it is not comprehensive. Additional information about these and other air pollution data sources is available at <https://www.clearcollab.org/data-directory/>

The Guide is intended to be helpful for:

- Community members who want easy access to data to help identify the source of their air quality problems, explain the potential health impacts of what they breathe, and support their efforts to bring attention to and reduce air pollution.
- Data experts seeking to understand how data can be used to reduce air pollution, where there are data gaps, and how to present air quality data in a manner that is useful to legal efforts to reduce pollution.
- Lawyers who are not familiar with legal actions to reduce air pollution or with how to access air pollution data that might be helpful in those actions.

Above all, this Guide is meant as a starting place. The identified data sources have limitations and potential not explored here. Likewise, the legal actions mentioned here are complex, and the descriptions in this Guide are meant only to flag possible approaches for using data; this is not a guide to pursuing any specific legal claims.

We welcome suggestions for updates and corrections to the Guide. Contact us at environmentalclinic@law.utexas.edu.

AIR POLLUTION DATA SOURCES

The charts below identify some available federal, Texas, and Louisiana air pollution data sources that might be useful in legal actions to improve air quality. The data sources are organized into categories based on the type of data they present.

1. REGULATORY STANDARDS

Under the Clean Air Act (CAA), pollution sources are required to comply with both ambient air quality standards, which set thresholds for the maximum allowable amount of a pollutant in the ambient air, and technology-based standards, which require pollution sources to reduce their pollution by the amount achievable using the best pollution control technologies.

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set health-based National Ambient Air Quality Standards (NAAQS) for the Criteria Pollutants. The NAAQS apply nationwide and are supposed to establish the maximum concentrations of each Criteria Pollutant that is protective of human health and the environment.

For non-criteria pollutants, including toxic pollutants, there are no nationwide ambient standards. However, some states and local governments, including Louisiana, have established their own ambient standards for certain non-criteria pollutants. In addition, EPA and states also have guidelines for non-criteria pollutants that set ambient thresholds to be used in modeling to determine whether proposed and permitted air emissions are adequately protective of public health.

CRITERIA POLLUTANTS

Carbon Monoxide (CO)
Lead (Pb)
Nitrogen Dioxide (NO_x)
Ozone (O₃)
Particulate Matter (PM_{2.5}, PM₁₀)
Sulfur Dioxide (SO₂)

Note: Ozone is formed in the atmosphere when NO_x and Volatile Organic Compounds (VOCs) react in sunlight. NO_x and VOCs are regulated to assure protection of the ozone NAAQS

In addition to ambient standards, technology-based standards apply to many sources of air pollution. Some technology-based standards can be found in Clean Air Act regulations. Others are set on a case-by-case basis, though Clean Air Act permits.¹



1 Technology-based standards that are required in certain air permits include the following: Reasonably Available Control Technology (RACT) is required for existing sources in areas that do not meet national ambient air quality standards (i.e., non-attainment areas); Best Available Control Technology (BACT) is required for certain major new or modified sources in areas that meet the NAAQS (i.e., attainment areas) for the pollutants emitted; and Lowest Achievable Emission Rate (LAER) is required for certain major new or modified sources in non-attainment areas for the pollutants emitted.

AMBIENT AIR QUALITY STANDARDS AND GUIDANCE

	<p>EPA National Ambient Air Quality Standard (NAAQS) Table</p> <p>EPA sets primary and secondary NAAQS for Criteria Pollutants. Primary standards are designed to provide public health protection; secondary standards are intended to protect public welfare, including preventing harm to visibility, animals, crops, vegetation, and buildings. More information on the NAAQS, including a table with current standards, can be found on EPA's website.</p>
TEXAS	<p>Texas Commission on Environmental Quality (TCEQ) Toxicity Factor Database</p> <p>The database includes information about ambient screening levels used by TCEQ in permitting and in evaluating monitored ambient air data. Effects Screening Levels (ESLs) are used in the air permitting process to evaluate the potential impacts of modeled air pollution levels. These are not enforceable standards. Ambient Monitoring Comparison Values are pollutant-specific screening levels used in TCEQ's evaluation of ambient air monitoring data to assess the potential for adverse health or welfare effects. More information can be found on the TCEQ Toxicology Homepage.</p>
LOUISIANA	<p>Louisiana Department of Environmental Quality (LDEQ) Toxic Air Pollutant Ambient Air Standards</p> <p>Louisiana's Toxic Air Pollutants (TAP) list includes Hazardous Air Pollutants regulated under the Clean Air Act as well as other pollutants and sets ambient air standards for each TAP. LDEQ publishes a fact sheet about the state air toxics program and a list of TAPs that are not on the Federal HAP list.</p>

Referenced in: [CAA Citizen Suits](#), [CAA Section 303](#), [Rulemaking and Policy](#), and [Zoning](#).

TECHNOLOGY-BASED STANDARDS

<p>EPA RACT/BACT/LAER Clearinghouse (RBLC)</p>	<p>EPA maintains a database of the pollution controls installed at individual pollution sources to meet technology-based emission requirements. See EPA's RACT/BACT/LAER Basic Information page.</p>
<p>California Air Resources Board (CARB) BACT Determination Tool</p>	<p>California's BACT Determination Tool is a searchable database of state agency BACT determinations for different types of emission units. It includes determinations from certain California air districts and some other states.</p>
<p>California's South Coast Air Quality Management District (SCAQMD) Best Available Control Technology Guidelines</p>	<p>The SCAQMD has its own BACT database that can be used to identify the best air pollution control technologies.</p>

Referenced in: [Standing](#), [CAA Citizen Suits](#), [Title VI](#), [Rulemaking and Policy](#), and [Permitting](#).

2. AIR PERMIT INFORMATION

Most large air pollution sources must comply with the terms and conditions of a Clean Air Act permit. These permits typically include operational requirements, pollution limits, and monitoring and reporting requirements. The data sources below include copies of final permits, permit applications, and draft permits, and allow users to search for permitted facilities in a certain geographic area.

AIR PERMIT INFORMATION: TEXAS AND LOUISIANA

TEXAS	TCEQ Records Online	The TCEQ Records Online database includes files related to issued air permits and permit modifications. Use the Quick Guide to get started.
	TCEQ Pending Applications: New Source Review Permits	Copies of pending air permit applications are available here .
	TCEQ Central Registry	The Central Registry can be used to find information about air emission sources, including their Regulated Entity Number (RN), ownership, a list of permit numbers, and TCEQ actions taken on those permits (e.g., permit modifications). Clicking on individual permit numbers leads to information including any complaints, investigations, emergency responses, and unauthorized emission events related to that permit.
	TCEQ Commissioner's Integrated Database	This database allows searches for documents filed with the TCEQ's Office of Chief Clerk, including public notices, public letters, public comments on permits, and contested case hearing requests. Instructions on using the database are here .

	TCEQ Status of New Source Review Permit Applications and Federal Air Operating Permit Applications	This site can be used to search a facility's permitting history and obtain project numbers for individual permitting actions. It can also be used to search for permits within a particular county or TCEQ region or to search by certain types of permits (e.g., for flares or ethylene oxide sterilizers).
TEXAS	TCEQ Data and Records	Permit information not found online may be accessible via a public information request .
LOUISIANA	LDEQ Emissions Reporting and Inventory Center (ERIC)	Users can run reports on ERIC to find currently permitted sources that emit a particular pollutant within a given distance to a geographic point. See the User Manual provided by LDEQ for detailed instructions.
	LDEQ Electronic Document Management System (EDMS)	Users can search for individual permit documents, including applications, correspondence, and final permits, using EDMS . LDEQ provides video training on how to use the system.
	LDEQ Information and Records	Permit information not available online may be accessible via public record request .

Referenced in: [Standing](#), [Title VI](#), [Zoning](#), and [Torts](#).

3. FACILITY EMISSIONS

The Clean Air Act requires many pollution sources to report their emissions. While some emissions are measured through actual monitoring, such as through devices in the stacks, many are estimated based on calculations and may sometimes be underestimated.² The data sources below provide access to facilities' reported emissions

FACILITY EMISSIONS	
EPA Toxics Release Inventory (TRI)	The Toxics Release Inventory compiles facility-reported, total annual emissions of over 650 toxic chemicals. The TRI Explorer allows users to view information by fields like facility, chemical, geographic area, etc.
EPA National Emissions Inventory (NEI)	The National Emissions Inventory estimates annual air emissions of criteria pollutants, criteria pollutant precursors, and hazardous air pollutants from various air emissions sources, including large industrial sources. Reports and summaries are compiled by EPA every three years. The 2020 Report was released July 31, 2023.

² EPA has documented underestimates, particularly in the petroleum refining, wood products and ethanol production industries. See, EPA, Enforcement Alert, Publication No. EPA-325-N-20-001 *EPA Reminder About Inappropriate Use of AP-42 Emission Factors*, <https://www.epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf>

<p>EPA Greenhouse Gas Reporting Program (GHGRP)</p>	<p>Approximately 8,000 large Greenhouse Gas (GHG) emitters, fuel and industrial gas suppliers, and carbon dioxide (CO₂) injection sites are required to report annual GHG emissions, generally including CO₂, methane (CH₄), nitrous oxide (N₂O), fluorinated GHGs, and fluorinated heat transfer fluids. The reported data is made available to the public in October of each year on the GHGRP website.</p>	
<p>EPA Clean Air Markets Program Data (CAMPD)</p>	<p>CAMPD includes power plants' continuously monitored CO₂, NO_x, SO₂, and mercury emissions data. EPA provides tools to access and understand this data.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">TEXAS</p>	<p>TCEQ Point Source Emissions Inventory</p>	<p>Industry-reported, site-level, annual data can be downloaded from the Point Source Emissions Inventory webpage.</p>
	<p>TCEQ Central Registry Query</p>	<p>Detailed air emission inventory reports for individual sources can be found within the Central Registry Query system. The Actual History Reports list emissions by type and emission point number for each calendar year. For instructions, see Instructions for Obtaining Site Specific Emission Inventory Reports.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">LOUISIANA</p>	<p>LDEQ Emissions Reporting and Inventory Center (ERIC)</p>	<p>Users can run reports on ERIC to find actual reported emissions by parish or within a radius of a specific location. ERIC also includes Annual certified emissions for criteria and toxic pollutants for the years 1991-2014 and 2015-present. See the ERIC User Manual for detailed instructions.</p>

Referenced in: [Standing](#), [CAA Citizen Suits](#), [CAA Section 303](#), [Title VI](#), [Rulemaking and Policy](#), [Permitting](#), [Zoning](#), and [Torts](#).

4. VIOLATION AND ENFORCEMENT DATA

The Clean Air Act requires large air pollution sources to report violations of their air permits and applicable regulations. Below are federal, Texas, and Louisiana sources that document noncompliance by pollution sources and that identify agency investigations or enforcement actions taken for such violations.

VIOLATION AND ENFORCEMENT DATA	
EPA Enforcement and Compliance History Online (ECHO)	Includes compliance (3-year) and enforcement (5-year) histories for large pollution sources. ECHO quarters during which the facility was in significant noncompliance, enforcement actions taken, and any penalties assessed. The ECHO Quick Search page allows searches by location or source name. See the ECHO Quick Start Guide for instructions on using the website.
US Coast Guard National Response Center (NRC) Reports	Spreadsheets posted to the NRC website contain initial data about incidents that release over certain amounts of pollutant.
US Chemical Safety and Hazard Investigation Board (CSB) Investigation Reports	The CSB investigates the root cause of industrial chemical accidents and recommends industry safety standards. The CSB website includes a searchable database of CSB investigations and findings.
EPA Risk Management Plan (RMP) Public Data Tool	EPA's RMP Public Data Tool includes facility chemical accident histories.

<p>Data Liberation Project RMP database</p>	<p>The nonprofit Data Liberation Project has compiled a database of RMP information that is searchable by county and includes the number of accidents with deaths or injuries, evacuations or shelter-in-place orders, and property damage.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">TEXAS</p>	<p>TCEQ Air Emission Event Report Database</p>	<p>Texas facilities must report to the emission event report database any events that cause illegal pollution exceeding certain thresholds. Reports must be filed within 24 hours of the event and updated within two weeks. For more information, see the TCEQ Emissions Events page.</p>
	<p>TCEQ Enforcement Action and Reports</p>	<p>Information about pending enforcement actions can be searched, and past enforcement actions (Agreed Orders and Court Orders) can be downloaded in monthly and annual datasets from the Enforcement Actions and Reports website.</p>
	<p>TCEQ Clean Air Act Title V Semi-Annual Deviation Reports and Annual Compliance Certifications</p>	<p>Sources subject to Title V of the Clean Air Act must submit a Deviation Report at least twice a year and a Compliance Certification annually. The Deviation Report should identify all indications of non-compliance for the reporting period. Compliance Certifications require a facility to affirm that they comply with all applicable Clean Air Act requirements except as identified in the certification. These reports are not online but can be obtained through a Public Information Act request.</p>

LOUISIANA	LDEQ Incident Reports	Facilities must report to LDEQ when a permit limit is exceeded. In addition to prompt notification by phone for certain releases, written reports must be filed with LDEQ within seven days of an incident. These reports are available through EDMS and may be requested from the agency through a public record request . For more information, see the LDEQ Emergency & Radiation website .
	LDEQ Enforcement Actions	Monthly enforcement actions can be downloaded from the Enforcement Actions website. In addition, information about LDEQ Settlement Agreements , including copies of the agreements, is available online.
	LDEQ Electronic Document Management System (EDMS)	LDEQ's violation and enforcement documents for individual facilities can be downloaded from the EDMS dashboard. LDEQ provides video training on using the system.
	LDEQ Clean Air Act Title V Semi-Annual Deviation Reports and Annual Compliance Certifications	Title V Deviation Reports and Compliance Certifications can be obtained through EDMS or by filing a LDEQ Public Records request .

Referenced in: [Standing](#), [CAA Citizen Suits](#), [CAA Section 303](#), [Title VI](#), [Rulemaking and Policy](#), [Zoning](#), and [Torts](#).

5. AMBIENT AIR MONITORING DATA

Various technologies can be used to measure ambient air quality. Some monitors provide data in near-real time, while others may only sample the air periodically. Some monitors measure one pollutant; others measure multiple pollutants. More sophisticated monitors, many operated by government agencies and universities, are considered reliable and can typically be used as evidence in litigation. Other types of monitors may be presumed less reliable and the data they provide may be difficult to use in court.

EPA AND STATE ENVIRONMENTAL AGENCY MONITORING DATA

<p>EPA Air Quality Systems (AQS)</p>	<p>EPA's Air Quality Systems website contains ambient air quality data collected by EPA, state, local, and tribal air pollution control agencies from thousands of monitors. AQS also contains meteorological data, descriptive information about each monitoring station (including its geographic location and operator), and data quality assurance/quality control information. Users can download datasets from Air Data or use the AirData interactive map. Custom datasets may require technical expertise to download.</p>
<p>EPA AirNow</p>	<p>Daily AirNow data for carbon monoxide, particulate matter, ozone, lead, nitrogen oxides, and sulfur dioxide can be downloaded by monitor or for all monitors in a state, city, or county. The EPA AirNow Dashboard allows users to view air quality measurements, updated hourly, by geographic area. It is currently limited to ground-level ozone and particulate matter.</p>

<p>EPA Ambient Monitoring Technology Information Center (AMTIC)</p>	<p>AMTIC provides information about air monitoring programs and methods, including quality assurance and control procedures and federal regulations concerning monitoring.</p>
<p>EPA Ambient Monitoring Archive (AMA)</p>	<p>The 2021 Ambient Monitoring Archive for Hazardous Air Pollutants houses over 101 million data records from over 5,000 monitoring sites from 1990 through 2021. Data came from EPA, state, local, tribal, and federal monitoring agencies, and other academic, community, and short-term studies.</p>
<p>EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) for Petroleum Refineries Fenceline Monitoring</p>	<p>Since 2019, petroleum refineries have been required to report two-week average benzene concentrations at the fence line and background corrected concentrations based on data from fenceline monitors. Reports are required quarterly. EPA's Fenceline Monitoring Dashboard depicts monitoring locations and measured benzene concentrations. It also shows where along the property line the measured emissions are highest.</p>
<p>EPA NESHAP for Synthetic Organic Chemical Manufacturing Fenceline Monitoring</p>	<p>In 2024, EPA promulgated a final rule to reduce toxic emissions from synthetic organic chemical, and polymer and resin industries. This rule requires affected facilities to conduct fenceline monitoring if they use, produce, store, or emit ethylene oxide, chloroprene, benzene, 1,3-butadiene, ethylene dichloride, or vinyl chloride. This monitoring must begin by 2026, except for chloroprene, which was required to start in August 2024. EPA will make the monitoring data available to the public through its WebFIRE database.</p>

<p>EPA NESHAP for Integrated Iron and Steel Manufacturing Facilities Fenceline Monitoring</p>	<p>In 2024, EPA also promulgated a final rule to address toxic emissions from iron and steel manufacturing facilities. The new rule requires fenceline monitoring of chromium. The EPA has yet to finalize a monitoring method.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">TEXAS</p>	<p>TCEQ Air Quality and Monitoring</p> <p>The TCEQ Air Quality and Monitoring webpage provides an overview of ambient air monitoring in Texas. Pollutants monitored include criteria air pollutants, certain air toxics (including hydrogen sulfide), volatile organic compounds, metals, and carbonyls. The Geographical Texas Air Quality Monitoring (GeoTAM) viewer is a map-based interface for exploring air monitors in the state and viewing the data collected. Texas Air Monitoring Information System (TAMIS) is a report-generating interface for downloading detailed air quality and meteorological data collected by individual monitors.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">LOUISIANA</p>	<p>LDEQ Air Monitoring Data and Air Quality Index (AQI) and Canister and PAH Data</p> <p>The LDEQ website allows users to download criteria pollutant and air toxics data from individual monitoring stations for specific dates.</p>

Referenced in: [Standing, CAA Citizen Suits, CAA Section 303, Title VI, Rulemaking and Policy, Permitting, Zoning, and Torts.](#)

SATELLITE MONITORING

<p>NASA Tropospheric Emissions: Monitoring of Pollution (TEMPO)</p>	<p>TEMPO is a geostationary satellite instrument that provides hourly measurements of air pollutant columns in near real-time. Pollutants measured include ozone, nitrogen dioxide, sulfur dioxide, and formaldehyde. Spatial resolution, at approximately 2km x 5km “pixels,” is finer than previous satellite monitoring options. For more information, see the TEMPO website or fact sheet.</p>
<p>Tropospheric Monitoring Instrument (TROPOMI)</p>	<p>TROPOMI is a polar-orbiting satellite instrument that takes daily measurements – including columns of nitrogen dioxide, ozone, formaldehyde, sulfur dioxide, and carbon monoxide – which allow the European Space Agency and Netherlands Space Office to create daily global maps of atmospheric species relevant to air quality and climate monitoring.</p>
<p>Washington University -Atmospheric Composition Analysis Group</p>	<p>Global and regional PM_{2.5} concentrations are estimated using information from satellite-, simulation, and monitor-based sources.</p>

Referenced in: [CAA Section 303, Title VI](#), and [Rulemaking and Policy](#).

LOCAL AND COMMUNITY MONITORING (EXAMPLES)

<p>Gregory-Portland (Texas) Air Quality Monitoring</p>	<p>The University of Texas maintains a website that includes data from three high-quality air quality monitors that are sponsored and maintained by area industry. These monitors track particulate matter, nitrogen dioxide, sulfur dioxide, and VOCs. The data cannot be viewed in real-time, but historical data can be downloaded.</p>
<p>Air Alliance Houston Air Monitoring Dashboards</p>	<p>Air Alliance Houston is a nonprofit that has installed low-cost air quality sensors in multiple locations throughout Houston. The organization’s monitors track PM, VOCs, O₃, and NO_x. The organization is working on a monitoring dashboard to display results. Currently, some of the data is available on AirNow and the PurpleAir Community Map.</p>
<p>Louisiana Environmental Action Network (LEAN) Community Air Monitoring Network</p>	<p>In 2023, LEAN began a mobile monitoring project to measure carbon dioxide, carbon monoxide, fine particulate matter, nitrogen dioxide, ozone, black carbon, VOCs, and BTEX (benzene, toluene, ethylbenzene, and xylene). Detailed data reports and community monitoring maps can be found on LEAN’s website.</p>

Referenced in: [Standing, CAA Section 303, Title VI, Rulemaking and Policy, Zoning, and Torts](#).

6. TOXICITY, HEALTH, AND DEMOGRAPHIC DATA

Health impacts from air pollution vary based on the type of pollutant, the concentration and length of exposure, and the vulnerabilities of the individual exposed to the pollution. Sources listed below under [Chemical Toxicity Profiles](#) explain how toxic chemicals can affect health and well-being at different exposure levels and over the short versus long term. Sources listed under [Health and Demographic Data](#) provide demographic information about people living in a particular geographic area and whether they have a higher-than-normal incidence of health impacts, such as congenital disabilities or cancer. Additional sources of health impact data are included under [Mapping and Visualization Tools](#).

CHEMICAL TOXICITY PROFILES

<p>Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles and ToxFAQs</p>	<p>The ATSDR publishes “Toxicological Profiles” for many hazardous substances. Each profile is a peer-reviewed compilation of available toxicological and epidemiological information. ToxFAQs are shorter fact sheets that summarize pollutant-specific information from the Toxicological Profiles.</p>
<p>EPA Integrated Risk Information System (IRIS)</p>	<p>The IRIS program identifies and characterizes the health hazards of chemicals. IRIS includes Reference Concentrations, which are estimates of the continuous inhalation exposure that is likely to be without an appreciable risk of adverse health effects during a lifetime. IRIS also includes Inhalation Unit Risk, which is an estimate of the increased cancer risk from inhalation exposure to a concentration of 1 µg/m³ for a lifetime. An alphabetical list of IRIS chemical assessments is available.</p>

<p>EPA Acute Exposure Guideline Levels for Toxic Chemicals (AEGLs)</p>	<p>AEGLs describe the human health effects from short-term exposure to airborne chemicals. They are set through a collaborative effort of the public and private sectors worldwide. AEGLs are expressed as specific concentrations of airborne chemicals at which health effects may occur.</p>
<p>California OEHHA Acute, 8-hour, and Chronic Reference Exposure Level (REL) Summary</p>	<p>The California Office of Environmental Health Hazard Assessment publishes exposure level summaries for many toxic substances at acute, 8-hour, and chronic exposures.</p>

Referenced in: [Standing](#), [CAA Citizen Suits](#), [CAA Section 303](#), [Title VI](#), [Rulemaking and Policy](#), [Permitting](#), [Zoning](#), and [Torts](#).

HEALTH AND DEMOGRAPHIC DATA

US Census Bureau Data	<p>Census data is available in many formats on the U.S. census website. Census data can be viewed on a map or downloaded in table form. The country is surveyed every decade (most recently in 2020), but new data collected through American Community Surveys is released yearly.</p>
Centers for Disease Control and Prevention (CDC) National Public Health Environmental Tracking Network	<p>The CDC Public Health Tracking Network brings together health and environmental data from national, state, and local sources. Data can be viewed for a particular county or explored on a map. Most of the data presented is state or county level data. Detailed datasets can be downloaded for statistical analysis.</p>
CDC and National Cancer Institute State Cancer Profiles	<p>The CDC collaborates with the National Cancer Institute to generate the State Cancer Profiles. The interactive map allows users to identify the geographic regions where cancer burdens are highest.</p>
ATSDR Public Health Assessments (PHAs)	<p>The ATSDR conducts assessments and consultations to evaluate health impacts of pollution exposure. Its PHAs and Health Consultations are available on its website.</p>
TEXAS	<p>Texas Investigations into Unusual Patterns of Cancer</p> <p>Texas Department of State Health Services (TDSHS) publishes reports of their investigations into unusual patterns of cancer.</p>

TEXAS	Texas Birth Defects Registry Annual Reports	TDSHS publishes information about congenital disabilities , including reports by geographic region.
LOUISIANA	Louisiana Tumor Registry	The Louisiana Tumor Registry is published by the state Office of Public Health, with oversight from the Louisiana Cancer and Lung Trust Fund Board. Cancer data can be viewed on interactive data visualizations and maps and downloaded by census tract.

Referenced in: [Standing, CAA Section 303](#), and [Title VI](#).

7. MODELING TOOLS

Modeling tools can help identify where air-borne pollutants have traveled, predict where they might travel under future conditions, and estimate ambient pollution concentrations at various distances from the pollution source. However, EPA's highly technical models may be difficult to understand without expert help.

The Environmental Defense Fund's AirTracker is more accessible to laypeople and allows users to plot the likely path of air pollution. AirTracker is currently available for select metropolitan areas.

MODELING TOOLS	
EPA Risk-Screening Environmental Indicators (RSEI)	The RSEI screening model analyzes Toxics Release Inventory data, chemical toxicity, and population data and generates a "RSEI score" to represent the increased risk to human health from TRI toxic chemicals. Data can be accessed through the EasyRSEI Dashboard . RSEI Geographic Microdata for air releases include chemical concentrations, toxicity-weighted concentrations, and RSEI Scores for each 810 meter by 810 meter grid cell in the United States and its territories.
EPA AirToxScreen	The AirToxScreen screening model presents modeled concentrations of air toxics, exposure, and resulting risks to help identify which air toxic emissions, sources, and locations may present health risks. The 2020 assessment results are available online.
EPA Support Center for Regulatory Atmospheric Modeling (SCRAM)	The SCRAM is a central hub for EPA's air quality models and other mathematical simulation techniques used to evaluate strategies for controlling air pollution and the impacts of air emissions. The site identifies EPA's preferred models and provides guidance and training.

EPA Dispersion Modeling	Based on emissions data and meteorological inputs, dispersion modeling can predict concentrations at selected downwind locations. This site includes links to various dispersion models and tools.
EPA Photochemical Modeling	Photochemical models are large-scale air quality models that simulate the changes in pollutant concentrations in the atmosphere using a set of mathematical equations characterizing the chemical and physical processes in the atmosphere. The site includes links to an active open-source suite of programs for conducting air quality model simulations to generate estimates of ozone, particulates, toxics, and acid deposition.
EPA Areal Locations of Hazardous Atmospheres (ALOHA)	ALOHA is a modeling software that allows the user to enter details about an actual or potential chemical release. It then generates threat zone estimates for various types of hazards.
Environmental Defense Fund (EDF) AirTracker	The EDF AirTracker is a tool created by the nonprofit that identifies source areas contributing to air pollution. The tool runs on real-time, scientific models and combines air pollution and weather forecasting. Users can place a point of interest on a map and see where pollution affecting that point of interest was coming from for a given date and time or date range. You can also see real time air pollution readings and wind direction at monitors near the area of interest. Currently available for: Houston and Beaumont, TX; Lake Charles, LA; Salt Lake City, UT; Pittsburgh, PA; Birmingham, AL; Richmond, IN; Boston, MA; Bronx, NY; and Vallejo, CA.

Referenced in: [Standing, CAA Citizen Suits, CAA Section 303, Title VI, Rulemaking and Policy, Permitting, Zoning, and Torts.](#)

8. MAPPING AND VISUALIZATION TOOLS

Mapping and visualization tools combine pollution, health, and demographic data layers. The tools allow users to see overlapping impacts and vulnerabilities and to compare the effects in different geographic locations.

MAPPING AND VISUALIZATION TOOLS	
EPA AirToxScreen Mapping Tool	The AirToxScreen Mapping Tool allows a user to select an area on a map and see by census tract the long term cancer risk and noncancer hazard indices for respiratory, neurologic, liver, kidney, and immunological hazards. The tool also shows the pollutants contributing to the risk, the type of emissions contributing to the risk (industrial, on-road, fire, etc.), and emissions data for the air emission sources modeled.
EPA TRI Toxics Tracker Mapping Tools	The TRI Toxics Tracker allows a user to select a location and view nearby toxic emission sources indicated by a dot with the size of the dot representing either the amount of pollution released or potential harm. The color of the dot represents either the RSEI hazard or industry sector.
EPA Environmental Justice Screening and Mapping Tool (EJScreen)	The EJScreen tool allows users to view various types of pollution data on the same map as socioeconomic indicators at the census block group level. Users can add to the map major air pollution sources and locations of schools, parks, public housing, hospitals, places of worship, and prisons. Clicking on a pollution source will link to ICIS-Air data about that source. EJ and Supplemental Indices show how an area compares to the state or nation. For example, a user can see how an area's cancer risk or respiratory hazard index compares to the rest of the state or country. EPA has guidance and trainings on using EJScreen.

<p>EPA Envirofacts and EnviroMapper</p>	<p>Envirofacts and the associated EnviroMapper allow users to select a geographic area and see a map with all major air pollution sources in the area. Clicking on a source and then on ICIS-Air reveals information about the source's applicable Clean Air Act requirements, any enforcement actions taken against the source, when its Title V compliance certifications were filed, and what stack testing has occurred at the source.</p>
<p>EPA, My Environment</p>	<p>Selecting a location on My Environment opens up:</p> <ul style="list-style-type: none"> • My Map - a map that users can layer with air pollution sources, toxic releases, PM_{2.5} levels and ozone levels. Clicking on a pollution source takes you to EnviroFacts data about that source. • My Air - daily Air Quality Index readings and monthly and historical averages for the area. • My Health – includes total cancer risk for the area, general sources of air toxics and the pollutants contributing to the area's toxics risk, and low-birth rate and mortality information for the area compared to the rest of the state and country. • My Climate – includes Greenhouse Gas (GHG) emissions by industrial source type for the county and state, changes over time in statewide GHG emissions by source type, and more general data about projected precipitation changes, hurricane statistics, and increases in days over 90°F.

<p>White House Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool</p>	<p>The Climate and Economic Justice Screening Tool is an interactive map that uses datasets that are indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.</p>
<p>National Institutes of Health National Cancer Institute (NCI) Cancer Atlas</p>	<p>The NCI provides tools for mapping and downloading cancer statistics, risk factors, and information related to the geographic disparities in cancer. The Cancer Atlas allows users to generate maps showing all the geographical data related to cancer, including incidence, mortality, and risk factors.</p>
<p>Environmental Defense Fund's U.S. Climate Vulnerability Index</p>	<p>The U.S. Climate Vulnerability Index, created by the Environmental Defense Fund, Texas A&M University, and Dark Horse Analytics, pulls in 184 sets of data to rank more than 70,000 U.S. Census tracts, and highlight which communities face the most significant challenges from the impacts of a changing climate. Users can explore the data on the Climate Vulnerability Mapping Tool.</p>
<p>Environmental Defense Fund's Chemical Exposure Action Map</p>	<p>Using emissions data for 23 of EPA's high-priority toxic chemicals, the Chemical Exposure Action Map depicts a community's cumulative exposure to multiple toxic chemicals that cause the same harm. The map focuses on three types of health harm: cancer, developmental harm, and asthma.</p>
<p>Environmental Defense Fund's Petrochemical Air Pollution Map</p>	<p>The Map shows modeled cancer and non-cancer health risks from combined exposure to multiple hazardous air pollutants emitted by the petrochemical industry. It apportions and attributes percentages of health risk in a census block group to specific source facilities and chemicals.</p>

Referenced in: [Standing](#), [CAA Section 303, Title VI, Rulemaking and Policy](#), and [Zoning](#).

USING DATA IN LEGAL ACTIONS TO REDUCE POLLUTION

Air pollution data, including data available through the sites identified above, can be helpful for many things—tracking compliance, discovering unknown pollution sources, locating pollution hot spots, and identifying pollution that contributes to health impacts. Communities can use air pollution data to bring public attention to pollution problems, educate elected officials, and prompt government enforcement action.

Data can also be useful in various types of community legal actions. This section of the Guide provides examples of such legal actions and discusses how air pollution data might be used to support those actions.

1. STANDING

BACKGROUND

To bring an environmental case before a court or an administrative judge, the party bringing the case must typically demonstrate that they are or will be personally impacted by the illegal environmental activity they are challenging.

Data can be used to help demonstrate that personal impact.

STANDING TO SUE IN FEDERAL COURT

Some lawsuits—such as “[citizen suit](#)” enforcement actions under the Clean Air Act and challenges to federal agency [rulemakings](#)—must be filed in federal court. A person does not have the right to sue in federal court simply because they observe someone breaking environmental laws. Only someone that meets the three-part test for standing may bring an action in federal court. The person suing - the “plaintiff” - must prove that they have suffered or will suffer (1) an injury in fact, (2) that is traceable to the illegal conduct complained of, and (3) that can likely be remedied by court action.³

³ *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 (1992). Where a plaintiff complains of being denied procedural rights provided by a statute, e.g., the right to comment, the requirements for showing immediacy of the harm and redressability may be reduced; *See, Dept. of Education v. Brown*, 600 U.S. 551, 561-62 (2023). For example, the plaintiff denied the right to comment on a permit is not required to show that the agency would have denied or changed the permit if the plaintiff had been able to comment.

1. *Injury in fact that is both “concrete and particularized” and “actual or imminent”*

The injury must be to the plaintiff, not solely to the environment.⁴ The harm can be to a plaintiff’s economic, health-related, or aesthetic and recreational interests, such as an interest in not seeing or smelling the violator’s pollution.⁵ The plaintiff’s interests must have a “geographic nexus” to the area adversely impacted by the violations. In other words, the harm created or that will be created by the violations, must affect an area to which the plaintiff has a connection (e.g., where the plaintiff lives, works, or routinely recreates).⁶ In lawsuits to prevent future harm, a plaintiff must show that the threatened injury is “certainly impending.”⁷

2. *Injury that is fairly traceable to the challenged action*

There must be a causal connection between the defendant’s conduct and the plaintiff’s harm that is not “too attenuated.”⁸ The harm cannot result from the independent action of a third party not before the court.⁹

3. *Injury that is likely to be redressed by a favorable decision*¹⁰

The plaintiff must show that the remedy sought from the court will redress the plaintiff’s harm. The harm does not have to be fully abated; court action that would slow or reduce the harm is likely sufficient.¹¹ When the remedy sought is a monetary fine paid to the federal government rather than the plaintiff, courts have found the penalty can redress the plaintiff’s injury by deterring future violations.¹²

⁴ *Lujan v. Defs. of Wildlife*, 504 U.S. at 560; see also, *FDA v. Alliance for Hippocratic Medicine*, 602 U.S. 367, 380-382 (2024).

⁵ *Lujan v. Nat’l Wildlife Fed’n*, 497 U.S. 871 (1990); *Friends of the Earth, Inc. v. Laidlaw Environmental Services*, 528 U.S. 167, 183 (2000); *Citizens for Clean Air & Clean Water in Brazoria County v. U.S. Dept. Transportation*, 98 F.4th 178, 188 (5th Cir. 2024).

⁶ *Lujan v. Defs. Of Wildlife*, 504 U.S. at 566; See also, *Center for Biological Diversity v. EPA*, 937 F.3d 533 (5th Cir. 2019).

⁷ *Clapper v. Amnesty International USA*, 568 U.S. 398, 410-11 (2013).

⁸ *Alliance for Hippocratic Medicine*, 602 U.S. at 383.

⁹ *Lujan v. Defs. of Wildlife*, 504 U.S. at 560.

¹⁰ *Lujan v. Defs. of Wildlife*, 504 U.S. at 561.

¹¹ *Massachusetts v. E.P.A.*, 549 U.S. 497, 499 (2007).

¹² *Friends of the Earth v. Laidlaw Env’tl. Servs.*, 528 U.S. 167, 187 (2000).

Where the plaintiff is an association, such as a neighborhood group or a nonprofit, it has standing to bring suit on behalf of its members if: (1) at least one of the association's members has standing to sue in their own right, per the three listed criteria above, (2) the interests the association seeks to protect in the suit are germane to the organization's purpose, and (3) no individual members of the association are required to participate in litigation of the claim or the relief requested.¹³

A federal court can review standing at any phase in litigation.¹⁴ The plaintiff's burden to prove standing increases as a case progresses through trial. At the pleading stage of litigation, for example, a plaintiff may withstand a motion to dismiss by alleging general facts about their injury from the defendant's conduct. In response to a motion for summary judgment, plaintiffs must set forth by affidavit or other evidence specific facts supporting their standing. If challenged at trial, facts supporting standing must be adequately supported by the evidence at trial.¹⁵

STANDING TO SUE IN STATE COURT

Suits challenging state environmental agency actions, claiming violations of state constitutions, or seeking to enforce state environmental laws through a state "citizen suit" statute must typically be brought in state court.¹⁶ Federal standing doctrine has strongly influenced state standing requirements. The following is an overview of standing doctrine in Texas and Louisiana

Texas: Standing in Texas courts is based on Article I, § 13 of the Texas constitution: "All courts shall be open, and every person for an injury done to him, in his lands, goods, person or reputation, shall have remedy by due course of law." Texas courts have followed and cited federal precedent requiring injury, causation, and redressability to establish standing.¹⁷ Texas also applies the federal test for associational standing.¹⁸

¹³ *Hunt v. Washington State Apple Advertising Com'n*, 432 U.S. 333 (1977).

¹⁴ *Nat'l Org. for Women v. Scheidler*, 510 U.S. 249, 255-56 (1994).

¹⁵ *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560-61 (1992); *Gen. Land Office of Tex v. Biden*, 71 F.4th 264, 272(5th Cir. 2023).

¹⁶ Not all states have state versions of the federal Clean Air Act's citizen suit provision. Louisiana does have such a provision, which allows suit by "any person having an interest, which is or may be adversely affected" by violations of state environmental statutes and regulations. La. R.S. § 30:2026.

¹⁷ See, e.g., *Texas Propane Gas Ass'n v. City of Houston*, 622 S.W.3d 791, 800 (2021) ("The Texas standing requirements parallel the federal test for Article III standing, which provides that a plaintiff must allege personal injury fairly traceable to the defendant's allegedly unlawful conduct and likely to be redressed by the requested relief." (citing *In re Abbott*, 601 S.W.3d 802, 807 (Tex. 2020)).

¹⁸ *Texas Ass'n of Business v. Texas Air Control Board*, 852 S.W.2d 440 (Tex. 1993).

Louisiana: Louisiana law states that a legal action must be brought “by a person having a real and actual interest which he asserts.”¹⁹ A public right or duty may not be compelled or enforced by a private citizen without a showing of a personal grievance or interest in the outcome.²⁰ The requirement for standing “is satisfied if it can be said that the plaintiff has a legally protectable and tangible interest at stake in the litigation.”²¹ Suits seeking judicial review of Louisiana Department of Environmental Quality actions,²² must be brought by a “person aggrieved,” which courts have said requires a real and actual interest that is or may be adversely affected by the government decision.²³

STANDING BEFORE ADMINISTRATIVE AGENCIES

Public participation is welcome in many administrative agency contexts, and often, no showing of standing is required. For example, a person does not need to show standing to comment on agency proposed rules or on a proposed air permit. However, to participate in hearings before administrative judges, a party may need to show standing. For example, in Texas, a person who wants to challenge an air permit in a state administrative hearing before administrative judges must demonstrate that they are an “affected person.” (See the [Air Permitting](#) section of this report for more information about proving affected person status.)

19 LA. Code Civ. Pro. Art. 681.

20 *League of Women Voters of New Orleans v. City of New Orleans*, 381 So.2d 441, 446 (1980).

21 *Animal Legal Defense Fund v. State, Dept. of Wildlife and Fisheries*, 140 So.3d 8, 17 (La. App. 1st Cir. 2013).

22 See e.g., La. R.S. § 30:12 (re. conservation of oil and gas).

23 *Calcasieu League for Environmental Action Now v. Thompson*, 661 So.2d 143, 146-48 (La. Ct. App. 1st Cir. 1995); See also, *Matter of Recovery I, Inc.*, 635 So.2d 690, 694 (La. Ct. App. 1st Cir. 1994) (“a party must have a real and actual interest which is or may be adversely affected by the DEQ’s decision” (citing *In the Matter of BASF Corporation, Chemical Division*, 533 So.2d 971, 973 (La. Ct. App. 1st Cir. 1988), which found “members of the Citizens Groups suffered injury in that their physical well-being and the aesthetics of their domiciles were diminished by the illegal chemical releases.”)).

HOW AIR POLLUTION DATA SOURCES CAN HELP

If a plaintiff's suit involves an existing source of pollution, they might demonstrate standing by testifying that they can see or smell the pollution emitted by the source, that they do not like the sights and odors, are experiencing or concerned about related health impacts, and that they have changed their daily life because of the pollution, such as by not using their backyard. If a suit involves a new air pollution source or is a citizen suit seeking to deter future harm, the Plaintiff will need to show that it is likely that they will suffer imminent harm from future air emissions from the pollution source.

In either case, the plaintiff might use data to help demonstrate – among other things – that the source's pollution is of a type that is visible or causes odors or health impacts, that the source's pollution reaches areas where the plaintiff lives or frequently recreates, and that local ambient levels of the pollutants emitted by the source are high. The plaintiff might also use data to document specific dates when the facility emitted illegal pollution and the plaintiff experienced adverse health effects. Such information could help demonstrate that a court order requiring the source to reduce its pollution would redress the plaintiff's harm.

What types of pollution is plaintiff exposed to or will the plaintiff be exposed to?

- For challenges to proposed permits, the permit application lists the pollutants and quantities proposed to be authorized. These permit documents can be found on [TCEQ's website](#) or LDEQ's [Electronic Document Management System](#).
- Where a plaintiff is experiencing harm (trouble breathing, burning eyes, smells) and needs to determine which facility is likely causing the harm, tools like EPA's [Risk Screening Environmental Indicators](#) model and EDF's [AirTracker](#) could help identify the source of pollution.
- Once the facility causing the harm has been identified, additional information about the facility's emissions could be found, for example, from the [Toxic Release Inventory](#), [National Emissions Inventory](#), or [TCEQ](#) or [LDEQ](#) emission inventory sources.
- Sources such as EPA's [Enforcement and Compliance History Online](#), the [Risk Management Plan Public Data Tool](#), TCEQ's [Emission Event Report Database](#), [LDEQ Incident Reports](#), and [TCEQ](#) and [LDEQ](#) Title V Deviation Reports and Compliance Certifications might be helpful in identifying the facility's violations, the amount of pollution released during those violations, and the duration of the violations.

What harm can those pollutants cause?



- Sources such as the ATSDR's [Toxicological Profiles](#) and EPA's [Integrated Risk Information System](#) identify odors and potential health impacts caused by different pollutants at different concentrations. EPA's [Acute Exposure Guideline Levels for Toxic Chemicals](#) could be used where short-term pollution exposure may have caused health impacts.
- Monitoring data from sources such as EPA's [Air Data](#), TCEQ's [Air Quality Monitoring website](#), or LDEQ's [Air Monitoring Data and Air Quality Index and canister and PAH Data](#) could reveal whether existing ambient levels of the pollutants of concern pose a health threat.
- [Modeling Tools](#) could be used to demonstrate that concentrations of the pollutants of concern are or will be sufficient to cause odors or health impacts at the plaintiff's home, work, or where they frequently recreate.
- Modeled or monitored pollution levels could be compared to the thresholds in the ATSDR's [Toxicological Profiles](#) or EPA's [Integrated Risk Information System](#) or [Acute Exposure Guideline Levels for Toxic Chemicals](#) to determine potential adverse impacts.
- Sources listed in [Health and Demographic Data](#) might identify health vulnerabilities in a particular area, such as notably high rates of asthma or a specific type of cancer. Underlying health issues related to existing air pollution – either the plaintiff's health issues or those in the local community – could bolster the reasonableness of a plaintiff's concerns about pollution.
- [Mapping and Visualization Tools](#) such as [EJScreen](#) could be used to show how levels of pollutants in the plaintiff's area compare to levels of those pollutants in the state or across the United States. [EJScreen](#) could also be used to determine if certain health conditions or risks are higher in the area of the pollution source.

In addition, tools such as EPA’s [Risk-Screening and Environmental Indicators](#) model and [AirToxScreen](#) might be used to help attribute risk to specific pollution sources and source sectors. [EasyRSEI](#) could be used to compare the hazards from a particular facility to the sector median.

Is future harm “certainly impending”?

- In a citizen suit enforcement case, a plaintiff might use [Air Violation and Enforcement Data](#) to show a history of repeated violations to help prove that the defendant’s future violations are “certainly impending” and will continue to cause harm to the plaintiff.

Do pollutants reach areas frequented by the plaintiff (e.g., where the plaintiff lives, works, or repeatedly recreates)?

For emissions that can be seen, the geographic area that is or will be impacted by the emissions might be identified through photos or videos – e.g., photos from a person’s backyard showing the smoke or flaring caused by illegal emissions. For emissions that cause odors, a plaintiff could keep a log and testify as to what the odors smelled like, where they smelled them (e.g., from their home), and how often they smelled them. They might also note if the odors grow stronger as they go closer to the pollution source or if the odors are more powerful when the wind is blowing from the direction of the pollution source. In addition, the following data sources could be helpful.

- If an area frequented by the plaintiff has an ambient monitor, [Ambient Air Monitoring](#) could show that a pollution source’s emissions reach the area around the monitor. If regulatory air monitors are too far from the area of concern to be helpful, potential plaintiffs might rely on any [Local and Community Monitoring](#), although some of this monitoring might be challenged as unreliable.
- [Modeling Tools](#) could be used to show the geographic area impacted by a source’s air pollution or proposed air pollution. For example, [AirTracker](#) could be used to document where pollution impacting a plaintiff’s home was coming from. Some modeling tools can also estimate the anticipated ambient levels of pollutants at various locations.

Could a favorable decision redress the plaintiff’s harm?

- Tools such as the [RACT/BACT/LAER Clearinghouse](#) could identify air pollution sources that are similar to the violator and that use better pollution controls. This information might show that it is feasible for the violator to comply with a court order requiring emission reductions.

- [Modeling Tools](#) and [Chemical Toxicity Profiles](#) could be used to show that emissions reductions would reduce or eliminate adverse impacts to the plaintiff.

2. CLEAN AIR ACT CITIZEN SUITS

BACKGROUND

The Clean Air Act (CAA) provides for “citizen suits,” which enable anyone who has standing to sue a person or facility violating the CAA’s emissions standards or limitations.²⁴ Citizen suit remedies include injunctions against the polluter and civil penalties, which are generally paid to the government.²⁵ Citizen suits can be a powerful tool to stop unlawful pollution. Even where a citizen suit does not result in a judicial order, it can create leverage for settlements that can reduce pollution and increase public health protections.

However, plaintiffs must overcome a few hurdles to bring a successful citizen suit. First, as discussed above anyone bringing a citizen suit must demonstrate that they have [standing](#) to sue. Second, the government cannot already be “diligently prosecuting” the violations alleged in the citizen suit.²⁶ Third, the violations must either be ongoing or, if they happened in the past, must have been repeated.²⁷

When a defendant is found liable in a citizen suit, a court must decide what remedy should be required. Penalties may be assessed for each day of violation and are adjusted for inflation; the maximum currently exceeds \$55,000 per day per violation.²⁸ In assessing penalties, the CAA requires that courts consider factors including the violator’s economic benefit gained through the violations, the violator’s full compliance history and good faith efforts to comply, the duration of the violation, and the seriousness of the violation.²⁹

24 42 U.S.C. § 7604(a)(1)-(3). This report focuses on citizen suits brought against polluters for violations of CAA standards or limitations because air pollution data is more likely to be relevant for these claims. Citizen suits can also be brought for construction of an air pollution source without the required permit or against the EPA for the failure to perform a non-discretionary duty.

25 42 U.S.C. § 7604(a)(3), (g). Up to \$100,000 of a civil penalty can be used to fund a beneficial mitigation project.

26 42 U.S.C. § 7604(b)(1)(B).

27 42 U.S.C. § 7604(a)(1).

28 40 C.F.R. § 19.4. *See also*, EPA, Memorandum: Amendments to EPA’s Civil Penalty Policies to Account for Inflation (effective January 15, 2024), available at: <https://www.epa.gov/system/files/documents/2024-01amendmentstotheepacivilpenaltypolicyinflation011524.pdf>.

29 42 U.S.C. § 7413(e).

Example:

Pasadena Refinery Citizen Suit

In 2018, Environment Texas and Sierra Club filed a citizen suit against Pasadena Refining Systems, Inc.³⁰ The complaint was based on Pasadena Refining System's reported emission violations—found in the [Texas Emission Event Database](#) and [Title V Deviation Reports](#). The nonprofits supplemented facility-reported evidence of emission violations with information about the refinery's permits and the health effects of emitted pollutant. After the complaint survived the refinery's motion to dismiss, the refinery settled for \$3.525 million, most of which went to a vehicle emissions reduction fund. The settlement also required the refinery to upgrade air pollution control equipment, implement emergency flare minimization plans, and improve preventative maintenance and complaint response.³¹

Clean Air Act citizen suits must be filed in federal district court. At least sixty days before filing suit for violations of the Clean Air Act, the plaintiff must provide notice of their intent to sue to the potential defendant, EPA, and the relevant state.³²

The notice must include enough information for the recipient to identify the standard, limitation, or order violated; the activity that led to the violation; the person responsible; the location; and the date of the violation. It must also include the full name and address of the person who intends to bring the citizen suit.³³

³⁰ *Environment America, Inc. d/b/a Environment Texas and Sierra Club v. Pasadena Refining System, Inc.*, No. 4:17-cv-00660, 2017 WL 819920 (S.D. Tex. Mar. 2, 2017).

³¹ *Environment America, Inc. d/b/a Environment Texas and Sierra Club v. Pasadena Refining System, Inc.*, No. 4:17-cv-00660, Consent Decree and Order (July 26, 2018), available at: <https://www.documentcloud.org/documents/4618905-Pasadena-Refining-Environment-Texas-Sierra-Club.html>. Because this case was settled, the monetary penalty could be used to fund significant pollution reduction projects. Conversely, when the court rules in a citizen suit, the only remedies—with limited exceptions—are penalties paid to the government and injunctive relief ordering the polluter to take some action. See also, National Environmental Law Center, *Five Years Later, NELCs Consent Decree with Pasadena Refining Comes to a successful Close*, available at: <https://www.nelc.org/news/five-years-later-nelcs-consent-decree-with-pasadena-refining-comes-to-a-successful-close/>.

³² 42 U.S.C. § 7604(b)(1)(A).

³³ *Id.*; 40 C.F.R. § 54.3(b). Notice must go to the Administrator of EPA, the state agency responsible for air pollution in the state where the violation occurred, and the alleged violator. 40 C.F.R. § 54.2. Note that citizen suits challenging EPA's nonperformance of a mandatory duty have different notice requirements, which can be found at 42 USC § 7604(b)(2) and 40 C.F.R. § 54.2(a), 3(a).

As noted, a citizen suit cannot proceed for violations that the government is diligently prosecuting.³⁴ In the U.S. Court of Appeals for the Fifth Circuit (which includes Texas and Louisiana), under the current caselaw, an administrative enforcement action should not bar Clean Air Act citizen suit claims because only enforcement actions in court act as a bar.³⁵ However, a citizen suit defendant might claim that non-court action—such as an agency enforcement action or even voluntary compliance—renders a citizen suit moot.³⁶

Likewise, a citizen suit may not proceed unless the violations are ongoing or repeated.³⁷ Emission violations are repeated if a pollutant is emitted more than once from the same unit (pollution sources can have multiple emission units, e.g., multiple flares) in violation of a standard or limit.

HOW AIR POLLUTION DATA SOURCES CAN HELP

Publicly available data, much of it self-reported by pollution sources, can provide evidence of Clean Air Act violations. Data may also help plaintiffs to overcome hurdles to bringing suit and argue for significant penalties.

What are the violations?

- Potential citizen suit plaintiffs might notice flaring, smells, or health effects and want to determine whether a nearby facility is violating the Clean Air Act. [Violation and Enforcement Data](#), such as the following, could help identify which air pollution sources are exceeding legal pollution limits.
 - ◇ [Texas Air Emission Event Report database](#)
 - ◇ [Texas](#) and [Louisiana's Title V Semi-Annual Deviation reports](#)
 - ◇ EPA's [Enforcement and Compliance History Online](#)
- To help prove violations of qualitative permit limits, such as terms prohibiting emissions that create a nuisance or harm public health, [Facility Emissions](#) data could be used to identify which pollutants a source is emitting and in what quantities, while sources such as ATSDR's [Toxicological Profiles](#) could help

34 42 U.S.C. § 7694(b)(1)(B).

35 See, e.g., *Texans United for a Safe Econ. Educ. Fund v. Crown Cent. Petroleum Corp.*, 207 F.3d 789, 795 (5th Cir. 2000).

36 See, *Ctr. for Biological Diversity, Inc. v. BP Am. Prod. Co.*, 704 F.3d 413, 425-26 (5th Cir. 2013).

37 42 U.S.C. § 7604(a)(1).

determine whether emissions of those pollutants seem related to noxious smells or health effects. [EasyRSEI](#) could be used to show that emissions are creating an unacceptable risk to human health.

- [Ambient Air Monitoring Data](#) and [Modeling Tools](#) might also be helpful, particularly where problematic emissions are not reported, or underreporting is suspected. For example, EDF's [AirTracker](#) could help identify the source of unreported emissions.

Are the violations repeated or ongoing?

[Facility Emissions](#) data and [Violation and Enforcement Data](#) could be used to show that the pollution source has repeatedly violated the same emission limit or permit condition at the same unit or is in ongoing noncompliance with that limit or condition at that unit. Other data, such as photos and videos, might also be useful in showing ongoing pollution events.

Have the violations been subject to government enforcement action?

[Violation and Enforcement Data](#) such as EPA's [Enforcement and Compliance History Online](#), TCEQ's [Enforcement Actions and Reports](#) website, and LDEQ's [Enforcement Actions and Settlement Agreements](#) websites identify government enforcement actions. If there is a government enforcement action in court, plaintiffs likely cannot bring a citizen suit for the violations covered in that action. Checking for ongoing government enforcement actions may also help plaintiffs assess the risk that a citizen suit could become moot due to future enforcement action or voluntary facility compliance.

Are large monetary penalties justified?

While courts have broad discretion to consider a full range of factors in assessing penalties, they must consider the factors listed in the Clean Air Act, including those listed above.

- Sources such as [EasyRSEI](#) could help show that the violator's emissions are creating a significant health risk and are, therefore, **serious** and justify a heightened penalty.
- [Modeling Tools](#) could be used to show that the violations result in ambient pollution levels that are unsafe or unhealthy or exceed established [Regulatory Standards](#).

- [Violation and Enforcement Data](#) and potentially [Facility Emissions](#) data could be used to document the *duration* and number of violations. A large number of violations might show a lack of *good faith effort to comply*.
- While proving the *economic benefit* enjoyed by a violator is complicated and almost certainly requires an expert, [technology-based standards](#) could be used to identify pollution controls that the defendant could have utilized to avoid violations. A plaintiff could argue the defendant enjoyed an economic benefit by not timely paying to install, operate, and maintain such controls.

3. CLEAN AIR ACT SECTION 303: IMMINENT AND SUBSTANTIAL ENDANGERMENT

BACKGROUND

Section 303 of the Clean Air Act allows EPA to take emergency action when “a pollution source or combination of sources . . . is presenting an imminent and substantial endangerment to public health or welfare, or the environment.”³⁸ This provision gives EPA the power to file a civil suit when air pollution is creating an immediate danger, even where that pollution does not otherwise violate the Clean Air Act. If filing in court will not address the danger quickly enough, EPA can issue temporary emergency orders directly to polluting facilities, which can force those facilities to pause operations or take other immediate action.³⁹ The public can encourage EPA’s use of its Section 303 authority by petitioning the agency and documenting severe air pollution problems.

The language of Section 303 addresses endangerment created by a “source or collection of sources” and on at least one occasion early in the history of Section 303, EPA intervened against a broad set of industries to address dangerous conditions that did not have a clear single source. Recent interventions have focused on single sources, but advocates could attempt to persuade EPA to take action under Section 303 to address areas where collective pollution from multiple sources creates dangerous conditions.

38 42 U.S.C. § 7603.

39 *Id.* For an example of such an order, see EPA’s Clean Air Act Emergency Order CAA-02-2021-1003, available at: https://www.epa.gov/sites/default/files/2021-05/documents/limetree_bay_303_order_-_caa-02-2021-1003.pdf.

EPA has only acted under the Imminent and Substantial Endangerment provision a handful of times since the 1970s and only in particularly extreme cases.⁴⁰ There is, however, some indication that EPA is becoming more willing to use Section 303. Recent petitions to EPA have been successful in generating action.⁴¹ Air pollution data could help advocates highlight areas with dangerous pollution levels and encourage EPA's further use of its power pursuant to the Imminent and Substantial Endangerment provision.

What is Imminent and Substantial Endangerment?

EPA guidance notes that "endangerment" includes threatened or potential harm. It also explains that "imminent" encompasses current conditions that "indicate a threat of harm," even if the actual harm may not occur until long in the future.⁴² To understand better what prompts EPA to use Section 303, it is helpful to look at recent examples where EPA has chosen to use these emergency powers.

40 For example, where a facility released such strong odors that EPA received thousands of complaints in a matter of weeks (New-Indy Catawba paper mill, discussed below); where a facility repeatedly released oil droplets onto surrounding communities, contaminating food and water (Limetree Bay Refinery, discussed below); or where a combination of facilities and weather created an extremely high concentration of PM without a legal mechanism in place to alleviate that pollution (Birmingham, 1971); *See also, Hardy et. al, First Use of the Federal Clean Air Act's Emergency Authority: A Local Analysis*, 64 Am. Jour. Pub. Health Vol. 1 72 (January 1974), available at: <https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.64.1.72>.

41 For example, see Earthjustice's petition to EPA to take action regarding Denka Elastomer (discussed below), available at: https://earthjustice.org/wp-content/uploads/ccsj_petition_for_emergency_action_petition_for_rulemaking_05-06-2021_1.pdf.

42 EPA, Office of Enforcement and Compliance Assurance, "Guidance on Section 303 of the Clean Air Act" (April 1, 1999), at 3-7, available at: <https://www.epa.gov/sites/default/files/2021-05/documents/transmittalofguidanceonsection303ofcaa040199.pdf>.

Examples of Recent Section 303 Actions

Limetree Bay – Oil Refinery, St. Croix, 2021

A new owner bought an oil refinery on the small island of St. Croix, and operations were restarted, leading to at least four serious air pollution incidents that impacted downwind communities over four months.⁴³ Specifically, the refinery repeatedly released oil droplets into the air—“flare rainout”—which contaminated water cisterns and gardens of downwind communities.⁴⁴ The refinery also repeatedly reported high hydrogen sulfide (H₂S) and sulfur dioxide (SO₂) emissions, including H₂S emissions “orders of magnitude” above the emission standard for multiple days in a row. In at least one instance, a flare header had a three-hour average H₂S emission 565 times higher than the unit’s legal limit.⁴⁵ These incidents led to community complaints, and EPA sent investigators, who described potent odors and experienced nausea.⁴⁶

Based on modeling of SO₂ emissions during these events, EPA determined that the facility’s pollution posed an imminent and substantial danger to the health of downwind communities.⁴⁷ EPA tied this determination to the Acute Exposure Guidelines Level-1 (AEG1-1) for SO₂ at ground level. EPA also noted that “the repeated nature of the flare failures coupled with...the release of noxious sulfur compounds and other potentially hazardous air pollutants elevates the degree of harm.”⁴⁸ Finally, EPA pointed to the serious accidents and harm that can result from improperly maintained or managed flare systems as a factor that increased the risk in this case.⁴⁹

EPA issued an emergency order under Section 303 requiring the refinery to cease operations, audit their processes, equipment, and CAA compliance, and submit findings and corrective measures to EPA.⁵⁰ EPA’s intervention was followed by greater scrutiny of the refinery’s general facility conditions. This resulted in a long string of EPA and DOJ enforcement actions and consent agreements that touched on the facility’s chemical storage and permitting.⁵¹

43 EPA’s Clean Air Act Emergency Order CAA-02-2021-1003, pages 4-5, 9, available at: https://www.epa.gov/sites/default/files/2021-05/documents/limetree_bay_303_order_-_caa-02-2021-1003.pdf.

44 *Id.* at 10.

45 *Id.* at 12-13.

46 *Id.* at 10-20.

47 *Id.* at 17-18.

48 *Id.* at 28.

49 *Id.* at 29.

50 *Id.* at 31-41.

51 EPA, *Refinery on St. Croix, U.S. Virgin Islands*, available at: <https://www.epa.gov/vi/refinery-st-croix-us-virgin-islands>.

New-Indy Catawba – Paper Mill, South Carolina, 2021

In 2021, after a paper mill changed its manufacturing process, it began emitting high levels of H₂S. Over eight weeks, residents in the surrounding communities submitted to EPA roughly 17,000 complaints about odors, nausea, headaches, nose, throat, and eye irritation, as well as breathing problems. The state environmental enforcement agency (South Carolina Department of Health and Environmental Control) conducted trajectory analysis from complaints and wind direction to identify New-Indy as the source. EPA sent investigators with personal-safety gas monitors, which recorded H₂S levels as high as 15,900 parts per billion (ppb). The [Acute Exposure Guideline Level](#) (AEGL) for H₂S is 900 ppb over 30 minutes. EPA also sent a mobile monitoring lab (Geospatial Measurement of Air Pollution – GMAP) that took stationary measurements and mobile transect air samples, confirming the AEGL exceedances for H₂S. Likewise, New-Indy's self-reported fence-line monitoring data showed exceedances of H₂S standards on 17 occasions.

EPA issued an emergency order under Section 303 mandating that New-Indy reduce and monitor H₂S emissions and submit a long-term plan to decrease them. EPA subsequently filed suit asking for an injunction to extend the emergency order beyond 60 days, at which point New-Indy and EPA entered into a consent order (a type of settlement).⁵² After several extensions of that consent order and an extended period of New-Indy not exceeding H₂S health-based emission standards, the parties agreed to a final settlement of the case in 2022. That settlement required New-Indy to pay \$1.1 million in civil penalties and implement operational and monitoring requirements to reduce H₂S emissions.⁵³

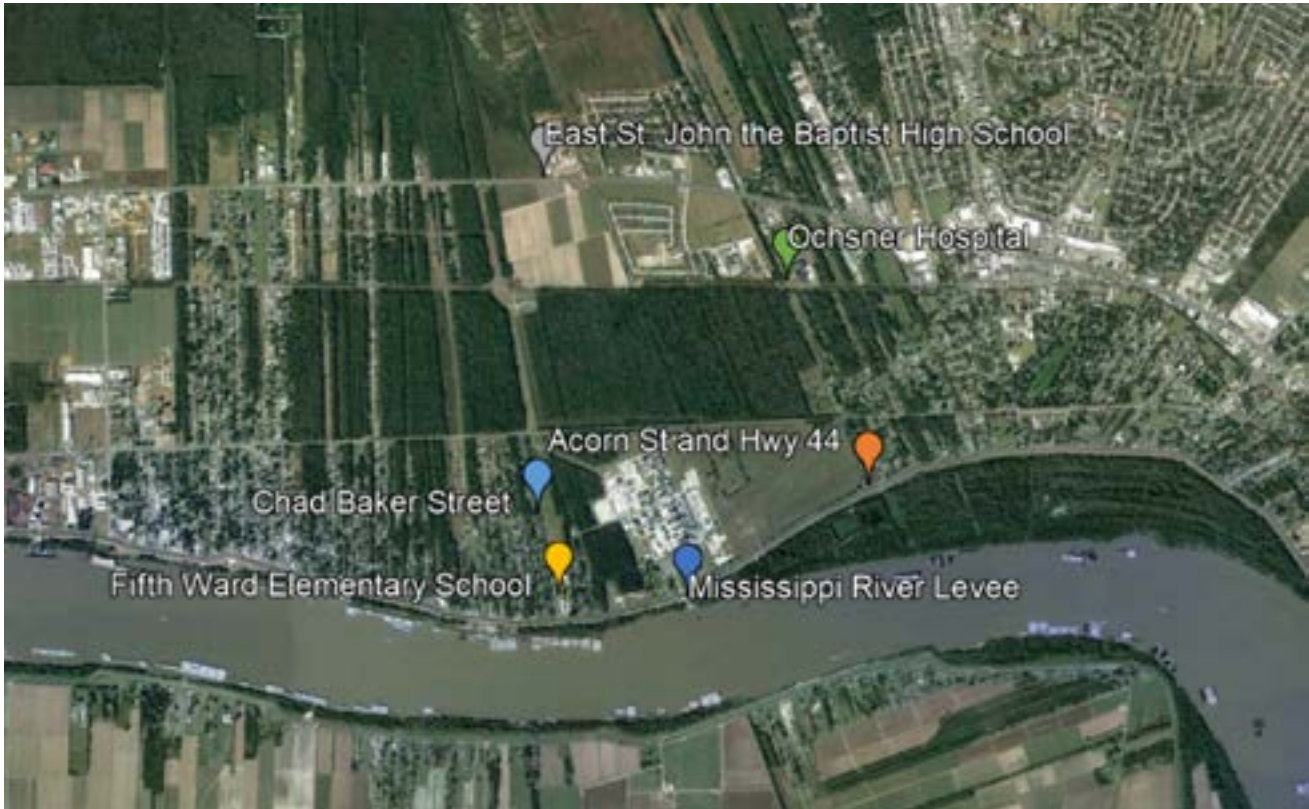
Denka Performance Elastomer – Neoprene Manufacturing, Louisiana, 2023

EPA's emergency intervention into Denka's neoprene manufacturing operations shows a slightly different approach to Imminent and Substantial Endangerment than in EPA's earlier Limetree Bay and New-Indy interventions. In those instances, EPA responded to emerging, easily observable air pollution conditions—oil droplets and new powerful odors.

⁵² *United States v. New-Indy Catawba, LLC*, No. 0:21-CV-02053-SAL, 2022 WL 18357257, at *3 (D.S.C. Sept. 15, 2022).

⁵³ EPA, *Public Comment Period on EPA's Proposed Settlement Agreement with New Indy Catawba, LLC Extended* (February 9, 2022), available at: <https://www.epa.gov/newsreleases/public-comment-period-epas-proposed-settlement-agreement-new-indy-catawba-llc-extended>.

With Denka, EPA monitored consistently high chloroprene emissions from Denka's "normal" operations for several years before acting. EPA was prompted to act by a petition for Imminent and Substantial Endangerment action sent to EPA by Earthjustice.⁵⁴



Map of locations of air monitors around Denka

54 *Petition for Emergency Action under the Clean Air Act, 42 U.S.C. § 7603 et seq., to Abate the Imminent and Substantial Danger to St. John the Baptist Parish, Louisiana Residents from Toxic Air Pollution, May 6, 2021, available at: https://earthjustice.org/wp-content/uploads/ccsj_petition_for_emergency_action_petition_for_rulemaking_05-06-2021_1.pdf.*

From the time it began monitoring in 2016, EPA found consistently high chloroprene concentrations.⁵⁵ EPA’s emergency intervention was based on chloroprene emissions “at average concentrations that were consistently much greater than 0.2 ug/m³,” the level at which [EPA’s Integrated Risk Information System](#) database estimates that exposure will not increase lifetime cancer risk by more than 1-in-10,000. Average chloroprene levels were more than 14 times greater than the 0.2 ug/m³ standard.⁵⁶ The agency reported that resulting health risk and the vulnerable populations exposed to that risk were the critical factors in its finding of imminent and substantial endangerment.⁵⁷

In February of 2023, EPA filed a civil complaint and sought a preliminary injunction against Denka, asking the court to order Denka to take any steps necessary to reduce its chloroprene emissions. A Louisiana federal district court dismissed Denka’s initial counterclaims and certain affirmative defenses in August of 2023, and, at the time of writing, the case is ongoing. The Denka case provides an example of EPA 303 action where air pollution may be less obvious and has existed for some time at a level that threatens human health.

Section 303 requires that EPA “receive evidence that a pollution source . . . is presenting an imminent and substantial endangerment.”⁵⁸ As seen in the examples, EPA has been informed of endangerments by citizen complaints, facility-reported events, state environmental agency investigations, EPA long-term monitoring of a facility, and petitions on behalf of a community adjacent to the pollution source.

EPA has consistently conducted its own investigation before issuing an order or filing suit under Section 303. In addition, Section 303 requires EPA to “consult with appropriate state and local authorities” before taking any action.⁵⁹ Specifically, EPA is supposed to “attempt to confirm the accuracy of the information on which the action proposed to be taken is based.”⁶⁰

55 *Id.* at 9.

56 Complaint at 10, 14, *United States v. Denka Performance Elastomer, LLC*, 2023 WL 2266219 (E.D.La. Feb. 28, 2023); available at <https://www.justice.gov/opa/pr/justice-department-files-complaint-alleging-public-health-endangerment-caused-denka>.

57 *Id.* at 14. “The endangerment is substantial because Denka’s emissions of chloroprene cause ambient levels of chloroprene in nearby communities to be many times greater than the generally accepted threshold for demarcating unacceptably high cancer risks, and because children living in these communities and attending the schools close to the Facility are likely to be especially susceptible to the cancer risks posed by chloroprene.”

58 42 U.S.C. § 7603.

59 *Id.*

60 *Id.*

Once EPA has consulted with state and local authorities, it can file a civil suit “to immediately restrain any person causing or contributing to the alleged pollution to stop the emission . . . or to take such other action as may be necessary.”⁶¹ As mentioned above, if the danger cannot be addressed quickly enough by filing suit, EPA can issue an emergency order requiring the polluter to take action to stop the pollution. That emergency order can stay in effect for up to 60 days. If EPA files a civil suit within 60 days of issuing its emergency order, the order extends for another 14 days. Any further extension requires court authorization. In at least one case, affected community members sought to intervene as plaintiffs in a Section 303 suit, but that attempt was unsuccessful.⁶² Generally, EPA’s Section 303 cases have ended with settlements between EPA and the polluter.

HOW AIR POLLUTION DATA SOURCES CAN HELP

Advocates can encourage EPA to use its Section 303 authority by alerting the agency to specific pollution concerns, collecting evidence supporting those concerns, bringing public attention to the pollution problems, and identifying remedies sought by the impacted community.

Is the air quality hazardous?

Section 303 requires that a source or combination of sources “is presenting” an endangerment before EPA can intervene. This means the pollution creating the endangerment must be ongoing or intermittent. Where evidence of the hazard can be seen or smelled, community members can take photos, record video, and keep odor logs. Records should include who took the photo or video and the date, time, and location. Odor logs should include the date, time, location, how long the smell lasted, a description of the smell, and – if possible – the wind direction. Similarly, where community members are experiencing health impacts, such as sore throats, headaches, or burning eyes, they can record this information in a log that includes the date, time, location, a description of the health effects and how long they lasted, and — if possible—the wind direction. Data sources, including the following could provide additional useful information.

⁶¹ *Id.*

⁶² *New-Indy*, 2022 WL 18357257, at *1 (holding that the Clean Air Act does not provide a right to intervene in Section 303 suits).

- [Ambient Air Monitoring](#) sources, such as [EPA and State Environmental Agency Monitoring](#), could provide information about whether ambient air quality is dangerous. Where ground monitors are sparse, [Satellite Monitoring](#) might be used to identify areas with concerning pollution where further investigation is needed. [Local and Community Monitoring](#) might also be used to supplement agency or university monitors or to encourage EPA or the State to conduct their own monitoring.

Which air pollution sources are contributing to the hazard?

- If it is unclear which pollutants might be causing ongoing odors or health issues, ATSDR's [Toxicological Profiles](#) or EPA's [Acute Exposure Guideline Levels for Toxic Chemicals](#) can help identify pollutants that can cause particular odors or health effects. These sources can also help determine at what ambient levels pollutants can cause health impacts.
- Once the pollutants are known, [Facility Emissions](#) data, such as the EPA's [Toxic Release Inventory](#) and [Texas](#) and [Louisiana's emission inventories](#), could provide information about which sources in the area are emitting the pollutants of concern. [Violation and Enforcement Data](#) might help identify large pollutant releases.
- [Modeling Tools](#) could tie pollution back to a likely source and might be particularly helpful in identifying a source of pollution that fails to report or underreports its emissions.

Are there dangers to human health?

EPA's recent Section 303 actions have framed the "endangerment" as an ongoing threat to human health and wellbeing, although the statute also recognizes environmental threats. Data sources offering public health insights may be particularly useful in framing an air pollution emergency.

- Sources such as the [Toxicological Profiles](#) and [Acute Exposure Guideline Levels for Toxic Chemicals](#) could help identify the potential health effects and odor thresholds for pollutants of concern.
- [Health and Demographic Data](#) and certain [Mapping and Visualization Tools](#), such as [EJScreen](#) and EDF's [Chemical Exposure Action Map](#), might identify particularly vulnerable groups or documented health concerns in the area.
- [Regulatory Standards](#) such as the [National Ambient Air Quality Standards](#) could be helpful to show that specific chemicals are being found at ambient levels that pose a danger to human health.

4. TITLE VI OF THE CIVIL RIGHTS ACT

BACKGROUND

Section 601 of Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin in any program receiving federal financial assistance.⁶³ Under Section 602 of Title VI, federal agencies must adopt regulations that prohibit such discrimination in the programs that receive their financial assistance. Because state and local air regulatory programs receive federal money, they must comply with the Civil Rights Act and its implementing regulations.

EPA's Title VI regulations provide that no person "shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving EPA assistance on the basis of race, color, national origin."⁶⁴ Specifically, EPA's regulations prohibit recipients of federal support from using criteria or methods of administering its program that have the effect of subjecting individuals to discrimination because of their race, color, national origin.⁶⁵ The regulations also state that a recipient "shall not choose a site or location of a facility that has the purpose or effect of . . . subjecting [individuals] to discrimination"⁶⁶ and they require recipients to take affirmative action to address injuries resulting from previous discrimination.⁶⁷ EPA's regulations prohibit both intentional and disparate impact discrimination.

63 The US Department of Justice's Title VI regulations are located at 28 C.F.R. § 42.401 et seq. The US Department of Housing and Urban Development's (HUD) Title VI regulations are located at 24 C.F.R. part 1. The US Department of Transportation's (DOT) Title VI regulations are located at 49 C.F.R. part 21.

64 40 C.F.R. § 7.30. EPA's regulations implementing Section 602 of Title VI can be found at 40 C.F.R. Part 7, available at: <https://www.gpo.gov/fdsys/pkg/CFR-2014-title40-vol1/pdf/CFR-2014-title40vol1-part7.pdf>.

65 40 C.F.R. § 7.35(b).

66 40 C.F.R. § 7.35(c).

67 40 C.F.R. § 7.35(a)(7), (b).

In 2023, the State of Louisiana sued in federal court, challenging EPA's Title VI disparate impact regulations, arguing that the Civil Rights Act prohibits only intentional discrimination. The district court ruled for Louisiana and enjoined EPA and the U.S. Department of Justice (DOJ) from enforcing their Title VI disparate-impact regulations in Louisiana.⁶⁸ While EPA and DOJ's enforcement for disparate impacts is enjoined in Louisiana, advocates should consider whether they can make a case for intentional discrimination—which is barred by EPA's regulations and by the statute.

The U.S. Supreme Court has distinguished between intentional discrimination and disparate impact discrimination. It has held that while a person can sue in court to stop intentional discrimination, claims of disparate impact discrimination cannot be heard in court and must be raised through an administrative process before the federal agency that funds the alleged violator.⁶⁹ Because proving someone's intent to discriminate can present a high hurdle, civil rights violations have often been challenged in disparate impact claims before federal agencies.

Intentional Discrimination

Intentional discrimination occurs when the recipient of federal assistance acts, at least in part, because of the actual or perceived race, color, or national origin of the victims of discriminatory treatment. Claims of intentional discrimination can be brought either in court or through an administrative complaint to the federal funding agency, as discussed in more detail below. Intentional discrimination can be proven through evidence of express classifications based on race, discriminatory statements by decision-makers, or circumstantial or statistical evidence.⁷⁰

68 *State of Louisiana v. EPA*, Case No. 2:23-CV-00692 2024 WL 3904868 (W.D. La., August 22, 2024), link at: <https://earthjustice.org/wp-content/uploads/2024/08/2024.08.22-cain-judgement.pdf>.

69 *Alexander v. Sandoval*, 532 U.S. 275 (2001) (there is no private right of action to enforce disparate-impact regulations promulgated under Title VI).

70 For more information about proving intentional discrimination, see U.S. Dept. of Justice, Civil Rights Division, *Title VI Legal Manual (Updated)*, available at: <https://www.justice.gov/crt/fcs/T6manual>.

Case law sets out different frameworks that can be used to prove intentional discrimination. The *Arlington Heights* framework allows cumulative consideration of direct, circumstantial, statistical, and anecdotal evidence.⁷¹ Factors that can be considered include the historical background to the decision, particularly if there is evidence of past official actions for invidious purposes; the specific sequence of events leading to the decision; departures from ordinary procedures; substantive departures (e.g., considering different factors than usual); and legislative and administrative history.⁷²

Individuals seeking to prove a pervasive pattern and practice of intentional discrimination in an agency may rely on statistical evidence to show that an action that appears race-neutral causes a pattern of discrimination, a racially disproportionate impact, or foreseeable discriminatory impacts.⁷³ Statistics showing a clear and significant imbalance based on race or ethnicity are an indication of purposeful discrimination but are typically not enough standing alone to prove intent.

Disparate Impact Discrimination

As noted above, claims of disparate impact discrimination—where actions have a discriminatory effect but may lack discriminatory intent (or where evidence of intent may not be available to the claimant)—may be brought only through an administrative complaint to the funding agency.

For example, assume a state environmental agency approves an air permit for a new facility that will release hazardous pollutants in a county with majority Black residents and create a significantly higher risk of disease in that community than the risk of disease in nearby communities with majority white residents. Advocates could respond by filing a complaint with EPA's External Civil Rights Compliance Office (ECRCO), asking ECRCO to investigate the situation and to withdraw its funding from the permitting agency.⁷⁴

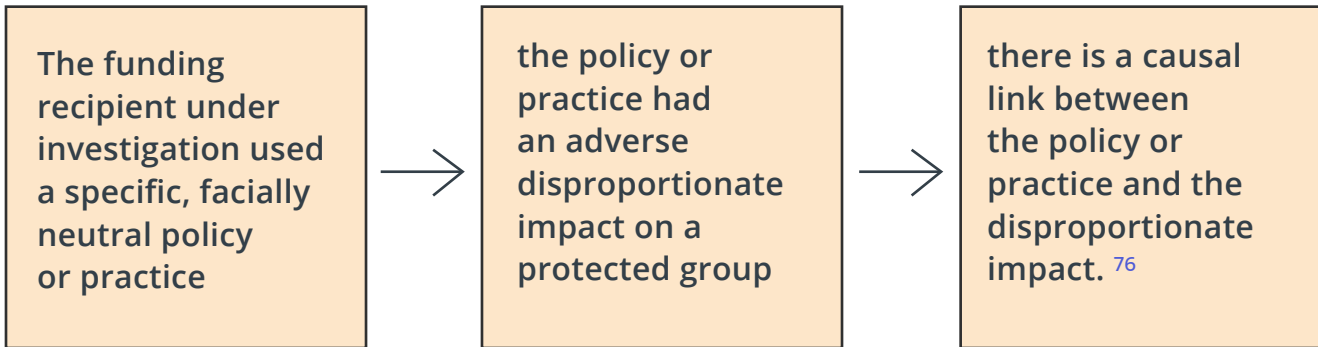
71 *Vill. of Arlington Heights v. Metro. Hous. Dev. Corp.*, 429 U.S. 252, 266-68 (1977).

72 *Vill. of Arlington Heights*, 429 U.S. at 267-68.

73 DOJ, *Title VI Legal Manual (Updated)* at p. 6.

74 See generally, <https://www.epa.gov/external-civil-rights/filing-discrimination-complaint-against-recipient-epa-funds>. Other examples of when advocates might ask EPA to investigate and intervene include when state or local environmental agencies fail to provide adequate translation/interpretation services, adopt a rule that will have a disparate impact, or enforce environmental laws and regulations in a manner that creates an adverse, disparate impact (e.g., a county's failure to enforce anti-dumping laws in certain neighborhoods).

The administrative complaint asking EPA to investigate potential civil rights violations must be filed by a person who believes that they are in the class of people who have been discriminated against or by an authorized representative.⁷⁵ The complaint must be filed within 180 days after the discriminatory act occurred. To find a disparate impact under Title VI, EPA must determine that:



If EPA finds these three elements, the burden shifts to the alleged violator, who must show that it had a “substantial legitimate justification,” meaning that its policy or decision was “necessary to meeting a goal that was legitimate, important, and integral to the [violator’s] institutional mission.”⁷⁷ EPA must then decide whether the violator could have used “less discriminatory alternatives” that still met its needs.⁷⁸

If EPA finds a disparate impact that the violator’s needs do not justify, the agency can take away federal funding. Typically, EPA resolves Title VI complaints through an informal resolution agreement with the violator.⁷⁹ These agreements usually require some mitigation to reduce or eliminate the adverse disparate impacts.

⁷⁵ See EPA’s regulations at 40 C.F.R. § 7.120.

⁷⁶ See, *Title VI Legal Manual (Updated)* at Section VII- Proving Discrimination- Disparate Impact, available at: <https://www.justice.gov/crt/fcs/T6Manual7>.

⁷⁷ *Id.* at 11-12.

⁷⁸ *Id.* at 12.

⁷⁹ See, *List of EPA Complaints Received and Compliance Reviews Initiated by EPA from January 1, 2014 – Present* at <https://www.epa.gov/external-civil-rights/external-civil-rights-docket-2014-present>. See also, Jamie Smith Hopkins, Center for Public Integrity, *Facing Environmental Discrimination? Read this before complaining to EPA* (October 25, 2023) (indicating that, as of the time of the report, 82 EPA Title VI complaints had been rejected with no investigation, 17 had concluded with a resolution agreement or voluntary compliance, 4 had been denied after investigation, and 8 had been otherwise closed), available at: <https://publicintegrity.org/environment/pollution/environmental-justice-denied/environmental-discrimination-epa-complaint-title-vi-civil-rights/>.

For example, a recent informal resolution agreement between EPA and the Orange Water and Sewer Authority in Orange County, NC, requires the Orange Water and Sewer Authority to post a notice of nondiscrimination on its website, implement grievance procedures for discrimination complaints, designate a non-discrimination coordinator, review opportunities for public engagement, develop plans for engagement by individuals with limited English proficiency or disabilities, and implement non-discrimination training for its employees.⁸⁰

HOW AIR POLLUTION DATA SOURCES CAN HELP

Data may be useful to show that a policy or practice disproportionately impacts a protected group, that the impact is negative, and that there is a causal link between the practice and the impact. It might also help identify less discriminatory alternatives.

Is there an adverse impact?

As in the example above, a complaint might allege disproportionate adverse impacts due to the issuance of a new air permit. In such a case, the following data sources might be useful in showing adverse impacts.

- Permit applications and related documents list the pollutants and quantities proposed to be authorized. These documents can be found on TCEQ's [Pending Applications](#) website or LDEQ's [Electronic Document Management System](#).
- [Ambient Air Monitoring](#) might show excessive ambient concentrations of pollutants of concern in the area the permit will impact.
- [Modeling Tools](#) such as [AirTracker](#) could be used to identify the area impacted by the emissions to be authorized by the permit. With expert help, other modeling tools could document the cumulative air quality impact of existing pollution together with emissions from the proposed permit.
- Sources such as the [Toxicological Profiles](#), the [Integrated Risk Information System](#), and [Acute Exposure Guideline Levels for Toxic Chemicals](#) could help identify the potential health effects and odor thresholds for pollutants of concern.
- [Mapping and Visualization Tools](#), such as [EJScreen](#) and the [Chemical Exposure Action Map](#), could help show whether existing pollution levels in the area are excessive and identify particularly vulnerable groups or health concerns in the area.

⁸⁰ EPA, Letter Resolving EPA Compliance Review No. 01CR-19-R4 Based on Informal Resolution Agreement (May 6, 2020), available at: https://www.epa.gov/sites/default/files/2020-05/documents/2020.05.06_owasa_compliance_review_final_resolution_letter_and_ira_0.pdf.

- [Health and Demographic Data](#) could also help identify any susceptible populations or patterns of disease in the area impacted by the permit.

Is the adverse impact disproportionate?

[Health and Demographic Data](#) and [Mapping and Visualization Tools](#) could help identify the demographics of communities adversely impacted by the agency's action. EPA's [EJScreen](#) is a valuable tool for this process, although more detailed parsing of populations may sometimes be necessary. EPA's [AirToxScreen](#), the CEQ's [Climate and Economic Justice Screening Tool](#), and the EDF's [Chemical Exposure Action Map](#) might help demonstrate a disproportionate impact.

Are there less discriminatory alternatives?

Demonstrating a less discriminatory alternative to the issuance of a proposed permit could include showing that lower pollution limits are achievable. A less discriminatory alternative could also include simply not issuing the permit.

- Emission inventories like the [National Emissions Inventory](#) or [Texas's Point Source Emission Inventory](#) and [Louisiana's Emissions Reporting and Inventory Center](#), include reported emissions and might show that similar sources are emitting less pollution.
- EPA's [RACT/BACT/LAER Clearinghouse](#), CARB's [BACT Determination Tool](#), and SCAQMD's [Best Available Control Technology Guidelines](#) might identify more stringent pollution control technologies that could be required to reduce the adverse impacts of the source's pollution.

Was there intent or were the disparate impacts foreseeable?

Statistics can be used to help prove intentional discrimination. Data such as the following could be helpful.

- In the air permit example, a review of [Technology Based Standards](#) together with [American Community Survey](#) demographic data and [EJScreen](#) might show that permits issued to facilities in areas with large English-speaking populations routinely require more stringent pollution controls than permits issued to similar sources in areas with large Spanish-speaking populations.
- As another example, if a Title VI claim involved an agency's failure to take enforcement action in certain communities based on race or national origin, [Violations and Enforcement Data](#) might be used to identify geographic areas where an agency takes fewer enforcement actions or assesses smaller penalties for violations. [American Community Survey](#) demographic data could identify the demographic characteristics of such areas.

5. RULEMAKING AND POLICY

BACKGROUND

EPA and state environmental agencies are constantly adopting new and amended rules that affect air quality. At EPA, rules implementing the federal Clean Air Act include, for example:

- New or amended New Source Performance Standards (NSPS)⁸¹ and Hazardous Air Pollutant (HAP) regulations⁸²
- New or Amended National Ambient Air Quality Standards and attainment and nonattainment designations⁸³
- Approval or disapproval of State Implementation Plans (SIPs)⁸⁴

At the state level, examples include:

- Procedural requirements for air permitting
- Substantive air quality control requirements submitted as part of the state's SIP

81 Clean Air Act section 111 requires EPA to list categories of stationary sources of air pollution that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7411. EPA must then establish NSPS for those sources that reflect the degree of emission limitation achievable through the application of the “best system of emission reduction,” which EPA determines has been adequately demonstrated. 42 U.S.C. § 7411(a)(1). EPA must review each NSPS regulation at least every eight years. 42 U.S.C. § 7411(b)(1)(B). For a list of EPA’s NSPS regulations, see <https://www.epa.gov/stationary-sources-air-pollution/new-source-performance-standards>.

82 The Clean Air Act section 112 requires EPA to regulate sources that emit certain amounts of the HAPs listed in the statute. 42 U.S.C. §7412(c). HAPS are pollutants that are either known or suspected to cause cancer or other serious health problems. EPA must establish National Emission Standards for Hazardous Air Pollutants (NESHAP), which apply to specific types of industries and equipment and require emission reductions based on using the maximum achievable control technology (MACT). 42 U.S.C. § 7412(d). EPA must review each NESHAP at least every eight years. 42 U.S.C. §7412(d)(6). For a list of EPA’s NESHAP, see <https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-8>.

83 For more information about the National Ambient Air Quality Standards, see EPA, *Reviewing National Ambient Air Quality Standards (NAAQS): Scientific and Technical Information*, available at: <https://www.epa.gov/naaqs>. For additional information about EPA’s NAAQS review process, see EPA, *Process of Reviewing the National Ambient Air Quality Standards*, available at: <https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards>.

84 For information about State Implementation Plans, see EPA, *Basic Information About Air Quality SIPs*, available at: <https://www.epa.gov/air-quality-implementation-plans/basic-information-about-air-quality-sips>. For information about the status of SIPs and EPA’s review of SIPs, see EPA, *Tools for State Implementation Plan (SIP) Status*, available at: <https://www.epa.gov/air-quality-implementation-plans/tools-state-implementation-plan-sip-status>.

Agency rulemaking is a process that invites public participation and typically includes at least one period for public comment. Agencies must review any comments and respond to them before the proposed rule can be finalized. Agencies frequently change their proposed regulations based on public comments and other advocacy.

Federal rulemaking under the Clean Air Act follows the procedures in the federal Administrative Procedure Act (APA) and the Clean Air Act itself.⁸⁵ States have adopted state administrative procedure acts that include rulemaking requirements substantially similar to those in the federal APA. While each statute contains exceptions, such as for emergency rulemaking, the general process for how and when to comment on federal, Texas, and Louisiana regulations is described below.

Environmental Protection Agency rulemaking

The federal rulemaking process includes multiple opportunities for public participation. EPA may undertake rulemaking because it is required by statute or a court, proposed by the public, or is needed to achieve the agency's goals. Under the federal APA, an interested person may send a "Petition for Rulemaking" to EPA, asking for the issuance of a new rule or the amendment or repeal of an existing rule.⁸⁶ The rulemaking process proceeds as follows:

- ***Optional Advanced Notice of Proposed Rulemaking:*** Once EPA determines that a rule change may be necessary, the agency may choose to publish an Advance Notice of Proposed Rulemaking (ANPR) in the [Federal Register](#) to solicit comments or information.⁸⁷ Individuals or groups may submit comments, provide data, advocate for specific substantive rule provisions, or recommend that the rule not be changed.
- ***Proposed Rulemaking and Notice:*** Next, EPA drafts a rule proposal. The proposal, with a regulatory analysis for "significant" regulations, is sent to the

⁸⁵ 5 U.S.C. § 553; 42 U.S.C. § 7607(d)-(h). For a detailed description, see https://www.federalregister.gov/uploads/2011/01/the_rulemaking_process.pdf and https://www.reginfo.gov/public/reginfo/Regmap/REG_MAP_2020.pdf.

⁸⁶ 5 U.S.C. § 553(e); see <https://www.epa.gov/petitions/administrative-petitions-rulemaking-for-more-information>.

⁸⁷ See, e.g., <https://www.epa.gov/stationary-sources-air-pollution/advance-notice-proposed-rulemaking-pyrolysis-and-gasification>.

Office of Information and Regulatory Affairs (OIRA) for review.⁸⁸ The public can request a meeting with OIRA to discuss the proposal.⁸⁹ EPA then publishes the proposed rule in the Federal Register for a period of public comment.⁹⁰ Depending on the complexity of the rule change, this comment period may be 30 days or longer. Sometimes, members of the public seek and receive extensions of the comment period. After the first comment period, EPA may determine that a second period is necessary. EPA may also hold public hearings on the proposed rule.⁹¹

- ***Final Rule and Publication:*** EPA then considers all public comments and drafts a final rule, which is again sent to OIRA for review. The public can again request a meeting with OIRA. EPA publishes the final rule in the Federal Register. The final publication includes a preamble, which explains the rule and provides the agency's response to public comments.⁹² The rule typically takes effect at least 30 days after publication in the Federal Register.
- ***Congressional Review:*** Congress, under the Congressional Review Act, may review and choose to reject new regulations issued by EPA. EPA must submit all new final rules to both the House and Senate. After submission, Congress may begin a process to reconsider and vote to overturn the rule.⁹³
- ***Appeal:*** Final rules adopted under the federal Clean Air Act can be challenged in the federal court of appeals.⁹⁴

The docket for each rulemaking, including the proposed rule, agency supporting documents, and public comments, can be found at [regulations.gov](https://www.regulations.gov). The docket may include data gathered by EPA or others that can be useful to commenters. Information on how to use information.gov can be found on the [Regulations page of EPA's website](#).

88 OIRA is an office within the Office of Management and Budget, which is within the Executive Office of the President. For more information about OIRA and a link to the regulations under OIRA review, see: <https://www.whitehouse.gov/omb/information-regulatory-affairs/>. For more details on requirements for regulatory analysis, see Office of Management and Budget, Circular No. A-4, Regulatory Analysis (Nov. 9, 2023), available at: <https://www.whitehouse.gov/wp-content/uploads/2023/11/CircularA-4.pdf>.

89 For more information on how the public can participate in the OIRA review process, see: OIRA, Guidance Implementing Section 2(e) of Executive Order 14094 (Modernizing Regulatory Review) (December 20, 2023), available at: https://www.whitehouse.gov/wp-content/uploads/2023/12/Modernizing-EO-Section-2e-Guidance_FINAL.pdf.

90 42 U.S.C. § 7607(d)(3).

91 42 U.S.C. § 7607(d)(5).

92 42 U.S.C. § 7607(d)(6).

93 5 U.S.C. §§ 801-808.

94 42 U.S.C. § 7607(d)(8).

Texas Commission on Environmental Quality Rulemaking

The Texas Government Code allows members of the public to petition TCEQ to adopt a rule.⁹⁵ Agencies can also adopt rules as required by statute or to fulfill their statutory duties.

Proposed rules, proposed rule reviews, withdrawn rules, and adopted rules are all published in the [Texas Register](#). The public can participate in the rulemaking process by providing comments and attending public hearings on the proposed regulations. TCEQ must provide at least a 30-day public comment period and, when it publishes the final adopted rule, include a summary of the comments received and a reasoned justification for the rule.⁹⁶ Comments can be made online via the [Public Comments tool](#) or via fax, courier, or mail.⁹⁷ An [updated schedule](#) of all TCEQ rulemaking hearings can be found on the TCEQ website.

TCEQ also reviews all existing rules once every four years in a process called the [Quadrennial Review](#). A “Notice of Intent to Review,” which includes instructions for filing written comments, is published in the Texas Register for each rule chapter that TCEQ reviews. The public can also comment during the commission agenda meeting, where TCEQ’s Commissioners decide whether to change the rule. The decision to amend, repeal, or republish the rule is published in the Texas Register. If the Commissioners decide to substantively amend a rule, it follows the rulemaking procedures discussed above.

TCEQ maintains a [database](#) of all active and completed rule projects. TCEQ rulemaking decisions can be challenged in state district court.⁹⁸

⁹⁵ Tex. Gov’t Code § 2001.021; see also, Tex. Admin. Code, Title 30, Pt. 1, Ch. 20. See <https://www.tceq.texas.gov/rules/petitions.html> for more information.

⁹⁶ Tex. Gov’t Code §§ 2001.023(a), 2001.033(a).

⁹⁷ For TCEQ instructions on how to file comments, see: <https://www.tceq.texas.gov/rules/howtocomment.html>.

⁹⁸ Tex. Gov’t Code § 2001.038(a).

Louisiana Department of Environmental Quality Rulemaking

Louisiana law allows the public to petition for rulemaking.⁹⁹ Proposed LDEQ rule changes must be published in the [Louisiana Register](#), and there must be a reasonable opportunity for public comment and a public hearing.¹⁰⁰ The LDEQ conducts public hearings on proposed rules 35-40 days after publication, and the comment period normally closes seven days after a public hearing.¹⁰¹ Comments can be made by mail or by email. After the close of the comment period, LDEQ prepares a Summary Report that includes a summary of comments received, a statement of the pros and cons of comment suggestions, and any changes made to the rule.

This Summary Report is sent to the Legislative Oversight Committee, which may choose to hold a hearing on the proposed rule. The public can submit written comments to the Legislative Oversight Committee and can offer oral comments at any hearing. If the Legislative Oversight Committee does not object, the final rule is published in the *Louisiana Register*.¹⁰² The final rule can be challenged in the district court of the Parish where the agency is located.¹⁰³

Information about hearings, copies of rulemaking notices, rule summary reports, and responses to comments can be found on the [LDEQ Rules & Regulations website](#). The public can register on the site to receive notice of monthly LDEQ regulation changes. In addition, the public can request monthly mailed Notice of Intent and the Fiscal and Economic Impact Statements for each newly proposed regulation.¹⁰⁴

99 La. Rev. Stat. § 49:968.

100 La. Rev. Stat. § 49:961(B).

101 LDEQ, *Public Participation in the Rulemaking Process FAQs*, available at: <https://www.deq.louisiana.gov/faq/category/5>.

102 *Id.*

103 La. Rev. Stat. § 49:968.

104 See, *Public Participation in the Rulemaking Process FAQs*, "Is there a regular publication about regulations that are being proposed?"; available at: <https://www.deq.louisiana.gov/faq/category/5>.

HOW AIR POLLUTION DATA SOURCES CAN HELP

Because agency rulemaking covers a wide variety of substantive topics, the substance of any proposed rule will dictate which data sources are helpful. Some examples are discussed below.

Example 1: EPA's revision to National Emission Standards for Hazardous Air Pollutants

EPA maintains and updates a list of [Hazardous Air Pollutants](#) (HAPs).¹⁰⁵ The Clean Air Act requires EPA to identify categories of sources that emit certain amounts of HAPS and set technology-based standards, known as the National Emission Standard for Hazardous Air Pollutants (NESHAP), for those source categories.¹⁰⁶ Within eight years of setting a technology-based standard for a source category, the EPA must determine if more stringent standards are needed to provide an ample margin of safety to protect public health and, if so, update regulations with such standards.¹⁰⁷ EPA is legally required to review its NESHAP every eight years. The public can comment at the time the original NESHAP is adopted and each time it undergoes a risk and technology review. Upcoming notice and comment periods can be found on [EPA's Risk and Technology Review of NESHAP website](#).

105 EPA must periodically review and revise the list of pollutants, and the public can petition EPA to add pollutants to or delete pollutants from the list. 42 U.S.C. § 7412(b)(2), (b)(3).

106 42 U.S.C. § 7412(c) & (d). Standards for new sources must meet the maximum degree of reduction in emissions that is achievable for new sources in the source category, which cannot be less stringent than the emission control achieved by the best-controlled similar source. The standard for existing sources cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources, or the average emission limitation achieved by the best-performing five sources in a category with fewer than 30 sources.

107 42 U.S.C. § 7412(f). The CAA sets a goal for standards applicable to sources that emit carcinogens to reduce lifetime excess cancer risk to the individual most exposed to emissions from a source in the category to less than one in one million.

For example, on April 25, 2023, EPA published a notice of its proposal to strengthen the NESHAP for the Synthetic Organic Chemical Manufacturing Industry and the Polymers and Resins Industry.¹⁰⁸ The proposed rule set limits to significantly reduce air emissions, including emissions of the highly toxic chemicals ethylene oxide (EtO) and chloroprene. It also instituted a new fenceline monitoring system to help ensure that six pollutants remain below a specified “action level.” EPA’s docket for the rulemaking included useful data sources such as EPA’s risk assessments for cancer and noncancer risks, journal articles, and National-scale Air Toxics Assessment Data.¹⁰⁹

After EPA published the proposed rule, a 60-day public comment period opened, which EPA later extended by eleven days. Members of the public filed [86,816 comments](#). Many comments included concerns about the human health risks posed by EtO and the inadequacy of control technologies required by the new rule. A comment from the National Association of Clean Air Agencies used data sources, including EPA’s [Integrated Risk Information System](#) and [Acute Exposure Guideline Levels](#), to support its argument for accelerated research into EtO monitoring, prevalence, and background concentrations.¹¹⁰

On April 9, 2024, EPA announced its final rule, which will cut more than 6,000 tons per year of over 100 different toxic air pollutants and dramatically reduce the number of people with elevated air toxics-related cancer risks in communities surrounding plants that use EtO and chloroprene.¹¹¹ EPA addressed many of the comments received in the preamble to its final rule.

108 EPA, *Final Rule to Strengthen Standards for Synthetic Organic Chemical Plants and Polymers and Resins Plants*, available at: <https://www.epa.gov/hazardous-air-pollutants-ethylene-oxide/proposal-strengthen-standards-synthetic-organic-chemical>.

109 EPA, *New Source Performance Standards for the Synthetic Organic Chemical Manufacturing Industry and National Emission Standards for Hazardous Air Pollutants for the Synthetic Organic Chemical Manufacturing Industry and Group I & II Polymers and Resins Industry* (Docket EPA-HQ-OAR-2022-0730-0100), available at: <https://www.regulations.gov/docket/EPA-HQ-OAR-2022-0730/document>.

110 EPA, *New Source Performance Standards for the Synthetic Organic Chemical Manufacturing Industry and National Emission Standards for Hazardous Air Pollutants for the Synthetic Organic Chemical Manufacturing Industry and Group I & II Polymers and Resins Industry* (Docket EPA-HQ-OAR-2022-0730), Comment by National Association of Clean Air Agencies (June 28, 2023), available at: <https://www.regulations.gov/comment/EPA-HQ-OAR-2022-0730-0123>.

111 EPA, *Key Things to Know About EPA’s Final Rule for Synthetic Organic Chemical Manufacturing Plants and Polymers and Resins Plants* (April 2024), available at: <https://www.epa.gov/system/files/documents/2024-04/chemical-sector-final-rule.-key-things-to-know-fact-sheet.pdf>.

Compared to the proposed rule, the final rule changed in several ways, including by giving neoprene facilities a shorter deadline to meet risk-based standards for chloroprene emissions.¹¹²

What data sources are helpful for NESHAP rule comments?

- Sources such as the [Toxicological Profiles](#) and [Acute Exposure Guideline Levels for Toxic Chemicals](#) could help explain the potential health effects for pollutants regulated under the NESHAP.
- [Ambient Air Monitoring](#) data, including that from EPA's [Ambient Monitoring Archive](#) or from [NESHAP-specific fence-line monitoring](#), might show that ambient levels of the NESHAP-regulated pollutants are not protective of public health. This analysis would depend on regulatory monitors being located near NESHAP sources. If they are not, [Local and Community Monitoring](#) could be helpful. EDF's [AirTracker](#) tool or other [Modeling Tools](#), might be useful in demonstrating that any elevated ambient levels are due to emissions from sources subject to the NESHAP at issue.
- [Modeling Tools](#), with the help of an expert, could also be used to evaluate the overall air quality impacts of proposed changes to the rule.
- The EPA [RACT/BACT/LAER](#) Clearinghouse and CARB's [BACT Determination Tool](#) could identify the emissions control technologies used and emissions limits achieved by facilities in the relevant industrial source category. These controls and emission limits could be compared to those proposed in the NESHAP rulemaking.
- [Mapping and Visualization Tools](#) such as [EasyRSEI](#) and [EJScreen](#) might help identify the existing health burdens in areas where facilities regulated by a NESHAP regulation are located, particularly for industrial categories with few facilities.

Example 2: Regulatory Air Monitor Placement in Texas and Louisiana

Under the federal Clean Air Act, state agencies must create an Annual Monitoring Network Plan (AMNP) that is submitted to EPA annually and meets federal air monitoring requirements.¹¹³ Texas and Louisiana provide for 30 days of public comment before the AMNP is submitted to EPA. [LDEQ](#) and [TCEQ](#) post their AMNP plans on their websites.

112 EPA, *EPA Issues Final Rule to Reduce Toxic Air Pollution from the Synthetic Organic Chemical Manufacturing Industry and the Polymers and Resins Industries FACT SHEET*, available at: https://www.epa.gov/system/files/documents/2024-04/chem-sector-final-rule.-overview-fact-sheet_0.pdf.

113 40 C.F.R. Pt. 58.

In addition, states are required to conduct a broader analysis of monitoring needs every five years.¹¹⁴ This review must include whether new monitoring sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies should be incorporated into the ambient air monitoring network. It must also consider the ability of existing and proposed monitoring sites to characterize air quality in areas with relatively high populations of susceptible individuals (e.g., children with asthma).¹¹⁵ [TCEQ](#) posts its five-year assessment for 30 days of public comment. Louisiana's past reviews are posted on [EPA's website](#).

What sources might be helpful for comments on monitoring plans?

- The locations of regulatory monitors can be found using [EPA and State Environmental Agency Monitoring](#) sources.
- Important coverage gaps might be found by comparing the locations of existing monitors to the locations of pollutant emissions using [Facility Emissions](#) sources. The closer an area's pollution is to the [NAAQS](#), the more important it can be to assure that monitors are located where they will measure the highest concentrations of pollutants of concern.
- [Violation and Enforcement Data](#) could be used to see if regulatory monitors exist near facilities with a history of violations.
- Gaps in monitor coverage might also be found by comparing the regulatory monitor locations to "hot spots" of high pollution as seen in non-regulatory sources from the [Ambient Air Monitoring](#) section, such as [Local and Community Monitoring](#) or [Satellite Monitoring](#) systems.
- Gaps might also be found by identifying the areas impacted by large pollution sources using modeling tools such as [AirTracker](#).

114 40 C.F.R. § 58.10(d).

115 *Id.*

6. AIR PERMITTING

BACKGROUND

Industrial facilities that emit air pollution typically require a Clean Air Act permit. Most air permits are issued by state environmental agencies, based on authority delegated by EPA under the federal Clean Air Act. This section focuses on New Source Review (NSR) permits, which establish pollution limits and operational and monitoring requirements.¹¹⁶ If a company's project — either building a new source of pollution or modifying an existing source in a way that will increase pollution — will result in new air emissions above a certain threshold, the company must obtain an NSR permit. There are several guides that explain the NSR permitting process in detail and help identify issues that can be raised in permit challenges.¹¹⁷

Permit challenges can cause a permit to be denied, stopping a facility—such as a new petrochemical plant—from being built. More commonly, a permit challenge results in better pollution controls, lower pollution permit limits, or increased monitoring in the final permit. Permit challenges also create opportunities for negotiation and settlement, potentially resulting in community benefits, such as community air monitors or funding for home energy efficiency upgrades or local health clinics.

Federal New Source Review Permitting Requirements

The National Ambient Air Quality Standards (NAAQS) set maximum allowable ambient concentrations for six “criteria pollutants.”¹¹⁸ The country is divided into attainment and nonattainment areas for each criteria pollutant. An attainment area for a pollutant meets the NAAQS for that pollutant, and a nonattainment area for that pollutant does not.¹¹⁹

116 Major sources are also required to have a Title V permit, which pulls all of a source's federally applicable requirements into one permit and ensures that monitoring is included in the permit, sufficient to assure compliance with those requirements. 42 U.S.C. §§ 7661-7661e.

117 For example, see EPA, [New Source Review Workshop Manual \(Draft 1990\)](#); Environmental Integrity Project, [Advocate's Guide to Effective Participation in Environmental Permit Proceedings for New and Expanded Liquefied Natural Gas Export Facilities](#) (April 2022); Univ. of Texas School of Law, Environmental Clinic, [Texas Environmental Public Participation Guide](#) (2017)(See, Attachment A, pp. 42-44, for a list of issues that can be raised in comments on Texas air permits); Tulane Environmental Law Clinic, [My Guide to Environmental Protection in Louisiana](#) (2015).

118 As noted above, the six criteria pollutants regulated by the NAAQS are Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO₂), Ozone (O₃), Particulate Matter (PM) both PM_{2.5} (2.5 micrometers in diameter and smaller) and PM₁₀ (ten micrometers in diameter and smaller), and Sulfur Dioxide (SO₂).

119 There are also unclassifiable areas where there is insufficient data to determine attainment; unclassifiable areas are treated like attainment areas for permitting.

State must develop and maintain State Implementation Plans (SIPs) to reduce pollution as needed to achieve the NAAQS. State SIPs must include permitting requirements for new and expanding sources of air pollution. The first Texas and Louisiana SIPs were approved in 1972; each has been revised many times.¹²⁰

There are three types of New Source Review permits a pollution source may be required to obtain, depending on the amount of pollution that will be emitted and whether the area is attainment or nonattainment. A project can trigger both PSD (for the regulated pollutants for which the area is in attainment)¹²¹ and NANSR (for the pollutants for which the area is in nonattainment).

Prevention of Significant Deterioration (PSD): applies to a new major source¹²² or a major source making a major modification¹²³ in an attainment area for the criteria pollutants emitted by the source. Permit requirements include the following.

- *Installation of the Best Available Control Technology (BACT)*, which requires that the permit include emission limits based on the maximum degree of emission reduction achievable (considering energy, environmental, and economic impacts).
- *An Air Quality Analysis*, which predicts through modeling the ambient concentrations that will result when emissions from the proposed project are added to background pollution levels. The analysis must demonstrate that the new emissions will not cause or contribute to violations of the NAAQS or other Clean Air Act requirements.
- *Impacts Analysis*, which assesses the impacts on soils, vegetation, and visibility caused by any increase in emissions of any regulated pollutant from the source or modification under review. The permit also cannot cause adverse impacts to Class I areas, such as national parks and wilderness areas.
- *Public Involvement*, including a public comment period, hearings, and appeals.¹²⁴

120 EPA, *Approved Air Quality Implementation Plans in Region 6*, available at: <https://www.epa.gov/air-quality-implementation-plans/approved-air-quality-implementation-plans-region-6>.

121 Pollutants regulated under PSD and included in major source and major modifications calculations for purposes of PSD include all pollutants subject to regulation under the Clean Air Act except pollutants regulated pursuant to the Act's Section 112 Hazardous Air Pollutant program. 40 C.F.R. § 51.166(b)(49).

122 For PSD, the major source threshold is 100 tpy for named types of facilities and 250 tpy for all others. 40 C.F.R. § 51.166(b)(1).

123 For PSD, a major modification is one that results in a significant increase in emissions of a regulated pollutant. Significant emission rates are defined at 40 C.F.R. § 51.166(b)(23).

124 42 U.S.C. § 7475.

Nonattainment New Source Review (NANSR): applies to a new major source¹²⁵ and major sources making a major modification¹²⁶ in a nonattainment area. Permit requirements include the following.

- *Installation of the Lowest Achievable Emission Rate (LAER)*, which requires emission limits that reflect the more stringent of (1) the most stringent emission limitation included in any state's State Implementation Plan (SIP) for a similar source or (2) the most stringent emissions limitation achieved in practice.
- *Emission Offsets*, which require that proposed emission increases from new or modified facilities are balanced by equivalent or greater reductions from existing sources. The greater the area's exceedance of the NAAQs, the more offsets are required.
- *Public Involvement*, including a public comment period, hearings, and appeals.¹²⁷

Minor New Source Review (NANSR): applies to a new minor source and a minor modification at either a major or minor source in both attainment and nonattainment areas. Minor NSR may apply to criteria and other pollutants depending on the state. Permit requirements include:

- Compliance with any emissions control or other air pollution measures required by the state (some of which may be included in the state SIP),
- A demonstration that the permit will not interfere with attainment or maintenance of the NAAQS or the control strategies of a SIP or Tribal Implementation Plan, and
- Public involvement.¹²⁸

Additional State-Specific Air Quality Standards

In addition to the requirements listed above, many states have state-specific permitting requirements, some of which may be included in the state SIP. Many of these conditions prohibit permits from authorizing pollution that will cause harm to human health or welfare. Examples from Texas and Louisiana are included below.

125 For NANSR, the major source thresholds vary depending on how badly an area exceeds the NAAQS for that pollutant. See, 40 C.F.R. § 51.165(a)(1)(iv).

126 For NANSR, a major modification is one that results in pollution increases exceeding the significance thresholds. The thresholds vary depending on how badly an area exceeds the NAAQS. See, 40 C.F.R. § 51.165(a)(1)(v).

127 42 U.S.C. § 7503.

128 40 C.F.R. § 51.161.

Texas' prohibition on emissions adversely impacting public health or causing air pollution

TCEQ cannot issue an air permit if it finds “the emissions from the facility will contravene the intent of this chapter, including protection of the public's health and physical property.”¹²⁹ The Texas Administrative Code and Texas’s SIP provide that:

No person shall discharge from any source whatsoever one or more air contaminants¹³⁰ or combinations thereof, in such concentration and of such duration as are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property.¹³¹

Finally, all Texas air permits contain a general provision stating that emissions from the facility authorized by the permit must not “cause or contribute” to “air pollution.” Texas statutes define air pollution as:

The presence in the atmosphere of one or more air contaminants or combination of air contaminants in such concentration and of such duration that (A) are or may tend to be injurious to or to adversely affect human health or welfare, animal life, vegetation, or property; or (B) interfere with the normal use or enjoyment of animal life, vegetation, or property.¹³²

Applicants typically rely on modeling to demonstrate that emissions will not harm health or welfare.

Louisiana's protection of the public trust

Louisiana’s constitution and statutes establish a public trustee duty for the Louisiana Department of Environmental Quality, which requires that LDEQ work to preserve the environment when approving permits.

129 Tex. Health & Safety Code §§ 382.0518(b)(2) & (d).

130 Air Contaminant is defined as “particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor, including any combination of those items, produced by processes other than natural.” Tex. Health & Safety Code § 382.003(2).

131 Tex. Admin. Code § 101.4, available at: [https://www.epa.gov/sips-tx/texas-sip-30-tac-1014-
nuisance-general-air-quality-rules#:~:text=01%20No%20person%20shall%20discharge,with%20
the%20normal%20use%20and.](https://www.epa.gov/sips-tx/texas-sip-30-tac-1014-nuisance-general-air-quality-rules#:~:text=01%20No%20person%20shall%20discharge,with%20the%20normal%20use%20and.)

132 Tex. Health & Safety Code § 382.003(3).

The Louisiana Constitution provides that “[t]he natural resources of the state, including air and water, and the healthful, scenic, historic, and esthetic quality of the environment shall be protected, conserved, and replenished insofar as possible and consistent with the health, safety, and welfare of the people.”¹³³ Louisiana’s civil code mandates that:

The [LDEQ] secretary shall act as the primary public trustee of the environment, and shall consider and follow the will and intent of the Constitution of Louisiana and Louisiana statutory law in making any determination relative to the granting or denying of permits, licenses, registrations, variances, or compliance schedules authorized by this Subtitle.¹³⁴

To fulfill its public trustee duty, LDEQ must assess the environmental effects of proposed permit activities, balance environmental harms against other benefits, and consider “alternatives to the proposed activity which would offer more protection to the environment without unduly curtailing non-environmental benefits.”¹³⁵ This public trustee duty is incorporated into Louisiana’s SIP.¹³⁶

LDEQ must ensure that potential and real adverse environmental effects of the proposed project or permit have been avoided to the maximum extent possible and must give environmental costs and benefits “full and careful consideration” when weighing alternatives.¹³⁷

133 Article IX, § 1; Article IX, § 1; see, *Save Ourselves, Inc. v. Louisiana Env't Control Comm'n*, 452 So. 2d 1152, 1154 (La. 1984) (recognizing that this provision is a continuation of the public trust doctrine that was specifically enshrined in previous versions of the state constitution).

134 La. R.S. § 30:2014.A(4).

135 In full, this part of the Act states: “The environmental assessment statement provided for in this Section shall be used to satisfy the public trustee requirements of Article IX, Section 1 of the Constitution of Louisiana and shall address the following issues regarding the proposed permit activity: (1) The potential and real adverse environmental effects of the proposed permit activities. (2) A cost-benefit analysis of the environmental impact costs of the proposed activity balanced against the social and economic benefits of the activity which demonstrates that the latter outweighs the former. (3) The alternatives to the proposed activity which would offer more protection to the environment without unduly curtailing non-environmental benefits.” La. R.S. § 30:2018.B.1-3.

136 40 C.F.R. § 52.970(c).

137 *Save Ourselves, Inc. v. Louisiana Env't Control Comm'n*, 452 So. 2d 1152, 1157 (La. 1984) (“This is a rule of reasonableness which requires an agency or official, before granting approval of proposed action affecting the environment, to determine that adverse environmental impacts have been minimized or avoided as much as possible consistently with the public welfare. Thus, the constitution does not establish environmental protection as an exclusive goal but requires a balancing process in which environmental costs and benefits must be given full and careful consideration along with economic, social, and other factors.”); See also, *In re Oil & Gas Expl., Dev., & Prod. Facilities*, Permit, No. LAG260000, 70 So.3d 101, 104 (La. App. 1 Cir. 2011).

Public Participation In Permitting

While all New Source Review permits must comply with the federal Clean Air Act's minimum standards, as outlined above, states have varying processes for allowing the public's participation in permitting. The permitting processes for Texas and Louisiana are summarized below.

Texas Public Participation

In Texas, companies that seek an air permit file an initial application with the TCEQ.¹³⁸ TCEQ conducts an administrative review for completeness of the application and, when it determines that the application is complete, sends the applicant a Notice of Receipt of Application and Intent to Obtain Permit (NORI). For applications subject to public notice, the applicant must post the NORI at the proposed facility and publish it in a local newspaper. The NORI must also be published in a Spanish-language newspaper if the local public school has a bilingual education program.¹³⁹

Publication of the NORI starts a public comment period, which is typically 30 days. For minor NSR permits, any request for a contested case hearing must be filed during this 30-day period. A contested case hearing is a trial-type proceeding before an administrative law judge that is available for certain types of air-permitting actions. A member of the public may also request a public meeting at which the public can provide oral comments regarding the permit. Requests for public meetings must be granted for Nonattainment New Source Review or Prevention of Significant Deterioration permits. They must be granted for other permits if the meeting is requested by a member of the Texas legislature who represents the area near where the facility is located or if the TCEQ determines there is a "substantial or significant degree of public interest" in the application.¹⁴⁰

TCEQ then conducts a technical review of the permit, which involves determining whether the permit meets minimum Clean Air Act requirements and reviewing the applicant's modeling.

138 For a general introduction to TCEQ's permitting process, see <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation/public-participation-opportunities-for-different-types-of-permits>.

139 30 Tex. Admin. Code Chapter 39, Subchapter H. Public notices for pending New Source Review Permits are available at: <https://www.tceq.texas.gov/permitting/air/newsourcereview/airpermits-pendingpermit-apps>.

140 30 Tex. Admin. Code § 55.154. For a calendar of public meetings and hearings on permit requests, see <https://www.tceq.texas.gov/agency/decisions/hearings/calendar.html>.

Once the technical review is complete, TCEQ issues a proposed permit and sends the company a Notice of Application and Preliminary Decision (NAPD). Generally, the applicant must again publish notice in a local paper, which starts a second 30-day comment period, during which anyone can submit written comments raising deficiencies in the proposed permit and request a public meeting.¹⁴¹

After considering any comments, the TCEQ's Executive Director will issue a decision letter granting or denying the permit. This letter triggers a 30-day period to request a contested case hearing for Nonattainment NSR and PSD permits.¹⁴² Any hearing request must be based on complaints about the permit raised in comments filed during the public comment period. If a contested case hearing is requested, the matter is referred to the TCEQ Commissioners to decide whether to grant the request. This determination hinges on whether the requestor qualifies as an "affected person"—the contested case hearing equivalent of a person with [standing](#).¹⁴³

- *If a contested case hearing is granted*, there is an opportunity to conduct discovery, call witnesses, and present evidence on the merits of the permit at the State Office of Administrative Hearings (SOAH). After the contested case hearing, SOAH will issue a Proposal for Decision, which the TCEQ Commissioners can approve, modify, or deny.
- *If the contested case hearing request is denied*, the TCEQ Executive Director can issue or deny the permit. The denial of the hearing can be appealed to state district court.

To appeal a TCEQ permitting decision, a motion for rehearing must be filed requesting that the Commissioners review their decision before the requestor can proceed to challenge the decision in state district court.

141 30 Tex. Admin. Code § 55.152. There are different comment and request for contested case hearing deadlines for certain other types of air permits.

142 30 Tex. Admin. Code § 55.251. This additional opportunity to request a contested case hearing may apply to certain minor NSR permits if at least one hearing request was filed during the first comment period.

143 30 Tex. Admin. Code § 55.255.

Affected Person Status

A contested case hearing can only be granted if it is requested by an “affected person,” meaning a person who has a “personal justiciable interest” that is not “common to members of the general public.”¹⁴⁴ In evaluating affected person status, TCEQ may consider the following:

- the merits of the underlying application and whether it meets the requirements for permit issuance,
- the likely impact of regulated activity on the health, safety, and use of the property of the hearing requestor,
- the administrative record, including the permit application and any supporting documentation,
- the analysis and opinions of the executive director, and
- any other expert reports, affidavits, opinions, or data submitted on or before any applicable deadline to the commission by the executive director, the applicant, or a hearing requestor.¹⁴⁵

TCEQ must consider whether the personal interest claimed is one protected by the law, is subject to distance restrictions or other limitations imposed by law, and whether the interest has a reasonable relationship to the activity regulated. TCEQ must also consider the likely impact of the regulated activity on the health, safety, and use of property of the person and on the use of impacted natural resources by the person.¹⁴⁶

Louisiana Public Participation

The Louisiana permitting process is more straightforward and provides less opportunity for public input. In Louisiana, applicants submit their permit application to the LDEQ, which conducts an initial technical review and produces a draft permit. Notice of the draft permit is published in a local paper for the area affected and in the official state journal, *The Advocate*.¹⁴⁷

144 Tex. Water Code § 5.115(a).

145 Tex. Water Code § 5.115.

146 30 Tex Admin Code § 55.203(c).

147 See, list of official Parish Journals:

<https://www.sos.la.gov/OurOffice/PublishedDocuments/OfficialParishJournals.pdf>.

Publication starts a minimum 30-day comment period, during which advocates can file comments identifying deficiencies in the permit and requesting a public hearing on the permit.¹⁴⁸ A public hearing may be required “if sufficient interest is generated.”¹⁴⁹ LDEQ’s Public Participation Group conducts public hearings, which are essentially opportunities for members of the public to give oral comments. LDEQ may also choose to hold a public meeting, which is less formal and involves a question-and-answer format, but public meetings are not required.¹⁵⁰

After the public comment period and any public hearing, LDEQ reviews any comments and revises the draft permit as it deems appropriate. LDEQ then publishes its final decision on the permit along with its responses to any public comments. LDEQ’s permitting decisions can be appealed to Louisiana’s Nineteenth Judicial District Court.¹⁵¹

HOW AIR POLLUTION DATA SOURCES CAN HELP

Air pollution data may be useful to support a range of challenges to air permits.

Are the permit’s emissions limits based on BACT or LAER?

Sources like EPA’s [RACT/BACT/LAER Clearinghouse](#), CARB’s [BACT Determination Tool](#), and [Best Available Control Technology Guidelines](#) include information about pollution control technologies and permitted emission limits at sources across the country.

Will the proposed emissions cause violations of the NAAQS or Increments?

Challenging the adequacy of an applicant’s modeling likely requires an expert, who might try to demonstrate that the applicant’s modeling, for example, failed to include all emission sources, assumed that the emission controls selected would achieve an unrealistic level of pollution reduction, or failed to accurately reflect background pollution levels.

148 LDEQ, *Louisiana Guidance for Air Permitting Actions* (Jan. 2013), p. 111, available at: <https://www.deq.louisiana.gov/assets/docs/Air/LouisianaGuidanceforAirPermittingActions.pdf>.

149 *Id.* at pp. 54 (state permits), 58 (synthetic minor source permits), 67 (Part 70 Regular Operating Permits), 131 (minor modifications), 132 (significant modification).

150 LDEQ, *The Public Participation Group* at: <https://deq.louisiana.gov/page/the-public-participation-group>; see also LDEQ, The Public Participation Group FAQs at: <https://deq.louisiana.gov/faq/category/4>.

151 La. R.S. § 30:2024(C).

- An expert might use [Modeling Tools](#) to show that the applicant’s modeling is inaccurate and to help show the projected ambient impacts of the emissions proposed to be authorized by the permit.
- [Facility Emissions](#) data from the states or EPA identify the emissions of other nearby pollution sources and could be used to ensure that all relevant sources are included in the applicant’s modeling.
- [Ambient Air Monitoring](#) data document existing ambient air pollution levels and how close those levels are to the NAAQS or other regulatory thresholds and could be used to ensure the applicant’s assumptions about background pollution levels were accurate.

Will the proposed emissions cause violations of qualitative permit conditions?

The monitoring, emission, and modeling sources above would also be useful for evaluating whether proposed emissions might raise area pollution to a level that could threaten public health, property, or the environment. In addition, [Toxicological Profiles](#) and [Acute Exposure Guideline Levels for Toxic Chemicals](#) could be used to identify potential health effects, odors, or other adverse impacts associated with the proposed emissions.

Does the permit application fail to accurately estimate the facility’s emissions?

An applicant’s modeling is only as good as the data put into the model. Applicants sometimes leave emissions from certain units out of the modeling. An expert can be helpful in identifying missing or underestimated emissions. EPA’s [Industry Sector Notebooks](#) might be useful in understanding the types of emission units at different types of industry.

Is the person seeking a contested case hearing on a Texas permit an “affected person”?

To be an “affected person,” the individual requesting a contested case hearing (or a member of the group requesting a hearing) must show that they will suffer harm not suffered by the general public. The harm can be from visual impacts, odors, or health impacts (coughing, burning eyes, etc.). See the Standing section of this Guide for information about data sources that may be useful to show affected person status in Texas. While the [Standing](#) and affected person inquiries are not identical, many of the same data sources could be useful.

7. ZONING

BACKGROUND

Local land-use planning and zoning play a key role in determining where pollution sources are located. Zoning is regulated at the local level. Typically, planning or zoning commissions create a comprehensive land use plan. The governing body then adopts zoning ordinances that assign appropriate land uses to different geographic areas consistent with that comprehensive plan. Developers must show that their proposed new developments will comply with zoning requirements. If a new development does not comply with existing zoning requirements, the developer may argue for re-zoning or an exception from zoning requirements, often called a variance.

Applications for exceptions to the zoning rules create important opportunities for public input. The section below briefly describes, as examples, the general outlines of the processes for zoning exceptions in Austin, Texas, and New Orleans, Louisiana. While land use and zoning processes vary by state and locality, the general outlines of the process are similar in many locations. In Texas, while cities have general land use and zoning authority, counties have extraordinarily little. In Louisiana, municipalities and parishes (similar to counties) have land use authority.

Austin, Texas

Texas cities have the authority to “promot[e] the public health, safety, morals, or general welfare.”¹⁵² Cities adopt comprehensive plans and zoning ordinances consistent with those plans. The plans include a zoning map that assigns allowed uses to specific geographic areas. Texas cities can also grant case-by-case exceptions to zoning requirements, including conditional use permits, special exceptions, and variances.¹⁵³

Austin’s zoning regulations are codified in the Land Development Code. Public hearings are required before the City Council or Planning Commission can amend the Land Development Code.¹⁵⁴ Variances from zoning ordinances generally require a public hearing at the Board of Adjustment. They may also require the approval of the City Council, Planning Commission, or Zoning and Platting Commission.

¹⁵² Tex. Loc. Gov’t Code § 211.001.

¹⁵³ Tex. Loc. Gov’t Code § 211.008-9.

¹⁵⁴ Austin Land Development Code § 25-1-501 to 25-1-502, available at: https://library.municode.com/tx/austin/codes/land_development_code?nodeId=TIT25LADE_CH25-1GEREPR_ART11AMPR and Austin Land Development Code § 25-2-242, available at: https://library.municode.com/tx/austin/codes/land_development_code?nodeId=TIT25LADE_CH25-2ZO_SUBCHAPTER_BZOPRSPRECEDEI_ART1ZOPRGE.

The Planning Commission and the Zoning and Platting Commission can also place stipulations— such as requirements for buffer space, walls, or limits on hours of operation—on conditional use permits.¹⁵⁵

New Orleans, Louisiana

Louisiana cities and parishes have authority to make zoning decisions—including granting exceptions to zoning rules.¹⁵⁶

Applicants for variances must create and follow a project Neighborhood Participation Plan (NPP). The NPP must include information about the project—including variances needed, start and end dates, and a development plan—and state how impacted individuals will be able to raise concerns. The NPP and notice of a meeting to discuss the project must be provided to registered neighborhood associations. When the applicant submits their variance application, they must include a report on the community meeting, including notes on who spoke, what concerns were expressed, and the applicant’s responses.

Next, either the Board of Zoning Adjustments or the City Council holds a public hearing to gather evidence on the application.¹⁵⁷ They may grant a variance only when the evidence presented supports a finding that, among other things, the variance would not:

- alter the essential character of the locality,
- be detrimental to the public welfare or injurious to other property or improvements in the neighborhood, or
- impair an adequate supply of light and air to adjacent property, increase substantially the congestion in the public street, increase the danger of fire, or endanger the public safety.¹⁵⁸

155 Uses requiring a conditional use permit can be found at Austin Land Development Code § 25-2-491. Uses are either described as “permitted” (allowed), “prohibited,” or “conditional.” This code section is available at: https://library.municode.com/tx/austin/codes/code_of_ordinances?nodeId=TIT25LADE_CH25-2ZO_SUBCHAPTER_CUSDERE_ART2PRUSDERE_DIV1RETA_S25-2-492SIDERE.

156 Article 2, Section 2.6 Louisiana Revised Statute 33:4780.46. New Orleans’s specific Board of Zoning Adjustments is codified in Section 5-4408 of the City Charter.

157 Variances related to permitted uses are decided by the BZA, while variances related to conditional uses are decided by the City Council.

158 See City of New Orleans website at <https://nola.gov/variance-request/>.

Similarly, conditional use applicants must complete an NPP.¹⁵⁹ The City Planning Commission and City Council must hold public meetings on any such application to determine whether the proposed use “[p]reserves the character and integrity of adjacent development and neighborhoods” and “is not materially detrimental to the public health, safety, and welfare, or results in material damage or prejudice to other property in the vicinity.”¹⁶⁰ Decisions on variances or conditional use applications can be appealed to Orleans Parish Civil District Court.¹⁶¹

Many local governments have land use and zoning processes similar to those in Austin and New Orleans. Those processes allow for public participation and can be used to prevent air pollution sources from locating near residences, schools, hospitals, and other vulnerable sites or communities.

HOW AIR POLLUTION DATA SOURCES CAN HELP

Air pollution data may help communities argue that applicants for a zoning change or exception for a new land use do not qualify for the change or exception because the proposed uses would alter the area's character, impair existing uses, or harm public health or safety.

Where are existing pollution sources, what are existing ambient air conditions, and where are vulnerable land uses?

- [Mapping and Visualization Tools](#)—especially [EJScreen](#), which shows the distribution of schools, public housing, hospitals, and other pollution-sensitive locations—could be especially useful in arguing that a particular area already has too much air pollution or has particularly vulnerable uses.
- [Facility Emissions Data](#) could be used to identify air pollution sources of concern already located in the area.
- [Ambient Air Monitoring](#), including [Local and Community Monitoring](#), could be used to document existing ambient air quality.

159 See, e.g., the list of permitted and conditional uses for “Centers for Industry,” a type of district intended for primarily non-residential uses, at New Orleans Comprehensive Zoning Ordinance § 16.1, available at: <https://czo.nola.gov/article-16/>; and see generally, “Conditional Use Requests,” City of New Orleans (last updated March 13, 2023), available at: <https://nola.gov/conditional-use-request/>.

160 New Orleans Comprehensive Zoning Ordinance § 4.3.F.4, F.6, available at <http://czo.nola.gov/Article-4#4-3-F>.

161 A diagram of the Variance application process can be found at: <https://czo.nola.gov/czo/media/Files/ARTICLE%204/D-variance-process.jpg>. A diagram of the Conditional Use application process can be found at: <https://czo.nola.gov/czo/media/Files/ARTICLE%204/B-conditional-use-process.jpg>.

- Tools such as EPA's [AirToxScreen](#) could show existing risks for adverse health impacts, such as cancer and respiratory effects. The [Toxic Release Inventory Toxics Tracker](#) could show nearby pollution sources and the size and toxicity of their pollution releases. EDF's [Chemical Exposure Action Map](#) might be used to show cumulative health risks in certain communities covered by the tool.

What are the likely adverse air quality impacts from the proposed new land use?

- If a pollution-emitting use already exists and the developer seeks to extend an existing variance or conditional use permit, emissions data, such as the EPA's [Toxic Release Inventory](#) and [Texas](#) and [Louisiana emission inventories](#), could be useful in quantifying the existing use's air emissions. Sources, such as ATSDR's [Toxicological Profiles](#) or EPA's [Integrated Risk Information System](#), could help identify potential risks from the pollutants emitted.
- If a developer seeks a variance or zoning change to authorize a new pollution-emitting land use, [Air Permit Information](#) from TCEQ or LDEQ related to air permits for the proposed use could document projected emissions.
- [Modeling Tools](#) might identify the areas likely to be impacted by a proposed pollution source.
- Modeled pollutant projections could be compared to the [National Ambient Air Quality Standards](#), ATSDR's [Toxicological Profiles](#), EPA's [Integrated Risk Information System](#) hazard thresholds, [Acute Exposure Guideline Levels for Toxic Chemicals](#), or California's [Acute, 8-hour, and Chronic Reference Exposure Levels](#) to understand potential health risks.

What is the compliance history of an existing air pollution source seeking a variance or special use permit?

[Violation and Enforcement Data](#) might be used to show that an existing pollution source that is seeking to renew a variance or conditional use exception is out of compliance and is already impairing existing uses and adversely affecting public health and safety.

8. TORTS CLAIMS: NUISANCE AND TRESPASS

BACKGROUND

Common law tort claims for nuisance and trespass have long been used to address air and water pollution that adversely impacts neighboring property.¹⁶²

Nuisance

There are two types of common law nuisance: public and private.

Private nuisance interferes with the “use and enjoyment” of privately held property. Lawsuits for private nuisance may only be brought by those with property rights or privileges in the affected private land, including owners and renters.¹⁶³ **Public nuisance** involves interference with a right common to the general public.¹⁶⁴ Conduct that creates a “significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience” may be considered a public nuisance.¹⁶⁵ Public nuisance suits can be brought by governmental entities or private citizens affected by the nuisance.¹⁶⁶

Private Nuisance in Texas

In Texas, courts have defined a private nuisance as “a condition that substantially interferes with the use and enjoyment of land by causing unreasonable discomfort or annoyance to persons of ordinary sensibilities attempting to use and enjoy it.”¹⁶⁷ There are three types of nuisance claims: intentional nuisance, negligent nuisance, and strict-liability nuisance. Texas nuisance claims have involved noise, odors, smoke, dust, and noxious gases.

162 *Alred v. Benton*, 77 Eng. Rep. 816, 9 Co. Rep. 57 b. (1611) (noxious emissions from a pigsty, causing terrible smells and loss of light, prevented the neighbors from “quiet enjoyment” of their land.); *See also, Michael Blumm, A Dozen Landmark Nuisance Cases and Their Environmental Significance*, 62 Ariz. L. Rev. 403, 409–11 (2020).

163 Restatement (Second) Of Torts § 821E.

164 Restatement (Second) Of Torts § 821B(1).

165 Restatement (Second) Of Torts § 821B(2)(a).

166 Restatement (Second) Of Torts § 821C.

167 *Crosstex North Texas Pipeline, L.P. v. Gardiner*, 505 S.W.3d 580, 593 (Tex. 2016).

Private Nuisance in Louisiana

Louisiana law prohibits the use of property in a way that causes damage to a neighbor or deprives them of the enjoyment of their property. However, uses that cause neighbors mere inconvenience are not prohibited. Louisiana law specifically states that causing an inconvenience by “diffusing smoke or nauseous smell” can be a nuisance and that its excessiveness is determined “in the light of local ordinances and customs.”¹⁶⁸

Trespass

When contaminated water or air invades private land without permission, that land's possessor can sue based on trespass.¹⁶⁹ Private property owners affected by pollution can (and often do) bring claims of trespass and private nuisance in a single suit.

Trespass in Texas

In Texas, trespass involves “causing or permitting a thing to cross the boundary of the premises.”¹⁷⁰ Plaintiffs do not normally need to show that the trespass caused actual damages to their property. However, Texas law states that a defendant will be “liable for trespass as a result of migration or transport of any air contaminant . . . other than odor, only upon a showing of actual and substantial damages by a plaintiff.”¹⁷¹ The plaintiff does not have to show that the defendant intended to cause the trespass, but must show that the defendant knew its actions were practically certain to cause it.¹⁷²

168 La. Civ. Code Ann. art. 669; See, *Inabnet v. Exxon Corp.*, 642 So. 2d 1243, 1251 (La. 1994); See also, *Barrett v. T.L. James & Co.*, 671 So. 2d 1186, 1188 (La. Ct. App. 2 Cir. 1996) writ denied, 674 So. 2d 973 (La. 1996) (finding dust and noise from a concrete plant not to constitute a nuisance where area was rural, the operation was not continuous and did not operate late at night or early in the morning, and the plaintiff failed to demonstrate that the dust and noise caused harm to property or health.)

169 See, e.g., *Martin v. Reynolds Metals Co.*, 221 Or. 86, 342 P.2d 790 (1959) (fluoride compounds from a nearby aluminum plant, invisible and odorless, settled on the plaintiff's land rendering it unfit for livestock. This constituted a trespass under Oregon common law).

170 *Glade v. Dietert*, 295 S.W.2d 642, 645 (Tex. 1956).

171 Tex. Civ. Prac. & Rem. Code Ann. § 75.002(h). See, e.g., *Nugent v. Pilgrim's Pride Corp.*, 30 S.W.3d 562, 575 (Tex. App.—Texarkana 2000, pet. denied) (facts showing that manure particles from neighboring farm contaminated plaintiff's land created an issue of fact as to whether the defendant's action constituted a trespass.); *But see, Schneider Nat. Carriers, Inc. v. Bates*, 147 S.W.3d 264, 292 (Tex. 2004) (“Assuming that entry of photons, particles, or sound waves can constitute trespass . . . (allegations we doubt but do not reach) they are barred two years after known injury begins.”).

172 *Nugent v. Pilgrim's Pride Corp.*, 30 S.W.3d 562, 575 (Tex. App.—Texarkana 2000, pet. denied).

Trespass in Louisiana

In Louisiana, the definition of trespass follows the general common law: “the unlawful physical invasion of the property of another.”¹⁷³ The act of trespass must be intentional, although the actor need not know that their action will result in a trespass.¹⁷⁴

Procedures for filing nuisance and Trespass Claims

Trespass and nuisance claims related to air pollution can be filed in state court.¹⁷⁵ Remedies can include monetary damages and equitable relief (for example, an injunction to stop the pollution or reduce harm). Claims for monetary damages must be filed promptly. The deadline for filing state nuisance and trespass claims, known as the statute of limitations, is extremely short. In Texas, the deadline for filing a case seeking monetary damages from a nuisance or trespass is two years.¹⁷⁶ In Louisiana, it is one year.¹⁷⁷ This is not much time to build a case of environmental pollution. An important question is: when does the clock start running?

In Texas, the clock for a nuisance claim begins running when the challenged condition substantially interferes with a plaintiff’s use and enjoyment of his property; the clock for a trespass claim begins running when “known injury begins.”¹⁷⁸ Texas courts have strictly applied the statute of limitations and have held that the statute began running when a pollution source was constructed, despite the plaintiff’s arguments that the noise and odors became markedly worse at a later date and that they did not know about the toxicity of what they were breathing until a privately commissioned environmental study was later released.¹⁷⁹

173 *Terre Aux Boeufs Land Co., Inc. v. J.R. Gray Barge Co.*, 803 So. 2d 86, 94 (La. Ct. App. 4th Cir. 2001), writ denied, 811 So. 2d 887 (La. 2002).

174 *Id.* at 97.

175 Courts have largely held, that the Clean Air Act does not preempt state-law-based nuisance claims because the Act itself states that the statute preserves the right of any person “under any statute or common law” to seek enforcement of “any emission standard or limitation or to seek any other relief.” 42 U.S.C. § 7604. See e.g., *Merrick v. Diageo Americas Supply, Inc.*, 805 F.3d 685, 695 (6th Cir. 2015); *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3d Cir. 2013); *Freeman v. Grain Processing Corp.*, 848 N.W.2d 58 (Iowa 2014); *Cerny v. Marathon Oil Corp.*, No. CIV.A. SA-13-CA-562, 2013 WL 5560483 (W.D. Tex. Oct. 7, 2013).

176 Tex. Civ. Prac. & Rem. Code Ann. § 16.003.

177 La. Civ. Code Ann. art. 3492.

178 *Town of Dish v. Atmos Energy Corp.*, 519 S.W.3d 605, 609 (Tex. 2017).

179 *Id.* at 611.

In Louisiana, the clock starts running when the prospective plaintiff has acquired or should have acquired, sufficient knowledge of the harm.¹⁸⁰ If the plaintiff is aware of something that, if pursued, would lead to knowledge of the “true condition of things,” that is enough to start the clock.¹⁸¹

In both Louisiana and Texas, a plaintiff may seek an injunction to abate a continuing nuisance even when a civil suit for damages would be barred by the statute of limitations.¹⁸²

HOW AIR POLLUTION DATA SOURCES CAN HELP

Data sources can help identify the source of a nuisance, demonstrate that pollutants have invaded a plaintiff’s property, and help show that the pollutants interfere with public health and safety and are excessive. Data may also help establish when a statute of limitations began running.

What is causing the nuisance?

Photos, videos, or testimony from the plaintiff can be used to document the conditions creating a nuisance and their source and to document physical invasions of plaintiff’s property – e.g., by dust particles. Such information could be supplemented with the following.

- [Facility Emissions](#) data could be used to identify potential sources of a nuisance or trespass.
- [Ambient Air Monitoring](#), including monitoring done by the plaintiff, could help identify pollutants in the air over the plaintiff’s property.
- [Violation and Enforcement Data](#) sources might help the plaintiff identify unauthorized emission events that correlate with days and times the plaintiff experienced interference in their use or enjoyment of their property.
- In cities covered by the tool, EDF’s [AirTracker](#) could be used to help identify where pollution affecting the plaintiff is likely coming from.

180 La. Civ. Code Ann. art. 3493.

181 *Kinder Gas, Inc. v. Reynolds*, 84 So. 3d 695, 699 (La. Ct. App. 3rd Cir. 2012).

182 *Nugent v. Pilgrim's Pride Corp.*, 30 S.W.3d 562, 575 (Tex. App.—Texarkana 2000, pet. denied); *Davas v. Saia*, 376 So. 3d 288, 292 (La. Ct. App. 4th Cir. 2023).

Has the statute of limitations run?

The following sources could help show when the plaintiff's property was invaded, or the nuisance first created.

- [Facility Emissions Data](#) and [Ambient Air Monitoring](#) sources could provide historical data that shows that the pollution in question started or changed character within the statutory period.
- [Violation and Enforcement Data](#) might show that unpermitted emissions events have occurred within, but not before, the one- or two-year period.
- [Air Permit Information](#) might show that a new permit or permit amendment was issued during the statutory interval that increased the amount of pollution or changed the type of pollution emitted by the defendant.

How was the plaintiff harmed?

To show that the pollution interfered with the plaintiff's "use and enjoyment" of their property, a plaintiff might testify that they have ceased gardening, exercising, or otherwise enjoying their outdoor space because of concerns about the defendant's air pollution. In addition, [Chemical Toxicity Profiles](#) could be used to identify adverse impacts that can be caused by the pollutants emitted by defendant and to support the reasonableness of plaintiff's decision to avoid exposure to that pollution.

CONCLUSION

While the increasing amount of data about air pollution and its health impacts is undeniably valuable, it can be challenging to know how to access the data and translate it into action to reduce pollution. Hopefully, this Guide provides users with an easy way to access some public air pollution data sources and inspiration for using the data to reduce air pollution and improve public health.

