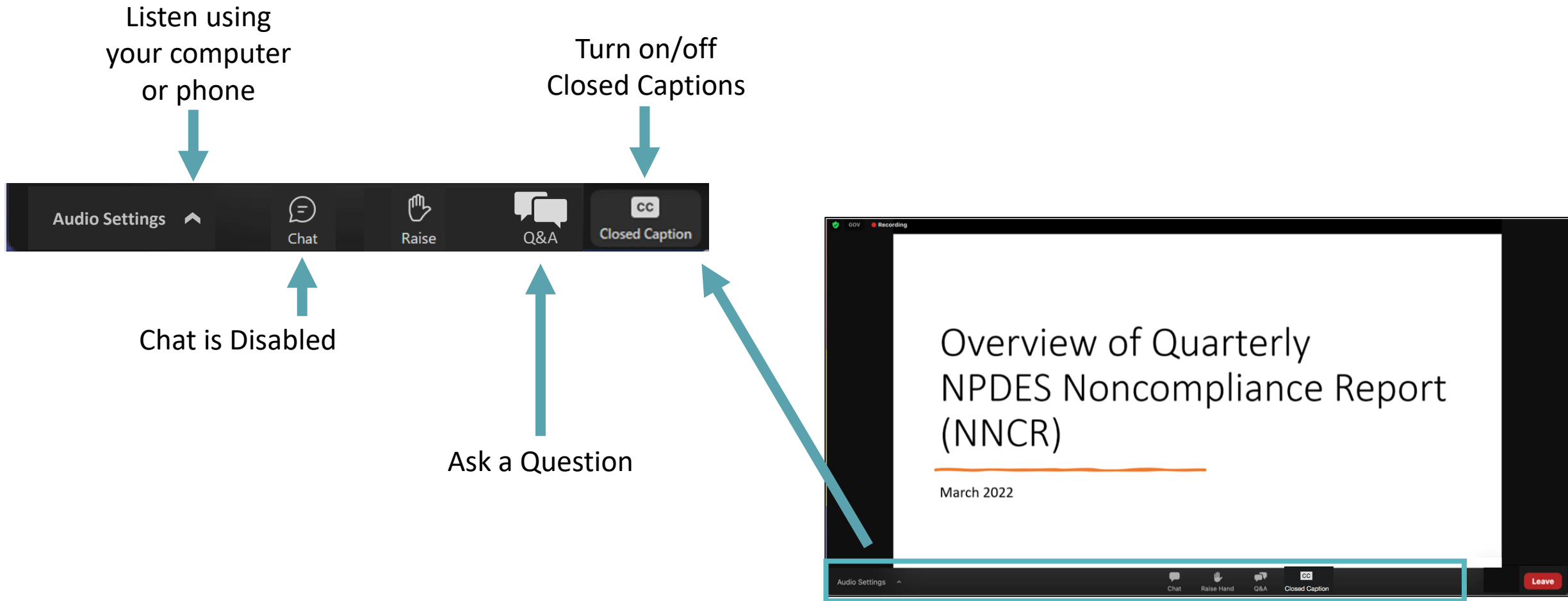


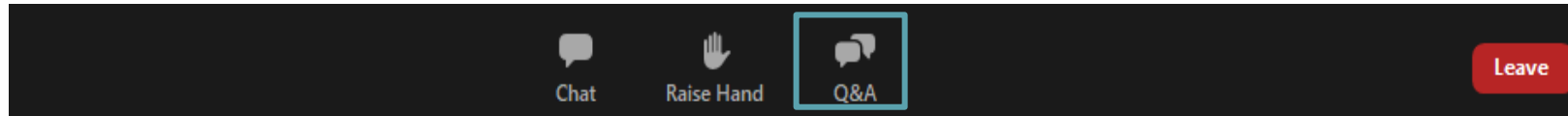
ECHO Clean Air Tracking Tool (ECATT)

June 6, 2023

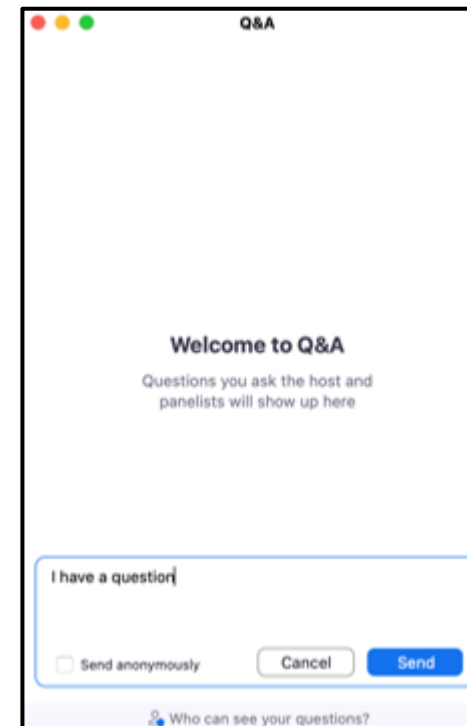
Webinar Logistics:



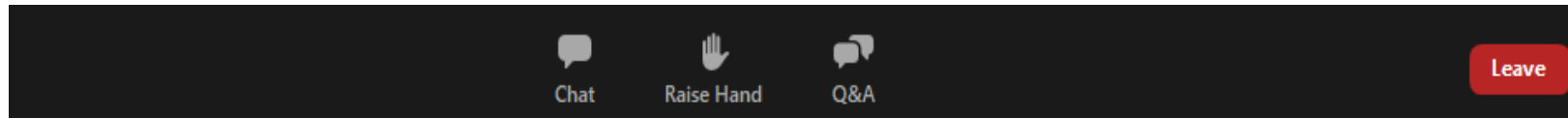
Asking Questions:



- All attendees are in listen only mode.
- Please enter your questions in the Q&A pod and we will be monitoring them throughout the webinar.

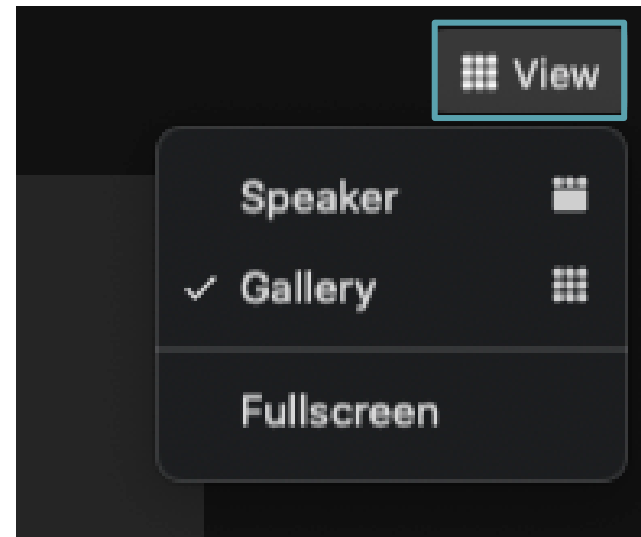


Video Instructions:



If you don't see a presentation on the screen, try switching the view layout using the options in the top right corner.

For your awareness, we are recording today's training.



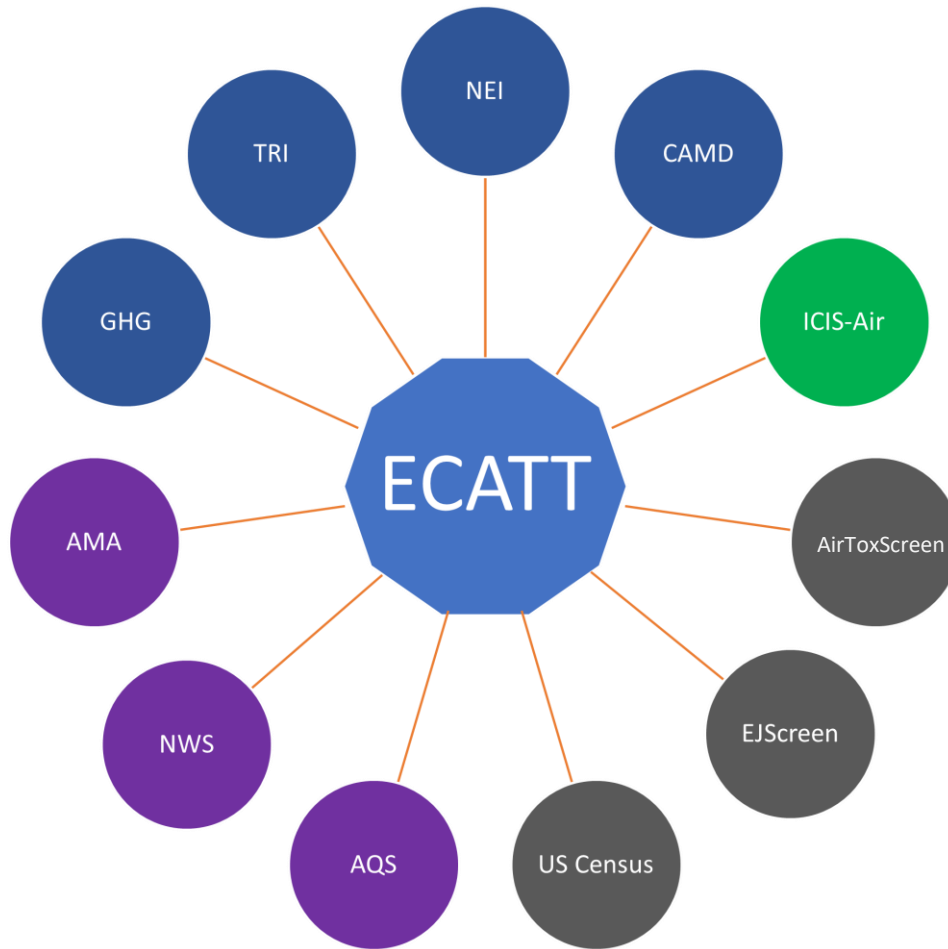
Introductions

- Cora Stern, EPA Office of Compliance
- Jeanette Reyes, EPA Office of Air Quality Planning and Standards
- Art Diem, EPA Office of Air Quality Planning and Standards
- Mike Barrette, EPA Office of Compliance

What is the ECHO Clean Air Tracking Tool (ECATT)?

- **Last week, EPA released the ECHO Clean Air Tracking Tool to the public.** ECATT is the first EPA interface that combines data about emissions, enforcement and compliance, environmental justice, air monitoring stations, and modeled risk data.
- The tool can be used to evaluate emissions at stationary sources of air pollution and analyze general air quality in the United States. Public release of ECATT provides transparency for Clean Air Act (CAA) data and allows users to screen for facilities emitting pollutants in areas with a **high risk of health impacts** or **environmental justice** concerns.
- ECATT leverages EPA's extensive and well-used ECHO integration platform to make it easy to find pollutant and cancer-risk hotspots and then map back to possible nearby contributors of monitored risk.

What Data Flows into ECATT?



Many stove-piped data sources with useful information are integrated in this tool.

Emissions Inventories

TRI – Toxics Release Inventory

NEI – National Emissions Inventory

CAMD – Clean Air Markets Division

GHG – Greenhouse Gas Reporting Program

Compliance Data

ICIS-Air – Integrated Compliance Information System

Ambient Conditions

NWS – National Weather Service

AMA – Ambient Monitoring Archive

AQS – Air Quality System

Other Sources

AirToxScreen – Air Toxics Screening Assessment

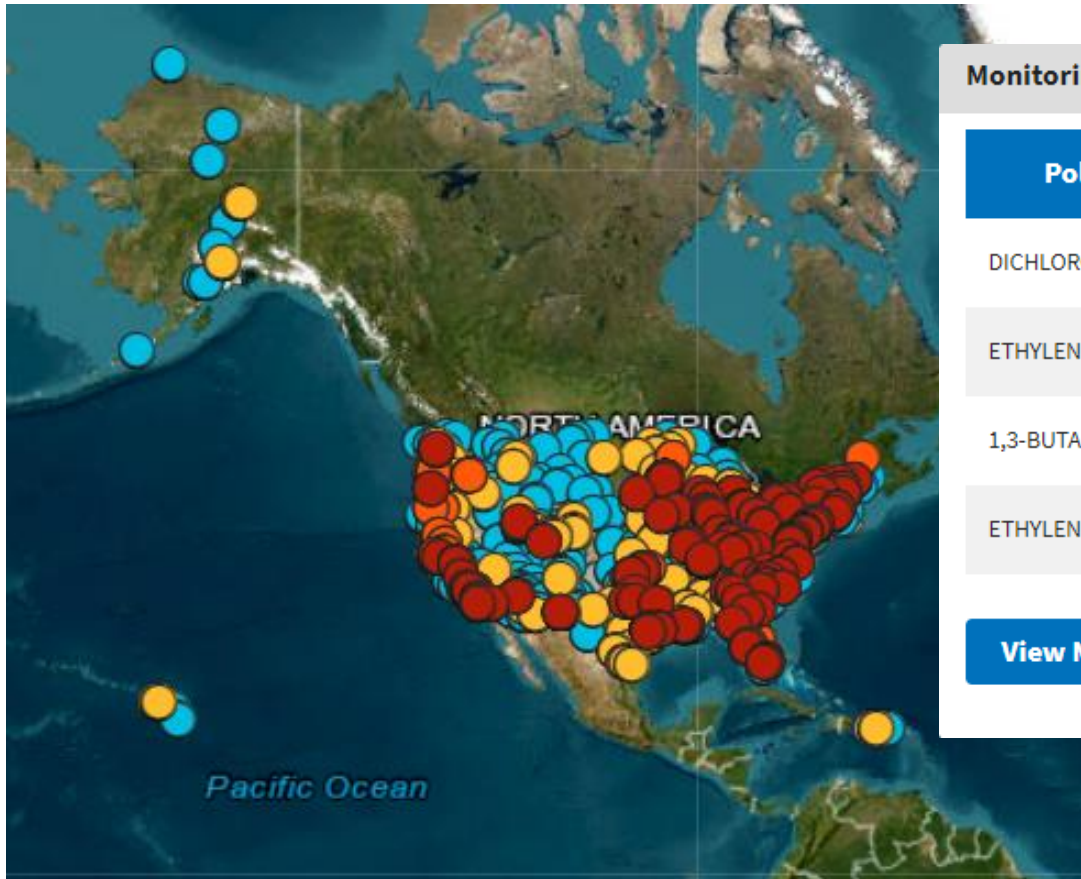
EJScreen – Environmental Justice Data

ECATT Searches

ECATT has two main searches: the [Air Monitoring Stations search](#) and the [Emissions Screener](#) search

- The Air Monitoring Stations (AMS) search provides data about air monitoring stations that measure ambient or outdoor concentrations of Hazardous Air Pollutants (HAPs) and Criteria Air Pollutants (CAPs). The search can be used to identify areas with high pollutant concentrations and higher potential for health impacts and identify the facilities emitting in those areas.
- The Emissions Screener search provides data on stationary sources regulated under the Clean Air Act. Users can analyze the data reported to several EPA emissions inventories to identify top emitters and answer questions such as: **who is emitting, where are they emitting, which pollutants are they emitting, and how much are they emitting?** The search organizes emissions data by facility, industry, or pollutant. Through the facility report, users can access each facility's Air Pollutant Report to view detailed emissions data.

Air Monitoring Stations Search



Monitoring Station	
Pollutant Name	Trend
DICHLOROMETHANE	
ETHYLENE DIBROMIDE	
1,3-BUTADIENE	
ETHYLENE DICHLORIDE	

[View Monitor Information](#)

Monitoring Station

[View Monitoring Station Data](#)

Monitor Information

AMA Site Code: 130890003
State: GA
Location Type: Metropolitan Statistical Area

Weather Station Information

Nearest Weather Station: ATLANTA INTL ARPT (ATL)

Average Cancer Risk from Monitor Measurements: 65,816
Median Cancer Risk from Monitor Measurements: 111,291
Max Cancer Risk from Monitor Measurements: 111,467
Recent Cancer Risk from Monitor Measurements: 85

[View Pollutants Monitored](#)

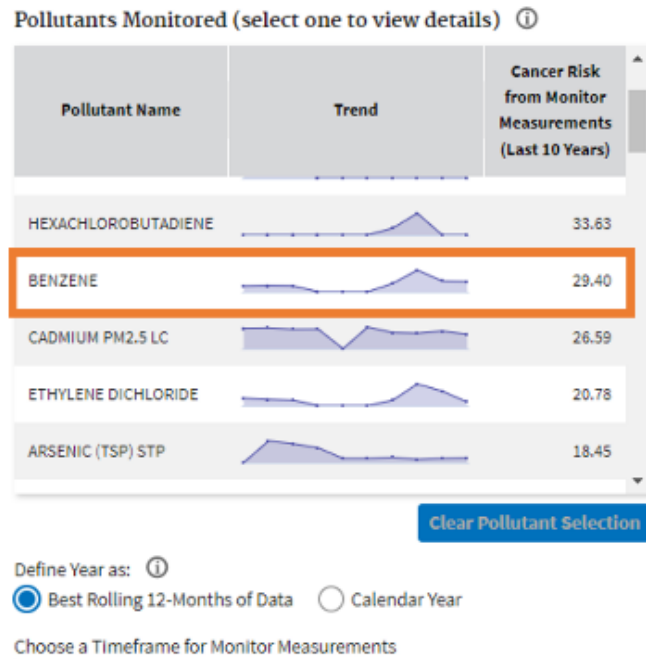
Ambient Monitoring Archive for HAPs

(“the Archive”: <https://www.epa.gov/amtic/amtic-air-toxics-data-ambient-monitoring-archive>)

- Description
 - Ambient Monitoring Archive for HAPs is AQS+ (e.g., AQS, TAMIS, NADP, NOAA, community monitoring, etc.)
 - Unified formatting
- History
 - Since 2001 – prior to HAPs on AQS
 - Release ~annually in versions
 - All years included in every version – not just the newest years
- Data Processing
 - Annual averages calculated from the Archive per pollutant, site, year, and sampling duration
- Application
 - Annual averages goes into multiple products (e.g., ECATT, The Trends Report, AirToxScreen Mapping Tool, NEXUS, CMAQ/AERMOD/hybrid model evaluation, ROE, CMAQ boundary conditions, publications, etc.)
- The 2020 Archive
 - Includes 1990 – 2020
 - 87+ million records
 - 32 different sources
 - 30% of records from non-AQS sources

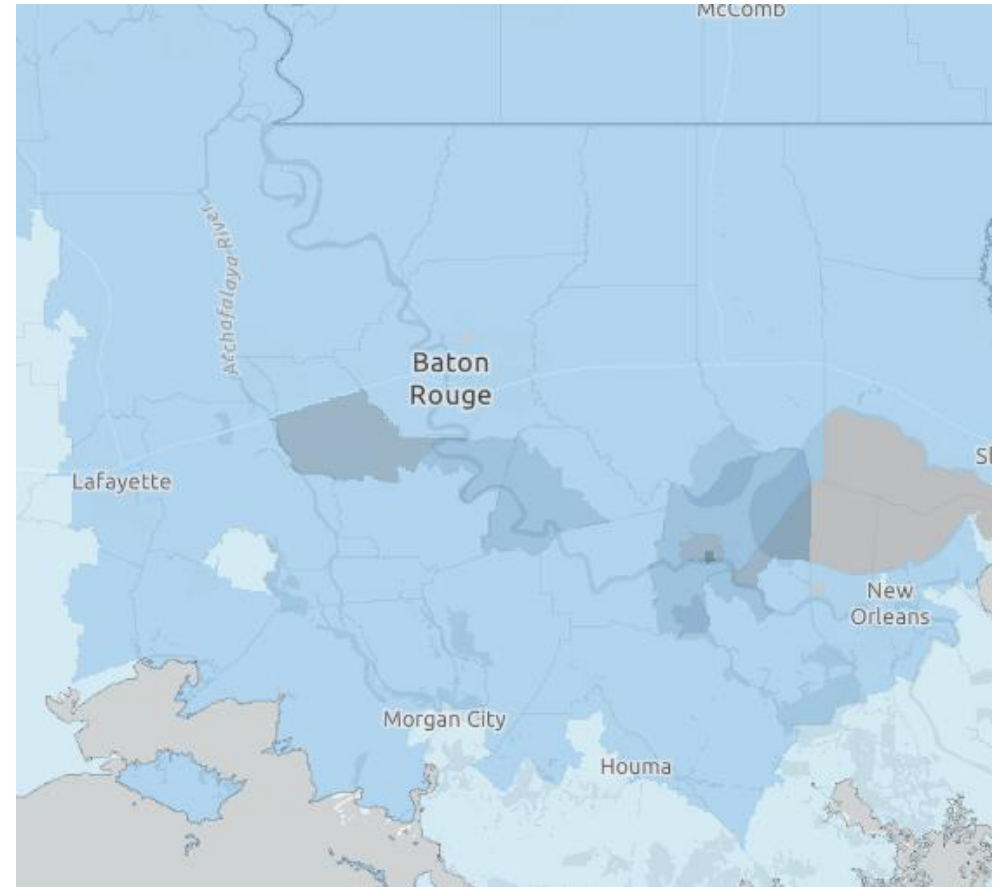
ECATT AMS Scenario 1

Where have monitoring stations measured concentrations of **Benzene** at or above a **10 people in a million** average long-term cancer risk?



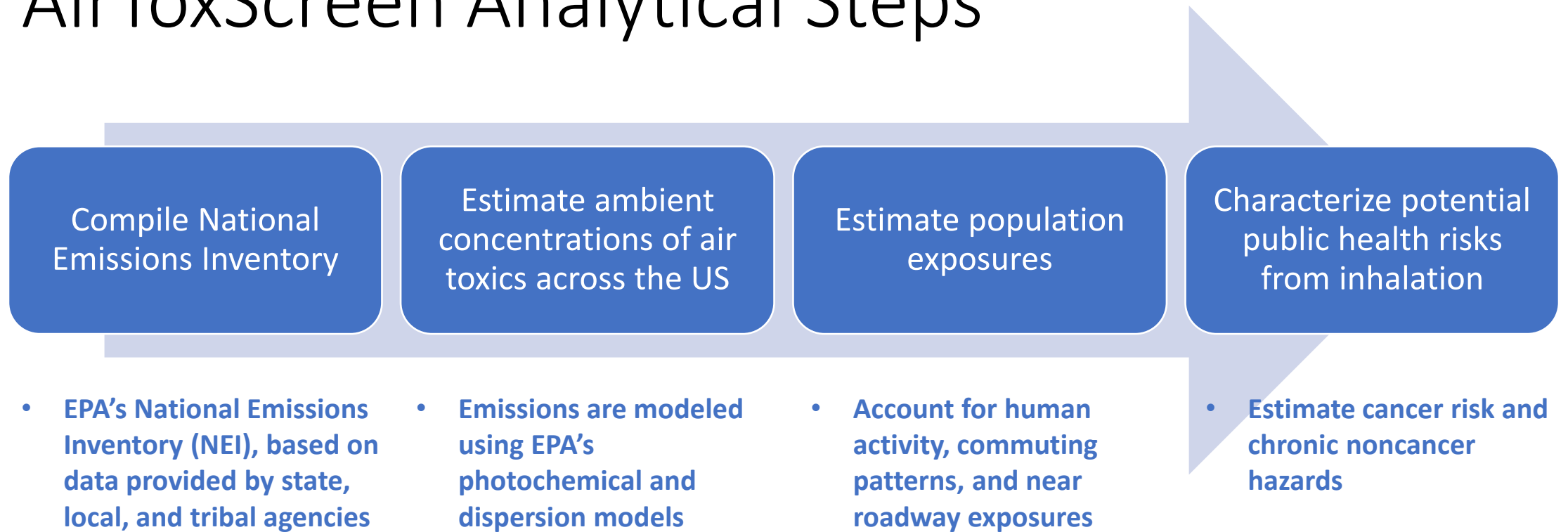
Air Toxics Screening Assessment (AirToxScreen)

- Screening-level characterization of air toxics across the US
 - Nationwide assessment at census tract resolution assuming a continuous, lifetime (70-year) exposure
 - Cancer (“X-in-1-million”) and noncancer (hazard index for 14 target-organ/systems) risk estimates for 138 air toxics
- How is AirToxScreen used?
 - Provide communities with information about health risks from air toxics
 - Planning tool for EPA, state/local/Tribal organizations
 - To identify locations of interest for further study
 - To prioritize pollutants and emission sources/types



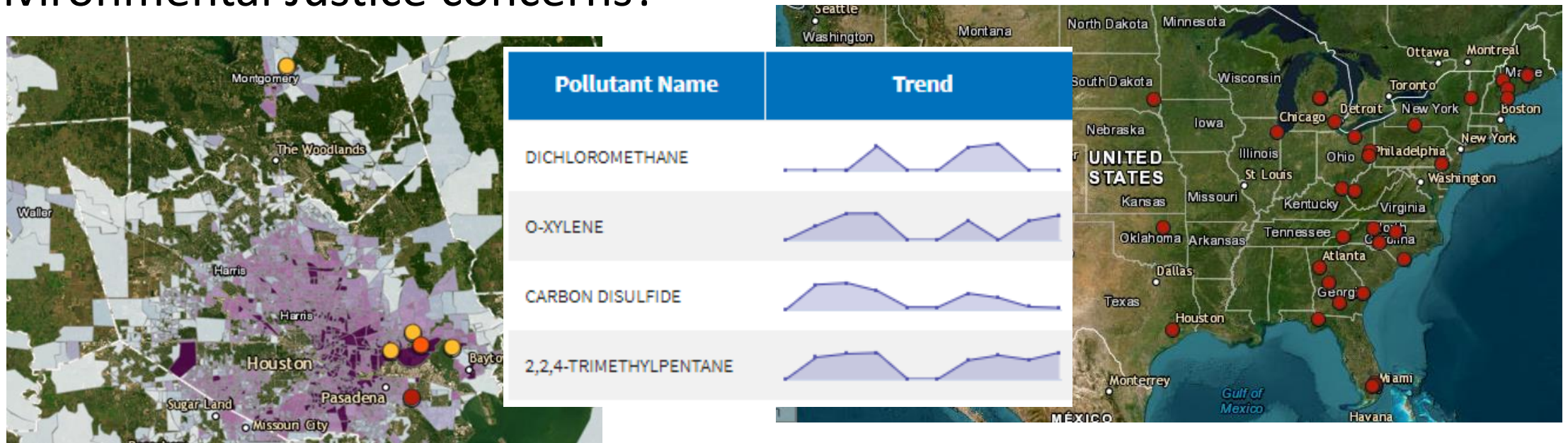
<https://www.epa.gov/AirToxScreen/airtoxscreen-mapping-tool>

AirToxScreen Analytical Steps



AMS Scenario 2

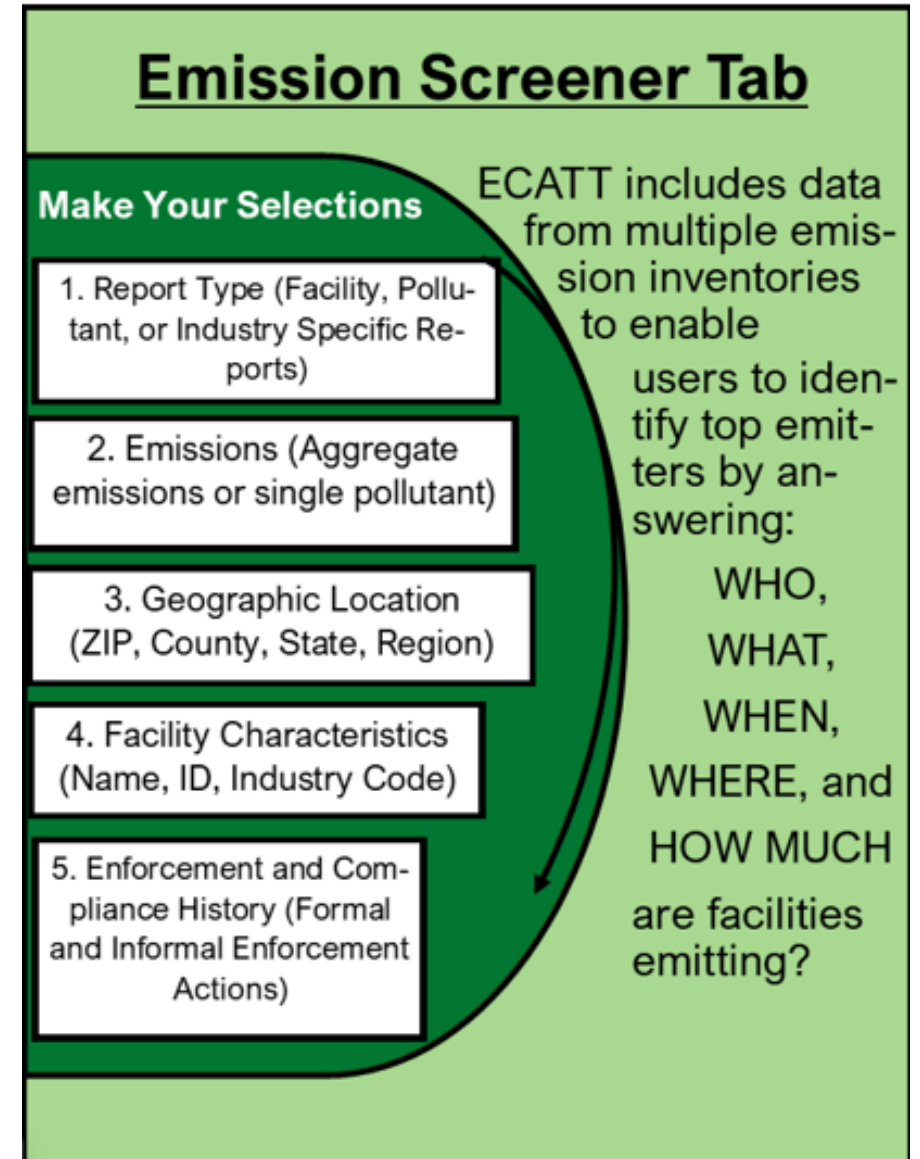
Which monitoring stations have a higher cancer risk level for the aggregate of all pollutants based on measured concentrations versus modeled concentrations and are in an area with elevated Environmental Justice concerns?



Emissions Screener Search

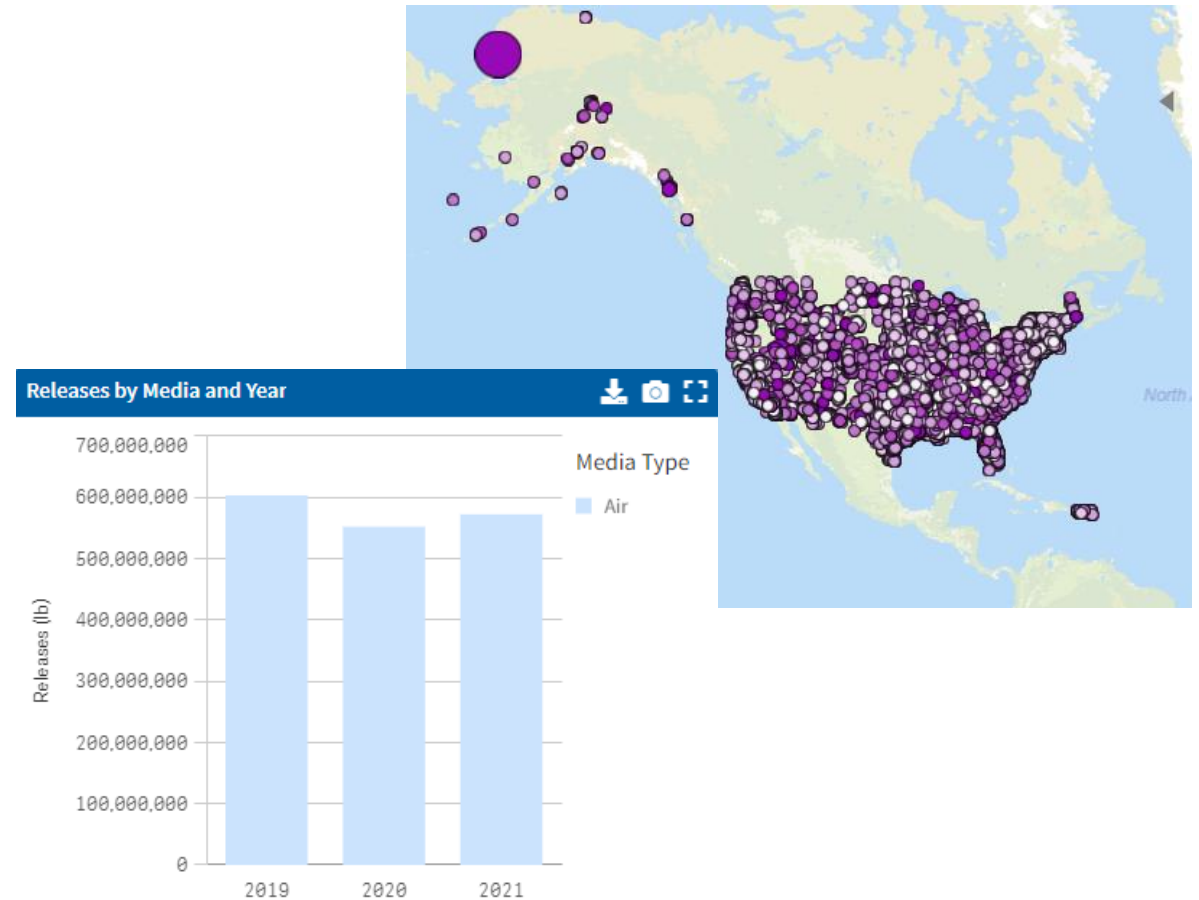
Single query tool for emissions data sorted by facility, industry, and pollutant. Allows for definition of parameters such as location, data year, pollutant category, facility characteristics, compliance history, and more.

- Use Cases
 - Finding major contributors of hotspot-creating pollutants which are *not* located near monitors.
 - Identifying discrepancies between NEI and TRI.
 - Determining which industries or pollutants are contributing to overall pollutant loadings and/or risk.



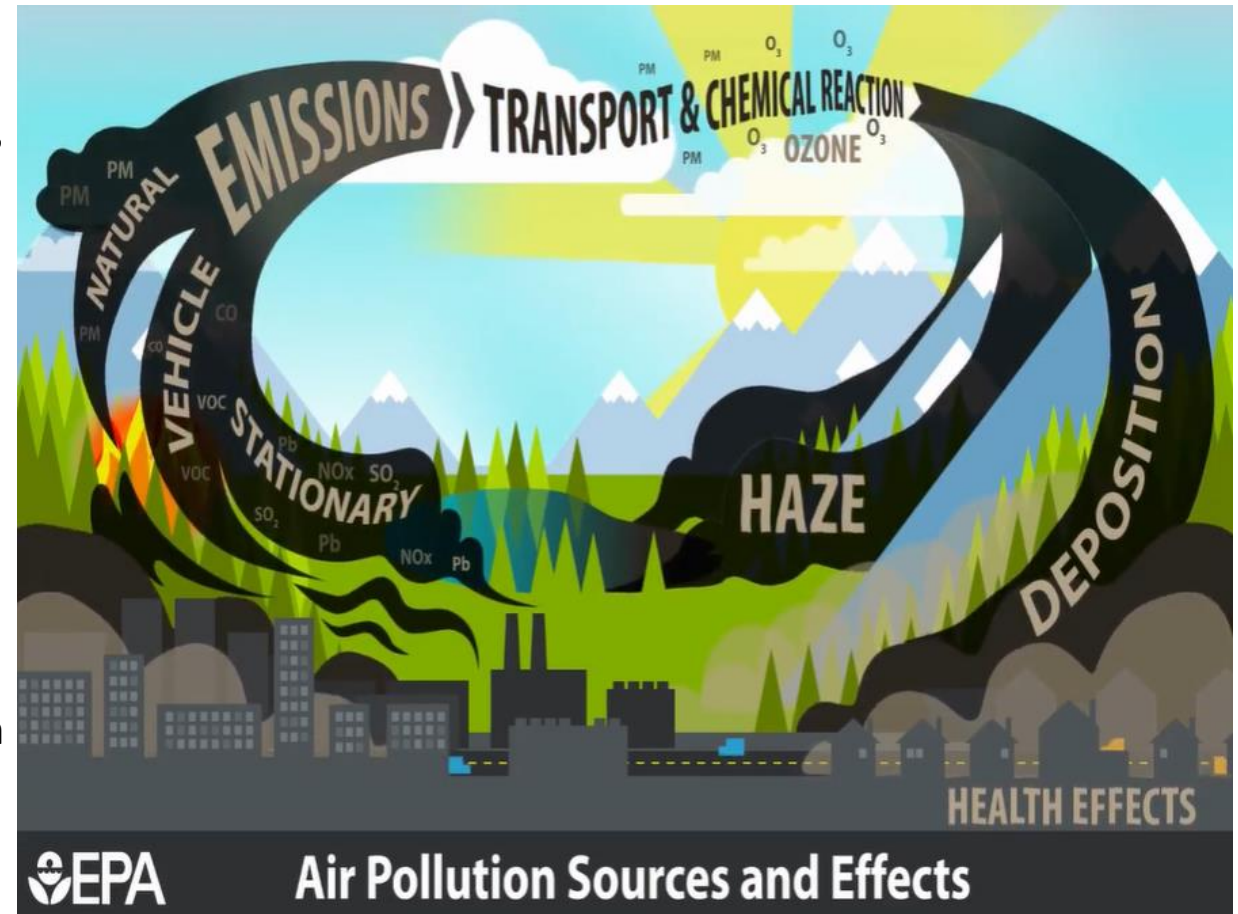
Toxics Release Inventory (TRI) Program

- Tracks the management of certain toxic chemicals that may pose a threat to human health and the environment
- U.S. facilities in different industry sectors such as manufacturing, metal mining, electric power generation, chemical manufacturing, and hazardous waste treatment, must report annually how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment
- In general, [chemicals covered](#) by the [TRI Program](#) are those that cause:
 - Cancer or other chronic human health effects
 - Significant adverse acute human health effects
 - Significant adverse environmental effects



National Emissions Inventory (NEI)

- The NEI provides a comprehensive and detailed estimate of criteria air pollutants (CAPs) and their precursors, and hazardous air pollutants (HAPs) from air emissions sources in the US.
- The full NEI is released every three years and is based primarily upon data provided to the EPA by state, local, and tribal air agencies (SLTs) across the US.
- Data sources (✓ = in ECATT, ● = not ECATT)
 - ✓ Stationary sources: TRI, GHGRP, NESHAPs
 - Mobile Sources: Onroad, nonroad (MOVES), airports (FAA)
 - Nonpoint Sources: e.g. residential fuel combustion
 - Natural Sources: BEIS model with land use and met data
 - Fires



Emissions Screener Scenario

What are the active facilities in Texas that are emitting Hazardous Air Pollutants in the mining, quarrying, and oil and gas extraction sector that are also in areas of elevated environmental justice concern?

Industry

NAICS Code

Enter 2, 3, 4, 5, or 6-digit NAICS Code

Find NAICS Code By Keyword

MACT Subpart

NSPS Subpart

NSPS Subpart (Non-Major)

NEI Source Classification Code (SCC)

gas

21 - Mining, Quarrying, and Oil and Gas Extraction

211 - Oil and Gas Extraction

2111 - Oil and Gas Extraction

21113 - Natural Gas Extraction

211130 - Natural Gas Extraction

212 - Mining (except Oil and Gas)

Select an SCC from above

Facility Summary



HOUSTON PLANT
8615 MANCHESTER RD, HOUSTON, TX 77012

Facility Information (FRS)

FRS ID: [110000460901](#)
EPA Region: 06
Latitude:
Longitude:
Locational Data Source:
Industry: All Other Basic Inorganic Chemical Manufacturing, All Other Miscellaneous Chemical Product and Preparation Manufacturing, Other Basic Inorganic Chemical Manufacturing, Alkalies and Chlorine Manufacturing, Natural Gas Liquid Extraction
ICIS-Air Source ID: TX0000004820100037
ICIS-Air Facility Status: Operating Major Emissions

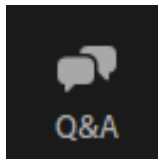
Emission Inventories

- National Emissions Inventory (NEI): 477
- Greenhouse Gas Reporting Program (GGRP): No Information
- Toxics Release Inventory (TRI): [77012STFFR8615M](#)
- Clean Air Markets Division (CAMD): No Information

Related Reports

- [Detailed Facility Report](#)
- [Search for Excess Emission Reports](#)
- [Search for Spills](#)

Question and Answer



Ask a Question

If you have questions after today's presentation, please use ECHO's [Contact Us](#) page.

Air Facility Resources

- ECHO Clean Air Tracking Tool: <https://echo.epa.gov/trends/air-monitoring-stations>
- Enforcement and Compliance History Online (ECHO): <https://echo.epa.gov/>
- ECHO Quick Start Guide: <https://echo.epa.gov/resources/general-info/learn-more-about-echo>
- Air Facility Search Help: <https://echo.epa.gov/help/facility-search/facility-search-help>
- National Data Downloads: <https://echo.epa.gov/tools/data-downloads>
- National Emissions Inventory (NEI): <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>
- Toxics Release Inventory: <https://www.epa.gov/toxics-release-inventory-tri-program>
- AirToxScreen: <https://www.epa.gov/AirToxScreen>

General Resources

- ECHO Tool Guide: <https://echo.epa.gov/resources/general-info/tool-guide>
- Video Tutorials: <https://echo.epa.gov/help/tutorials>
- Webinars: <https://echo.epa.gov/help/training>
- FAQ: <https://echo.epa.gov/resources/general-info/echo-faq>
- ECHO Mailing list: <https://echo.epa.gov/resources/general-info/listserv>
- ECHO Notify: <https://echo.epa.gov/tools/echo-notify>
- How to Report an Error: <https://echo.epa.gov/help/how-to-report-error>
- State Agency Websites: <https://echo.epa.gov/resources/echo-data/state-websites>

Thank you for attending today's training!

Slides and training recording will be posted on the ECHO Training (<https://echo.epa.gov/help/training>) page.

A short survey will appear on your screen momentarily, we would really appreciate your feedback.

OMB Control Number: 2030-0051 Expiration Date: 5/31/24

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Questions ECATT Answers:

- Which facilities release which pollutants?
- Which facilities could be key contributors to air pollution or risk hotspots?
- How well do monitored pollutant readings align with reported emissions from nearby facilities?

ECATT Functionality:

Access to [Clean Air Act](#) (CAA) data to evaluate emissions at stationary sources of air pollution and evaluate general air quality.

- Uses data from stationary air monitors to find pollutant and cancer-risk hotspots
- Analyzes CAA data to identify potential facilities contributing to air pollution

How to find ECATT:

<https://echo.epa.gov/>

Click on 'Analyze Trends', then 'Pollution Analysis', then 'Clean Air Tracking Tool (ECATT)'

Contact: Cora Stern stern.cora@epa.gov

