



2020 Toxics Release Inventory National Analysis

Overview Presentation

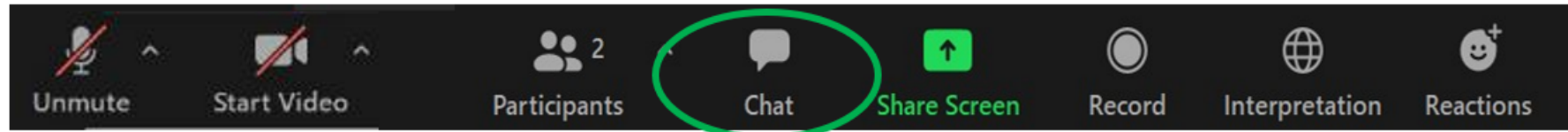
Caitlin S. Briere

Data Analysis and Dissemination Branch - Office of Pollution Prevention and Toxics

Using Zoom for Today's Webinar

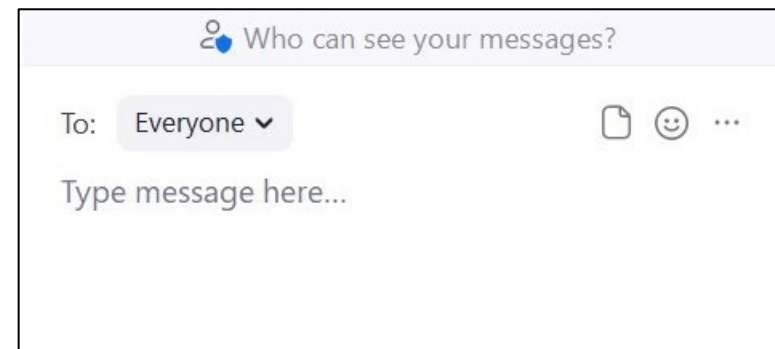
- ▶ All participants are muted.
- ▶ For the best quality, please leave your camera turned off.
- ▶ You can type questions into the chat panel at any time.
- ▶ If you have any technical difficulties:
 - ▶ Use the chat in the lower right corner of your screen to send a message to Chloe Durand
 - ▶ Email Chloe Durand at Durand.Chloe@epa.gov

Accessing Chat

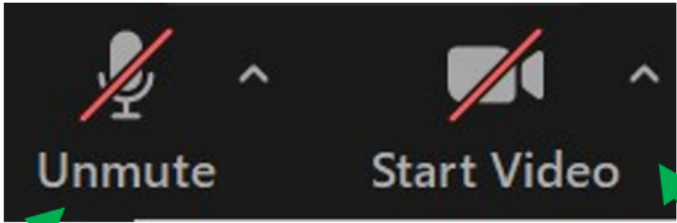
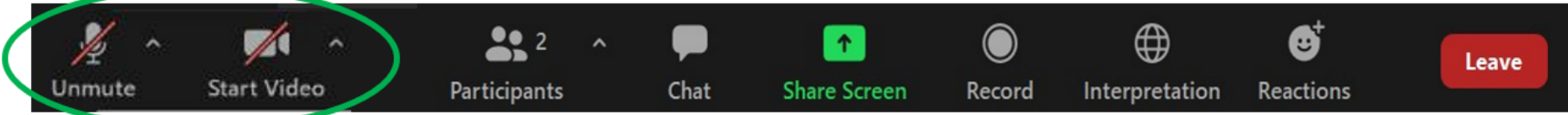


1. Click “Chat” at any point to open the chat box to ask questions.

2. Type message and send.



Muting Audio and Video



Microphone should be muted

Video should be turned off



2020 Toxics Release Inventory National Analysis

Overview Presentation

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Overview

- ▶ Introduction to TRI
- ▶ Reporting Year 2020 TRI National Analysis
- ▶ New features this year
- ▶ Live website demo
- ▶ Questions & Discussion

Why Was the Toxics Release Inventory Created?

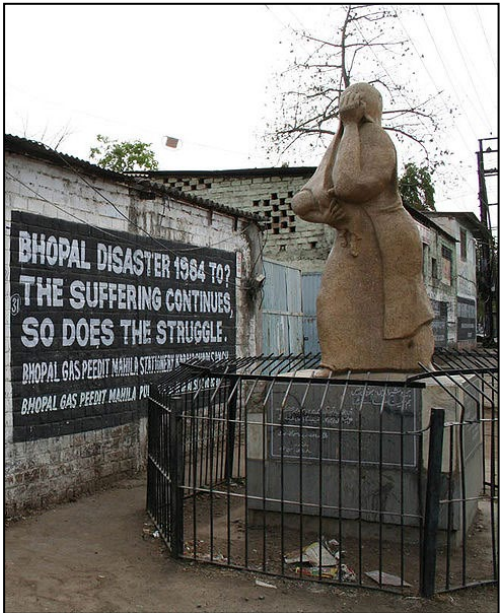
Bhopal, India December 1984

- ▶ Methyl isocyanate gas released at a Union Carbide chemical plant
- ▶ Thousands died the first night
- ▶ Thousands more have died due to long-term health effects
- ▶ Survivors continue to suffer with permanent disabilities

Institute, West Virginia August 1985

- ▶ Chemical release at a similar facility in the U.S.
- ▶ Over 100 people hospitalized

Increased concern in the U.S. about chemical accident preparedness and availability of information on toxic chemical releases from industrial facilities



Bhopal memorial for those killed and disabled by the 1984 toxic gas release

What is the Toxics Release Inventory (TRI)?

- ▶ TRI tracks the management of certain toxic chemicals that may pose a threat to human health and the environment.
- ▶ TRI includes information on:



Releases



Waste transfers



Recycling



Pollution prevention

And much more!

What is a “Release”?

- ▶ A “release” refers to different ways that toxic chemicals from industrial facilities enter the:



Air

Water

Land

- ▶ The likelihood of residents coming into contact with toxic chemicals depends on the type of release and other factors

For more information, see the glossary at www.epa.gov/toxics-release-inventory-tri-program/common-tri-terms

Which facilities must report to TRI?

1. Facility must be in a TRI-covered industry sector or category, including:



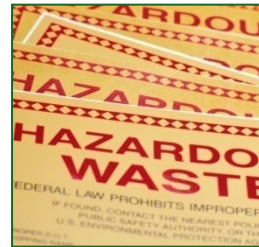
Manufacturing



Coal/Oil
electricity
generation



Certain Mining
Facilities



Hazardous
Waste
Management



Federal Facilities

2. Facility must have the equivalent of at least **10 full-time employees**
3. Facility must manufacture, process, or otherwise use more than a **certain threshold amount of a TRI-listed chemical per year**

What information do facilities report to TRI?

- ▶ On-site releases of TRI chemicals to:
 - ▶ Air
 - ▶ Water
 - ▶ Land
- ▶ Transfers of chemical waste to off-site locations
- ▶ Other waste management activities:
 - ▶ Recycling
 - ▶ Treatment
 - ▶ Energy recovery
- ▶ Pollution prevention activities (www.epa.gov/tri/p2)



Considerations When Using TRI Data

- ▶ The TRI Program covers many - but not all - industry sectors and chemicals
- ▶ The quantities of TRI chemical releases reported by facilities are not necessarily an indicator of potential human health risks posed by the chemicals
- ▶ Most TRI data reflect permitted industrial releases
- ▶ TRI data do not reflect all uses of a particular chemical
- ▶ TRI-reported releases may or may not be the largest source of chemical emissions in a particular location
- ▶ TRI reporting requirements, covered chemicals, and covered industry sectors have changed over time
- ▶ New TRI data are published each July and updated several times during the year
- ▶ TRI is one of many sources of environmental data collected by EPA
- ▶ In some rare instances, a facility may not be physically located in the city listed on its TRI reporting form

For more information, see “Factors to Consider when Using TRI Data” at <https://www.epa.gov/toxics-release-inventory-tri-program/factors-consider-when-using-toxics-release-inventory-data>

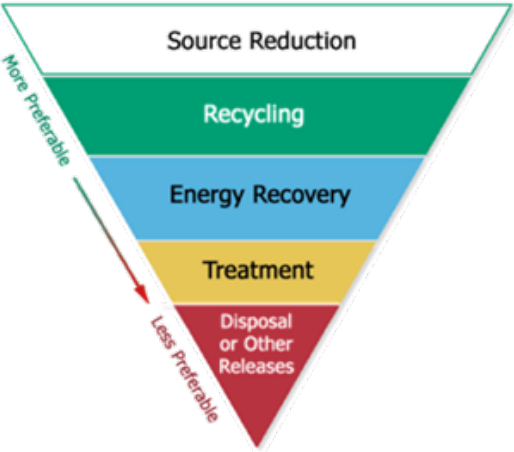
2020 TRI National Analysis: Key Messages

- ▶ Facilities reduced their TRI waste managed and releases since last year
 - ▶ Waste managed decreased 7%; releases decreased 10%
 - ▶ Reductions in releases outpaced reduced economic activity: manufacturing value added decreased 2% while manufacturing releases decreased 9% from 2019 to 2020
 - ▶ TRI facilities implemented 2,779 new source reduction/pollution prevention activities in 2020
- ▶ Releases of TRI chemicals to air continue to decline
 - ▶ 2019-2020: Air releases decreased by 52 million pounds (9%)
 - ▶ 2011-2020: Air releases decreased by 277 million pounds (34%)
 - ▶ Almost every sector reduced its releases of TRI chemicals to air since 2011
- ▶ New this year:
 - ▶ “Community Profiles” layer in interactive mapping tool combines TRI data with demographic information, making it easy to overlay maps of facility locations with maps of overburdened and vulnerable communities
 - ▶ Cross-border waste transfers added to data visualization dashboard
 - ▶ New profile of cement manufacturing sector; GHG info added to certain sector profiles
 - ▶ First year of TRI reporting for certain PFAS

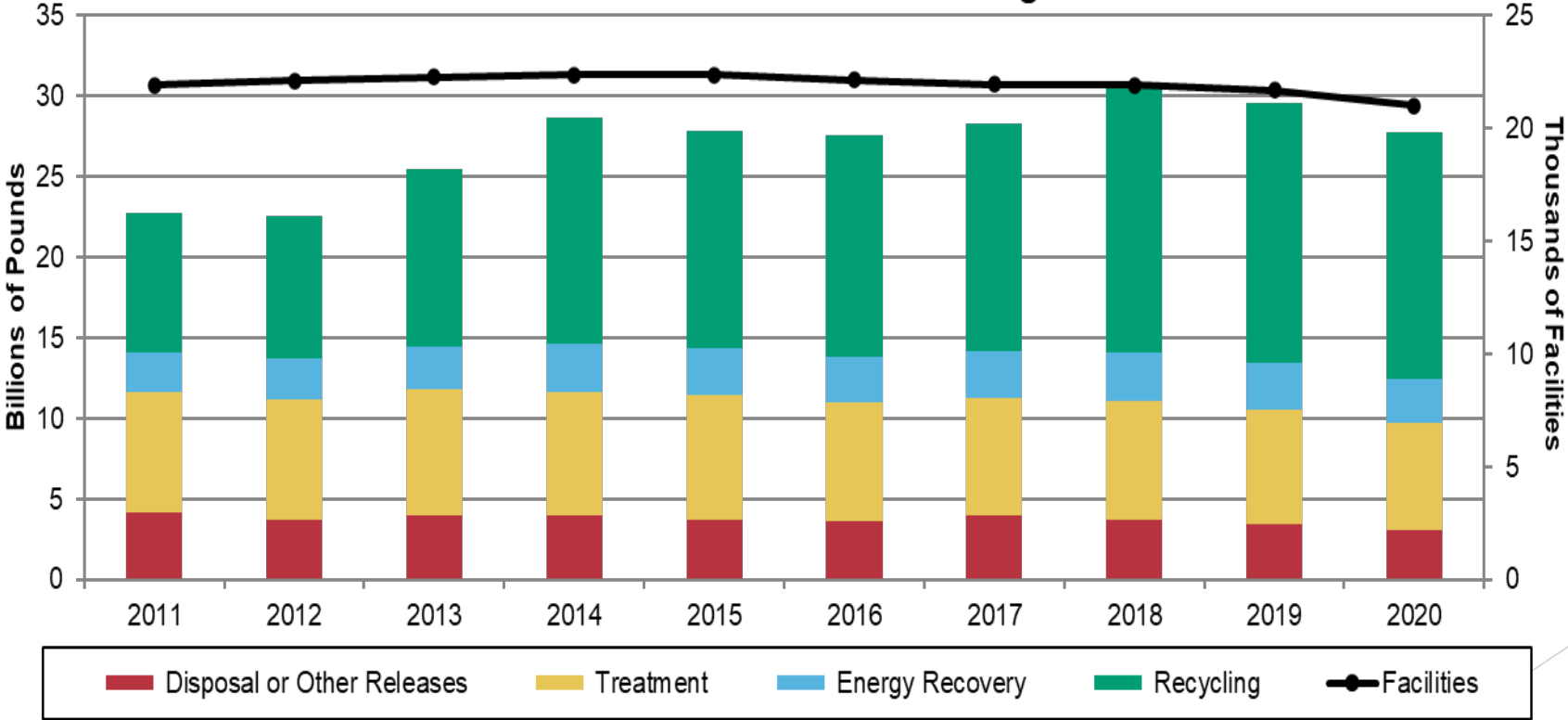
COVID-19 Impacts

- ▶ The COVID-19 public health emergency may have affected industrial operations throughout 2020. Facilities may submit comments about their activities in their TRI reporting, and for 2020, many chose to include information about how COVID-19 impacted their operations:
- ▶ **Impacts on facility-wide operations** - many facilities noted COVID-19-related shutdowns or reduced operations during 2020
- ▶ **Impacts on waste management activities** - facilities commented on how the public health emergency changed their processes
 - ▶ A food manufacturer noted that they used more sanitizing chemical than in the past to meet COVID-related industry requirements
 - ▶ An antibacterial wipe manufacturer reported that increased demand led to an increase in their production and the associated amount of chemical waste generated
- ▶ **Impacts on pollution prevention activities** - an abrasive product manufacturer reported that COVID-19 resulted in less capital available to pursue source reduction projects

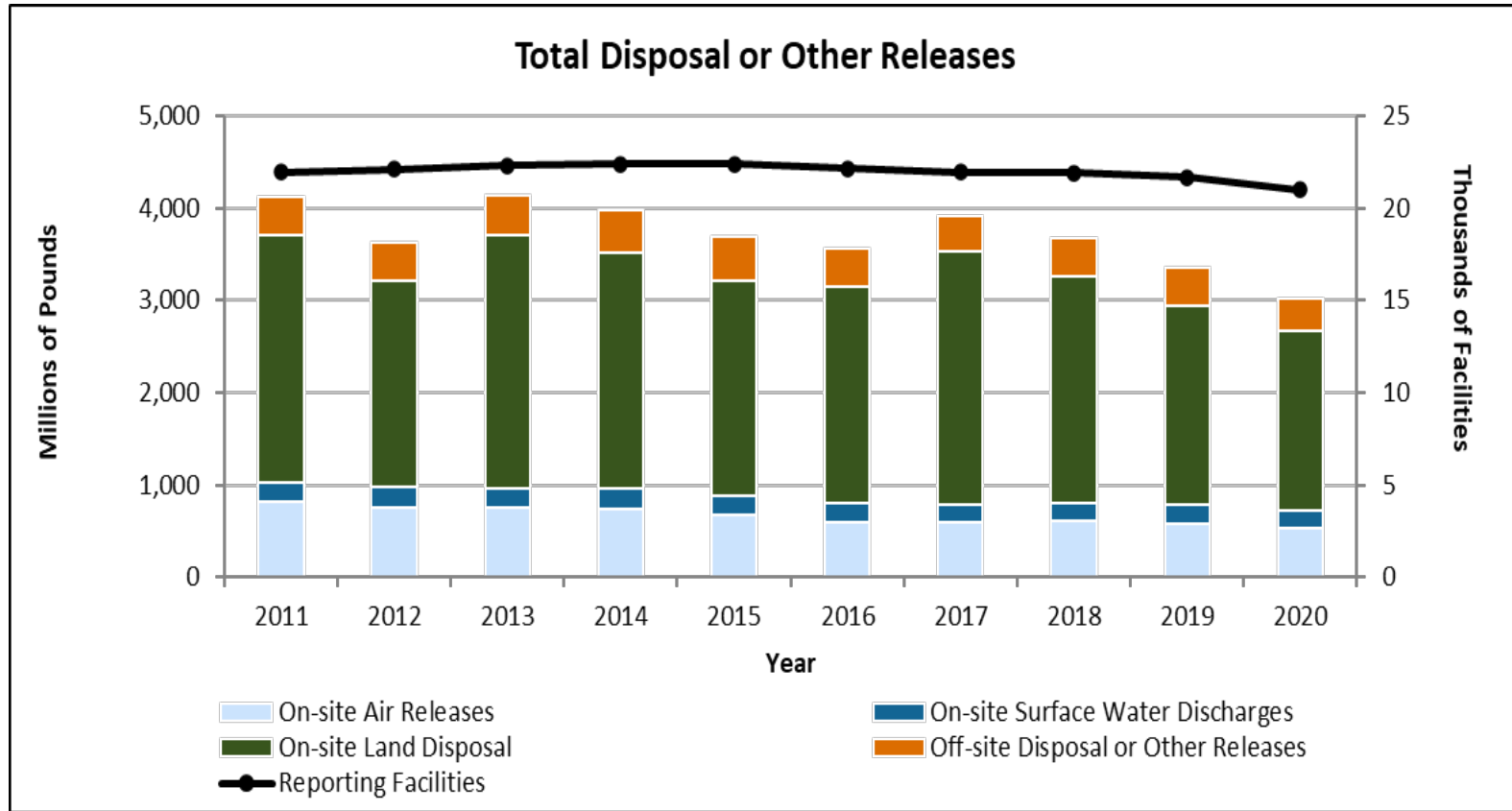
Trends in TRI waste managed



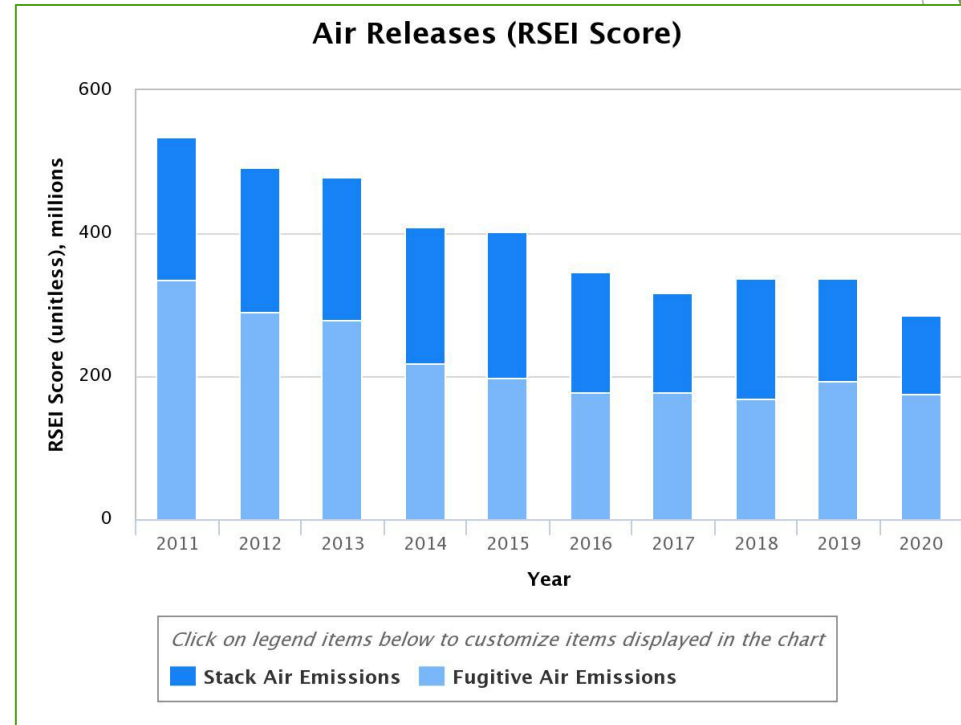
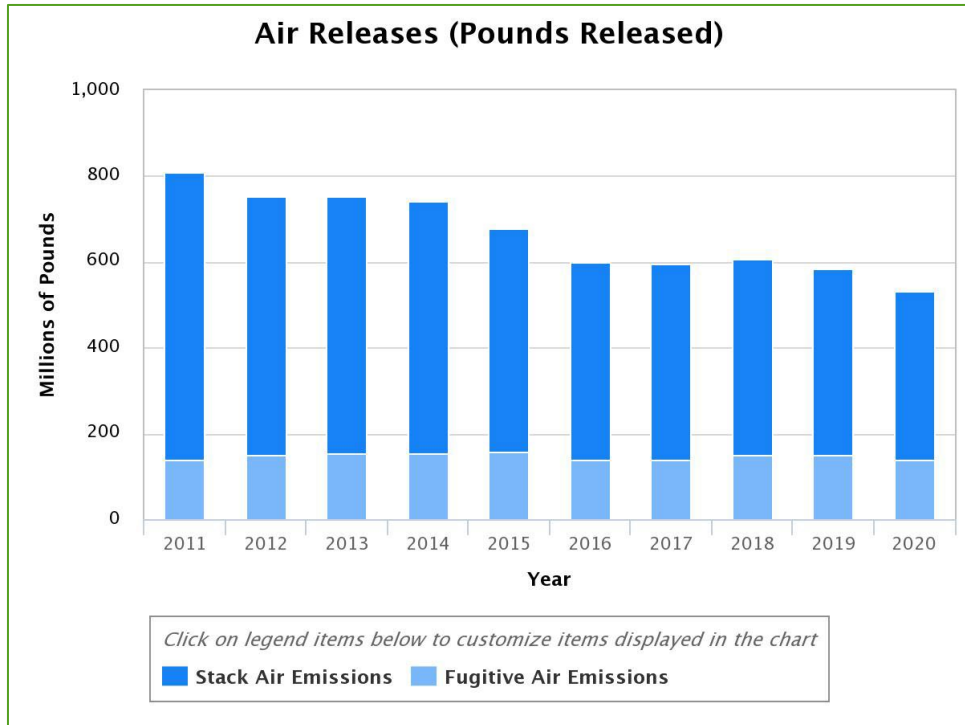
Production-Related Waste Managed



Trends in TRI Releases

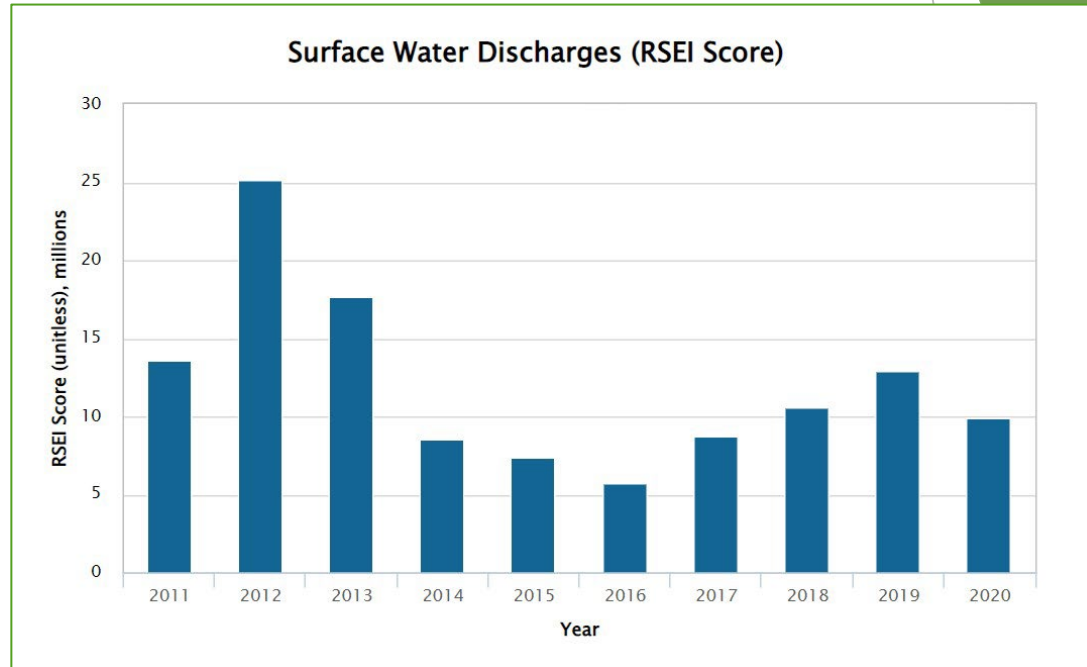
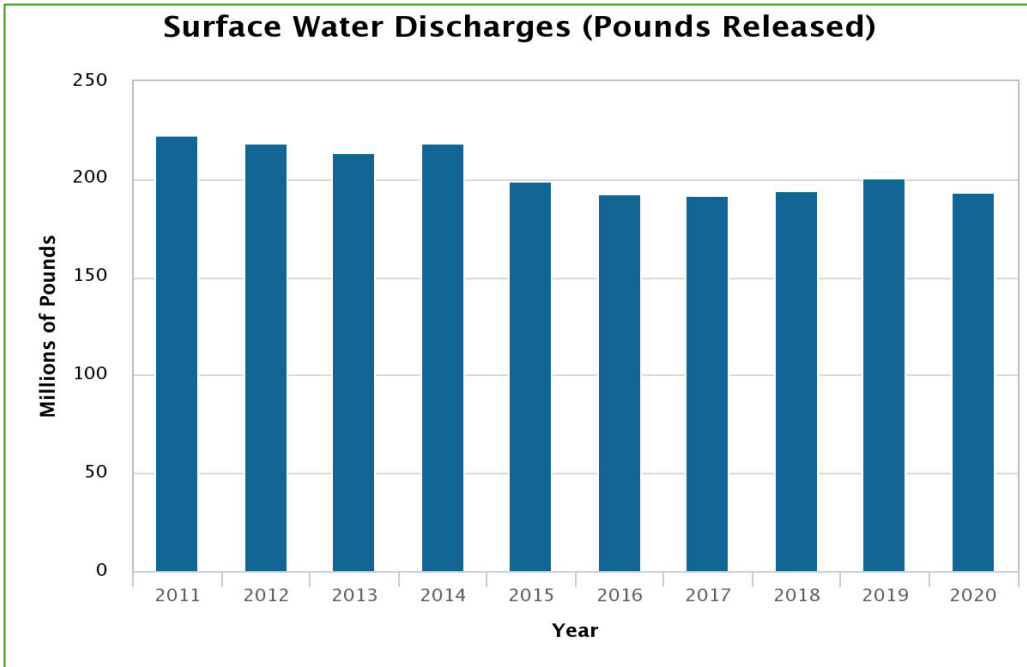


Trends in TRI Releases to Air



- ▶ A **RSEI Score** is an estimate of relative potential human health risk. It is a unitless value that accounts for the magnitude of the release quantity of a chemical, the fate and transport of the chemical throughout the environment, the size and locations of potential exposed populations, and the chemical's inherent toxicity.

Trends in TRI Releases to Water



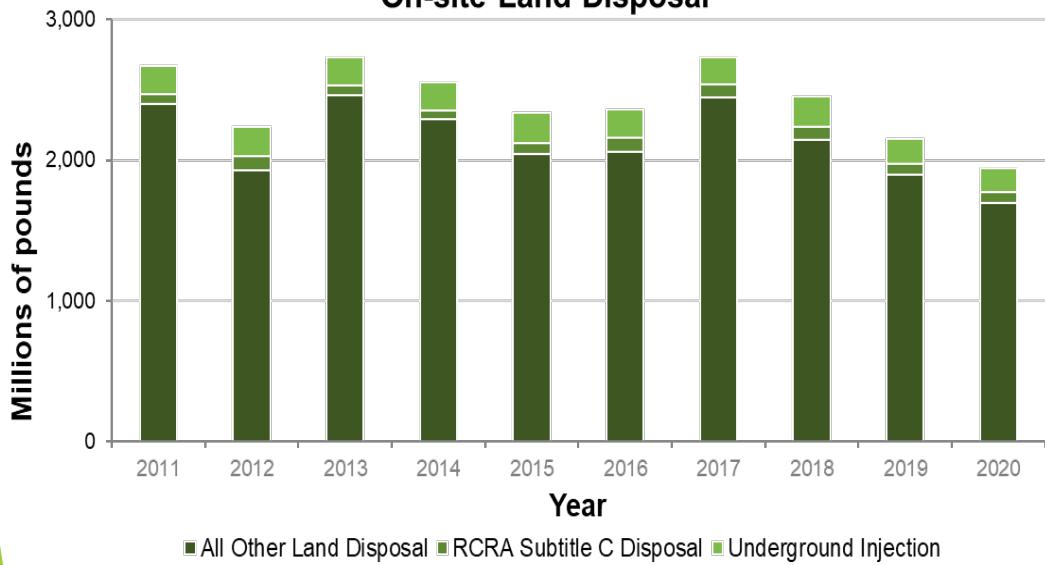
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Trends in TRI Releases to Land

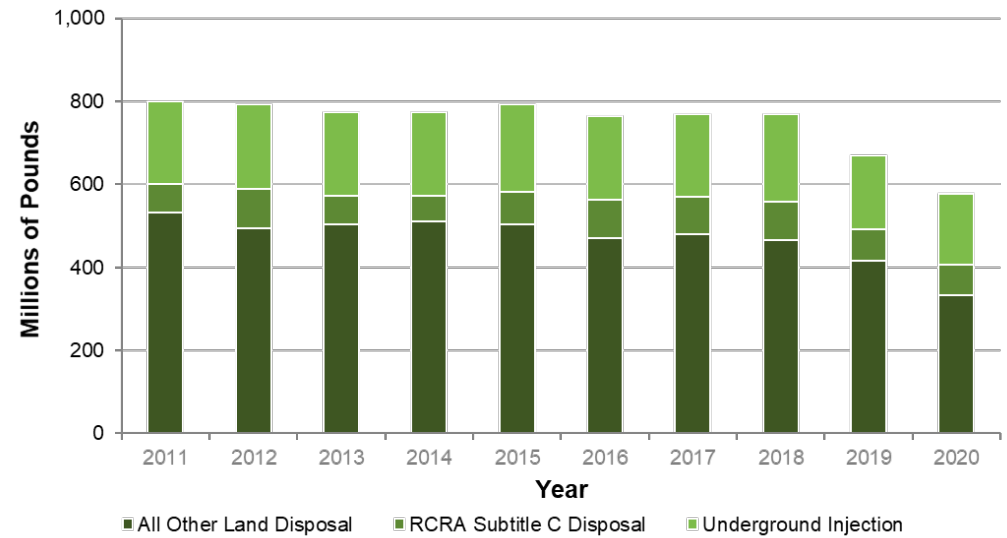
- Land Disposal, All Sectors
- Land Disposal, Excluding Metal Mining

- Land Disposal, All Sectors
- Land Disposal, Excluding Metal Mining

On-site Land Disposal



On-site Land Disposal Excluding Metal Mines



New This Year: Community Profiles Layer

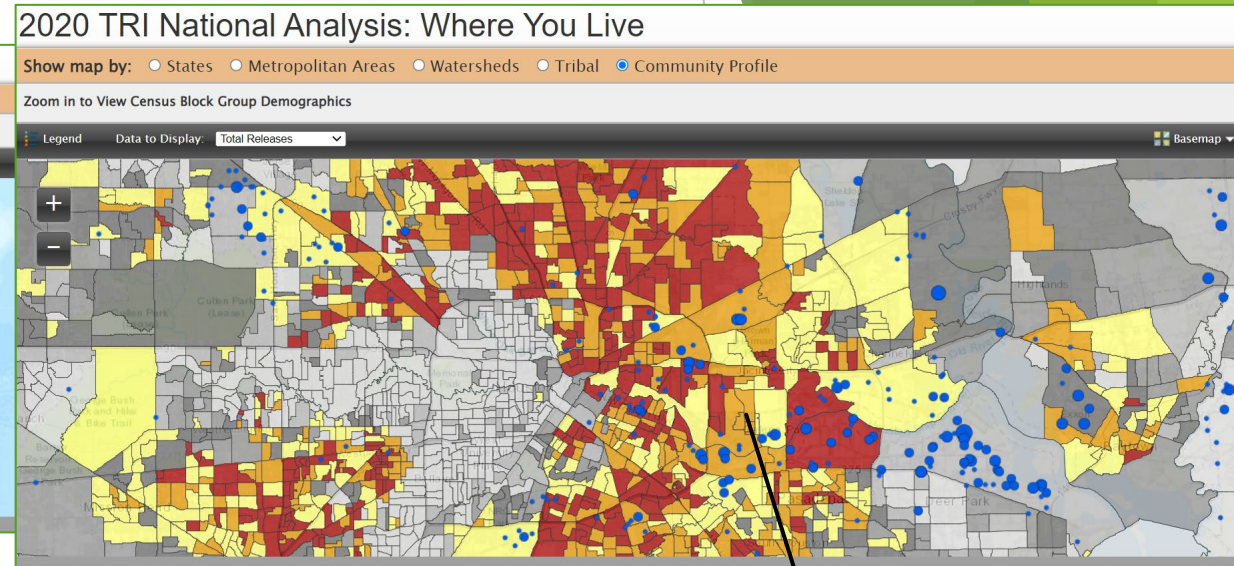
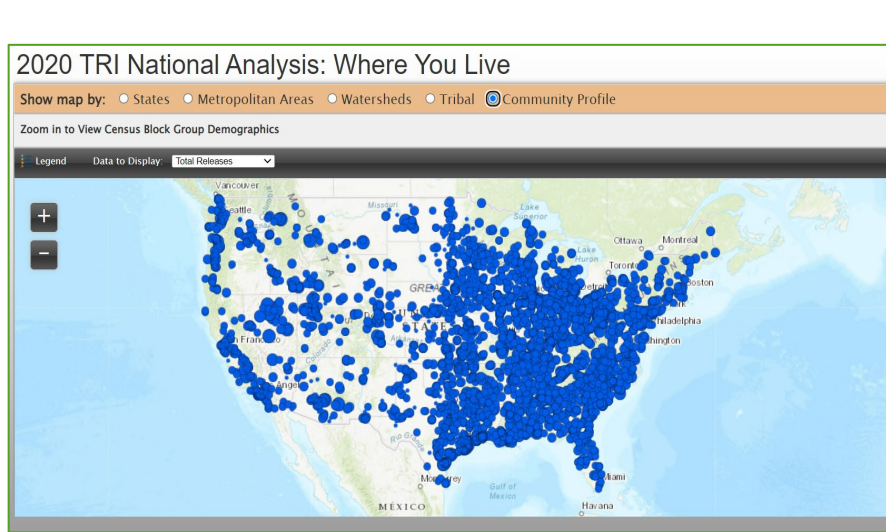
Legend Data to Display: T

Facilities - Total Releases

- > 7 million lb
- 3.5 million - 7 million lb
- 200,000 - 3.5 million lb
- 15,000 - 200,000 lb
- < 15,000 lb

EJSCREEN 2020 - Demographic Index

- Data Not Available
- Less than 50%ile
- 50-60%ile
- 60-70%ile
- 70-80%ile
- 80-90%ile
- 90-95%ile
- 95-100%ile



Facility Profile Report

Data Source: 2020 National Analysis Dataset (October 2021, released October 2021) See Note [Go To New Report](#) [Instructions for printing wide reports](#)

TRI Facility Name: TARGA DOWNSTREAM LLC - GALENA PARK MARINE TERMINAL
Address: 12510 AMERICAN PETROLEUM RD, GALENA PARK TEXAS 77547 (HARRIS)
(Map by Google, Yahoo)
County: HARRIS
Public Contact: MICHAEL MULLIS
Phone Number: 713-450-7207

Forms Submitted to TRI in 2020 Reporting Year:
 Form R (regular form): 9
 Form A (certification form): 0
[Click here for TRI Reporting Forms in EPA Envirofacts database](#)
[Click here for the facility's TRI Pollution Prevention \(P2\) Report](#)
[Click here for the facility's Risk Screening Report](#)

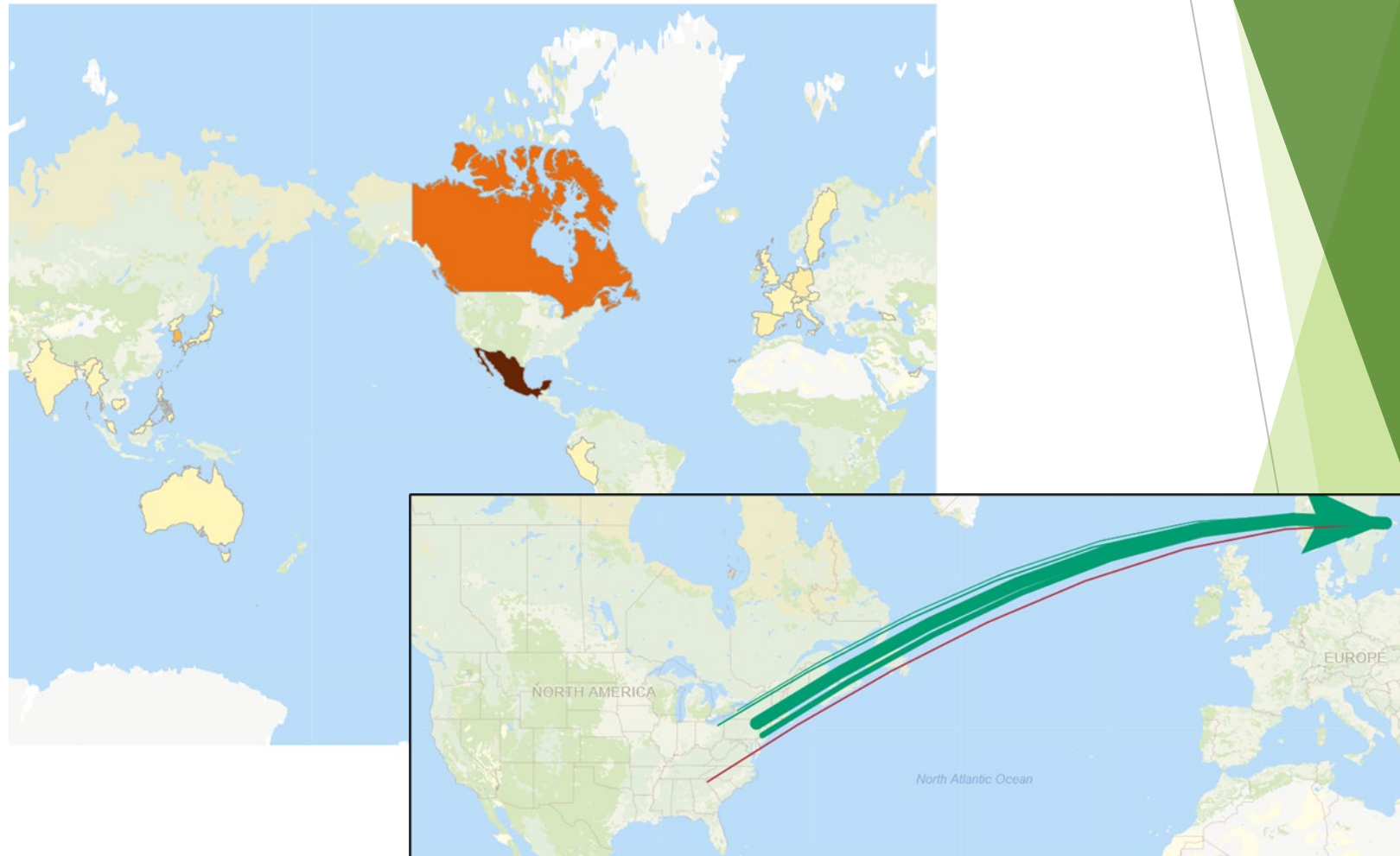
North American Industry Classification System (NAICS) Code(s) in 2020 Reporting Year:
 424710 - Petroleum Bulk Stations And Terminals (**Primary**)

Industry sector used in TRI Explorer analysis in 2020 Reporting Year:
 4247 - Petroleum Bulk Terminals (added 1998)

Reported TRI Chemical Data
 (in pounds, for all chemicals reported in 2020)

New This Year: Cross-border Transfers

- ▶ New map in the data visualization dashboard shows international waste transfers
- ▶ Select a receiving country to view facilities shipping waste there
- ▶ Color-coded arrows indicate waste management activity and relative quantity




New: Cement Manufacturing Profile

CEMENT MANUFACTURING


What the Sector Does

Facilities in the cement manufacturing sector produce cement, a binding agent that when mixed with water, sand, and gravel or crushed stone forms the rock-like mass known as concrete. Concrete, in turn, is used in highway, commercial, and residential construction projects.




THE SECTOR
EMPLOYS
16,000
PEOPLE

U.S. Census Annual Survey of Manufactures
2019 data



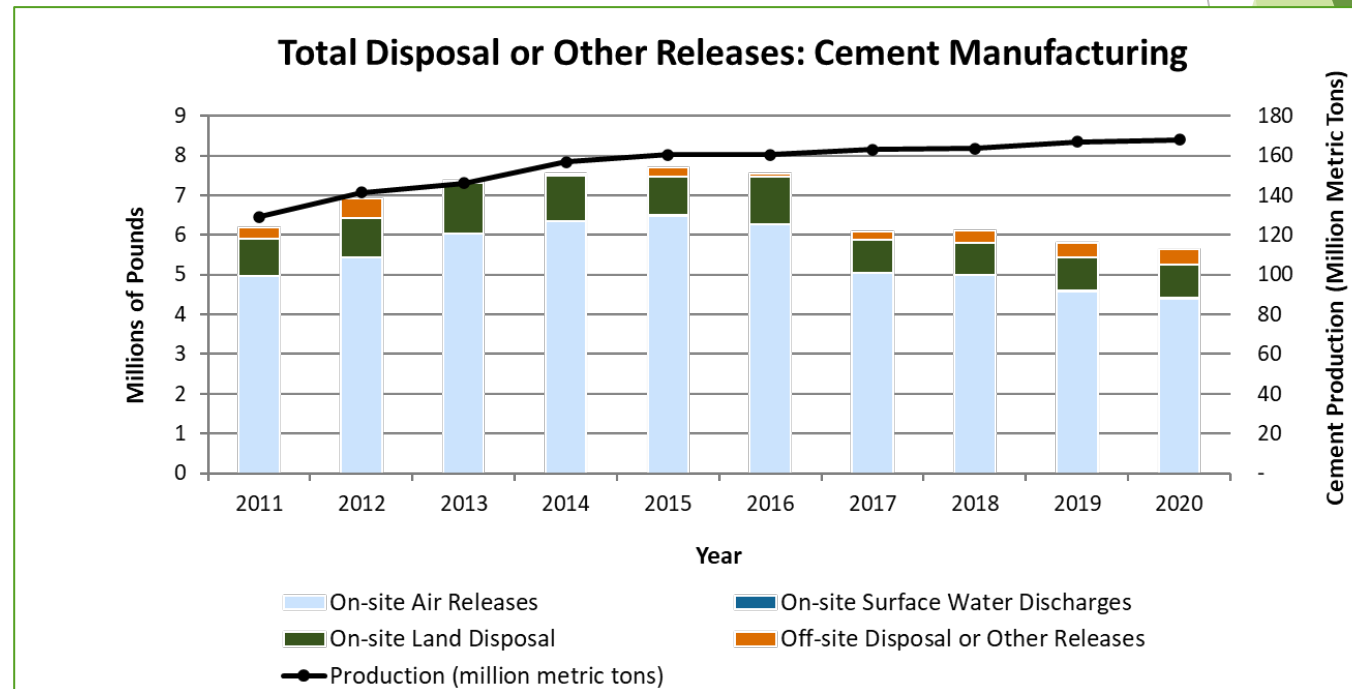
THE SECTOR
PRODUCES OVER
168 MILLION
METRIC TONS OF CEMENT

U.S. Geological Survey 2019 data

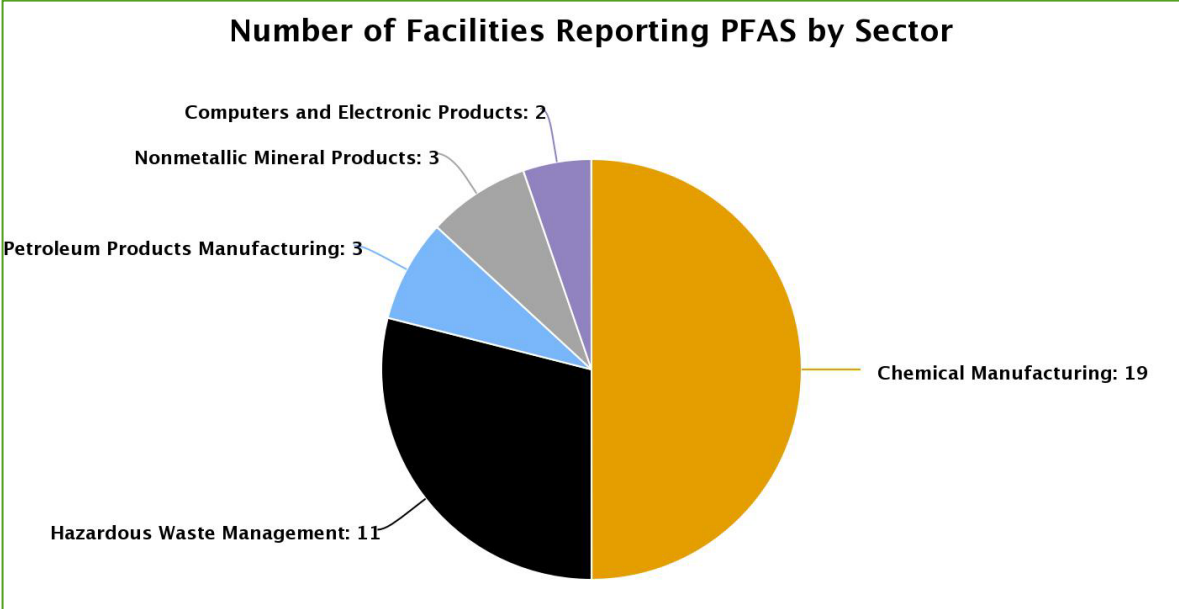


113 facilities in the sector report to TRI

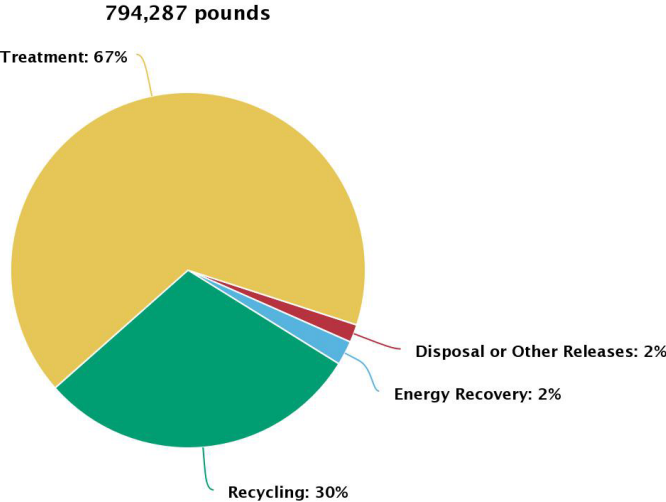
U.S. EPA TRI, Reporting Year 2020



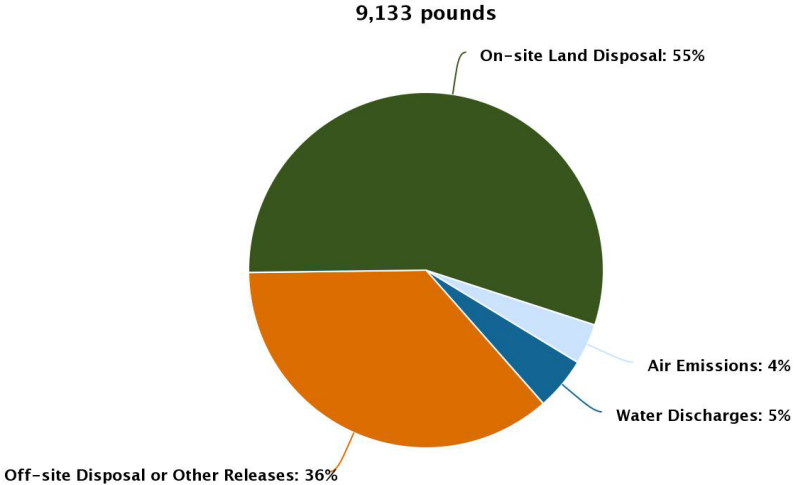
New This Year: PFAS Data in TRI



PFAS Production-Related Waste Managed



PFAS Releases



Live Website Demo

Toxics Release Inventory (TRI) National Analysis

This year's Analysis makes TRI data more accessible to communities

The 2020 Analysis includes mapping enhancements for community mapping, including those with environmental justice concerns.

[View the Community Profile mapping option](#)

U.S. facilities report detailed information to EPA on their management of toxic chemicals, including releases to the environment. The **Toxics Release Inventory (TRI) National Analysis** interprets this information and examines trends in releases, waste management practices, and pollution prevention (P2) activities. [Learn more](#) or [view the Executive Summary](#).

Resources:

- [National Analysis data dashboard](#)
- [Download materials](#)
- [Frequently asked questions](#)
- [Executive Summary](#)

Getting Started

- [Introduction](#)
- [Executive Summary](#)

Chemical Releases

- [Trends in releases](#)
- [Air, water, and land releases](#)
- [Chemicals of special concern](#)

Mapping TRI

- [View TRI data where you live](#)
- [Explore by EPA Region](#)
- [Map cross-border transfers](#)

Managing Waste

- [How facilities are preventing pollution](#)

Industry Sectors

- [Comparing sectors](#)
- [Chemical, Cement, and All](#)

TRI Connections

- [TRI and EPA regulations](#)
- [TRI around the world](#)



TRI National Analysis:

<https://www.epa.gov/trinationalanalysis>

**For questions and follow-up: TRI.Help@epa.gov or
“Contact Us” link on the National Analysis website**