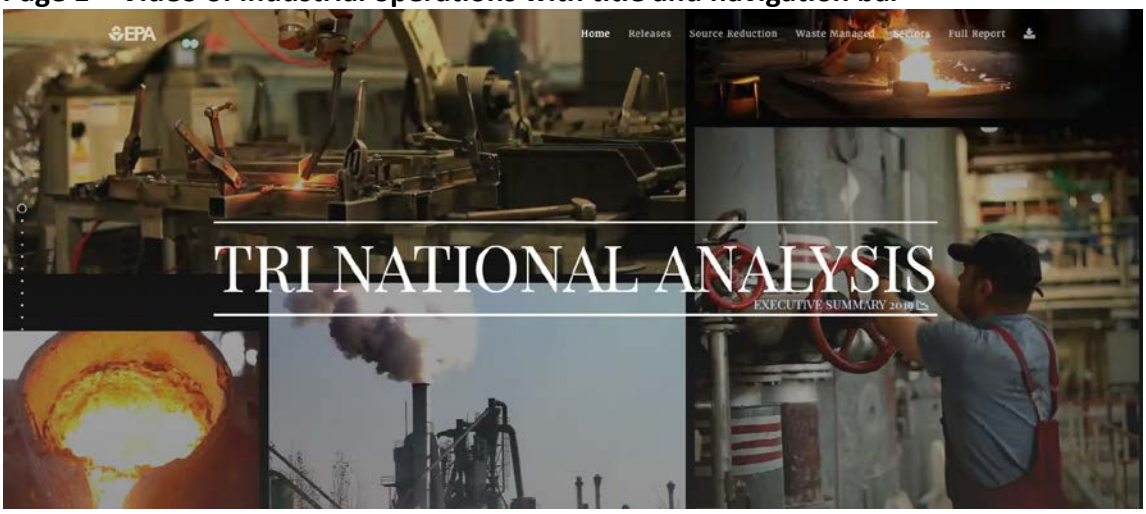
Toxics Release Inventory (TRI) 2019 National Analysis – EXECUTIVE SUMMARY

The interactive version of this Executive Summary can be viewed at https://gispub.epa.gov/trina2019/execsum/

Page 1 – Video of industrial operations with title and navigation bar

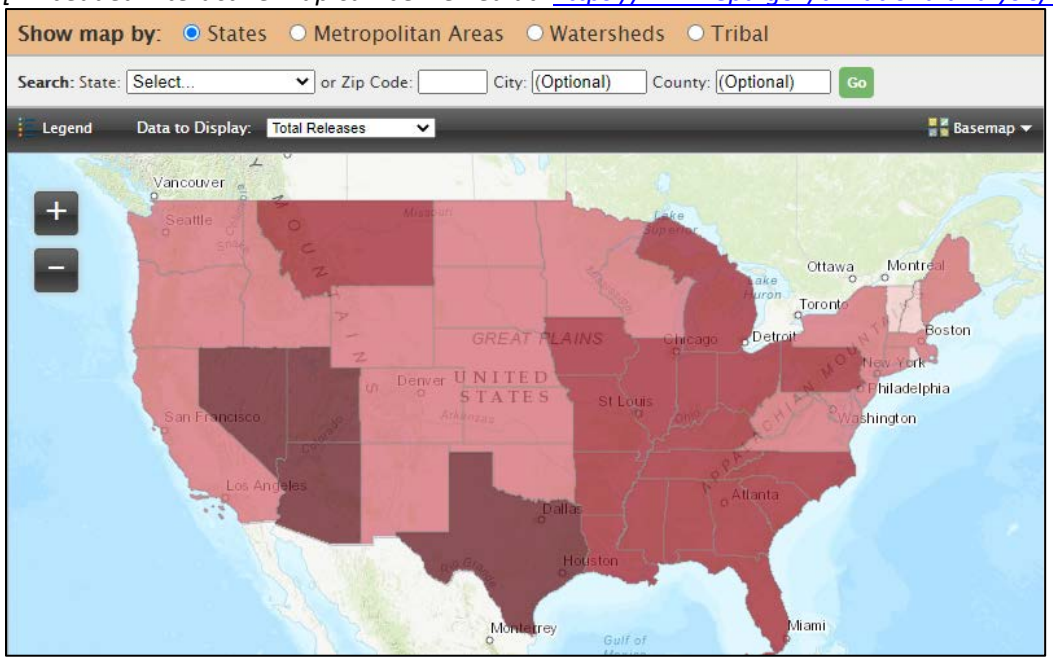


Page 2 – View data by state, metro area, watershed or tribal

Welcome!

This executive summary presents an overview of EPA's most recent Toxics Release Inventory (TRI) data, based on the detailed information found in EPA's TRI National Analysis website. Congress established the TRI to ensure that communities have access to information on the toxic chemicals handled and released at nearby facilities, and to enable citizens to make informed decisions regarding the potential impact of such releases on human health and the environment. TRI includes annual data submitted by industry on how chemical wastes are managed, such as through recycling, energy recovery, treatment or release to air, water or land. Explore the 2019 data for where you live by clicking on the map.

[Embedded interactive map can be viewed at: https://www.epa.gov/trinationalanalysis/where-you-live]

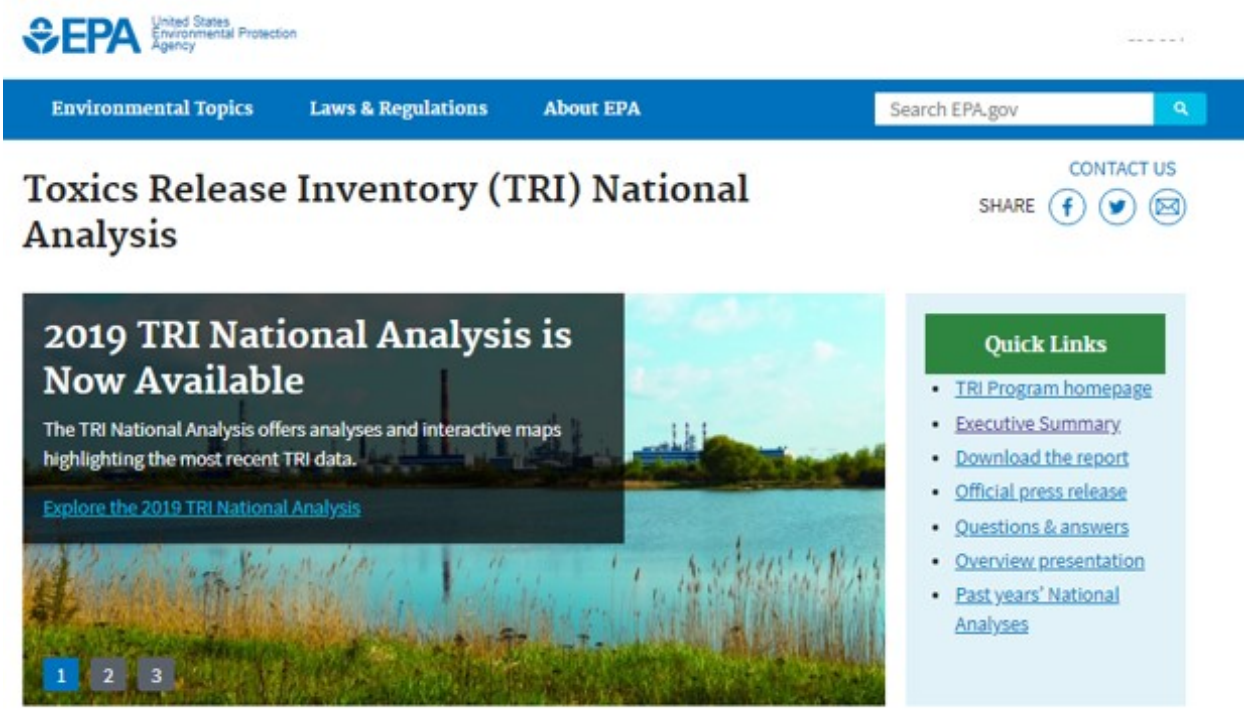


Page 3 – National Analysis

The TRI National Analysis is EPA's presentation of the most recent data

The National Analysis is part of EPA's commitment to transparency and enhances public understanding of the TRI data by:

- Summarizing reported data on releases and other waste management practices of toxic chemicals, and providing trend analyses of these data; and
- Providing interactive tools that support access to and exploration of TRI data.
- Visit the full TRI National Analysis to learn more.

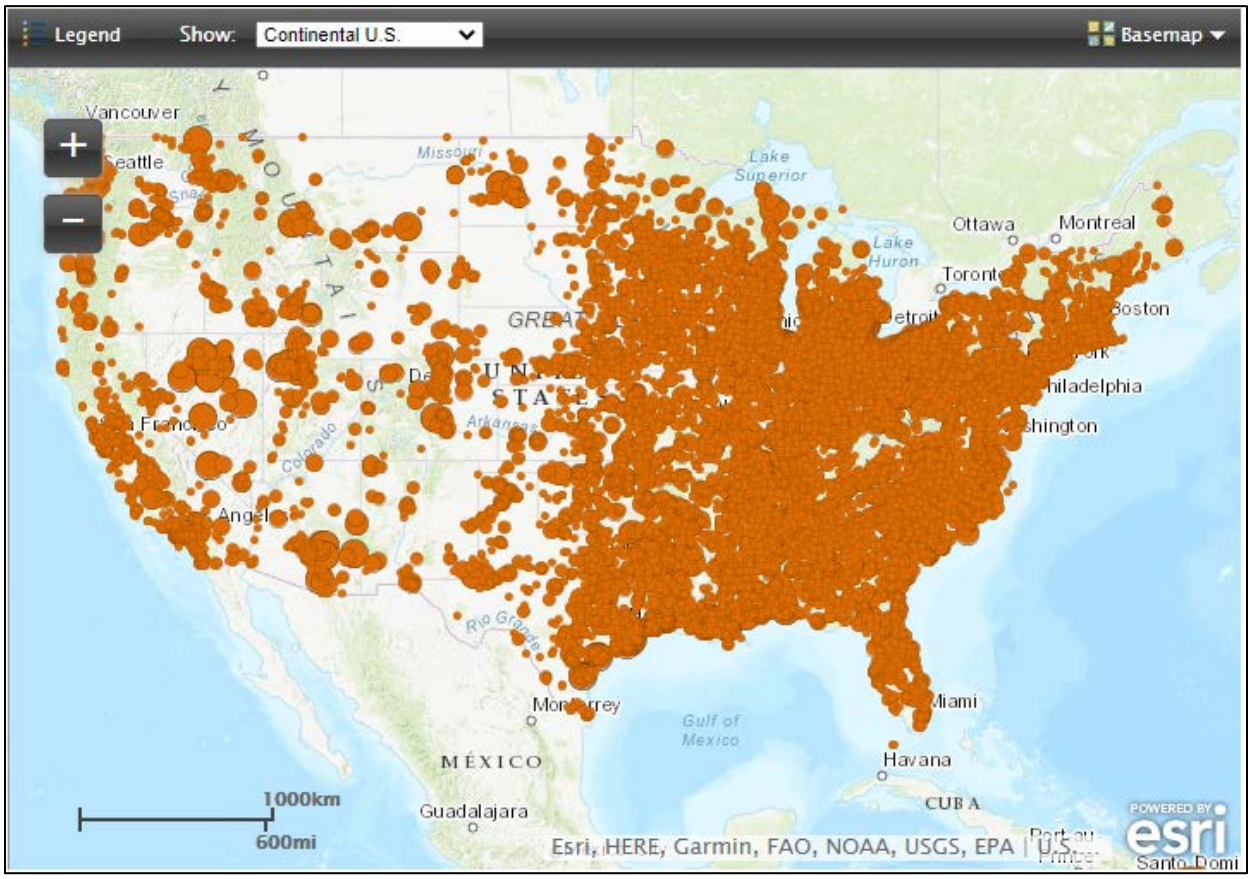


Page 4 – View facility-level data

21,393 facilities reported to TRI for 2019

Facilities in industry sectors such as manufacturing, electric power generation, and mining have until July 1 of each year to submit data from the previous calendar year. These data then undergo quality reviews by EPA and the reporting facilities. Use this map to see the TRI information submitted by individual facilities.

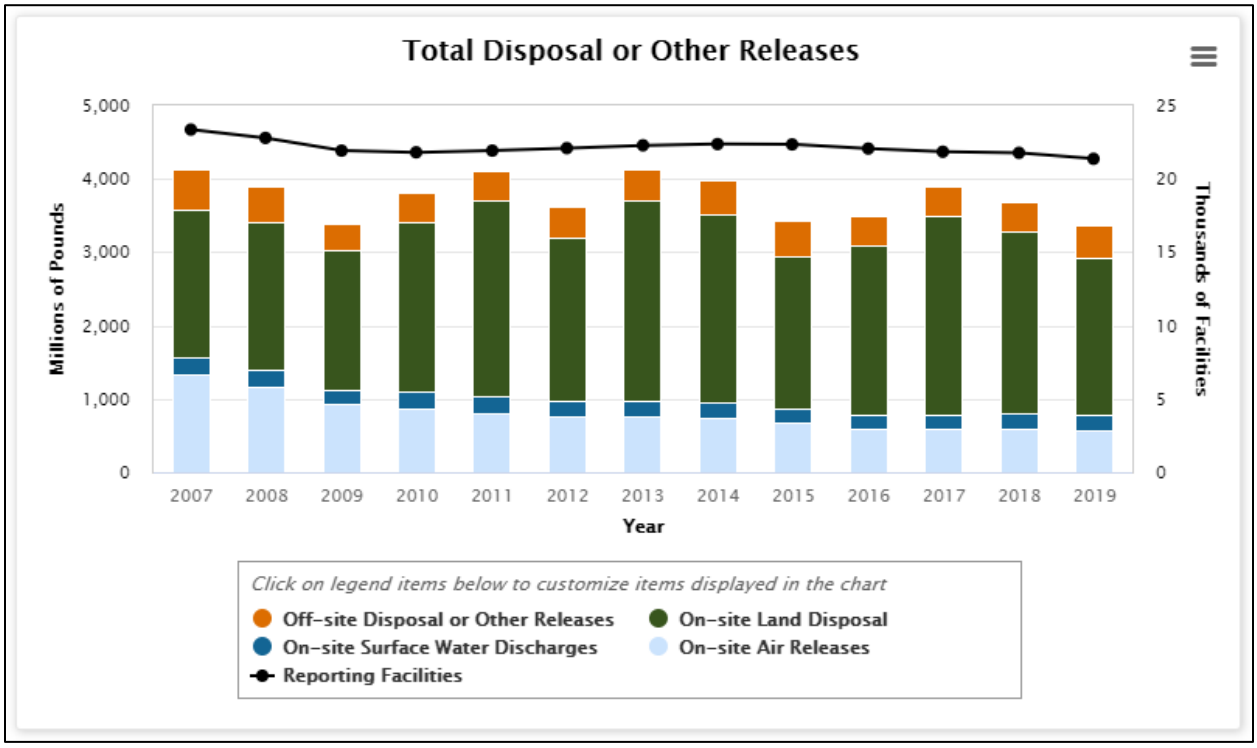
[Embedded interactive map can be viewed at:
https://gispub.epa.gov/trina2019/facilities.html?webmap=90002265bec645dfbf0703c55d03093e]



Page 5 – Releases

Since 2007, releases to the environment have decreased by 19%, driven by declining releases to air.

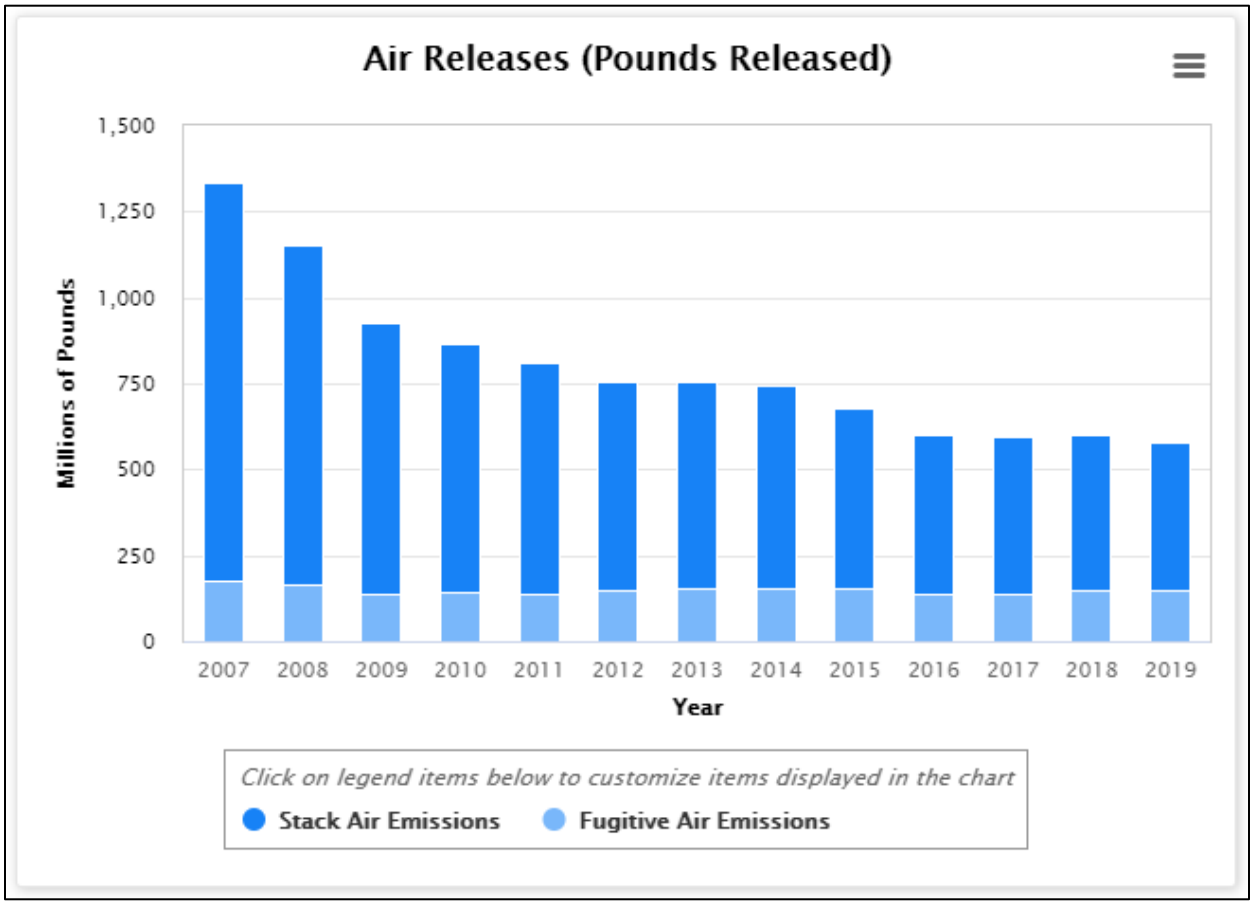
- For 2019, TRI facilities reported 3.4 billion pounds of releases to air, water, and land.
  - Land disposal, largely from metal mining, accounted for 64% of releases.
- From 2018 to 2019, releases of TRI chemicals decreased by 9% (329 million pounds).
  - Please note that the most recent TRI dataset reflects TRI chemical waste management activities, including releases, that occurred during calendar year 2019 and therefore does not indicate any potential impacts of the COVID-19 pandemic that began in the U.S. in early 2020.



Page 6 – Air Releases

Emissions to air reported to TRI continue to decline, serving as a primary driver of decreased total releases.

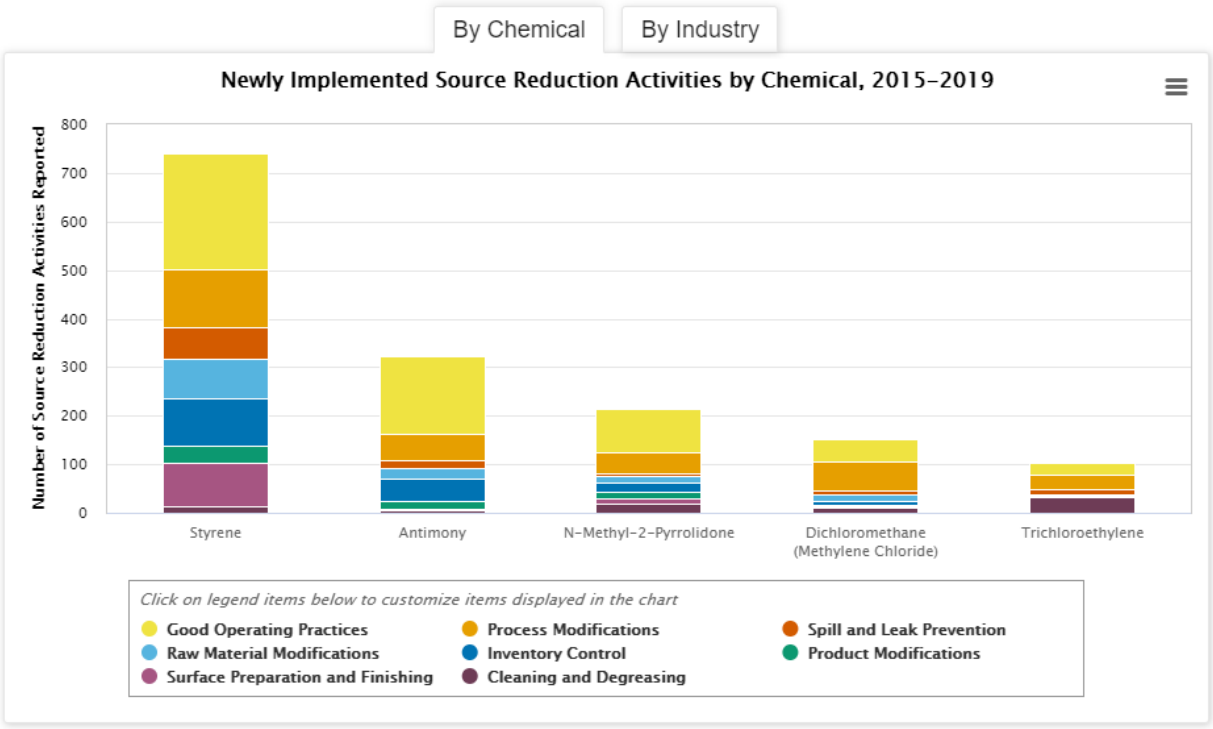
- Releases to air decreased by 57% (756 million pounds) from 2007 to 2019.
- Almost all sectors have reduced their emissions to air since 2007, with the largest reduction coming from the electric utilities sector.
    - The decrease was driven by electric utilities due to: decreased emissions of hydrochloric acid and sulfuric acid; a shift from coal to other fuel sources (e.g., natural gas); and the installation of control technologies at coal-fired power plants.
    - Hydrochloric acid, sulfuric acid, hydrogen fluoride, methanol, toluene, and xylene were the chemicals with the greatest reductions in releases to air since 2007.
- Learn more about air emissions reported to TRI.

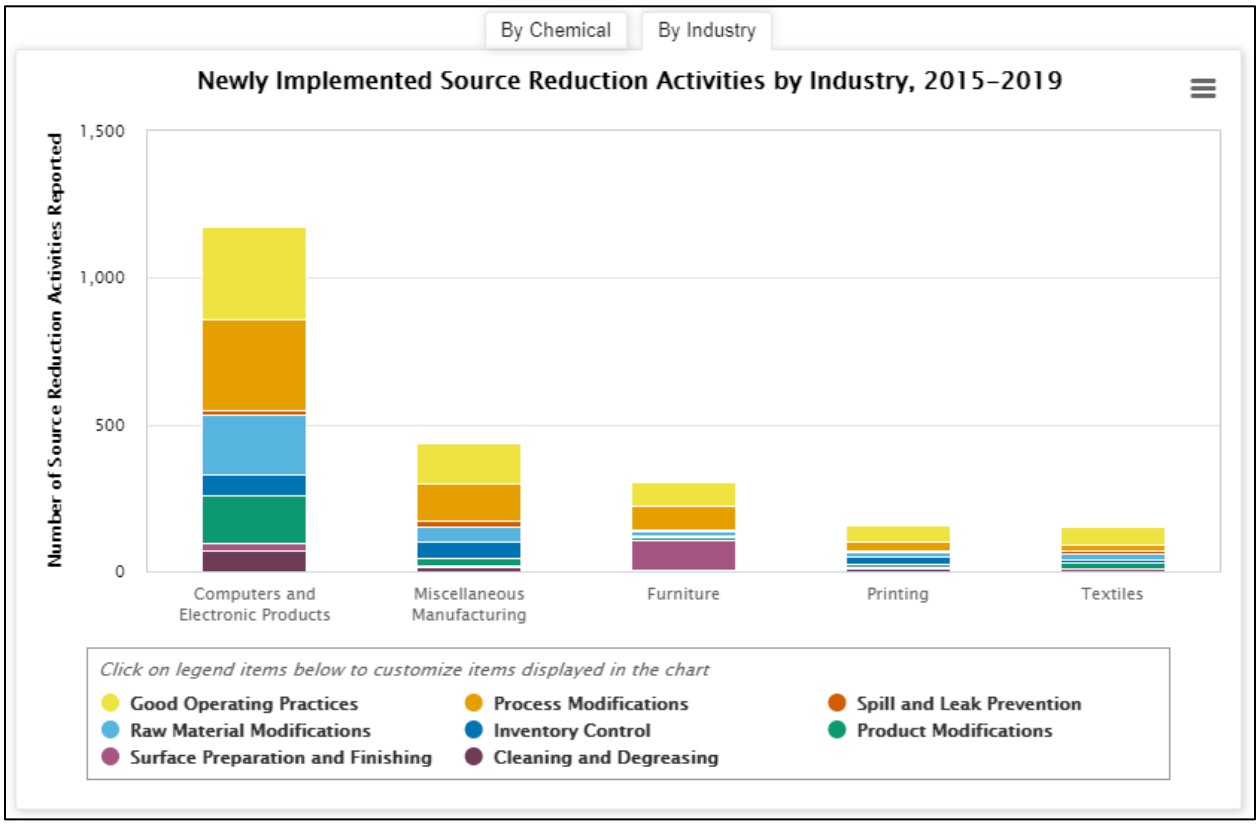


Page 7 – Source Reduction

TRI facilities implemented 3,285 new source reduction activities in 2019 to reduce pollution at its source.

- Source reduction success stories presented in the National Analysis highlight effective practices that other facilities can replicate. EPA's TRI Pollution Prevention (P2) Search Tool promotes these opportunities for knowledge transfer by allowing users to search for source reduction activities that might be relevant to their operations.
- The figure summarizes the most frequently reported source reduction activities for the chemicals and industry sectors with the highest source reduction reporting rates over the last 5 years. For these chemicals and industries, good operating practices is the most commonly reported source reduction category.
- Learn more about source reduction activities reported to TRI.

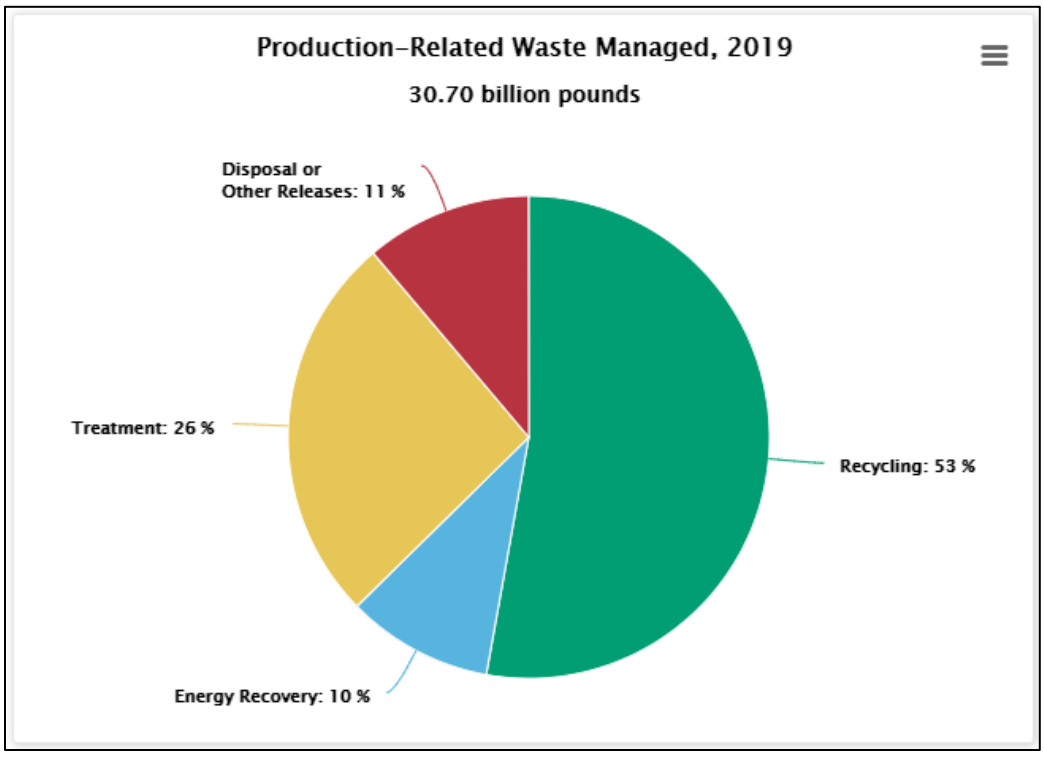



By Chemical
By Industry
Newly Implemented Source Reduction Activities by Industry, 2015–2019
Number of Source Reduction Activities Reported
1,500
1,000
500
0
Computers and Electronic Products
Miscellaneous Manufacturing
Furniture
Printing
Textiles
Click on legend items below to customize items displayed in the chart
Good Operating Practices
Process Modifications
Spill and Leak Prevention
Raw Material Modifications
Inventory Control
Product Modifications
Surface Preparation and Finishing
Cleaning and Degreasing

Page 8 – Waste Managed

89% of the TRI chemical waste that facilities managed was not released due to preferred waste management practices such as recycling.

- In addition to quantities released, facilities report the quantities of TRI-listed chemicals that they manage through preferred methods including recycling, combusting for energy recovery, and treatment.
- Since 2007, production related waste managed increased by 5.4 billion pounds (23%), driven by increased recycling.
    - From 2007 to 2019, recycling increased 78% (7.1 billion pounds).

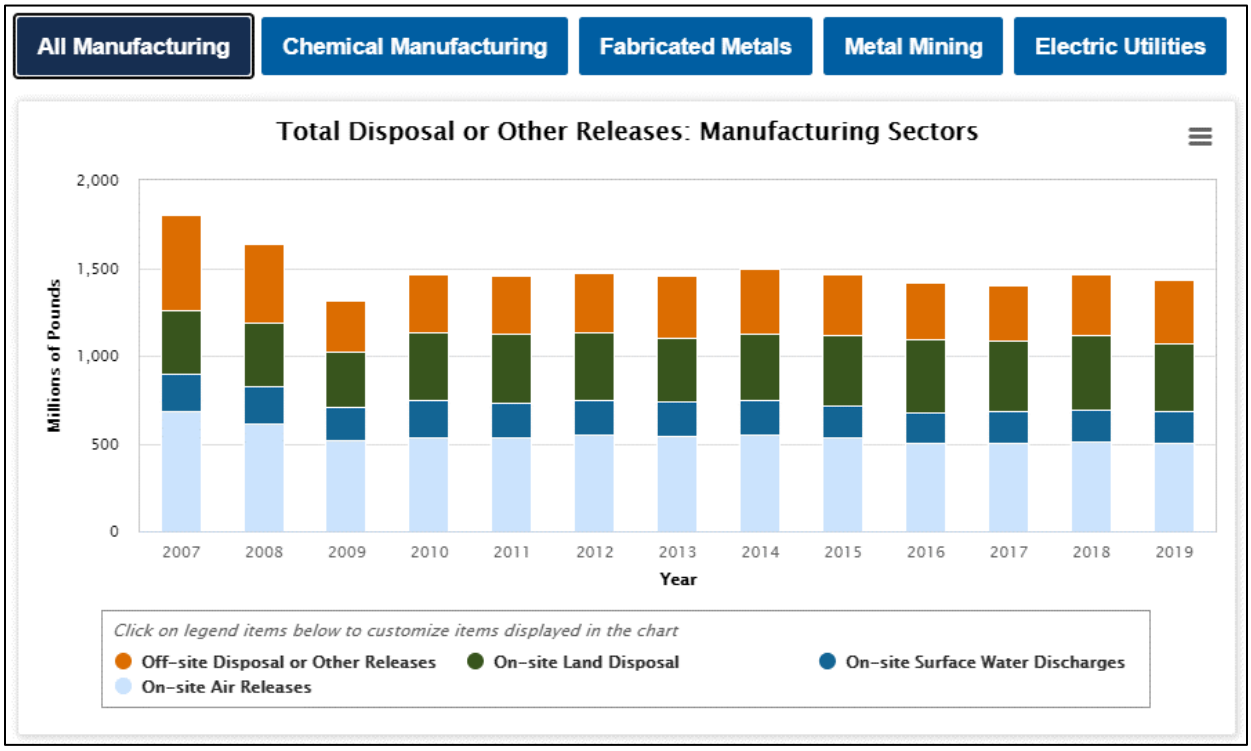


Page 9 – Sectors

*[when "**All Manufacturing**" tab is selected]*

Each year, the TRI National Analysis examines key industry sectors

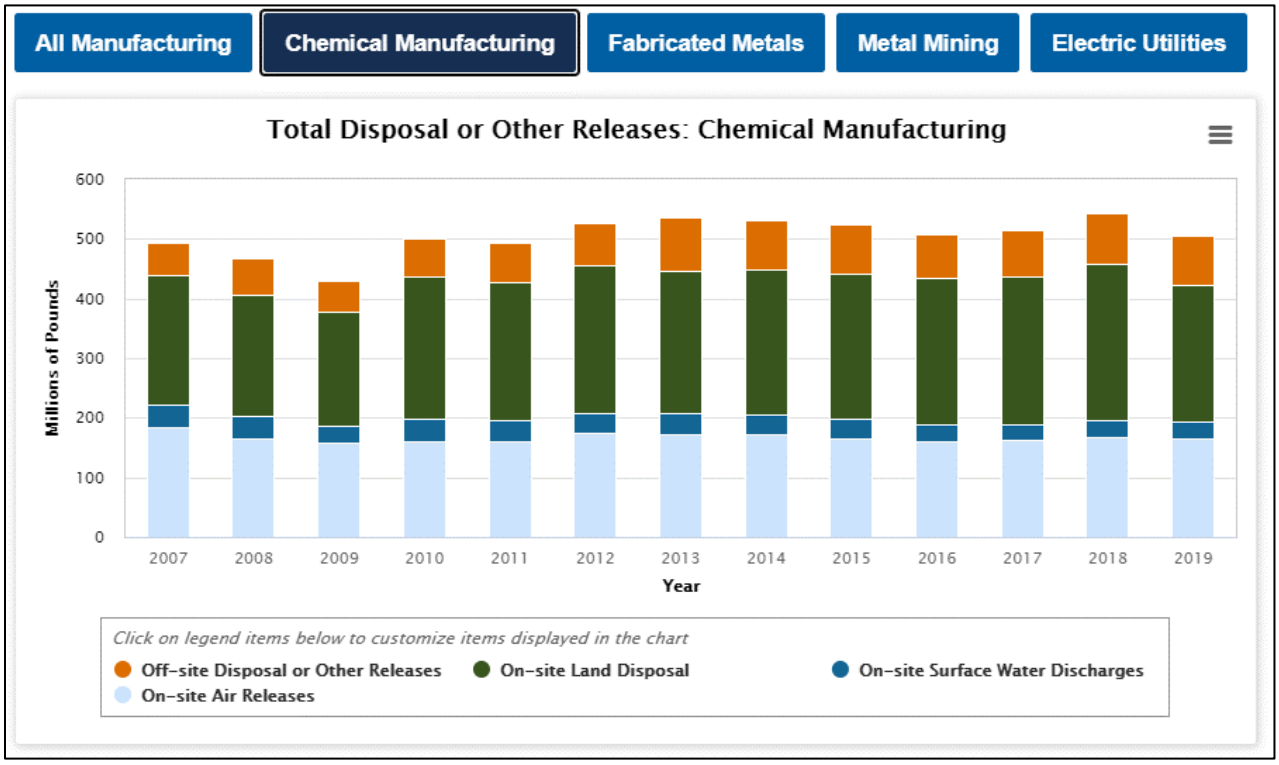
- Since 2007, releases by manufacturing facilities decreased by 21%. This is primarily due to reductions in emissions to air and off-site disposal or other releases.
- Since 2010, releases have remained relatively steady even as production has increased following the economic recession.
- Manufacturing facilities reported initiating more than 3,000 new source reduction activities during 2019 to reduce TRI chemical use and waste generation.



*[when "**Chemical Manufacturing**" tab is selected]*

Each year, the TRI National Analysis examines key industry sectors

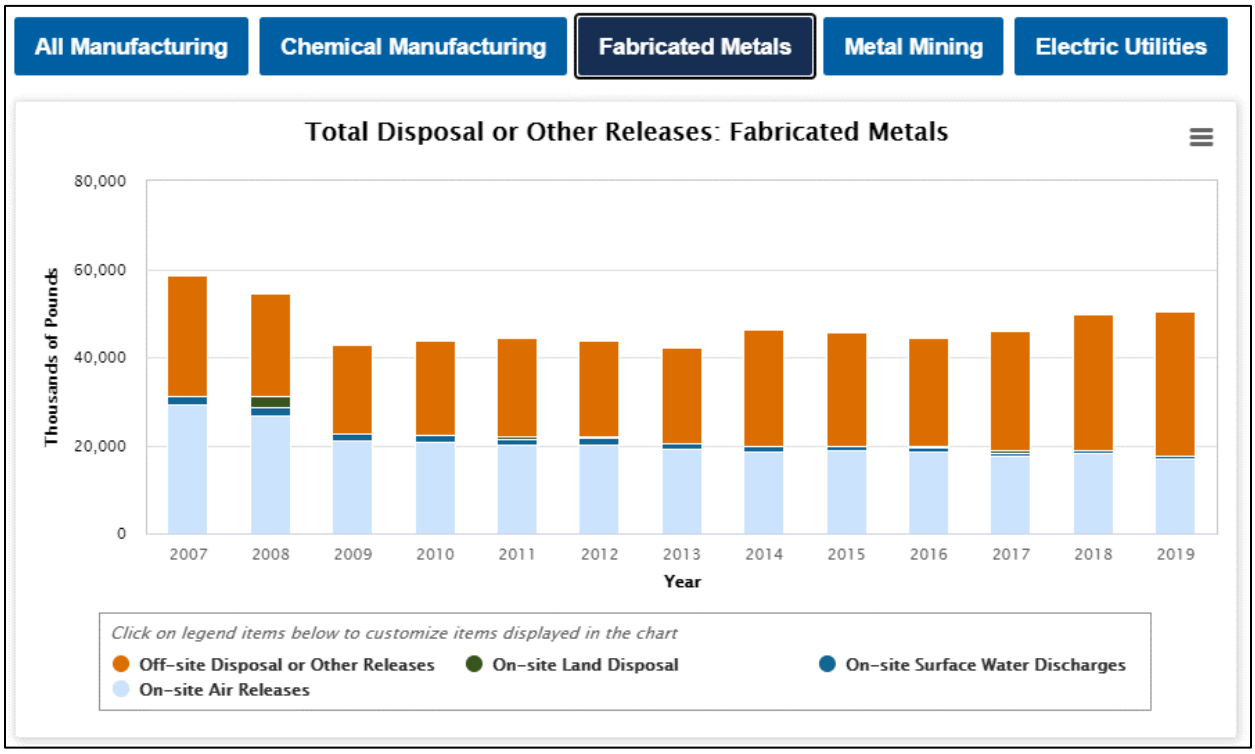
- Since 2007, releases by the chemical manufacturing sector increased by 2%.
- During 2019, the chemical manufacturing sector released the largest quantities of TRI chemicals to air than any other sector, accounting for 28% of all reported quantities of TRI chemicals emitted to air.
- Although chemical manufacturing has consistently been the sector with the most production-related waste managed, 8% of facilities in this sector reported initiating source reduction activities in 2019.



*[when "**Fabricated Metals**" tab is selected]*

Each year, the TRI National Analysis examines key industry sectors

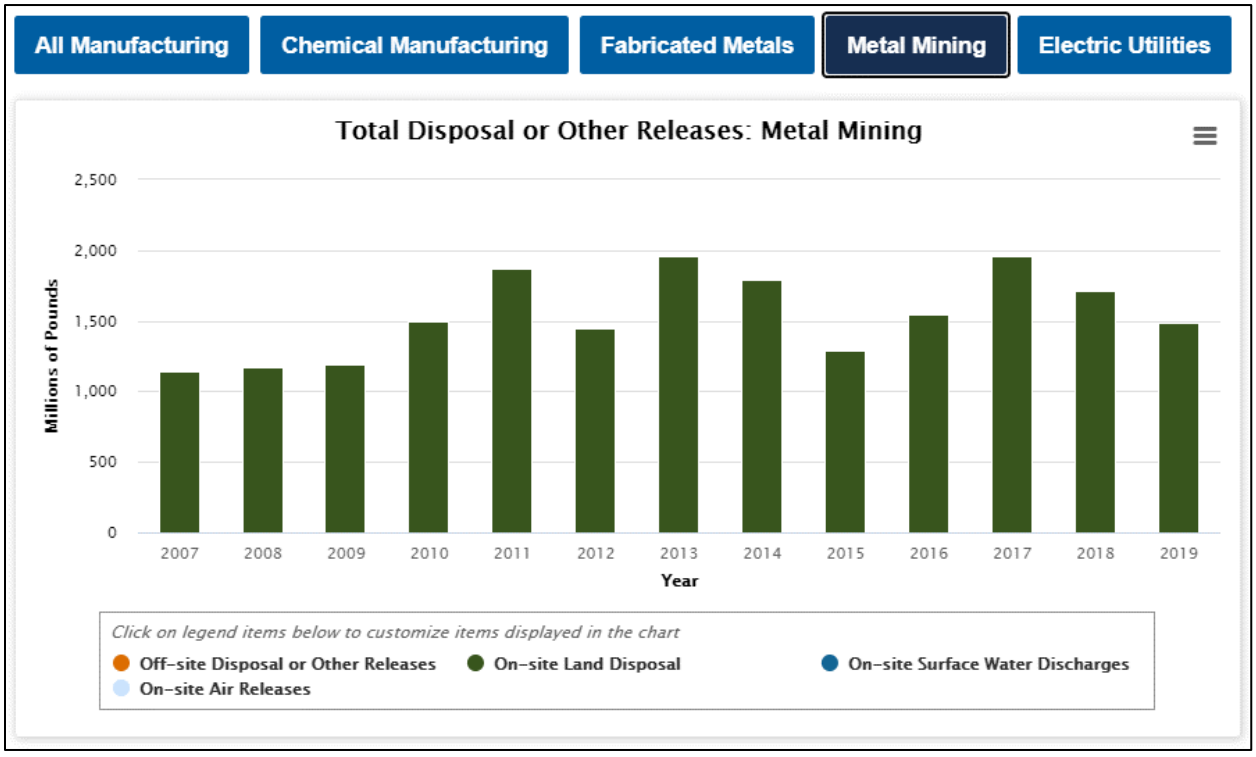
- The fabricated metals sector manufactures metal products through processes such as forging, stamping, machining, welding, and assembling.
- 14% of all facilities that reported to TRI for 2019 were in the fabricated metals sector, but facilities in this sector released less than 2% of all releases reported to TRI.
- From 2007 to 2019, total releases by the fabricated metals manufacturing sector decreased by 8.3 million pounds (14%).
    - The decrease was driven by releases to air, which decreased by 12 million pounds from 2007 to 2019.



*[when "**Metal Mining**" tab is selected]*

Each year, the TRI National Analysis examines key industry sectors

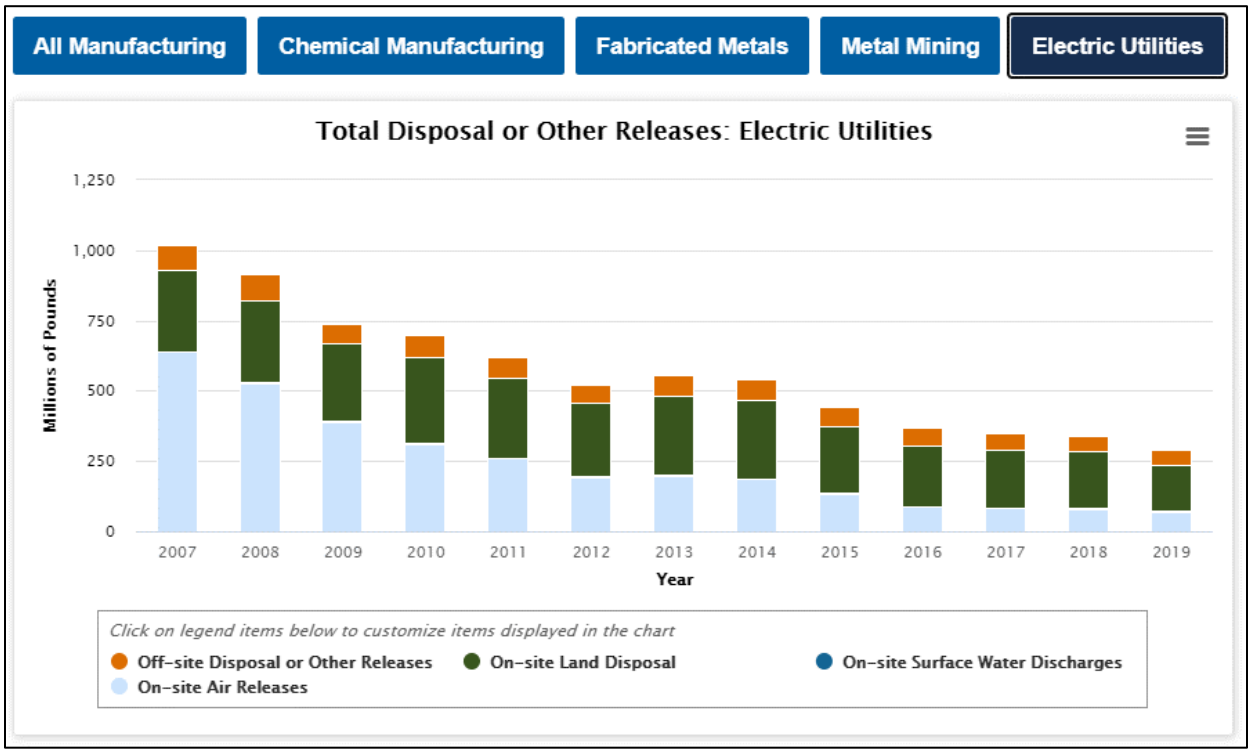
- In metal mining, the extraction and processing of minerals generates large amounts of TRI chemical waste, primarily in the form of waste rock, which is disposed of on-site at the mine. The TRI chemicals reported as released by metal mines are often metals and metal compounds that are on the TRI chemical list and that are found in the mined material - primarily lead compounds, zinc compounds, and arsenic compounds.
- From 2007 to 2019, more than 99% of the metal mining sector's releases were in the form of on-site land disposal. The quantity of on-site land disposal by metal mines has fluctuated in recent years.
- In 2019, the metal mining sector reported the largest quantity of total disposal or other releases, accounting for 44% of total TRI releases and 63% of on-site land disposal for all industries.



*[when "**Electric Utilities**" tab is selected]*

Each year, the TRI National Analysis examines key industry sectors

- Releases from the electric utilities sector decreased by 72% since 2007. This decrease was driven by an 89% (567 million pound) decrease in on-site releases of TRI chemicals to air. On-site land disposal and off-site disposal also decreased, but to a lesser extent.
- From 2018 to 2019, releases by electric utilities decreased by 16%, driven by reductions in on-site land disposal to surface impoundments and on-site releases to air.



Page 10 – Full Report
Explore the full report - TRI NATIONAL ANALYSIS

Page 11 – Social Media
Social Media
Use the share button at the top to share this report with others, and follow the latest EPA activities to protect human health and the environment using the links below.