2015 TRI National Analysis: Executive Summary

The Toxics Release Inventory (TRI) 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 must report annually on how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment. The information submitted by facilities is compiled in TRI, and can help support informed decision-making by industry, government, non-governmental organizations and the public.

The *TRI National Analysis* is EPA's annual interpretation of TRI data. It highlights how toxic chemical wastes were managed, where toxic chemicals were released, and how the 2015 TRI data compare to data from previous years.

Highlights from this year's *TRI National Analysis* include:

Air releases of toxic chemicals decreased by 56% (851 million pounds) since 2005, including a 63 million pound decrease from 2014 to 2015.

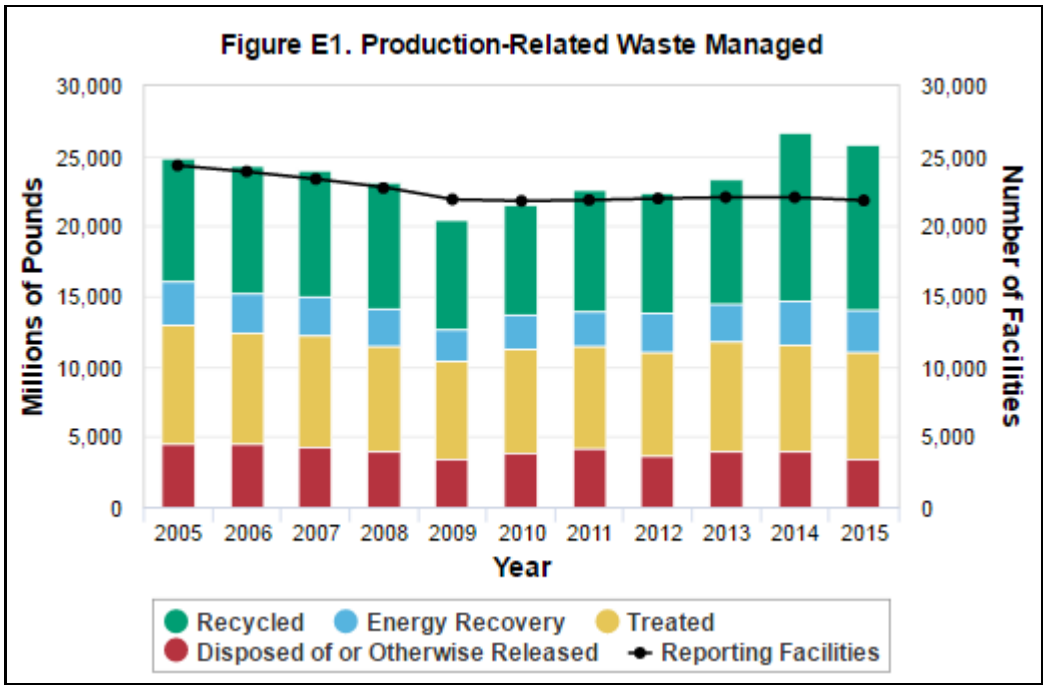
- Hydrochloric acid, sulfuric acid, toluene, and mercury were among the chemicals with significant decreases in air releases.
- Coal- and oil-fired electric utilities accounted for more than 90% of the reduced releases of hydrochloric acid, sulfuric acid and mercury to air from 2005 to 2015.

In 2015, **87% of toxic chemical waste managed was not released into the environment** due to the use of preferred waste management practices such as recycling, energy recovery, and treatment.

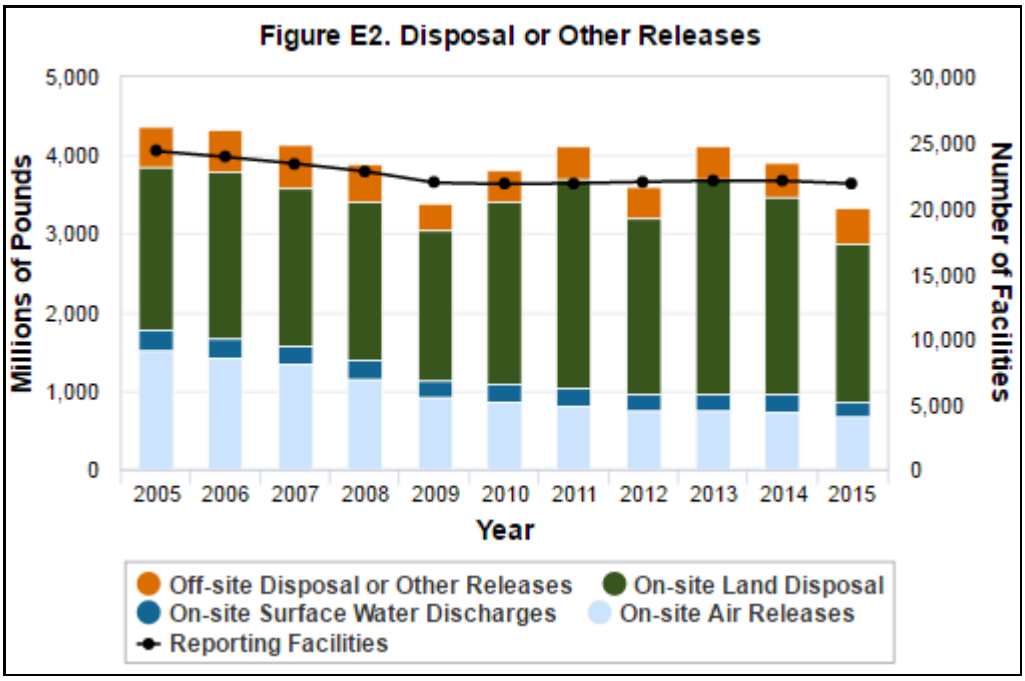
Facilities initiated more than 7,500 source reduction activities in 2015 that eliminate or reduce the generation of chemical waste.

To promote more user engagement and exploration of TRI data, a **new embedded dashboard allows users to build customized visualizations**.

In 2015, 21,849 facilities reported to TRI. Together they reported managing 27.2 billion pounds of toxic chemicals in production-related wastes through recycling, combustion for energy recovery, treatment, or disposal or other releases. As shown in Figure E1, from 2005 to 2015, quantities released, treated, and used for energy recovery all decreased while quantities recycled increased. From 2014 to 2015, production-related waste decreased by 3% (925 million pounds).
Looking more closely at the toxic chemicals released, TRI facilities reported total on- and off-site

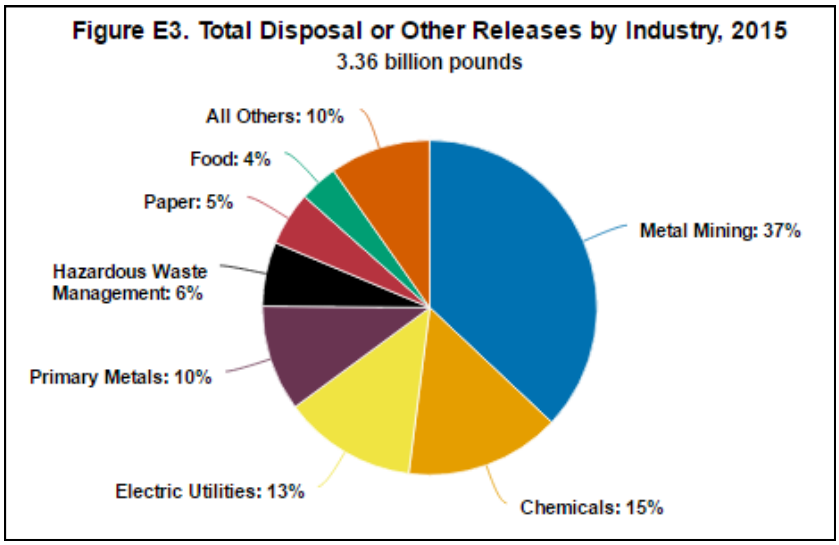


disposal or other releases of 3.4 billion pounds in 2015. Figure E2 shows that disposal or other releases of TRI chemicals have decreased in the long-term: down 24% from 2005 to 2015, driven by a 56% reduction in air releases.



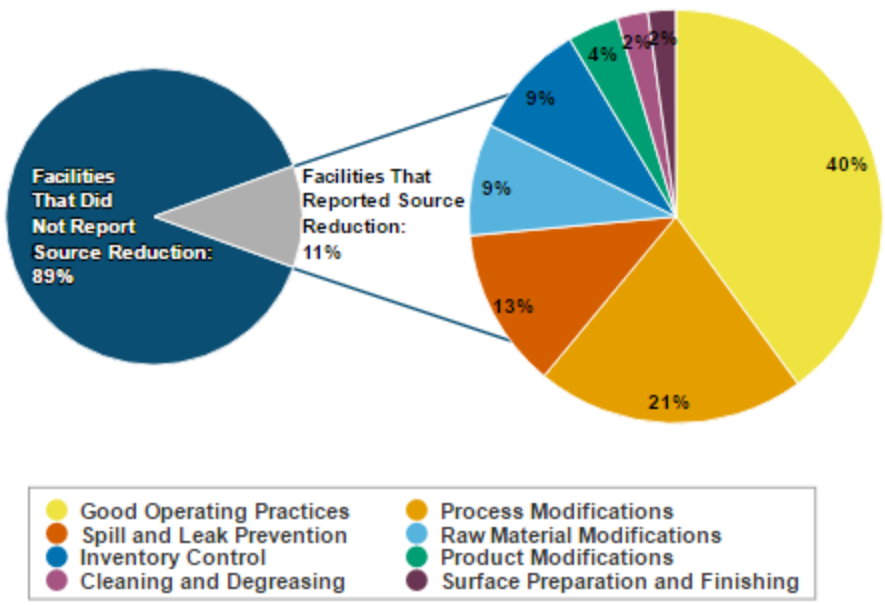
The *TRI National Analysis* also highlights waste management by specific industry sectors. As shown in Figure E3, most TRI releases were from the following three sectors:

- *Metal mining.* The extraction and processing of minerals generates large amounts of waste, including waste rock, which is disposed of on-site at the mine. The chemicals reported as released by metal mines are those found in the mined material primarily lead compounds, zinc compounds, and arsenic compounds.
- *Chemical manufacturing.* More facilities in the chemical manufacturing sector report to TRI than from any other sector. Chemicals released from the sector include ammonia, nitrate compounds, and manganese compounds.
- *Electric utilities.* Releases from electric utilities have decreased by 60% (658 million pounds) since 2005, driven by reduced air emissions. Chemicals reported as released in the greatest quantities include barium compounds, sulfuric acid, and hydrochloric acid.



In addition to submitting information on releases and waste management quantities to TRI, facilities also report on newly implemented source reduction activities during the year. The term "source reduction" generally refers to any practice that reduces the total quantity of chemical waste generated at the source. In 2015, a total of 2,424 facilities (11% of all TRI facilities) reported initiating 7,508 source reduction activities, as shown in Figure E4.

Figure E4. Newly Implemented Source Reduction Practices, 2015



TRI data can be used in combination with other data sources to provide a more complete picture of what is going on with chemical use, management, and releases. The *TRI National Analysis* highlights examples of this, including: EPA's Greenhouse Gas Reporting Program, which requires large emitters of greenhouse gases to submit annual reports on their emissions; and EPA's Toxics Substances Control Act, which collects data on quantities of chemicals manufactured and imported into the U.S..

This *National Analysis* presents information on a national scale, as well as on a local scale. See the *Where You Live* chapter of this report to see analyses of TRI chemicals by state, city, county, zip code, metropolitan area or micropolitan area. The *Where You Live* chapter also includes analyses for Large Aquatic Ecosystems (LAEs) like the Chesapeake Bay, Great Lakes and Puget Sound, as well as information about facilities in Indian Country.

To conduct your own analysis of TRI data, use EPA's TRI data access and analysis tools available to the public from the TRI Data and Tools webpage.