2013 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 2013 TRI data compare to data from previous years.

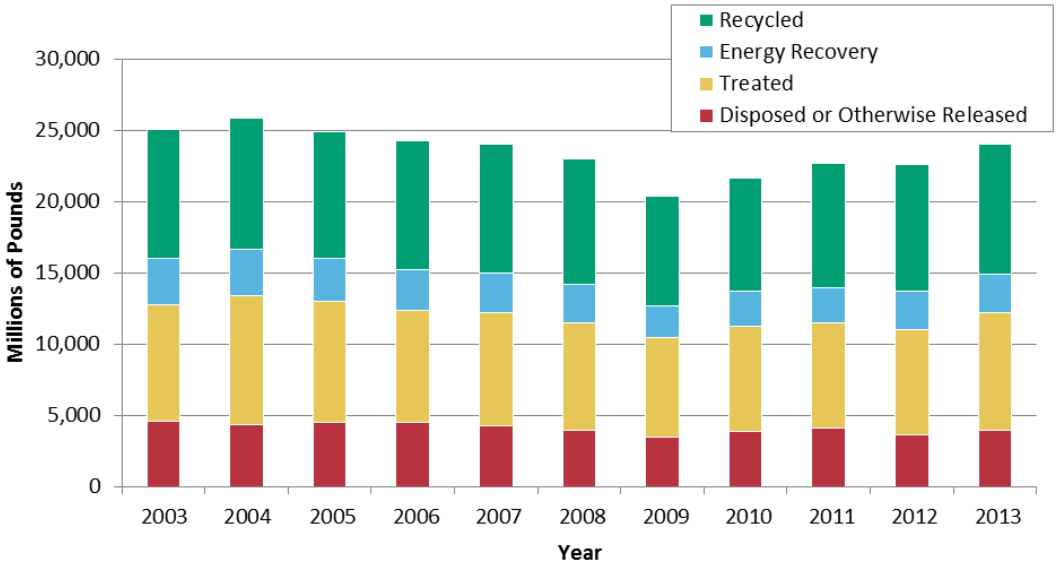
2013 Quick Facts

25.63 billion pounds of TRI chemicals were reported as managed as waste:

- 36% was recycled
- 11% was used for energy recovery
- 37% was treated
- 16% was disposed of or released

A total of 21,598 facilities reported to TRI in 2013. Together they reported managing 25.63 billion pounds of toxic chemicals in production-related wastes through recycling, combustion for energy recovery, treatment, or disposal or other releases. Production-related waste is the total amount of toxic chemicals in waste managed by facilities. As shown in Figure E1, from 2003 to 2013, total production-related waste managed by TRI facilities declined 4% (more than 1 billion pounds). From 2012 to 2013, the quantities of TRI chemicals in waste that were recycled, combusted for energy recovery, treated, or released all increased.

Figure E1. Production-Related Waste Managed, 2003-2013



In 2013, TRI facilities reported total on– and off-site disposal or other releases of 4.14 billion pounds of toxic chemicals. Most was disposed of or released on-site at facilities to air, water, or land. Figure E2 shows that disposal or other releases of TRI chemicals has decreased in the long-term: down 7% from 2003 to 2013. This decrease is mainly due to decreasing air releases from electric utilities during that time. Reasons for this decrease

include a shift from coal to other fuel sources and installation of control technologies at coal-fired power plants.

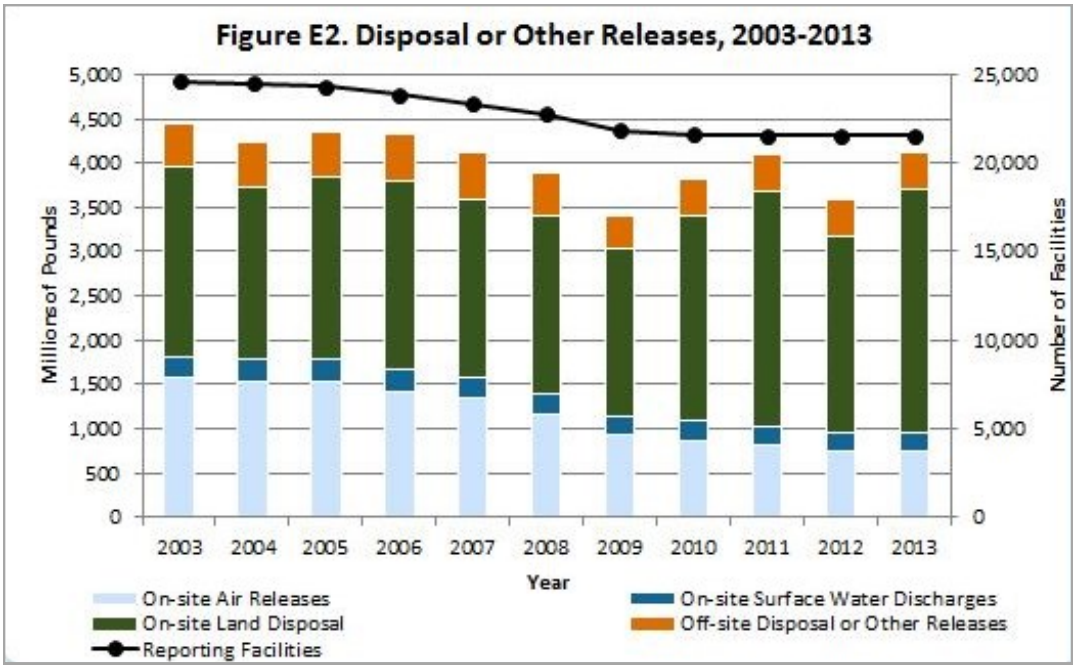
2013 Quick Facts

TRI facilities reported disposing of or releasing 4.14 billion pounds of TRI chemicals with:

- 19% to air on-site
- 5% to water on-site
- 66% to land on-site
- 10% as off-site disposal

From 2012 to 2013 there was a 15% increase in disposal or other releases, mainly due to increases in on-site land disposal by the metal mining sector. In recent years mines have cited changes in the composition and production of waste rock as the primary reason for variability in land disposal of TRI chemicals. Air releases also increased from 2012 to 2013 by 1% (11 million pounds), primarily caused by increases from the chemical manufacturing and electric utilities sectors. Both sectors also experienced increased production over the past year.

Figure E2. Disposal or Other Releases, 2003-2013

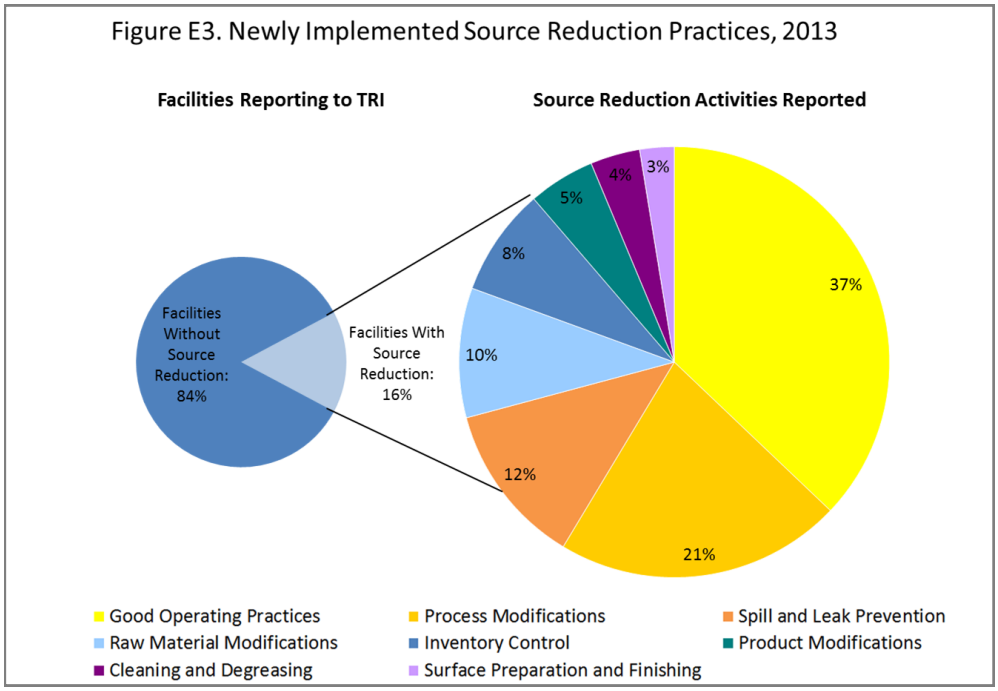


Facilities that report to TRI provide information on their parent companies, if they have one. The National Analysis uses this information to highlight parent companies that reported the largest total quantity of chemicals in production-related waste managed. For 2013, the top three parent companies based on the quantities of chemicals in waste managed were: Teck American Inc (a metal mining company); Clean Harbors Inc (a hazardous waste and solvent recovery company), and Koch Industries (with facilities in paper, petroleum refining, and chemical sectors).

The National Analysis also highlights waste management trends within industry sectors. In 2012, 92% of total disposal or other releases of TRI chemicals originated from just seven of the 26 TRI industry sectors. More than two-thirds originated from three industry sectors: metal mining (47%), electric utilities (13%) and chemicals (12%). Most of the metal mining releases are to on-site land disposal; this sector reported more than two-thirds (71%) of the on-site land disposal for all industries. Electric utilities reported the largest on-site air emissions, which represented over 25% of air emissions from all industries.

In addition to submitting information on releases and waste management quantities to TRI, 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 2013, a total of 3,362 facilities (16% of all TRI facilities) reported initiating 10,623 source reduction activities. Good operating practices, process modifications, and spill and leak prevention were the types of activities reported most frequently, as shown in Figure E3.

Figure E3. Newly Implemented Source Reduction Practices, 2013



Note: Facilities report their source reduction activities by selecting from activities that fall into one of the eight categories listed in the graph legend. "Good operating practices" are defined by four codes in the Reporting Forms and Instructions, which facilities select when submitting their forms.

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 National Analysis highlights several examples of this, including: EPA's Discharge Monitoring Report data, which is another source of data on surface water discharges of toxic chemicals and more; emergency planning data, which provide information about what facilities are doing to prepare for emergencies; and EPA's Greenhouse Gas Reporting Program, which requires large emitters of greenhouse gases and suppliers of certain products to submit annual reports on their emissions.

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.