Introduction to the 2015 TRI National Analysis

Industries and businesses in the United States use chemicals to make the products we depend on, such as pharmaceuticals, computers, paints, clothing, and automobiles. While the majority of toxic chemicals are managed by industrial facilities to minimize releases of chemicals into the environment, releases do still occur as part of their business operations. It is your right to know what toxic chemicals are being used in your community, how they are managed, whether they are being released into the environment, the quantities of these releases, and whether such quantities are increasing or decreasing over time.

The Toxics Release Inventory (TRI) is a publically available database maintained by EPA's TRI Program that tracks the management of certain <u>toxic chemicals</u> that may pose a threat to human health and the environment. This information is submitted by U.S. facilities in industry sectors such as manufacturing, metal mining, electric utilities, and commercial hazardous waste management. Under the <u>Emergency Planning and Community Right-to-Know Act (EPCRA)</u>, facilities must report their toxic chemical releases for the prior calendar year to EPA by July 1 of each year. The <u>Pollution Prevention Act</u> also requires facilities to submit information on pollution prevention and other waste management activities of TRI chemicals. Nearly 22,000 facilities submitted TRI data for calendar year 2015.

This year's Toxics Release Inventory shows significant reductions in releases of toxic chemicals into the air from 2005 to 2015. During this timeframe, air releases of toxic chemicals from U.S. industrial facilities covered by the TRI Program decreased by 56% (851 million pounds). Additionally, in 2015, of the nearly 26 billion pounds of total chemical waste managed at TRI-covered industrial facilities (excluding metal mines), approximately 92% was not released into the environment due to the use of preferred waste management practices such as recycling, energy recovery, and treatment.

What is the TRI National Analysis?

Watch this video for an overview of the TRI National Analysis.



Quick Facts for 2015	
Number of TRI Facilities	21,849
Production-Related Waste Managed	27.24 billion lb
Recycled	11.91 billion lb
Energy Recovery	3.10 billion lb
Treated	8.83 billion lb
Disposed of or Otherwise Released	3.41 billion lb
Total Disposal or Other Releases	3.36 billion lb
On-site	2.89 billion lb
Air	0.69 billion lb
Water	0.19 billion lb
Land	2.01 billion lb
Off-site	0.46 billion lb

Note: Numbers do not sum exactly due to rounding.

Users of TRI data should be aware that the quantity of releases is not an indicator of potential health risks posed by the chemicals. Although TRI data generally cannot indicate the extent to which individuals may have been exposed to toxic chemicals, TRI data can be used as a starting point to evaluate exposure and whether TRI chemicals pose risks to human health and the environment. For more information on the potential hazard and risk posed by disposal or other releases of TRI chemicals, see the Hazard and Risk of TRI Chemicals section.

Note that two metrics shown in the Quick Facts box related to disposal or other releases are similar (3.41 and 3.36 billion pounds), but total disposal or other releases is slightly lower. The reason total disposal or other releases is lower is that it removes "double counting" that occurs when a facility that reports to EPA's TRI Program transfers waste to another TRI-reporting facility. For example, when TRI Facility A transfers a chemical off-site for disposal to Facility B, Facility A reports the chemical as transferred off-site for disposal while Facility B reports the same chemical as disposed of on-site. In processing the data, the TRI Program recognizes that this is the same quantity of the chemical, and includes it only once in the total disposal or other releases value. The production-related waste value in TRI, however, considers all of the instances where the waste is managed (first as a quantity sent off-site for disposal and next as a quantity disposed of on-site), and reflects both the transfer off-site and the on-site disposal.



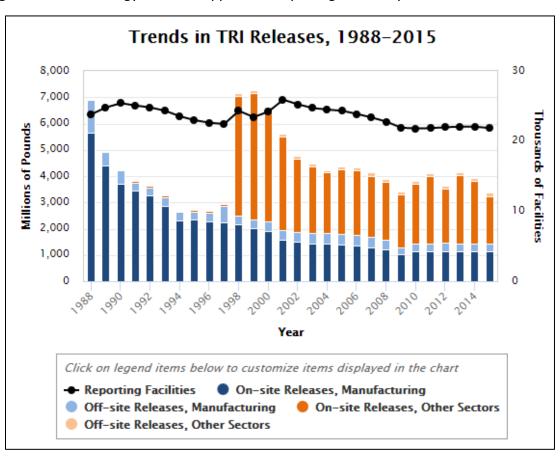
30-Year Anniversary of the TRI Program Slideshow

October 17, 2016 marked the 30th anniversary of the Toxics Release Inventory (TRI) Program's creation under the Emergency Planning and Community Right-to-Know Act (EPCRA). Over that time, the quantities of releases reported to the TRI Program have changed as various aspects of the program have evolved, including the number of chemicals included on the list of reportable chemicals and the types of industry sectors required to comply with TRI reporting. The slideshow below demonstrates how releases have changed over the years, and includes information about significant milestones in the history of the TRI Program.

Read more about the 30th anniversary of the TRI Program.

30-Year Anniversary Slideshow

To view the full interactive slideshow, <u>visit the 30-Year Anniversary Slideshow section of the National Analysis</u>. Hover over the chart to pause, or use the arrows to navigate through the years. Red boxes indicate changes to TRI reporting requirements, whereas blue boxes indicate changes to the technology used to support TRI reporting and analysis.



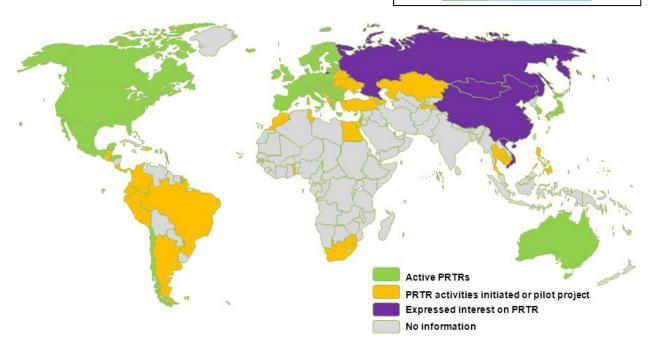


TRI's Influence around the World

Since its beginnings 30 years ago, the TRI Program has influenced the development of other similar Pollutant Release and Transfer Register (PRTR) programs. Currently, at least 50 countries have fully established PRTRs or have implemented pilot programs, as shown in the map below. More are expected to be developed over the coming years, particularly in Central and South American countries.

Read more about TRI around the world.

Short overview of the importance of the information collected in the TRI Program. The Power of Co...

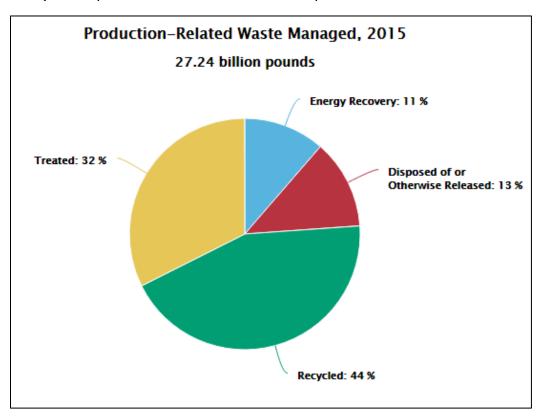


Summary of the 2015 TRI National Analysis

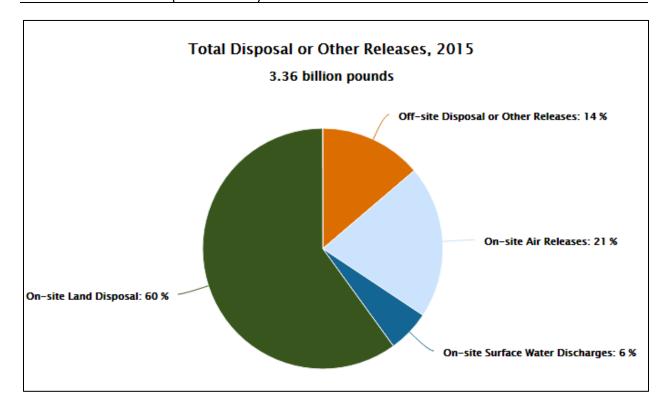
The Toxics Release Inventory (TRI) National Analysis is developed on an annual basis, and the 2015 TRI National Analysis is EPA's summary and interpretation of TRI data reported for activities that occurred at facilities during 2015. It offers a starting point for understanding how the environment and communities may be affected by toxic chemicals, and is presented as a snapshot of the data at one point in time. Any TRI reporting forms submitted to EPA after the July 1 reporting deadline may not be processed in time to be included in the National Analysis. The most recent data available are accessible from the TRI Data and Tools webpage.

Users of TRI data should be aware that the TRI database includes information on the quantities of many toxic chemicals that are released or otherwise managed as waste by industrial facilities, but it does not contain such information on all toxic chemicals or all industry sectors of the U.S. economy. Additionally, covered facilities report the quantities of chemicals to TRI using their best-available data. Each year, EPA conducts an extensive data quality investigation before publishing the National Analysis. During the data quality review, potential errors are identified and investigated to help ensure that accurate and useful information is presented in the National Analysis and TRI database.

The two pie charts below show: 1) how facilities reporting to TRI managed their toxic chemical waste; and 2) the disposition of the waste that was disposed of or otherwise released.







In 2015:

- 21,849 facilities reported to the TRI Program.
- Facilities reported managing 27.24 billion pounds of toxic chemicals in production-related
 waste. This is the quantity of toxic chemicals in waste that is recycled, burned for energy
 recovery, treated, disposed of or otherwise released. In other words, it encompasses
 the toxic chemicals in waste generated in the regular production processes and operations
 of the facilities that reported to TRI.
 - Of this total, 87% (23.84 billion pounds) was recycled, burned for energy recovery, or treated, and 13% was disposed of or otherwise released to the environment, as illustrated in the Production-Related Waste Managed pie chart.
- For chemical wastes that were disposed of or otherwise released, facilities also reported where wastes were released to air, water, or land, on-site or off-site. As shown in the Disposal or Other Releases pie chart, most were disposed of on-site to land (including landfills, other land disposal, and underground injection).

<u>A current list of the chemicals reportable to the TRI Program is available on the TRI chemicals</u> <u>webpage</u>. The list of chemicals has changed over the years; as a result, trend graphs in the TRI National Analysis include only those chemicals that were reportable for the entire time period



presented so that the year-to-year data are comparable. Results which focus only on the year 2015 include all chemicals reportable in 2015 and may be slightly different from results in trend analyses that include 2015 and previous years.

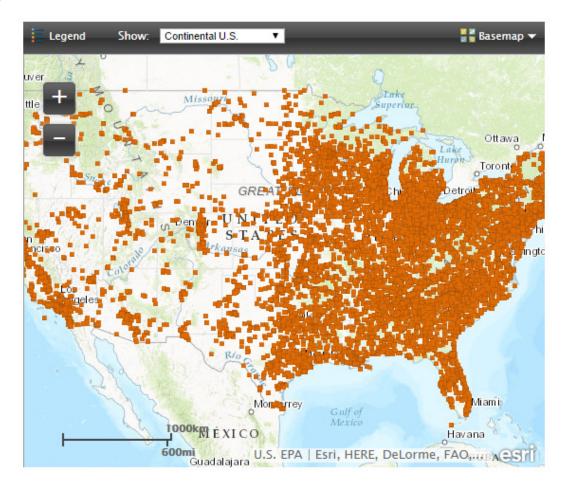
Additional information is presented in the following chapters of the TRI National Analysis:

- <u>Pollution Prevention and Waste Management</u> presents the types of pollution prevention activities that facilities have implemented, and trends on recycling, energy recovery, treatment, and releases of toxic chemicals.
- Releases of Chemicals presents trends in releases of toxic chemicals to air, water, and land, including a focus on selected chemicals of special concern.
- <u>Industry Sectors</u> highlights toxic chemical waste management trends for five industry sectors: manufacturing, food processing, chemical manufacturing, metal mining, and electric utilities.
- Where You Live presents analyses of the quantities of TRI chemicals specific to: state, city, county, zip code, metropolitan area or micropolitan area, and by Large Aquatic Ecosystems (LAEs) such as the Chesapeake Bay, as well as information about facilities in Indian Country.
- <u>TRI and Beyond</u> presents TRI data with other EPA data, such as greenhouse gas emissions, providing a more complete picture of national trends in chemical use, management, and releases of the chemicals, and overall environmental performance by facilities.

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

Map of Facilities in the 2015 TRI National Analysis

This map shows facilities that reported to EPA's Toxics Release Inventory (TRI) Program for 2015.



The facilities that report to the TRI Program are primarily from industry sectors involved in

manufacturing, metal mining, electric power generation, and hazardous waste treatment; have ten or more employees; and manufacture, process, or otherwise use TRI chemicals in quantities above established reporting thresholds. <u>Federal facilities</u> are also required to report to the TRI Program, most recently by <u>Executive Order</u> 13693.

For more information about facilities in your community that report to the TRI Program, <u>visit the Where You Live</u> section of the National Analysis.

TRI Story Map See EPA's story map about who lives near TRI facilities. 1 2014 TR National Analysis 2 who Lives near a TRI Facility 3 who Lives near a TRI Facility in Your 4 TRI Facilities in Your Meighnehood Wang he had you on mer This Stories of the art was a facility in Your 4 TRI Facilities in Your Meighnehood Wang he had you on mer This Stories of the result of the stories o



Exploring Demographic Information within the TRI National Analysis

Almost 59 million people live within one mile of at least one of the many facilities that reported to the TRI Program for 2015. As part of the TRI National Analysis, EPA has developed a Story Map to provide information on community demographics across the country.

The Story Map includes interactive maps showing facility locations and the demographic patterns of the communities around them, particularly the percentage of the population living below the poverty line and the population of minority status, based on U.S. Census data. You can search for your own community to learn more about the facilities that are located in your neighborhood that report to the TRI Program.