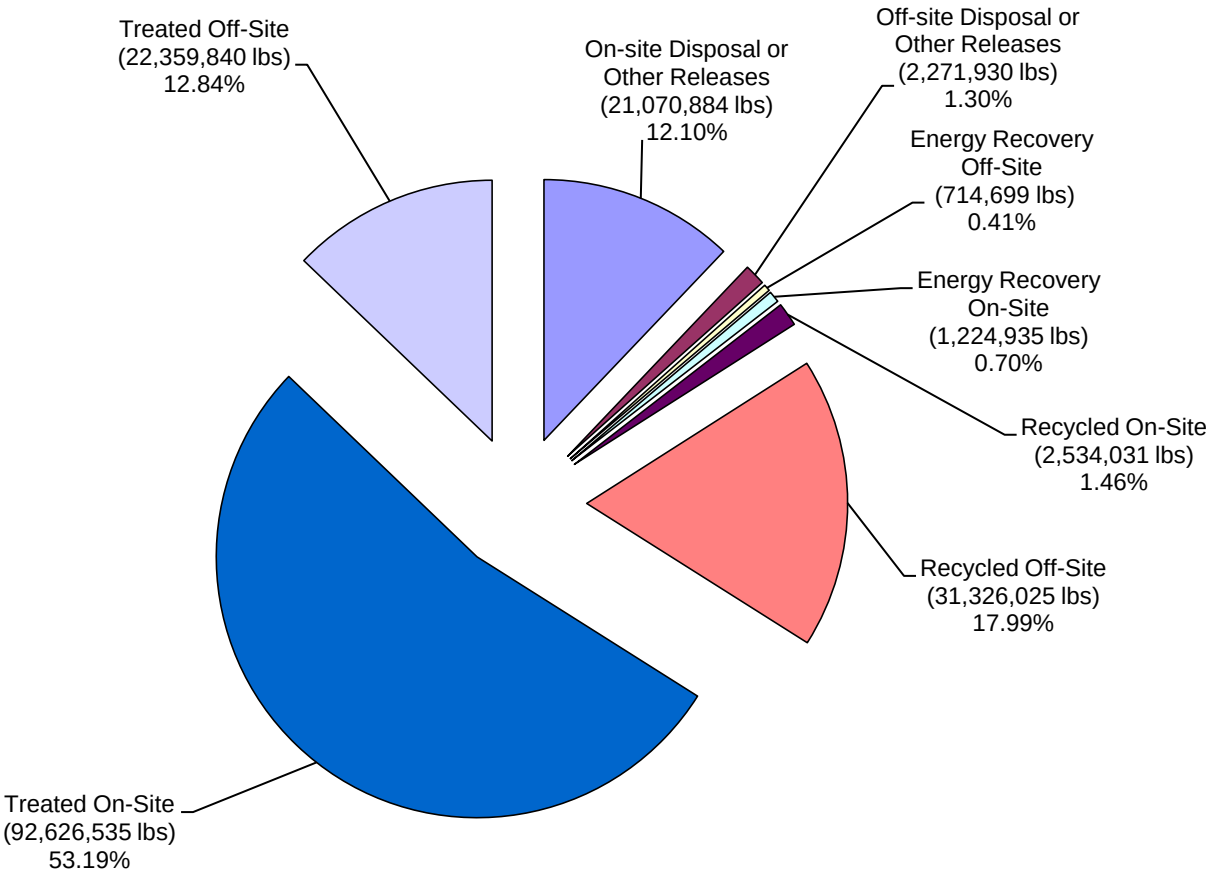
2010 Right-To-Know Chemical Information Report

State of Minnesota – Department of Public Safety

A Summary of Toxic Release Inventory and Pollution Prevention Reports



Total Pounds: 174,128,879

December 2011

What is the Toxic Release Inventory (TRI)?

The Toxic Release Inventory (TRI) originated from Section 313 of the federal Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and Pollution Prevention Act of 1990. These laws require facilities in certain industries, which manufacture, process or otherwise use certain toxic chemicals above specified thresholds, to report annually the amounts of toxic chemicals released into the environment, transferred off-site for treatment, recycled, used for energy recovery, disposed, and managed on-site at the facility.

The Minnesota Department of Public Safety manages this information in a database called the Toxic Release Inventory (TRI). Over 400 facilities are included in the state TRI. The United States Environmental Protection Agency (EPA) manages a national TRI database containing data from thousands of facilities. These databases contain data on over 600 toxic chemicals.

The data are collected from various covered industries including manufacturing, electric utilities, commercial hazardous waste treatment and other industrial sectors. The data reported are not necessarily derived from actual monitoring or measurements, but may be estimated from engineering calculations, material balance calculations, or published emission factors. The TRI data in this summary report covers submittals for the 2010 reporting year.

What are the benefits and uses of TRI data?

Reporting facilities can use the data to review and evaluate its operations. Each reporting facility has the opportunity to compare the current year's chemical management processes to those of previous years. The facility may be able to determine if they have opportunities to prevent pollution and reduce waste.

The Minnesota Pollution Control Agency can crosscheck the TRI data with environmental discharge permits and hazardous waste disclosure reports. The data can also provide additional information for prioritizing environmental regulatory efforts. It should be noted, however, that a release of a TRI toxic chemical does not indicate a violation of federal, state, or local environmental laws.

Another application is to use the data to promote pollution prevention and waste reduction. The data can assist in targeting technical assistance for facilities that have the most significant emissions and promote transfer of prevention technology among industries. In addition, the data provide a baseline measurement to assess future reductions.

Communities can use the data to discuss chemical issues. The information alerts citizens and facilities to chemical management activities in their communities and provides a forum to discuss chemicals and their risks.

Finally, the data can be used as a risk screening tool to delineate "hot spot" areas requiring additional health assessments.

What are the limits on application of TRI data?

Toxic chemicals are generated from a variety of sources, including manufacturing and non-manufacturing processes, agricultural and urban uses of chemicals, use and disposal of consumer products, and mobile sources such as automobiles. The TRI does not require facilities to measure or otherwise verify the data they submit. Thus, much of the quantitative data reported were estimated.

The amount of chemicals released directly to air, water, and land and managed in 2010 are not necessarily an indicator of human and environmental exposure to these chemicals. Several factors determine the impact of releases and transfers on public health and the environment. For example, the magnitude, duration, and frequency of exposure to a toxic chemical are necessary to assess the human response to the exposure.

More information than the TRI can provide is needed to assess potential exposure and risk concerns. The TRI data are in amounts or volumes of annual emissions. These numbers do not address the quantities emitted per day or whether releases are continuous or intermittent. Therefore, the TRI can only indicate toxic chemicals that may be of concern and which require further attention and analysis.

The TRI data provides important information about the industrial sources of environmental releases of toxic chemicals. However, users of the TRI data should understand the limitations of the data. The TRI data covers only a portion of toxic chemical emissions, and the amounts reported are estimated with unknown accuracy.

What are persistent bioaccumulative toxic (PBT) chemicals?

PBT chemicals are of particular concern because they remain in the environment for long periods of time, are not easily destroyed and accumulate in body tissues. Examples of PBT chemicals included in the TRI are dioxin and dioxin-like compounds, lead and lead compounds, mercury and mercury compounds and polycyclic aromatic compounds. Due to these concerns, EPA has established more stringent reporting requirements.

How long has TRI data been collected?

The Minnesota Department of Public Safety has collected and made publicly available TRI data annually since the 1988 reporting year.

What do the data indicate for 2010 (amount in pounds)?

In 2010, 410 Minnesota facilities reported TRI data as follows:

On-site disposal or other releases	21,070,884
Off-site disposal or other releases	2,271,930
On-site energy recovery	1,224,935
Off-site energy recovery	714,699
On-site recycling	2,534,031
Off-site recycling	31,326,025
On-site treatment	92,626,535
Off-site treatment	22,359,840
Total (both on-site and off-site)	174,128,879

Note: Disposal to landfills that are designed with liners, covers, leak-detection systems and groundwater monitoring systems limits the potential for human exposure.

How does the 2010 data compare to 2009 (amount in pounds)?

	2009	2010
Number of reporting facilities	414	410
On-site disposal or other releases	20,287,405	21,070,884
Off-site disposal or other releases	2,546,292	2,271,930
On-site energy recovery	2,075,089	1,224,935
Off-site energy recovery	544,255	714,699
On-site recycling	3,718,556	2,534,031
Off-site recycling	23,707,646	31,326,025
On-site treatment	81,939,900	92,626,535
Off-site treatment	20,457,145	22,359,840
Total (both on-site and off-site)	155,276,288	174,128,879

What is being done to prevent pollution?

In 1990, the Minnesota Legislature enacted the Minnesota Toxic Pollution Prevention Act. The Act requires each TRI facility reporting toxic chemical releases and transfers to develop a Pollution Prevention Plan. The plan is used by facilities to establish goals for reducing or eliminating releases and transfers of these chemicals. The facility establishes either a numeric or non-numeric objective and describes source reduction activities they intend to implement for each chemical. The legislation includes these major features:

1. Establishes state policy encouraging the prevention of toxic pollution.

2. Provides technical assistance to help companies prevent toxic pollution by expanding the responsibilities and staff of the Minnesota Technical Assistance Program (MnTAP).

3. Provides matching grants to help companies study or demonstrate the feasibility of applying specific technologies and methods to prevent pollution.

4. In addition to developing a Pollution Prevention Plan, these facilities must submit annual Pollution Prevention Progress Reports to the Minnesota Department of Public Safety. In 2010, 385 facilities in Minnesota submitted Pollution Prevention Progress Reports.

How can the public access TRI and pollution prevention data?

Please visit the Minnesota Department of Public Safety's website at (http://www.epcra.state.mn.us) and select Toxic Release Inventory/Pollution Prevention. Under links, select the Toxic Release Inventory or Pollution Prevention Progress Report query. The U.S. Environmental Protection Agency's national TRI database is available at (http://www.epa.gov/tri). Select TRI Data and Tools.

Where can I obtain more information?

For questions about Minnesota's TRI or Pollution Prevention Act, contact the Minnesota Department of Public Safety at (651) 201-7417 or visit our website at (http://www.epcra.state.mn.us). For questions related to the national TRI database, please contact the U.S. EPA's Information Center at 1-800-424-9346 or visit their website at (http://www.epa.gov/tri).

What other sources of information are available?

EPA Envirofacts Data Warehouse
http://www.epa.gov/enviro/index_java.html

EPA's Risk-Screening Environmental Indicators (RSEI) model
http://www.epa.gov/opptintr/rsei/

State of New Jersey Chemical Fact Sheets
http://web.doh.state.nj.us/rtkhsfs/indexfs.aspx

Minnesota Pollution Control Agency - What's in My Neighborhood?
http://www.pca.state.mn.us/wimn/

Minnesota Pollution Control Agency - Preventing Waste and Pollution
http://www.pca.state.mn.us/p2/index.html

The Right-To-Know Network
http://www.rtknet.org

Minnesota Technical Assistance Program (MnTAP)
http://www.mntap.umn.edu/