

# TOXIC RELEASE INVENTORY

## Frequently Asked Questions

### What is the Toxic Release Inventory?

The Toxic Release Inventory or TRI, is a database that contains specific toxic chemical release, transfer, waste management and pollution prevention activities from manufacturing facilities throughout the United States. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) which Congress passed to promote planning for chemical emergencies and to provide information to the public about the presence and release of toxic and hazardous chemicals in their communities. TRI does not regulate chemical discharges. In Ohio, state authority has been granted to the Ohio EPA under the Ohio Right-to-Know Act of 1988, and Ohio Revised Code Chapter 3751.

### What are TRI Reports?

TRI Reports, typically known as "313", "Form R", or in limited instances, alternate "Form A" reports, are annual chemical use, release and management summaries. These must be filed by July 1st of each year to both the [Federal EPA \(USEPA\)](#), and Ohio EPA for the prior calendar year. After data entry and data quality assurance activities are completed, Ohio EPA provides TRI information to the public in the form of an annual printed report, various custom reports, our web site (where the entire [annual database](#) is available as well as clickable county maps), and various fact sheets.

### Who Must Report?

Manufacturing facilities that have 10 or more full-time employees, and meet the established thresholds for manufacturing, processing, or otherwise using listed chemicals must report their releases, transfers, and waste management activities. Thresholds for manufacturing and processing are currently 25,000 pounds, while the threshold for otherwise use is 10,000 pounds for most reportable chemicals. Persistent Bioaccumulative Toxic (PBT) chemicals have significantly lower thresholds, 100 pounds or less. PBT chemicals include mercury and its compounds, and in most cases lead and its compounds. Thresholds are the specified "trigger" amounts of the toxic chemical used during the calendar year, not necessarily released. Manufacturing facilities are defined as facilities in Standard Industrial Classification (SIC) primary codes 20-39 which include, among others: chemicals, petroleum refining, primary metals, fabricated metals, paper, rubber and plastics, and transportation equipment. Seven nonmanufacturing industrial sectors were added effective reporting year 1998: metal mining, coal mining, coal and oil-fired electric generating facilities, commercial hazardous waste treatment facilities, chemicals and allied products (wholesale), petroleum bulk stations (wholesale) and solvent recovery services.

## What Must be Reported?

For those facilities that meet the TRI reporting requirements, the following information is to be reported annually for each toxic chemical manufactured, processed, or otherwise used:

- Name and location of the facility, and type of business;
- Environmental permit numbers including: NPDES, RCRA, and underground injection well code;
- Activities and uses of the toxic chemical;
- Maximum quantity of the toxic chemical stored on-site at any time during the reporting year;
- On-site routine and accidental releases to air, water, land, and underground;
- Off-site quantity and location(s) to which the waste containing the toxic chemical were transferred;
- Off-site quantities of the toxic chemical transferred for disposal, recycling, and energy recovery;
- On-site treatment methods and efficiency of the waste stream containing the toxic chemical;
- On-site methods of energy recovery and recycling processes, and quantities of the listed chemical treated; and
- Source reduction activities and methods used to identify those activities.

## What is a Release?

A release is an on-site discharge of a toxic chemical to the environment or an off-site transfer for disposal. This includes emissions to the air, discharges to bodies of water, releases at the facility to land or underground injection wells, and landfilling or surface impoundment or lagoons. Air emissions include fugitive and stack releases. Fugitive air emissions are any non-directed air streams including valve leaks, evaporative losses from tanks, or uncontrolled particulate emissions. Stack air or point source emissions are directed air streams such as emissions from stacks or vents. Water releases consist of discharge to surface waters and receiving streams.

## **What are Off-Site Transfers?**

An off-site transfer is a transfer of the toxic chemical in wastes to a facility that is geographically or physically separate from the reporting TRI facility. TRI reported chemical transfers are sent to off-site facilities for energy recovery, recycling, disposal, or treatment. Off-site transfers for disposal are considered to be a release of the chemical into the environment. TRI chemical discharges through pipes or sewers to publicly owned treatment works (POTW) are off-site transfers. Treatment or removal of a chemical from the wastewater depends upon the nature of the chemical and treatment methods use by the POTW. Not all toxic chemicals are treated by a POTW. Those that are not removed by treatment are released by the POTW to surface waters.

### **TRANSFERS OFF-SITE FOR TREATMENT**

Toxic chemicals in wastes that are transferred off-site may be treated through a variety of methods, including biological treatment, neutralization, incineration, and physical separation. In some cases, the chemical is not destroyed but is prepared for further waste management, such as disposal.

### **TRANSFERS OFF-SITE FOR DISPOSAL**

Toxic chemicals in wastes that are transferred to a facility for disposal generally are either released to land at an off-site facility or injected underground.

### **TRANSFERS OFF-SITE FOR RECYCLING**

Toxic chemicals in wastes that are sent off-site for the purposes of recycling are generally recovered or regenerated by a variety of recycling methods, including solvent recovery, metals recovery, and acid regeneration. Once recycled, these chemicals may be returned to the originating facility for further processing or made available for use in commerce.

### **TRANSFERS OFF-SITE FOR ENERGY RECOVERY**

Toxic chemicals in waste sent off-site for purposes of energy recovery are combusted off-site in industrial furnaces (including kilns) or boilers that generate energy for use at that location. Chemicals that are not combustible, or that do not have a high heating value, such as metals, metal compounds, CFCs and halons, should not be reported as transferred off-site for energy recovery. Treatment of a chemical by incineration is not considered to be energy recovery.

### **OTHER OFF-SITE TRANSFERS**

Toxic chemicals in wastes that were reported as transferred off-site but for which the off-site activity was not specified have been classified as "other off-site transfers."

## What are the Benefits and uses of the TRI Data?

The TRI program gives the public direct access to toxic chemical release and transfer data at the local, regional, and national level. The public can use the information to identify potential concerns, gain a better understanding of potential risks, and work with industry and government to reduce toxic chemical releases and risks associated with the chemicals.

Government agencies can use the data to compare facilities or geographic areas to identify anomalies or "hot spots", evaluate existing environmental programs to more effectively set regulatory priorities, and track pollution control and waste reduction progress.

Congress and EPA have used TRI data in the development of new legislation and implementation of existing regulatory programs. EPA has made widespread use of TRI data in conjunction with other Agency databases for purposes of permitting, inspection and enforcement targeting, compliance reviews, risk screening, and pollution prevention. The Office of Air and Radiation has used and plans to continue to use the TRI data for source identification and source category prioritization. The TRI data have been a valuable source of air emissions information and will continue to provide direction for further analyses of potential air toxics sources and associated public health risks.

The [Office of Pollution Prevention](#) is using TRI data to help target activities, chemicals, facilities, and industry categories that are of high concern. One example is where TRI data were used as a screening tool to identify a group of industrial categories as long-term targets of opportunity

## What are the Limitations of the Data?

TRI data reflects only a portion of chemical use. It is limited to significant users of toxic chemicals in the core manufacturing sector (SIC 20 - 39) or, since 1998, "expanded" industrial segments: metal mining, coal mining, coal and oil-fired electric generating facilities, commercial hazardous waste treatment facilities, chemicals and allied products (wholesale), petroleum bulk stations (wholesale) and solvent recovery services. The reporting requirement is further restricted to those "included" SIC facilities with 10 or more employees which also meet or exceed the annual use thresholds of at least 10,000 pounds. (There are some significant threshold reductions for "PBT" or persistent bioaccumulative toxic chemicals for reporting year 2000, several PBT chemicals will be reportable at 10 pounds.)

TRI reporting compliance is generally good, but not perfect. Some facilities that are required to report their releases and transfers to TRI do not file any reports, and some facilities may file reports for some chemicals, but not all, of the appropriate chemicals. Accuracy of release and transfer data may vary from facility to facility and from year to year. Facilities are not required to perform any monitoring to develop TRI estimates and may use a variety of estimation techniques if monitoring data is not available. (Both

Ohio EPA and U.S. EPA conduct reporting and data quality inspections each year.)

TRI reports reflect releases of chemicals, not exposures of the public to those chemicals. Release estimates alone are not sufficient to determine exposure or to calculate potential adverse effects on human health and the environment. Although additional information is necessary to assess exposure and risk, TRI data can be used to identify areas of potential concern.

### **What are the Criteria for Listing a Chemical Under Section 313 of EPCRA?**

For a chemical or chemical category to be kept on or added to the section 313 list, it must be known to cause or can reasonably be anticipated to cause one of the following:

- Significant adverse health effects at concentration levels that are reasonably likely to exist beyond facility boundaries as a result of continuous, or frequently recurring releases.
- In humans - cancer, teratogenic effects; or serious or irreversible reproductive dysfunction, neurological disorders, heritable genetic mutations, or other chronic health effects.
- Because of its toxicity, its toxicity and persistence in the environment, or its toxicity and tendency to bioaccumulate in the environment, a significant adverse effect on the environment of sufficient seriousness or warrant release reporting under EPCRA section 313.

### **What are the Health Effects of TRI Chemicals?**

Section 313 focuses on chemicals that may cause chronic health and environmental effects. USEPA has prepared fact sheets that will help the public understand the potential health and ecological effects of exposure to chemical releases. That Agency has National Institute of Health (NIH) and the National Library of Medicine's (NLM) Toxmet system information available via their [web page](#).

### **How much of the Chemical am I exposed to?**

Your exposure to the chemicals will depend on factors such as the distance from the release, the source of treatment of your drinking water supply, etc. Estimating releases based on release quantities requires an analysis of chemical and site specific characteristics. There is no simple conversion of release quantity to concentration in the environment or dose received by individuals. Natural environmental processes can: transform the chemical (e.g. sunlight decomposes some chemicals); transfer it from one medium to another (e.g. water to air); or concentrate it (e.g. bioaccumulation of the chemical in fish). Concentration in the environment can depend on the volume of water in the receiving stream into which the chemical is released; dispersion of air releases as a function of local meteorological conditions; the height from which the release occurs; integrity of landfill liners or other containment or disposed materials, etc.

## **Public Access**

The Ohio EPA, Division of Air Pollution Control maintains a computerized database of the TRI information and publishes an annual report. Copies of actual TRI data submitted by facilities can be obtained from Ohio EPA, Division of Air Pollution Control, TRI Unit. The data, annual reports and various summaries are available from this web page or via paper or on diskette from:

Ohio Environmental Protection Agency  
Division of Air Pollution Control  
Toxic Release Inventory Unit  
Lazarus Government Center  
50 West Town Street, Suite 700  
Columbus, Ohio 43215  
(614) 644-2260

To obtain further information about the program, citizens should contact toll-free Emergency Planning and Community Right-to-Know Information Hotline at 1-800-424-9346.

## **How is the TRI Data Used?**

TRI data are used in the implementation of Federal legislation including:

- Pollution Prevention Act of 1990
- 33/50 Program
- 1990 Clean Air Act Amendments
- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Toxic Substance Control Act (TSCA)
- Clean Water Act
- Safe Drinking Water Act

**Many TRI chemicals are also subject to other environmental laws and regulations including:**

- Clean Air Act Amendments of 1990

- Resource Conservation and Recovery Act (RCRA)
- CERCLA (the "Superfund" legislation)
- SARA - the Superfund Amendments and Reauthorization Act, Title III, or the Emergency Planning and Community Right-to-Know Act (EPCRA; In addition to Section 313, there are reporting requirements for Section 302, Extremely Hazardous Substances and 311/312 hazardous chemicals, identified by way of the material safety data sheets.)
- Clean Air Act, and
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- Safe Drinking Water Act, and

### Supplier Notification Requirements

When Congress passed the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), it created a supplier notification requirement to ensure that information about the "toxic chemical" content of raw materials or products was available to potential TRI reporters. Companies that supply or distribute such toxic chemicals or products containing them, must provide notifications that include the following information:

- A statement that the mixture or trade name product contains a toxic chemical or chemicals subject to the reporting requirements of EPCRA section 313 (40 CFR 372);
- The name of each toxic chemical and the associated Chemicals Abstract Service (CAS) registry number of each chemical if applicable. (Chemical Categories do not have CAS numbers, since the categories can represent several individual chemicals.);
- The percentage, by weight, of each toxic chemical (or all toxic chemicals within a listed category) contained in the mixture or trade name product.

The required notification must be provided at least annually in writing. Acceptable forms of notice include, a letter, product labeling, and product literature distributed to customers. If you are required to prepare and distribute a Material Safety Data Sheet (MSDS) for the mixture under Occupational Safety and Health Act (OSHA) Hazard Communication Standard, your section 313 notification must be attached to the MSDS or the MSDS must be modified to include the required information. In general, you must notify each customer receiving a mixture or trade name product containing a listed toxic chemical with the first shipment of each calendar year. If U.S. EPA adds chemicals to the Section 313 list and your products contain the newly listed chemicals, notify your customers with the first shipment made during the next calendar year following U.S. EPA's final decision to add the chemicals to the list.

You are not required to make a "negative declaration." That is, you are not required to indicate that a product contains no section 313 toxic chemicals.

### **Record-Keeping Requirements**

You are required to keep records for three years of the following:

- Notifications sent to recipients
- Explanations of why a notification was considered necessary and all supporting materials used to develop the notice