

Toxics Release Inventory: Do Communities Have a Right to Know More?

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Summary

In 1986, Congress directed the U.S. Environmental Protection Agency (EPA) to establish a national inventory of toxic releases to the environment by manufacturing facilities and to use the inventory to inform the public about chemicals used and released in their communities. Since enactment of the Emergency Planning and Community Right-to-Know Act (EPCRA) more than 10 years ago, manufacturers have been required to report releases of hundreds of hazardous chemicals annually. EPA compiles the reported information into the Toxics Release Inventory (TRI) and distributes it in various written and electronic forms.

EPCRA Section 313 specified covered chemicals and industries but also authorized expansion of TRI reporting requirements to additional industries and chemicals. In 1991, the U.S. General Accounting Office (GAO) evaluated EPA's TRI program and reported that although TRI had become a valuable source of information for many user groups, it would be more useful to regulators and the public if it were a more comprehensive inventory. GAO recommended expanding TRI to include reports from federal facilities and possibly from nonmanufacturing facilities. It also suggested that EPA evaluate additional toxic chemicals and develop a strategy to publicize data availability.

EPA began in 1992 to evaluate options for expanding TRI reporting requirements, and President Clinton effected the first significant expansion of the reporting universe when he issued an executive order in 1993 requiring federal facilities to submit TRI reports. In 1994, EPA announced a three-pronged plan to further expand reporting requirements. EPA would expand: 1) the number of chemicals, 2) the categories of facilities, and 3) the kinds of information required to be reported. The Agency promulgated the first rule implementing expansion plans in November 1994.

Many affected industries oppose initiatives to expand the TRI, but a clear consensus on the issue has not emerged in the Congress. The 104th Congress considered but did not enact legislation that would have curtailed EPA's authority to expand TRI reporting requirements. Other legislation would have mandated TRI expansion. The 105th Congress continues to reflect a range of views about expansion of TRI reporting requirements and may reconsider the benefits provided by the inventory in light of the cost of data collection.

Key potential advantages of TM expansion include an improved environmental database, help for EPA in complying with other congressional directives, citizen empowerment, a more rational economic market, increased fairness in TM reporting, and better environmental protection. Key potential disadvantages include the costs to regulated industries; disclosure of confidential business information; a low level of incremental benefits relative to costs; lack of clear statutory authority for EPA action; and a focus on reducing chemical use rather than risk. Two general policy issues raised by the proposed TM expansion are how much information TM should provide, and how TM data may be usefully packaged without imparting a bias.

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Introduction

In 1986, Congress directed the U.S. Environmental Protection Agency (EPA) to establish a national inventory of toxic releases to the environment by manufacturing facilities and to inform the public about toxic chemicals used and released in their communities. Recently, EPA has promulgated several rules expanding annual reporting requirements for industries covered by the 1986 law. Many affected businesses are concerned about an increase in paperwork and compliance costs. Some Members of Congress wonder whether the additional reporting burden is justified by benefits to public health

that might result from the data collected. Others support EPA's expansion plans. The Clinton Administration strongly supports communities' "right to know" about toxics in their neighborhoods and has encouraged EPA's expansion efforts.

This report reviews the issue of expanded reporting requirements to aid congressional deliberations about possible legislation. It describes the statutory framework and EPA implementation and summarizes key arguments for and against expansion of reporting requirements. It also raises broader questions about the role of the federal government in providing public access to information about private businesses.

Statutory Authority

The Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 requires owners or operators of manufacturing facilities that is manufactured, processed, or otherwise used" a "toxic chemical" in a significant quantity during the previous calendar year to submit to EPA and the state in which the facility is located a toxic chemical release form for each such chemical. [1](#) The Toxics Release Inventory (TRI) is EPA's computerized compilation of the submitted data. Its purpose is:

. . . to provide information to the Federal, State, and local governments and the public, including citizens of communities surrounding covered facilities. The release form shall be available ... to inform persons about releases of toxic chemicals to the environment; to assist governmental agencies, researchers, and other persons in the conduct of research and data gathering; to aid in the development of appropriate regulations, guidelines, and standards and for other similar purposes. [2](#)

EPCRA was enacted in 1986 as Title III of the Superfund Amendments and Reauthorization Act (SARA, P.L. 99-499) and is codified at 42 U.S.C. 11001-11050. Other sections of EPCRA encourage community planning for local responses to chemical accidents and establish related reporting requirements for affected industries. [3](#)

Covered Facilities. EPCRA Section 313 requires facility owners or operators to file TRI reports if they:

- have 10 or more full-time employees,
- are in Standard Industrial Classification (SIC) Codes 20 through 39 (which generally include manufacturers), [4](#) and
- use or process more than a threshold quantity of a listed chemical during the reporting year.

EPCRA authorizes the EPA Administrator to add or delete industrial categories to the list of those required to submit reports. EPA also may apply reporting requirements to any particular facility that processes a toxic chemical if reporting is warranted based on:

- toxicity of the chemical,
- proximity of the facility to other facilities that release the toxic chemical,
- proximity of the facility to population centers,
- the history of releases of the chemical at the facility, or
- other appropriate factors.

Covered Chemicals. When first enacted, Section 313 required release reporting for 313 toxic chemicals listed in Committee Print Number 99-169 of the Senate Committee on Environment and Public Works. This list was based on lists developed by Maryland and New Jersey. [5](#) However, EPCRA Section 313(d)(2) allows EPA on its own initiative, or in response to a petition by any person, to revise this list by issuing a regulation. A chemical may be added to the list if there is "sufficient evidence to establish" that "the chemical is known to cause or can reasonably be anticipated to cause":

- significant adverse acute human health effects at concentration levels that are reasonably likely to exist beyond facility site boundaries as a result of continuous, or frequently recurring releases;"
- "in humans" cancer, birth defects, or serious or irreversible chronic health effects, including reproductive dysfunctions, neurological disorders, or heritable genetic mutations; or
- "significant adverse effect on the environment of sufficient seriousness ... to warrant reporting" due to the chemical's toxicity, toxicity and persistence in the environment, or toxicity and tendency to bioaccumulate in the environment. However, no more than 25% of the toxic chemicals listed may be listed due to environmental effects alone.

Similarly, EPA may delete a chemical if there is insufficient evidence to establish any of these three categories of effects. EPA is *required* to add a chemical to the list in response to a petition by a state governor, unless the agency publishes an explanation of why the requirements for adding chemicals to the list have not been satisfied.

EPCRA Section 313 established threshold amounts of toxic chemicals that trigger reporting requirements at 10,000 pounds of a chemical used or 25,000 pounds manufactured or processed in a year. [6](#) Again, the statute authorized EPA to revise these requirements, provided that the revised threshold would gather data on "a substantial majority of total releases of the chemical [or category of chemicals] at all facilities [or categories of facilities] subject to the requirements" of Section 313.

Reporting Elements. EPCRA enumerates the following data reporting requirements for each covered chemical

released or transferred:

- the maximum amount present at each location during the previous year,
- treatment or disposal methods used, and
- amount released to the environment or transferred off-site for treatment or disposal.

Prior to enactment of EPCRA, Congress considered whether manufacturers also should be required to report the amount of chemical present at each point in the manufacturing process. However, because the issue was contentious, Congress directed the Administrator to arrange for the National Academy of Sciences (NAS) to study the value of collecting data to permit "mass balance" analysis of toxic chemicals manufactured, processed, or used by manufacturing facilities. [7](#) Congress defined "mass balance" to include quantities of chemicals transported to, produced, consumed, used, or accumulated at, or released or transported from a facility, including any toxic chemical in waste, commercial products, or byproducts. The resulting NAS study was published in 1990. [8](#) It distinguished reporting of precisely measured quantities of chemicals that would permit calculation of "mass balance" for a facility from less precise information suitable for "materials accounting" and production planning purposes. The NAS concluded that although "mass balance" data might be useful for engineering purposes, "materials accounting" data would be more useful for informing the general public about potential exposure.

Congress added source reduction and recycling data requirements to TRI reports for manufacturers and processors of toxic substances when it enacted the Pollution Prevention Act of 1990 (PPA) as Title VI of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508, 42 U.S.C. 13101-13109). Under the PPA, facilities covered by EPCRA Section 313 are required to include in their TM annual reports information about:

- the quantity of the chemical entering any waste stream (or released to the environment) prior to recycling, treatment, or disposal;
- the quantity of toxic substance recycled (on- or off-site);
- the source reduction practices used;
- quantities of chemical expected to enter waste streams and to be recycled in the two years following the year for which the report is prepared;
- ratio of production in the reporting year to production in the previous year;
- techniques used to identify opportunities for source reduction;
- amount of chemical released in a catastrophic event, remedial action, or other one-time event; and
- amount of chemical treated on- or off-site.

EPA Implementation

The first EPA compilation of TM data was issued in 1989 for releases during the calendar year 1987 which were required to be reported by July 1, 1988. The most recent EPA compilation of TRI data became publicly available in May 1997 for 1995 releases by about 22,000 facilities. EPA distributes written and electronic, nationwide and state-

by-state summaries of annual data. 9 Raw data and summaries also are available through an interactive, electronic database, the Toxics Release Inventory

System, accessible through the EPA Internet website and Right-to-Know Net. [10](#) The public may obtain specific information (e.g., about a particular manufacturing facility) by submitting a request to EPA via the U.S. mail or on the Internet at http://www.epa.gov/enviro/html/tris/tris_query.html.

TRI Expansion. In 1991, GAO evaluated EPA's implementation of the TM program as required by EPCRA Section 313(k). [11](#) It reported that although TM had become a valuable source of information for many user groups, it would be more useful to regulators and the public if it were a comprehensive inventory of chemical releases, and its data were verified to ensure reliability. EPA's first seven annual TM reports summarized environmental releases from manufacturing facilities only for the chemicals specified in EPCRA Section 313, with a few exceptions. GAO recommended expanding requirements to include reports from federal facilities and possibly from nonmanufacturing facilities, as well as facilities with fewer than ten employees. It also suggested that EPA consider which toxic chemicals should be added, develop an outreach strategy to publicize data availability, develop an inspection strategy to identify non-reporters, and verify data.

The GAO report echoed many of the conclusions of a report published one month earlier by a group of environmental interest groups. [12](#) It called for TM to be expanded to include information on production and use of toxic chemicals, waste transfers to recycling facilities, federal facilities, peak releases, 500 chemicals regulated under other environmental statutes, and nonmanufacturing facilities.

EPA began in 1992 to evaluate options for expanding TRI reporting requirements, and President Clinton effected the first significant expansion of the reporting universe when he issued Executive Order 12856 on August 3, 1993. It requires federal facilities to submit TRI reports, beginning with the 1994 reporting year.

In April 1994, EPA announced a three-pronged plan to promulgate regulations. EPA would expand: 1) the number of chemicals, 2) categories of facilities, and 3) kinds of information required to be reported. EPA held several public meetings on these proposals during 1994, 1995, and 1996.

The first phase of that plan culminated in a November 30, 1994, rule that added reporting requirements for 286 additional chemicals and brought the total number of TRI chemicals to 647 (*59 Federal Register* 61432-61485).¹³ Covered facilities first reported releases of the added chemicals for reporting year 1995.

Prior to the November 1994 rule, EPA had responded to several petitions by adding approximately 60 chemicals to the original list of 313 toxic chemicals. On May 5, 1997, EPA announced that it proposes to respond to another petition by adding dioxin (2,3,7,8 tetrachlorodibenzo-p-dioxin) and 27 dioxin-like compounds to the TRI (*62 Federal Register* 24887). On June 23, 1997, the public comment period on this proposal was extended until September 5, 1997 (*62 Federal Register* 33791). Other petitions to add chemicals are pending.

EPA initiated the second expansion phase when it proposed a rule June 27, 1996, that requires seven additional industries to submit TRI reports: metal mining (except for iron or uranium-radium-vanadium ores), coal mining (other than extraction), commercial electric utilities that use coal or oil, commercial hazardous waste treatment by facilities regulated under the Resource Conservation and Recovery Act Subtitle C, petroleum bulk terminals and plants, chemical and allied product wholesalers, and solvent recovery services. [14](#) In addition, EPA proposed a new interpretation of the EPCRA phrase "otherwise use" which will require manufacturers to report if they treat, stabilize, or dispose of wastes containing toxic chemicals generated off-site. The revised interpretation will capture data on

emissions from many incinerators which have not previously been reported annually to EPA. The final rule was published May 1, 1997 (62 *Federal Register* 23834).

Phases of TRI Expansion

Phase I Add 286 chemicals

Phase II Add industrial sectors

Phase III Add chemical use data

For the third expansion phase, EPA plans to propose requiring covered TRI facilities to report more information on their use of toxic chemicals. According to an Advance Notice of Proposed Rulemaking (ANPR), EPA plans to consider requiring all potential "materials accounting data" including "amounts of a toxic chemical coming into a facility, amounts transformed into products and wastes, and the resulting amounts leaving the facility site" (61 *Federal Register* 51321, Oct. 1, 1996). Figure I shows the kinds of data that might be collected. The purpose of collecting additional chemical use information is to "provide a more detailed and comprehensive picture to the public about environmental performance [of facilities] and about toxic chemicals in communities," according to EPA. Data of this type that were collected in New Jersey indicated three times greater amounts of chemicals were used than were generated as wastes by industrial facilities reporting in 1994. [15](#) Public comments were solicited on the ANPR and were due December 31, 1996. EPA expects to propose a rule in late 1997. [16](#) A complementary rule was proposed under the Toxic Substances Control Act (TSCA) to bring its chemical inventory up to date by collecting data on end uses of chemicals and exposures. [17](#)

EPA also is considering whether the threshold amounts of chemicals that trigger TM reporting requirements should be reduced for a class of chemicals that are highly toxic at low doses and persist for a long time in the environment or bioaccumulate through the food chain. An Advance Notice of Proposed Rulemaking may be issued in November 1997. [18](#)

TRI Contraction. In response to petitions, EPA also deleted chemicals from the original list of 313 toxic chemicals. Prior to the addition of 286 chemicals in 1994, EPA had removed about 10 chemicals from the original list. Four more chemicals were deleted in 1995, and three in July 1996. Currently, EPA is evaluating each of the original chemicals on the TM list against the statutory listing criteria. This review should be completed by the end of 1997. [19](#) More deletions may result from that effort.

Another significant change in TM requirements that reduced the burden on the regulated community was promulgated at the same time as the November 1994 addition of 286 chemicals. On that date, EPA reduced the number of reports required to be filed by revising the threshold quantities that trigger reporting. [20](#) EPA established a special compliance option for facilities that manufacture, process or otherwise use less than one million pounds of a chemical and whose total annual reportable amount of the chemical does not exceed 500 pounds. They may submit relatively brief certification statements (using EPA Form A) in place of longer toxic chemical report forms (Form R). EPA estimated that approximately 9,900 facilities would be able to submit the shorter forms for 1994. About 3,800 of those facilities would no longer be reporting facilities for any chemical, according to EPA, and as a result, they might have been relieved from other federal and state regulatory requirements that apply only to TM-reporting facilities. [21](#)

EPA also announced in its April 1997 Regulatory Plan and Agenda plans to simplify Form R and otherwise reduce the burden for mandatory pollution prevention reporting for the TRI. [22](#)

References

- 1 Toxic chemicals are substances listed under EPCRA Section 313. As a group, toxic chemicals are not the same as "hazardous substances, hazardous chemicals, or extremely hazardous substances" that are regulated under other sections of EPCRA.
- 2 EPCRA §313(h).
- 3 For a summary of these provisions, see CRS Report 9749, *Summaries of Environmental Laws Administered by the Environmental Protection Agency*.
- 4 The new North American Industrial Classification System (NAICS), which applies to Canada, the United States, and Mexico, replaces SIC. See 61 *Federal Register*, Part II, 57005-57183, Nov. 5, 1996.
- 5 52 *Federal Register* 21152, June 4, 1987.
- 6 The threshold for manufacturers or processors of toxic chemicals was set at 75,000 pounds for data required to be submitted prior to July 1, 1988, 50,000 pounds for data required on or before July 1, 1989, and 25,000 pounds for data submitted in each subsequent reporting period.
- 7 EPCRA Section 313(1).
- 8 National Academy of Sciences. *Tracking Toxic Substances at Industrial Facility* Washington, DC: National Academy Press. 1990. 198 p.
- 9 U.S. Environmental Protection Agency. *Toxics Release Inventory: Community Right to Know*. <http://www.epa.gov/opptintr/tri/access.htm>.
- 10 OMB Watch. *Right-to-know Net*. <http://rtk.net>.
- 11 U.S. General Accounting Office. *Toxic Chemicals: EPA's Toxic Release Inventory Is Useful But it Can Be Improved*. GAO/RCED-91-121. U.S. General Accounting Office, Gaithersburg, MD. June 1991 89 p.
- 12 Sheiman, Deborah A. *The Right to Know More*. Washington, DC: Natural Resources Defense Council. 1991. 113 p.
- 13 Several industrial groups challenged the November 1994 rulemaking and EPA procedures for listing new chemicals. In April 1996, the U.S. District Court for the District of Columbia upheld the EPA expansion (*Chemical Manufacturers Association V Browner*, DC DC, No. 95-1673; *Troy Corp. V Browner*, DC DC, No. 95-980; *National Oilseed Processors Association*, DC DC, No. 95-1673; *NMP Producers Group v. Browner*, DC DC, No. 95-1910, Apr.30, 1996). The decision was appealed to the US. Court of Appeals for the District of Columbia Circuit which August 1, 1987, upheld EPA's procedures but ruled that the listing of two chemicals was "arbitrary and capricious" (*Troy Corp. V Browner*, No. 96-5188, consolidated with Nos. 96-5203, 96-5204).
- 14 61 *Federal Register* 3358-33618.

15 Dorfman, Mark H.. and Marian Wise. *Tracking Toxic Chemicals: The Value of Materials Accounting Data*. NY: INFORM, Inc. 1997. p. 11.

16 64 *Federal Register* 22319, Apr. 25, 1997.

17 64 *Federal Register* 22318, Apr.25, 1997. The TSCA chemical inventory includes information about all chemicals manufactured or processed in the United States in significant quantities. For more information about TSCA and the inventory, see CRS Report 9749 ENR, *Summaries of Environmental Laws Administered by the Environmental Protection Agency*.

18 64 *Federal Register* 22137, April 25, 1997.

19 Doa, Maria. Telephone message left May 20, 1997.

20 59 *Federal Register* 61488-61504, Nov. 30, 1994.

21 The estimated numbers of facilities and reports affected by the rule are those that were covered prior to the date of rulemaking, and therefore, prior to the addition on the same date of reporting requirements for 286 new TM chemicals, as discussed below. EPA estimated that the rule adding chemicals would require submission of an additional 10,548 chemical release reports and 3,488 certifications annually.

22 64 *Federal Register* 22319, April 25, 1997.

