

GAO

Report to the Chairman, Subcommittee
on Oversight and Investigations,
Committee on Commerce, House of
Representatives

June 1997

TOXIC SUBSTANCES

Few States Have Considered Reporting Requirements for Chemical Use Data



Resources, Community, and
Economic Development Division

B-276855

June 6, 1997

The Honorable Joe Barton
Chairman, Subcommittee on Oversight
and Investigations
Committee on Commerce
House of Representatives

Dear Mr. Chairman:

In its October 1996 advance notice of proposed rulemaking, the Environmental Protection Agency (EPA) reported that it was considering requiring industries to report the amounts of toxic chemicals entering a facility, transformed into products and waste, and leaving the facility. This concept has been referred to as “materials accounting” or “chemical use data” (hereafter referred to as chemical use data). This proposed requirement would expand the amount and type of information that industries are currently required to report.

To help assess the need for a federal requirement to report chemical use data, you asked us to identify state actions related to requirements on chemical use data. As agreed with your office, this report (1) identifies which states have had legislative bills or voter referendums from January 1991 through February 1997 that would have required the reporting of chemical use data and describes the disposition of these proposals and (2) discusses the findings of studies on the advantages and disadvantages of requirements to report chemical use data.

Results in Brief

While two states—Massachusetts and New Jersey—require industries to report chemical use data, few other states have introduced legislation that would require such reporting. For the period January 1, 1991, through February 28, 1997, we identified only 12 bills introduced in six different states that would have required industries to report chemical use data. Bills were introduced in California, Colorado, Florida, Hawaii, Maryland, and Michigan but were not enacted. In our survey of the 50 states and the District of Columbia, we found no ballot initiatives or voter referendums that would have required industries to report chemical use data.

We identified several studies and reports that discuss the advantages and disadvantages of implementing requirements to report chemical use data. Interest groups, state agencies, and state-sponsored research institutes in

Massachusetts and New Jersey have written reports and studies discussing the progress of programs that require reporting of chemical use data in those states. These studies have reported positive impacts, such as more efficient use of toxic chemicals by industries. However, they have also reported some problems in administering the programs and obtaining accurate data from industries. In addition, one study, conducted by the Minnesota Office of Waste Management, concluded that the burden on the state's industries outweighed the benefits of requiring the reporting of chemical use data. Several studies by nongovernmental organizations have focused on the advantages of collecting chemical use data, such as assisting pollution prevention efforts, providing information to citizens on the actual amount of toxic chemicals present in their communities, and assisting emergency planning efforts. On the other hand, some nongovernmental studies have concluded that providing such information could jeopardize industrial trade secrets, that the reporting requirements would be costly and time-consuming, and that the information reported may be underutilized. EPA has reported similar advantages and disadvantages of reporting on chemical use data.

Background

On October 1, 1996, EPA published an advance notice of proposed rulemaking in the Federal Register,¹ stating that the agency is considering expanding the Toxics Release Inventory (TRI) database to require the reporting of chemical use data. The expanded database, referred to as "TRI phase III," is intended to provide the public with a more comprehensive picture of industries' environmental performance as well as more complete and accurate information on the toxic chemicals that are present in communities. With more complete information, TRI phase III is intended to (1) increase industries' ability to use toxic chemicals more efficiently and ultimately reduce the amount industries use and (2) enable the public to be more knowledgeable when participating in environmental decision-making. The comment period for EPA's advance notice of proposed rulemaking ended February 28, 1997, and EPA expects to propose a rule on reporting chemical use data in 1998. In May 1997, two bills were introduced in the Congress (H.R. 1636 and S. 769) that would require the reporting of chemical use data.

Industries that produce or use toxic chemicals are already required to report releases of such substances. Specifically, the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) requires planning for chemical emergencies and provides citizens with access to information on

¹61 Fed. Reg. 51322.

the presence and release of toxic chemicals within their communities. The act generally requires facilities at which toxic chemicals are manufactured, processed, or otherwise used to report annually to EPA and the states on the releases of these substances. The requirement applies to facilities with 10 or more full-time employees in specified manufacturing sectors that manufacture, process, or use designated toxic chemicals in excess of certain thresholds. These data are published by EPA in the TRI. In addition, the Pollution Prevention Act of 1990 expanded the information collected in the TRI to include data on source reduction and recycling. The act requires facilities subject to the EPCRA's reporting requirements to provide information on the amount of toxic chemicals they treat and recycle both on- and off-site. In November 1994, EPA further expanded the data included in the TRI by requiring additional chemicals to be reported; and, in June 1996, EPA proposed adding additional industrial groups, such as coal mining and electric utilities, that would be required to report information for inclusion in the TRI. This proposal was made final and announced in the Federal Register on May 1, 1997.

To identify state bills, referendums and ballot initiatives, and their disposition, we conducted a telephone survey of all 50 states and the District of Columbia, contacted knowledgeable officials at EPA, and conducted searches of legislative databases. To identify studies on the advantages and disadvantages of requirements to report chemical use data, we contacted EPA headquarters officials, EPA's regional TRI representatives, and each of the state TRI representatives. We also contacted industry groups, public interest groups, and national organizations.

Few States Have Considered Proposals Requiring the Reporting of Chemical Use Data

Few states have had proposals that would require the reporting of data on chemical use. We identified only 12 bills introduced from January 1, 1991, through February 28, 1997, in six different state legislatures that would have required industries to report information on chemical use. As of April 15, 1997, none of these bills had been enacted with a requirement to report chemical use data. In our survey of the 50 states and the District of Columbia, we found no ballot initiatives or voter referendums that would have imposed such a requirement. Two states—Massachusetts and New Jersey—enacted legislation prior to 1991 that requires the reporting of such information.

During the period covered by our analysis, bills that would have required industries to gather and publicly disseminate information on chemical use

were introduced in California, Colorado, Florida, Hawaii, Maryland, and Michigan. Michigan accounted for 4 of the 12 bills, Florida for 3, and California for 2. The remaining states had one bill each. The bills generally would have required industries to report periodically on the amount of hazardous or toxic substances, entering, generated at, used at, and leaving their facilities. For example, a bill introduced in one state would have required industries to report, among other things, the quantities of the toxic or hazardous substances at their facilities that are (1) manufactured, processed, or otherwise used; (2) generated as a by-product in certain circumstances; or (3) shipped from the facilities. While the language of the other bills differed somewhat, they were generally consistent with this example.

Seven of the 12 bills were not enacted after initial referral to a committee or committees. Of the other five bills, one was withdrawn from consideration before being referred to a committee; action on another was postponed indefinitely; one failed in the legislative house in which it was introduced; action was taken in committee on one, but ultimately it did not pass; and one was enacted but without the requirement to report chemical use.

Finally, none of the officials we contacted in the 50 states and the District Columbia were aware of ballot initiatives or voter referendums that would have required the reporting of chemical use information. Although one state official told us that her state had considered such an initiative, available information indicates that this initiative would have required the labeling of certain products as containing toxic or hazardous substances but would not have required facilities to disclose chemical use information.

Prior to 1991, Massachusetts and New Jersey had established programs requiring reporting of chemical use data. In Massachusetts, the Toxics Use Reduction Act of 1989 requires users of toxic chemicals (above certain thresholds) to report annually, among other things, the quantities of each toxic substance manufactured, processed, or otherwise used. New Jersey has been collecting chemical use information from industries, such as manufacturing and utilities, since 1987 under the Worker and Community Right-to-Know Act of 1984, as amended. The law requires businesses to submit an environmental survey to the state each year. The environmental survey contains, among other things, data on the quantities of hazardous substances produced, brought into, consumed, shipped out, and emitted from a facility.

Studies Reveal Both Advantages and Disadvantages to Reporting Chemical Use Data

We identified several studies and reports concerning the advantages and disadvantages of reporting chemical use data. These included about 10 studies and reports regarding the progress of programs in Massachusetts and New Jersey. We also identified one study by Minnesota and approximately 10 studies and issue papers by nongovernmental entities that reviewed the advantages and/or disadvantages of reporting chemical use data. (See the bibliography for the studies we reviewed.) Studies on the Massachusetts and New Jersey programs generally reported that there have been benefits from the reporting requirements but that there have also been some problems in implementing and managing the state programs. The Minnesota study concluded that the disadvantages of implementing a statewide requirement to report chemical use data would outweigh the benefits. Some studies by nongovernmental entities reported the advantages of such a reporting requirement, including the need for this information to assess industries' pollution prevention efforts. Other studies reported disadvantages, such as the possibility that the disclosure of such information could reveal industrial trade secrets and that the reporting would be burdensome to industries. EPA's issue papers and its advanced notice of proposed rulemaking also discussed these advantages and disadvantages.

Studies on the Progress of Programs in Massachusetts and New Jersey to Report Chemical Use Data

The studies conducted or sponsored by Massachusetts and New Jersey on their programs reported that the requirements to report chemical use data have mainly produced benefits. The studies found that industries in those two states more efficiently used toxic chemicals. For example, one Massachusetts study reported that, although the actual amounts of chemicals used and chemical by-products have increased from 1990 through 1994, when adjusted for increases in production, there was a downward trend. New Jersey's Department of Environmental Protection also found a trend toward more efficient chemical use by industries that use toxic chemicals, such as chemical, paper, and pharmaceutical companies. It reported an overall decline in chemical by-products since 1990—chemical by-products are the hazardous substances associated with the production process that are not part of the final product. The study also pointed out that other factors could explain the improvements. For example, the overall emphasis on pollution prevention in New Jersey since the late 1980s and the state's history of strict environmental laws and vigorous enforcement were cited as possible factors for the reduction in chemical by-products. In addition, the state studies reported other benefits to reporting chemical use data, such as helping the states track the progress of pollution prevention by their industries.

The studies also described some difficulties in carrying out requirements to report chemical use. Studies on both the Massachusetts and New Jersey state programs found inconsistencies and inaccuracies in the data reported by industries, particularly in the beginning of the programs. For example, reporting requirements were misunderstood, and clerical and mathematical errors occurred in the reporting. In addition, for some industries, reporting an exact value for the amounts of chemicals is not feasible. For example, according to a report by the New Jersey Department of Environmental Protection, the petroleum-refining industry must report chemicals in crude oil as a range of numbers because the amounts of chemicals vary within the raw material. Reports on the program in Massachusetts indicated some problems in making the data accessible to the public at the onset of the program in 1990. However, according to a 1996 report, placing Massachusetts' chemical use data on the Internet provided greater public access.

Minnesota Study on the Pros and Cons of Reporting Chemical Use Data

One study completed by the Minnesota Office of Waste Management concluded that a statewide requirement to report chemical use data would place an additional burden on industries and that the data already being reported by industries had not been fully utilized. Although the study considered the potential benefits of reporting chemical use data, it pointed out that the burden of additional reporting may interfere with industries' progress under that state's pollution prevention program because the requirement could take time and resources away from pollution prevention efforts. The study concluded that the goals of reporting chemical use data would be better addressed through other means, such as programs to assist industries in reducing the amounts of chemicals they use and in preventing chemical spills. The study also stated that the information that industries are currently required to report under state laws and the Pollution Prevention Act of 1990 is not fully utilized and recommended using resources to improve public access and to make better use of the data that are currently being collected.

Advantages and Disadvantages of a Nationwide Requirement to Report Chemical Use Data Cited by Nongovernmental Studies

Some studies conducted by nongovernmental entities reported advantages to requiring the reporting of chemical use data, including the benefits of more complete information than the information that is already reported under TRI requirements. The main advantage to reporting these data, as cited in the studies, was their utility for accurately assessing industries' pollution prevention efforts. According to proponents of this requirement, the data are needed to assess whether industries are actually using toxic

chemicals more efficiently or changing their procedures so that it appears that they are more efficient. For example, the studies point out that facilities could reduce the amount of releases of toxic chemicals they report by changing their accounting practices or reducing production. According to a study that analyzed industrial production data in New Jersey's program, pollution prevention activities could not be confirmed by toxic release information alone, and chemical use data were needed to verify that pollution prevention had occurred. In addition, the studies discussed the value of chemical use data for informing the public, worker safety, and emergency preparedness planning, as well as helping facilities more efficiently manage their operations by reducing the amounts of chemicals used.

The disadvantages of a nationwide requirement to report chemical use data, as cited in the studies, included potential adverse impacts on industries that would be required to report this information. The main negative impact reported in these studies was the disclosure of confidential business information and the potential loss of industries' competitive advantage against their competitors in the United States and abroad. The studies pointed out that the chemical use data, along with other information on a facility, could provide competitors with an opportunity to obtain the trade secrets of that facility. One study indicated that international competitiveness may be of particular concern because the confidentiality of business information is more strictly maintained in Japan and Europe. Other disadvantages cited in these studies were the time and resources required to calculate and prepare chemical use reports. Industry groups have also questioned the utility of providing chemical use data because of their belief that current TRI data are not fully utilized.

Agency Comments

We provided copies of a draft of this report to EPA for review and comment. EPA generally agreed with the facts presented in the draft report. The Director of the Environmental Assistance Division, within the Office of the Assistant Administrator for Prevention, Pesticides, and Toxic Substances, however, provided a few technical revisions that we have incorporated into the report as appropriate.

Objectives, Scope, and Methodology

Our objectives were to (1) identify which states have had bills or voter referendum from January 1991 through February 1997 that would have required the reporting of chemical use data and the disposition of these proposals and (2) discuss the findings of studies on the advantages and

disadvantages of requirements to report chemical use data. We chose January 1, 1991, as a starting point because that date was the beginning of the first full legislative session for the states after enactment of the Pollution Prevention Act of 1990 and because of concerns about the reliability of information on state bills prior to that date.

To obtain a comprehensive list of state bills, referendums, and ballot initiatives from January 1, 1991, through February 28, 1997, along with their disposition, we conducted a telephone survey of all 50 states and the District of Columbia, contacted knowledgeable officials at EPA, and conducted database searches. In our telephone survey, we interviewed the designated TRI contact person for each state and the District of Columbia and contacted other knowledgeable state officials that were recommended by these contact persons. We interviewed EPA headquarters officials involved with TRI and each of EPA's 10 regional TRI coordinators. We conducted searches on the LEXIS and Westlaw legal databases to corroborate the information we obtained from federal and state officials as well as to obtain additional information regarding the existence, status, and final disposition of relevant bills. We also conducted searches on the Internet to identify studies on the advantages and disadvantages of reporting chemical use data. During our work, state officials told us of several bills that, upon further review, would not have required facilities to report information on chemical use. In other cases, we were provided information about proposed legislation but we could not locate a copy of the bill. We included only those bills that we could confirm included requirements to report chemical use data by reviewing the actual text of each bill. In addition, we reviewed EPA's docket on its advance notice of proposed rulemaking after the comment period ended on February 28, 1997.

To identify studies on the advantages and disadvantages of requirements to report chemical use data, we contacted EPA headquarters officials, EPA's 10 regional TRI representatives, and each of the states' and the District of Columbia's TRI representatives. In addition to the above-mentioned contacts and searches for studies, we contacted industry groups, public interest groups, and national organizations (see app. I). Our work was performed in accordance with generally accepted government auditing standards from January through April 1997.

As arranged with your office, unless you publicly announce the contents of this report earlier, we will make no further distribution until 10 days after the date of this letter. At that time, we will send copies of this report to

other appropriate congressional committees; the Administrator, EPA; the Director, Office of Management and Budget; and other interested parties. We will also make copies available to others upon request.

If you need further information, please call me at (202) 512-4907. Major contributors to this report are listed in appendix II.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'P. F. Guerrero', with a stylized, elongated flourish extending to the right.

Peter F. Guerrero
Director, Environmental
Protection Issues

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Abbreviations

EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
TRI	Toxics Release Inventory

Organizations Contacted

American Petroleum Institute
Chemical Manufacturers Association
Chemical Specialties Manufacturers Association
The Chemical Use Reporting Task Force (organized through the U.S.
Chamber of Commerce)
Electronic Industries Association
National Conference of State Legislatures
National Governors' Association
The National Pollution Prevention Roundtable
Working Group on Community Right-to-Know

Major Contributors to This Report

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Selected Bibliography

This bibliography provides the federal government and federally sponsored studies, state government and state-sponsored studies, and nongovernmental studies that we reviewed.

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