Emergency Planning and Community Right to Know

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The Emergency Planning and Community Right to Know Act of 1986: Analysis and Update

Steven J. Christiansen*
Stephen H. Urquhart**

I. INTRODUCTION

The Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)¹ is Congress’ reaction to the Bhopal tragedy in which over 2,000 people were killed by a release of methyl isocyanate from a pesticide plant. For years before Bhopal, Congress and EPA had struggled over proposals to expand section 112 of the Clean Air Act (CAA) with regard to air toxics. Bhopal became the catalyst for a flurry of events.

One month after Bhopal, Representative Waxman (D.-CA.), Chairman of the House Subcommittee on Health and Environment, instituted a “poison gas” survey of major chemical companies. Four months later, Waxman and others introduced the “Toxic Release Control Act,” a beefed-up, “Bhopal” version of earlier CAA section 112 bills. The Act would have required strict emission standards and used an expanded list of 85 toxic chemicals. The Act included EPCRA-type provisions. At about the same time, EPA developed its own air toxics strategy focusing on fifteen pollutants and pollutant groups. Six months

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after Bhopal, political compromise led to Senate and House bills that would become EPCRA. These bills were introduced as part of the Superfund Amendments and Reauthorization Act (SARA). Sixteen months later, on October 17, 1986, SARA (including EPCRA as Title III) was enacted.

Although EPCRA was enacted October 17, 1986 as Title III of SARA, it is a free-standing law. The two main objectives of EPCRA are (1) to provide the public access to information concerning hazardous chemicals in the community and (2) to use this information to formulate and administer local emergency response plans in case of a hazardous chemical release. EPCRA is to achieve these goals by two main mechanisms: (1) it requires the establishment of state and local emergency planning bodies and the development of local emergency plans, and (2) it requires a large number of facilities to report detailed information on the presence and health effects of specified chemicals and on releases thereof. EPCRA addresses response rather than prevention. However, EPCRA is viewed by many as an intermediate step to acquire data to build public concern and political consensus for future air toxics legislation. The remainder of this paper is a review of the major provisions of EPCRA, EPA’s regulatory implementation thereof, analysis of data generated by EPCRA, and a survey of judicial decisions concerning the Act.

II. BASIC PROVISIONS

A. Emergency Planning

A State Emergency Response Commission (SERC) must be appointed by the Governor of each state. The SERC appoints and coordinates activities of Local Emergency Planning Committees (LEPC) and processes requests from the public for EPCRA information. The composition of a LEPC is set forth in the statute and includes representatives of various groups.

2. EPCRA § 321, 42 U.S.C. § 11041, specifies Congress’ intent that EPCRA not preempt state or local law.

3. EPCRA §§ 301-03; 42 U.S.C. §§ 11001-03.

4. EPCRA § 301(a); 42 U.S.C. § 11001(a). The deadline for SERC appointment was April 17, 1987.

5. Id. The deadline for LEPC appointment was August 17, 1987. Currently, more than 3,500 LEPCs have already been formed. EPA, TOXICS IN THE COMMUNITY, NATIONAL AND LOCAL PERSPECTIVES 315 (1991).

6. EPCRA § 301(c); 42 U.S.C. § 11001(c).
needed for emergency planning, including representatives of covered facilities. The main responsibility of the LEPC is to have prepared, by October 17, 1988, a local emergency response plan under section 303.

Covered “facilities” must notify the SERC that they are subject to EPCRA’s emergency planning provisions.7 A covered “facility” is (a) all buildings, equipment, structures, and other stationary items on a site (or contiguous sites) owned or operated by the same person8 at which there is present an “extremely hazardous substance” (EHS) in excess of the “threshold planning quantity” (TPQ).9 For purposes of determining TPQs, mixtures containing less than 1% (or 0.1% in the case of carcinogens) of an EHS need not be counted.10

Owners or operators of covered facilities also must notify the LEPC of their designated facility representative who will participate in the emergency planning process.11 Owners or operators of covered facilities are required to notify the LEPC of relevant changes at the facility and upon request they must provide necessary information for developing the local emergency plan.

7. EPCRA § 302(c); 42 U.S.C. § 11002(c). The deadline for notification was May 17, 1987.
8. EPCRA § 329(4); 42 U.S.C. § 11049(4). See also, 55 Fed. Reg. 30,632 (July 26, 1990) (final rule amending the definition of “facility” to include subsurface operations). Apparently, federal government facilities (with the exception of government corporations) are exempt from compliance with EPCRA. See definitions of “facility” and “person” in EPCRA § 329, U.S.C. § 11049.
9. EPCRA § 302(b); 42 U.S.C. § 11002(b). EPA’s list of EHSs and corresponding TPQs is codified at 40 C.F.R. 355, Appendix A. At present, 360 designated EHSs are listed. See also, 54 Fed. Reg. 35,988 (August 30, 1989) (proposal to adjust reportable quantities); 55 Fed. Reg. 5,544 (February 15, 1990) (final rule removing six substances from the list, changing the TPQ for one substance on the list, and modifying the rationale for listing another substance); 55 Fed. Reg. 31,594 (August 3, 1990) (final rule adding seven ozone-depleting chemicals to the list); and 55 Fed. Reg. 35012 (August 27, 1990) (advance notice of proposed rulemaking announcing EPA’s consideration of a proposal to specify criteria to be used to add chemicals to the list, specifically focusing on certain physical properties of chemicals related to hazards such as flammability and explosivity).
11. EPCRA § 303(d); 42 U.S.C. § 11003(d).
B. Emergency Release Notification

1. Notification Requirements

Facilities must immediately notify the LEPC and the SERC of any releases of a "reportable quantity" (RQ) of an EPCRA EHS or a CERCLA "hazardous substance" (HS). The initial report is by telephone, but a follow-up written report with additional information is also required.

EPA has proposed to designate all EHS's as CERCLA HS's. The purpose of the proposed rule is to eliminate confusion caused by different notification requirements for releases of EHSs (notification to state and local officials only) and CERCLA HSs (notification to the National Response Center in addition to notification to state and local officials). When this proposed rule is finalized, it will require SARA Title III release reporting to the National Response Center in addition to the current reporting requirement to state and local officials.

For determining RQs of mixtures under section 304, EPA is using the CWA/CERCLA "mixture rule," i.e., "whether or not the RQ is exceeded depends on the amount of the [hazardous or extremely hazardous] substance in the mixture, if known." EPA has also adopted from CERCLA the interpretation that RQ determinations do not require aggregation of releases from separate facilities or releases of different hazardous substances at the same facility. The Agency is also using the CERCLA 24-hour rule for determining RQs under EPCRA.

EPA published a proposed rule adjusting the RQs of EHSs proposed to be designated as CERCLA HSs in an effort to reduce the reporting and response burdens on the regulated

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13. The current list of EHSs is codified at 40 C.F.R. 355, Appendix A. A complete list of CERCLA HS's can be found at 54 Fed. Reg. 33,418 (August 14, 1989) and is codified at 40 C.F.R. 302.4. Both lists specify the applicable RQs.
14. EPCRA § 304(b); 42 U.S.C. § 11004(b).
15. EPCRA § 304(c); 42 U.S.C. § 11004(c).
17. The NRC telephone number to effect release reporting is (800) 424-8802.
community and on federal, state, and local governments, respectively. As of the date of this writing, this proposed rule has not been finalized.

More “Facilities” are covered under the release reporting requirements of section 304 than under the planning provisions of sections 301-303 outlined above. Facilities must notify of releases under section 304 even if a section 302(b) “threshold planning quantity” of a substance is not present. Furthermore, section 304 is the only section of EPCRA that applies to “transportation facilities.” More “Facilities” are covered under the release reporting requirements of section 304 than under the planning provisions of sections 301-303 outlined above. Facilities must notify of releases under section 304 even if a section 302(b) “threshold planning quantity” of a substance is not present. Furthermore, section 304 is the only section of EPCRA that applies to “transportation facilities.” The definition of “facilities” under section 304 is limited to facilities that produce, use or store “hazardous chemicals”; this does not appear to exempt many facilities except for certain laboratory and medical facilities.

2. Exemptions

Certain releases are exempt from reporting under section 304. These exempt releases are as follows:

(a) any release which results in exposure to persons solely within the boundaries of the facility;

(b) “federally permitted releases” under CERCLA section 101(10);

(c) “continuous” releases under CERCLA section 103(f) except for “statistically significant increases,”

(d) the application of a registered pesticide in accordance with its purpose under CERCLA section 103(e);

(e) any releases not meeting the definition of release under CERCLA section 101(22) and, therefore, exempt from CERCLA section 103(a) reporting, e.g., emissions from engine exhaust, certain nuclear material releases, the normal application of fertilizer, and

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22. See EPCRA § 304(d); 42 U.S.C. § 11004(d).
24. EPCRA § 304(a)(4); 42 U.S.C. § 11004(a)(4); 40 C.F.R. § 355.40(a)(2) (1989) (all subsequent references to 40 C.F.R. are to the 1989 set). There is no such exemption under CERCLA.
25. EPCRA § 304(a); 42 U.S.C. § 11004(a). See CERCLA § 103(a); 42 U.S.C. § 9603(a); 40 C.F.R. § 355.40(a)(2).
27. CERCLA § 103(e); 42 U.S.C. § 9603(e); 40 C.F.R. § 355.40(a)(2).
29. CERCLA § 101(22); 42 U.S.C. § 9601(22).
(f) radionuclide releases occurring (1) naturally in soil from land holdings (i.e., parks, golf courses, or other large tracts of land); (2) naturally from the disturbance of land for purposes other than mining, such as for agricultural or construction activities; (3) from the dumping of coal and coal ash at utility and industrial facilities with coal-fired boilers; and (4) from coal and coal ash piles at utility and industrial facilities with coal-fired boilers.30

EPA startled the regulated community when it published its final rule adjusting reportable quantities for radionuclides. In the preamble to that rule, EPA significantly broadened the scope of emergency release reporting by interpreting the term “release” to include “any activity that involves placement of a hazardous substance into any unenclosed containment structure wherein the hazardous substance is exposed to the environment.”31 This action was of particular concern to the natural resources industry until the United States Court of Appeals for the District of Columbia Circuit vacated the interpretation in Fertilizer Institute v. EPA,32 as contrary to the express language of CERCLA.33

One type of release that is exempt under CERCLA but not under EPCRA section 304 is a petroleum release which contains an RQ of an EHS as a constituent. The position of EPA is that the petroleum exclusion under CERCLA does not apply to EPCRA.34

3. Contents of Initial Notification

The initial notification must include the following (to the extent known): the chemical name or identity of the substance released; whether the substance is an EHS; the quantity released; the time and duration of the release; the medium into

30. 40 C.F.R. § 355.40(a)(2) (emphasis added). The United States Court of Appeals for the District of Columbia Circuit determined that the administrative exemptions for radionuclides were promulgated without adequate notice and comment. The exemptions were left in place, however, pending a new round of notice and comment. The court was concerned about EPA’s ability to respond adequately to serious safety hazards were the exemptions to be removed. Fertilizer Institute v. EPA, 935 F.2d 1303, 1312 (1991).
32. 935 F.2d at 1306.
33. See infra notes 127-134 and accompanying text for discussion of this issue and the Fertilizer Institute decision.
which the release occurred; health risks and advice for medical care; proper precautions (e.g., evacuation); and the company contact.  

4. Follow-up Notification

The written follow-up report must cover: action taken to respond to the release; any additional information on health risks; and any additional advice on medical attention for exposed individuals.  

5. Reporting Requirements Under CERCLA and EPCRA

It is important to note that the reporting requirements under CERCLA section 103 and EPCRA section 304, although closely related, are separate requirements. Table I explains when and to whom a release of a "reportable quantity" of a CERCLA "hazardous substance" or EPCRA "extremely hazardous substance" is reportable (unless otherwise specifically exempted).

<table>
<thead>
<tr>
<th>Lists in which Substances are Included</th>
<th>NRC Under CERCLA</th>
<th>Local/State Under EPCRA</th>
<th>Does the Petroleum Exclusion Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERCLA</td>
<td>Yes</td>
<td>Yes^b</td>
<td>Yes</td>
</tr>
<tr>
<td>CERCLA &amp; EPCRA</td>
<td>Yes</td>
<td>Yes^b</td>
<td>Yes/No^c</td>
</tr>
<tr>
<td>EPCRA</td>
<td>No^d</td>
<td>Yes^b</td>
<td>No</td>
</tr>
</tbody>
</table>

NOTES:  
^a National Response Center - (800) 424-8802  
^b Yes, unless release results in exposure to persons solely within the boundaries of the facility  
^c Yes, for CERCLA Report, No for EPCRA Report  
^d The proposed rule published at 54 Fed. Reg. 3388 (January 23, 1989) will require reporting to the NRC when finalized.

35. EPCRA § 304(b)(2); 42 U.S.C. § 11004(b)(2).  
36. EPCRA § 304(c); 42 U.S.C. § 11004(c).
C. Community Right-To-Know Reporting\textsuperscript{37}

1. Introduction

The right-to-know provisions of EPCRA will continue to have the greatest short-and long-term impact on regulated facilities. These provisions are the key to Congress' response to Bhopal. They consist of three reporting requirements that generate a deluge of information on hazardous chemicals present in the community. The information covers the types and amounts of such chemicals, as well as the location, disposition, and health effects thereof. Most of this information is readily available to the public.\textsuperscript{38}

2. Material Safety Data Sheets and Inventory Reporting\textsuperscript{39}

\textit{a. Applicability.} Sections 311 and 312 apply to owners or operators of facilities required to prepare and have available Material Safety Data Sheets (MSDSs) for "hazardous chemicals" under the Occupational Safety and Health Act (OSHA).\textsuperscript{40}

When EPCRA was enacted, the MSDS requirement under OSHA only applied to the manufacturing sector, i.e., SIC Codes 20-39. However, the OSHA rules were revised on August 24, 1987 to extend to \textit{all} employers.\textsuperscript{41} The expanded rule became effective on May 23, 1988. This extension affected an additional 4.5 million employers and 59 million workers. The expansion under OSHA automatically expands those facilities subject to sections 311 and 312 of EPCRA from several hundred thousand to several million.

\textit{b. Basic requirements of Section 311.} EPA originally required subject facilities to submit either MSDSs on each hazardous chemical or a list of such chemicals (together with specified information) to the state commission, local committee, and

\textsuperscript{37} EPCRA §§ 311-12; 42 U.S.C. §§ 11021-23.

\textsuperscript{38} Section 324, and other specific provisions throughout EPCRA, make it clear that the wealth of information gathered under the Act is to be made available to the public. After all, community right-to-know is the basic thrust of the Act.

EPCRA is a boon to potential litigants in providing support for a wide variety of cases ranging from toxic torts and personal injuries to product liability and zoning. EPCRA's wealth of information was also a catalyst for future legislation, such as the Clean Air Act Amendments of 1990.

\textsuperscript{39} EPCRA §§ 311-12; 42 U.S.C. §§ 11021-22.

\textsuperscript{40} See 29 C.F.R. § 1910.1200.

\textsuperscript{41} 52 Fed. Reg. 31,852 (August 24, 1987).
local fire department in accordance with the following phased-in schedule: On or before October 17, 1987 (or 3 months after the facility becomes subject to section 311) for hazardous chemicals present in amounts equal to or greater than 10,000 pounds or for extremely hazardous substances present in amounts greater than or equal to 500 pounds or the TPQ, whichever is less; and on or before October 17, 1989 (or 2 years and 3 months after the facility first becomes subject to section 311) for hazardous chemicals present between 10,000 and zero pounds.

However, before the requirement to report hazardous chemicals present between 10,000 and zero pounds took effect, EPA published an Interim Final Rule extending for one more year the reporting threshold in effect for the first two years of reporting (10,000 pounds or more of hazardous chemicals, and the lower of 500 pounds or the TPQ for Extremely Hazardous Substances). EPA studied and evaluated several options for a final reporting threshold in an attempt to strike the best balance between the amount and value of information generated by the public, on the one hand, and the cost to state and local planning bodies and facilities managing and providing the information, on the other. In a final rule published on July 26, 1990 (effective August 27, 1990), EPA established final reporting thresholds for all facilities. Those reporting thresholds are as follows: (a) for EHSs designated under section 302, 500 pounds or the TPQ, whichever is lower; and (b) for all other hazardous chemicals for which facilities are required to have or prepare an MSDS, 10,000 pounds.

c. Basic Requirements of section 312. Subject facilities must submit annual inventory forms (Tier I form) to the SERC, LEPC, and local fire department. The form gives aggregate information on maximum and average amounts of hazardous chemicals present and the general location thereof. A facility may elect to submit a more detailed Tier II form instead.

42. See 40 C.F.R. § 370.20(b)(1). If a list of chemicals is provided rather than the actual MSDSs, the local committee can obtain the MSDSs upon request. Any person can require the committee to obtain and make available the MSDSs. EPCRA § 311(c) 42 U.S.C. § 11021(c).
43. 54 Fed. Reg. 41904 (October 12, 1989).
46. See also final rule published at 55 Fed. Reg. 30,632 (July 26, 1990) for
Facilities submitting forms must also allow on-site inspection by local fire departments. The reporting thresholds and schedule for reporting under section 312 are identical to the reporting thresholds and schedule for reporting under section 311, discussed above.

Under section 312, more detailed Tier II information must be submitted upon request of the SERC, LEPC, or fire department. Upon request of a state or local official, the commission or committee must obtain and make available Tier II information. Upon written request of any person, the commission or committee must obtain and make available Tier II information on chemicals at a facility in excess of 10,000 pounds. Tier II information on chemicals present at a facility in an amount less than 10,000 pounds may be obtained and made available if the person making the request includes a general statement of need. The purpose of this provision is to allow communities to retain the right to request MSDSs and inventory forms for chemicals below the reporting thresholds. The minimum threshold for reporting in response to requests for Tier I or Tier II forms under 40 C.F.R. sections 370.21(d) and 270.25(c) is zero. Any MSDS or Tier II information already in possession of the commission or committee must be made available to any person upon request. However, the location of any chemical shall be withheld upon request of the facility owner or operator.

d. Mixtures. Reporting under sections 311 and 312 for hazardous chemical mixtures can be accomplished either by providing the required information on the mixture itself or on the hazardous components of the mixture.

3. Toxic Chemical Release Report; Section 313

On or before July 1, 1988, and annually thereafter, subject
facilities are required to submit a “toxic chemical” release form (Form R) to EPA and a state-designated official. This form covers all types of releases to all environmental media. This includes air emissions, wastewater discharges, land disposal, transfers to publicly owned treatment works, and transfers to off-site facilities for transport, storage, or disposal. Unlike other EPCRA reporting requirements, section 313 does not have a release threshold for reporting. If a facility handles more than a certain amount of a listed toxic chemical in a year, all releases of that chemical, no matter how small, must be reported. In addition to the Form R reporting requirements, owners or operators of facilities subject to the section 313 reporting requirements are required to provide notification about toxic chemicals to each person to whom a mixture or trade name product is sold containing toxic chemicals.

The Form R requirement only applies to listed “toxic chemicals” and covered facilities. The current list of TRI chemicals contains over 300 individual toxic chemical and 20 categories of chemical compounds. Congress created the TRI list by combining chemical lists created under similar reporting laws in Maryland and New Jersey. A facility is covered if it: (1) has 10 or more full time employees, (2) a Standard Industrial Classification (SIC) Code of 20-39, and (3) manufactures, processes, or otherwise uses a toxic chemical in excess of the following threshold quantities: (a) toxic chemicals used: 10,000 lbs./yr.; (b) toxic chemicals manufactured or processed: (i) July 1, 1988 form: 75,000 lbs./yr., (ii) July 1, 1989 form:

53. See 40 C.F.R. § 372.25(c). However, de minimis and other regulatory exemptions exist. 40 C.F.R. § 372.38. See also infra note 10 and accompanying text.

54. “Toxic Chemicals” are listed at 40 C.F.R. 372 (Subpart D).

55. EPA recently sent notice of public meeting to discuss potential expansion of the section 313 TRI chemical list to include some of 600 additional chemicals. 57 Fed. Reg. 19,126, 19,127 (May 4, 1992).


57. EPCRA § 313(b); 42 U.S.C. § 11023(b).

58. EPCRA § 313(b); 42 U.S.C. § 11023(b). Examples of such facilities are textile or paper mills, chemical plants, and electronics manufacturers. If a facility has mixed functions, it will be covered by § 313 if 50% of the work is classified under SIC codes 20-39. Realizing the potential of significant chemical activity in facilities outside SIC codes 20 through 39, EPA is currently considering adding non-manufacturing SIC codes to EPCRA section 313. 57 Fed. Reg. 19,126, 19,127 (May 4, 1992).
50,000 lbs./yr. and (iii) July 1, 1990 form and thereafter: 25,000 lbs./yr. The EPA has discretion to revise the list of toxic chemicals, the subject facilities, and the threshold amounts.

The annual report should include a substantial amount of information, such as: the main business activity of the facility; whether each toxic chemical is manufactured, processed, or used; categories of use for each chemical; maximum amounts of each toxic chemical present at any time during the year; treatment and disposal methods for each wastestream and the treatment efficiency; and the annual quantity of each toxic chemical entering each environmental medium.

The information generated by these reports must be made available to the public, subject to trade secret limitations. Furthermore, EPA must put the information into a computer data base that is available to the public on a cost reimbursable basis.

III. TRI DATABASE INFORMATION

Facilities meeting EPCRA section 313 criteria must submit Toxic Release Inventory (TRI) data for all releases. This data is publicly available. It, therefore, serves as a benchmark for new regulatory programs, as well as a catalyst for pollution prevention activities. Annual reports and analyses of TRI data are published by many different types of organizations, such as public interest groups, industry, federal, state and local governments. These reports are generally published two years after the data has been reported. This section of the article, there-

59. EPCRA § 313(f); 42 U.S.C. § 11023(f) and 40 C.F.R. § 372.25.
60. EPCRA § 313(f); 42 U.S.C. § 11023(f).
61. EPCRA § 313(b),(d),(f); 42 U.S.C. § 11023(b),(d),(f). Due to delay in obtaining approval of the new Form R, EPA has extended the deadline for submitting 1991 data until September 1, 1992. Letter from Linda J. Fisher, Assistant Administrator, Environmental Protection Agency, open letter (May 19, 1992)(on file with author).
62. EPCRA § 313(g); 42 U.S.C. § 11023(g).
63. EPCRA § 313(h); 42 U.S.C. § 11023(h). Information claimed under EPCRA § 322 must be submitted to EPA along with information substantiating the claim. Failure to provide sufficient substantiating information can result in a penalty. State officials and health professionals may obtain access to trade secret information. General information, including health effects, must be made available to persons requesting it. See 40 C.F.R. 350 (1989) for EPA's regulations on trade secrecy claims.
64. EPCRA § 313(j); 42 U.S.C. § 11023(j).
fore, will analyze TRI data from 1989, the most recent data available in annual reports.

In 1989, 22,569 facilities reported. This was a 7% increase over the previous year. During this period there was a 720.8 million pound decrease in releases and transfers of TRI chemicals. Nonetheless, total releases and transfers still exceeded 5.7 billion pounds. 65

Some possible explanations for the decrease are, inter alia, fewer accidents or spills, changes in production due to temporary or permanent plant shutdown, process changes such as changing from using listed to non-listed chemicals, changes in methods of estimation, corrections of previous reporting error or misunderstanding, reuse or recycling programs, installation of new equipment, improved maintenance, waste reduction/treatment efforts, and shifting industrial activities to a non-manufacturing sector outside SIC codes 20 through 39. 66

On the other hand, certain factors indicate that the actual decrease of TRI releases and transfers could be greater than 720.8 million pounds. Most importantly, the reporting threshold for manufacturing or processing moved from 50,000 to 25,000 pounds between the 1988 and 1989 reporting periods. Therefore, some releases and transfers which were not reported in 1988 might have been reported in 1989 data. Although the environmental effect would remain the same, the threshold change could cause some reported releases and transfers to show up as increases when they actually remained constant or even decreased as long as the decrease was from some amount under the 1988 threshold of 50,000 pounds to some amount above the 1989 threshold of 25,000 pounds. 67 Also, increased production and plant cleanup would counterbalance actual decreases. 68

The EPA report emphasized the impact of a few large facilities. Most reductions came from just a few facilities. 127 facilities were responsible for 59% of the decreases. 69 The 20 facilities with the largest decreases accounted for 555.1 million

66. Id. at 138-39.
67. Id. at 140.
68. Id.
69. Id. at 136.
pounds of the 720.8 million pound decrease. However, most releases also came from relatively few facilities. The top 50 TRI reporting facilities were responsible for more than one-third of all TRI releases and transfers.

The role of individuals is further illustrated by analysis of the activities of parent companies. The ten parent companies with the highest total TRI releases and transfers operated 410 facilities, a mere 2% of all TRI facilities. Yet, these parent companies accounted for more than a quarter of all TRI releases and transfers. Also, many releases are localized in industrial cities. 41% of all TRI releases and transfers came from facilities in just fifty cities. As might be expected, individual facilities accounted for a large portion of TRI releases and transfers in many of the cities.

Individual states played significant roles in TRI releases and transfers. The majority of facilities reporting TRI releases and transfers were located in the East, California, and Texas. California had the largest number of facilities reporting (1,864). Ohio, Illinois, Texas, and Pennsylvania each had more than 1,000 facilities reporting. Texas accounted for 14% of all TRI releases and transfers. Louisiana followed with 12%. The top ten states combined accounted for 56% of total TRI releases and transfers.

Six percent of all TRI releases and transfers were shipped across state lines. Only American Samoa and the U.S. Virgin Islands did not export TRI chemicals. The only states and jurisdictions not importing TRI chemicals were Vermont, Puerto Rico, Hawaii, American Samoa, and the U.S. Virgin Islands. Pennsylvania was the greatest exporter of TRI chemicals, exporting 43.2 million pounds. However, Pennsylvania

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70. Id.
71. Id. at 62.
72. Id.
73. Id. at 90.
74. Id. at 59.
75. Id.
76. Id. at 85. Illustrating the role of individual facilities, 28% of Texas's total came from Brazoria County. Id. at 4.
77. Id. at 41. Jefferson Parish contributed 41% of Louisiana's total TRI releases and transfers. Id. at 4.
78. Id. at 85.
79. Id. at 101.
80. Id.
also imported 23.4 million pounds.\textsuperscript{81} The next highest net exporters were, in order, Texas, Georgia, Florida, and Massachusetts.\textsuperscript{82} Top net importing states were, in order, Louisiana, Alabama, Ohio, New Jersey, and South Carolina.\textsuperscript{83}

The chemical and allied products industry accounted for nearly half of all TRI releases and transfers.\textsuperscript{84} Its 2.7 billion pounds made up 48\% of all releases and transfers. This amount was 3.5 times greater than TRI totals from the second ranked category, the primary metals industry, which reported 756.8 million pounds or 13\% of the TRI total.\textsuperscript{85} Other top industries were, in order, the Multiple SIC codes category, the paper industry, the transportation industry, the fabricated metals industry, the plastics industry, the electrical industry, the petroleum industry, and the machinery industry.\textsuperscript{86}

Merely twenty-five chemicals accounted for 83\% of all releases and transfers.\textsuperscript{87} Ammonium sulfate (solution), an agricultural fertilizer formed as a by-product of other processes, alone accounted for 13\% of the TRI total.\textsuperscript{88} Other leading chemicals were hydrochloric acid, methanol, ammonia, toluene, and sulfuric acid. Each of these chemicals accounted for over 5\% of the TRI total.\textsuperscript{89} The list of the top twenty-five chemicals was virtually unchanged between 1988 and 1989.\textsuperscript{90} Releases and transfers for ten of the top twenty-five chemicals each dropped by more than 24 million pounds.\textsuperscript{91}

TRI chemicals were distributed primarily to air, underground injection wells, off-site transfers, and public sewage systems. Air received 42\% of all TRI releases (2.4 billion

\textsuperscript{81} Id.
\textsuperscript{82} Id.
\textsuperscript{83} Id. at 102.
\textsuperscript{84} Id. at 61.
\textsuperscript{85} Id. To its credit, the chemical industry led in overall decreases in TRI releases and transfers with a reduction of 292.7 million pounds. Id. at 156.
\textsuperscript{86} Id. at 156. Industries following the Chemical industries lead in reductions were the multiple SIC codes industries with a 26\% reduction (152.8 million pounds) and the primary metals industry with a 12\% reduction (102.8 million pounds). Only the lumber industry showed an increase in releases and transfers of more than 1 million pounds. Id.
\textsuperscript{87} Id. at 3.
\textsuperscript{88} Id. at 67.
\textsuperscript{89} Id.
\textsuperscript{90} Id. at 3. Chromium compounds moved from number 26 to 24, while trichloroethylene dropped from 23 out of the top 25 to number 26. Id.
\textsuperscript{91} Id.
Underground injection wells received 21% of the TRI totals (1.2 billion pounds). Off-site transfers accounted for 16% of the total (913.1 million pounds). Public sewage received 10% of all TRI releases and transfers (551.0 million pounds).

One-hundred and twenty-three of the TRI chemicals are considered carcinogenic. Eighty-one of the chemicals were released and transferred in 1989. Carcinogens accounted for 7% of the TRI total. Texas released 10% of all carcinogens, followed by Pennsylvania with 8%. Other leading states were Indiana, Ohio, and Louisiana. The chemical and allied products industry accounted for 33% of the TRI carcinogen total. The primary metals, rubber, and miscellaneous plastic products industries each contributed 10%. Total releases and transfers of carcinogens decreased 14% from 1988 to 1989. This was a greater rate of decrease than the 11% for all TRI chemicals.

The TRI database generates an incredible volume of numbers. In isolation, the numbers do little more than show trends and patterns. Critics argue that “[c]itizens’ groups study the forms for . . . issues sufficiently incendiary to reinvigorate their organizations and swell headlines to sixty-point type.” They warn: “Taking a Form R out of context is like judging a person’s character from his driver’s license. But that’s just what the environmental activists do. They spot arsenic in the inventory and imagine that the reporting company serves it for lunch in the employee cafeteria.” Without specific information on the health and environmental effects of each chem-

92. Id. at 56. All industries except food, chemical, stone/clay/glass, and primary metals, released over half of their total to air. Id. at 112.  
93. Id. at 56. This method of discharge is significant only to the chemical, petroleum, and stone/clay/glass industries. Id. at 113.  
94. Id. at 56. This method of disposal was utilized primarily by the food and the leather industries. Id. at 113.  
95. Id. at 81.  
96. Id.  
97. Id.  
98. Id. at 91-93.  
99. Id. at 110.  
100. Id. at 149. The overall reduction of carcinogens was largely due to decreases in releases and transfers of dichloromethane, asbestos (friable), chromium, and tetrachloroethylene.  
102. Id.
cal, EPCRA would do little to aid communities in emergency planning. Therefore, each chemical's potential toxicity, potential effects, potential nature and degree of toxicity, route of release and exposure, and degradation information, as well as other factors, must be analyzed. 103

EPA acquires and disseminates this information through a number of other federal programs. For example, the Toxic Substances Control Act (TSCA) section 4 testing program, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registration and data call-in program, and the National Toxicological Program (NTP) testing program analyze the effects of TRI chemicals. 104 The Agency for Toxic Substances and Disease Registry (ATSDR) toxicological profile program determines harmful exposure levels and serious health effects for the chemicals. The EPA compiles this information in a two-volume book 105 for state and local officials to use in the event of a TRI release.

As well as being supplemented by information from other federal programs, EPCRA — specifically the TRI database — serves as the catalyst for a number of other environmental regulatory schemes. One major program stemming from TRI data is the pollution prevention initiatives. In the last decade emphasis in environmental regulation has shifted from pollution management to pollution prevention. Now, source reduction is preferred over waste treatment. Nowhere is this more obvious than the Pollution Prevention Act of 1990 (PPA). 106

Beginning with the 1991 reporting year (reports due July 1, 1992), facilities will be required to submit data regarding source reduction, recycling, and treatment activities applied to TRI chemicals. 107 In the past, facilities could opt to provide waste minimization data on a voluntary section of Form R. 108 For the 1989 reporting year, only 11% of all reporting facilities reported waste minimization data. 109 The PPA makes such

103. Id. at 78.
105. The book is entitled Toxic Chemical Release Inventory Risk Screening Guide.
109. Id. at 228.
reporting mandatory. This closes a loophole that existed in TRI reporting for recycling/reuse of chemical wastes. Recycled/reused materials were not reported in the past, since they were considered products rather than wastes.\textsuperscript{110}

In February 1991, EPA responded to the PPA initiatives by announcing the 33/50 program. The 33/50 program calls for industry’s voluntary reduction of seventeen toxic chemicals.\textsuperscript{111} The program requests companies to reduce releases of the seventeen chemicals by 33\% before the end of 1992 and 50\% by the end of 1995.\textsuperscript{112} Reductions are measured against the baseline 1988 TRI data. The 17 chemicals in the 33/50 program comprise 23\% of all TRI releases and transfers and 40\% of all TRI chemicals released to the air.\textsuperscript{113}

EPA feels that the 33/50 program will promote pollution reduction in advance of statutory timetables.\textsuperscript{114} Also, the 33/50 program should inspire innovative responses from industry in meeting regulatory initiatives. To further this end, EPA will provide technical assistance to companies participating in the 33/50 program.\textsuperscript{115} The program’s success will be monitored through TRI data.

The TRI database is used by various groups to create policy, further legislation, and establish regulatory schemes.\textsuperscript{116} EPA claims that TRI has met its intended purpose of enhancing public environmental awareness.\textsuperscript{117} The press and citizen groups use the database to direct public response, and companies respond to the public dissemination of this information by voluntarily reducing TRI releases and transfers.\textsuperscript{118} Government regulators use the database to shape regulations, such as

\begin{itemize}
\item \textsuperscript{110} Id. at 215.
\item \textsuperscript{111} EPA, TOXICS IN THE COMMUNITY, NATIONAL AND LOCAL PERSPECTIVES 251 (1991). EPA initially invited 600 companies to participate but has since contacted over 6,000 companies concerning the 33/50 program. Id. at 255. See id. at 256 for a list of 33/50 chemicals.
\item \textsuperscript{112} Id. at 255.
\item \textsuperscript{113} Id. at 257. This program, therefore, overlaps the initiatives of the CAA.
\item \textsuperscript{114} Id. at 255.
\item \textsuperscript{115} Id.
\item \textsuperscript{116} Id. at 307.
\item \textsuperscript{117} Id.
\item \textsuperscript{118} Id. For example, the Chemical Manufacturers Association (CMA) launched a Responsible Care program in response to EPCRA under which the chemical companies respond to citizens’ questions about toxic chemical use and accident prevention plans. Group Faults Chemical Industry’s Program for Handling Citizen Queries, DAILY REPORT FOR EXECS. (BNA), March 18, 1992, at A-17.
\end{itemize}
the PPA and state equivalents.\footnote{119}

At the federal level TRI is being used in a number of additional ways. TRI data is being used to implement the 1990 amendments to the CAA. EPA uses TRI data to develop a list of Source Categories for emitters of 189 hazardous air pollutants.\footnote{120} TRI data also helps in setting priorities for establishment of technology-based standards by providing information on potential exposure and risks from the major Source Categories.\footnote{121} Also, TRI data is used to cross-check emissions data submitted under the CAA.

TRI data is also used under RCRA and CERCLA. RCRA waste minimization priorities are established using TRI data. Also, RCRA uses TRI data to identify long-term trends and industry practices.\footnote{122} CERCLA relies on TRI data in conducting preliminary site assessments and emission inventories. Further, TRI data is a valuable asset in determining CERCLA liability.\footnote{123}

IV. APPLICABILITY TO THE NATURAL RESOURCES INDUSTRY

A. Subsurface Operations

Section 302 contains notification requirements for EHSs and other hazardous chemicals "present" at a "facility" above certain reporting quantities. Similarly, section 304 requires notification of releases that "occur from a facility." In response to questions concerning the applicability of notification and reporting requirements under sections 302, 304, 311, 312, and

\begin{itemize}
  \item \footnote{119} For examples of state equivalents see generally \textit{id.} at 308-15. Congress seems to be readying for a bigger bite at the apple. A piece of legislation known as the Right-To-Know More Act aims to expand the universe of reporters to include mines, electric utilities, incinerators, and federally owned and operated sites. Also, the Act would broaden the substances covered by Section 313, and it would lower reporting thresholds for offsite transfers. \textit{See Sikorski Bill Would Require More Industry Reports to EPA on Toxics, DAILY REPORT FOR EXECS. (BNA), July 12, 1991, at A-7.}
  \item \footnote{120} Critics of the Right-To-Know More Act argue that expanding TRI reporting would only aid competitors in obtaining confidential information, noting that businesses account for 48% of the requests, while "hired guns" make up the rest. \textit{Group Faults Chemical Industry's Program for Handling Citizen Queries, DAILY REPORT FOR EXECS. (BNA), March 18, 1992, at A-17.}
  \item \footnote{121} \textit{EPA, TOXICS IN THE COMMUNITY, NATIONAL AND LOCAL PERSPECTIVES 318 (1991).}
  \item \footnote{122} \textit{id.}
  \item \footnote{123} \textit{id. at 320.}
\end{itemize}
313 to subsurface operations, EPA has amended the definition of “facility” under those sections to include “all manmade structures as well as all natural structures in which chemicals are purposefully placed or removed through human means such that it functions as a containment structure for human use.”

According to EPA, this definition of “facility” excludes from the notification requirements of section 302 hazardous chemicals occurring naturally in situ that are not being used, but would include: 1) hazardous chemicals being used or removed, and 2) hazardous chemicals placed by human means in a natural structure, such as a salt dome, where it is held for human use.

Under this definition of “facility,” EPA states that a release of an RQ of an EHS or CERCLA hazardous substance from a location where it exists in its natural state would not be reportable under section 304 unless the substance was placed in or removed from a subsurface location by human intervention.

B. EPA’s Interpretation of “Release”

As mentioned earlier in this paper, EPA, in the preamble to its radionuclide final rule under CERCLA, interpreted the term “release” to include “any activity that involves placement of a hazardous substance into any unenclosed containment structure wherein the hazardous substance is exposed to the environment.” EPA defined the term “unenclosed containment structure” to include “any surface impoundment, lagoon, tank, or other holding device that has an open side with the contained materials directly exposed to the ambient environment.” EPA went on to state that “the placement of an RQ of a hazardous substance in an unenclosed structure would constitute a “release” regardless of whether an RQ of the substance actually volatilizes into the air or migrates into surrounding water or soil.” This definition meant that many routine operations performed on a daily basis (and in some

125. 54 Fed. Reg. 12,992, 12,999 (March 29, 1989).
126. 54 Fed. Reg. 12,992, 12,999 (March 29, 1989).
128. Id. at footnote 3.
cases more frequently) by most industries could result in reportable releases under CERCLA section 103 and EPCRA section 304. This definition also forced the National Response Center to commit a large portion of its resources to taking reports and determining whether a response was necessary.

Several trade associations, including the American Mining Congress, the American Iron and Steel Institute, and the American Petroleum Institute, filed petitions in July of 1989 seeking review of the radionuclide final rule in the United States Court of Appeals for the District of Columbia Circuit. In *Fertilizer Institute v. EPA*, the court agreed with the trade associations that EPA's definition of "release" ran afoul of CERCLA's plain meaning. CERCLA defines a release as the movement of a substance from a facility into the environment. EPA equated mere exposure to the environment with movement into the environment. The court held that CERCLA requires an actual release of a hazardous material into the environment before reporting requirements are triggered.

V. ENFORCEMENT TRENDS AND JUDICIAL OPINIONS UNDER EPCRA

The EPA has brought a number of actions against parties under EPCRA section 325, the Act's enforcement section. These actions have focused mainly on violations of section 304 release reporting and the Form R requirements of section 313. In the first four years of EPCRA's existence, EPA filed more than 250 civil complaints with proposed penalties in excess of $9 million. Currently, these numbers are growing rapidly as EPA attempts to have the entire regulated community report under EPCRA. Some of the largest fines

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130. *Id.* at 1310.
131. 935 F.2d 1303.
133. 935 F.2d at 1309-10.
134. *Id.* at 1310.
138. In the fiscal year 1991, EPA region 2 alone filed 38 EPCRA administrative complaints with $1.67 million in proposed penalties. During the same year, the
for EPCRA section 304 violations have been a $112,500 settlement for a release of sulfur compounds,\textsuperscript{139} a $105,800 settlement for a release of forty tons of chlorine gas,\textsuperscript{140} and a proposed penalty of $500,000 against a New Jersey petroleum facility.\textsuperscript{141} EPA is also actively pursuing violators of section 313. The largest settlement to date is for $142,800 with a chemical facility in Massachusetts.\textsuperscript{142} However, EPA has proposed a $391,000 fine against a California corporation for failure to submit TRI reports for three of its facilities.\textsuperscript{143}

In \textit{Riverside Furniture Corp.},\textsuperscript{144} EPA Administrative Law Judge Marvin Jones ordered a furniture company to pay a $75,000 civil fine for failure to file a 1987 Form R. In his decision, Judge Jones concluded that the company did not know, but should have known, that it was subject to the EPCRA requirements. Judge Jones stated, “The success of EPCRA can be attained only through voluntary, strict and comprehensive compliance with the Act and regulations which recognize that achievement of such compliance would be difficult and that a lack of compliance would weaken, if not defeat, the purposes expressed [in the Act].”\textsuperscript{145}

In \textit{Riverside Furniture}, Judge Jones reduced the penalty proposed by the EPA. EPCRA establishes a “gravity-based”
penalty determined by consideration of (1) a “circumstance level” and (2) a “penalty adjustment level.” The “circumstance level” is determined by the seriousness of the violation. The “penalty adjustment level” is determined by the quantity of the chemical involved and the size of the corporate entity. EPA enforcement policy determined the “circumstance level” according to whether a Form R was filed before or after an EPA investigation. If the Form R was filed after the deadline, but before an investigation, it was considered a late filing and given a “circumstance level” of two. If the report was filed after an investigation, however, it was considered a failure to file and given a “circumstance level” of one. Penalties are higher for lower circumstance levels. Judge Jones ruled that these “guidelines are impractical in application and produce a resultant civil penalty incommensurate with the facts presented by the record.”

The inspection-triggered shift of circumstance levels gave the EPA the power to discriminate against certain companies. The power to increase penalties was entirely within the control of the government. They could inspect whatever company they desired, thereby making the inspected companies subject to greater penalties. The regulated community would be unable to determine when this shift would occur. For uniform application of the law, the point when penalties shift must be fixed and consistent throughout the regulated community. Otherwise, the guideline would eventually be applied in a discriminatory manner.

Realizing this possibility of arbitrary enforcement of EPCRA, later courts followed the Riverside Furniture court's lead of rejecting the EPA's guidelines for determining the “circumstance level.” In Pease and Curren, Inc., a $9,000 penalty was levied against a business engaged in the recovery of precious metals for failure to file a Form R. Judge Frazier stated that treating the late report as a failure to file, as the EPA guideline suggested, would “distort the full nature, circumstances, extent, and gravity of the violation and would prevent [him] from properly applying these statutory criteria”

146. Riverside Furniture, at 12.
in determining the circumstance level." Judge Frazier also illuminated the factors that determine the "penalty adjustment level." He took into account the total amount of sales in dollars, the number of employees, and the quantity of chemicals used to determine the proper "penalty adjustment level."

Both the "circumstance level" and the "penalty adjustment level" were discussed in CBI Services, Inc. In CBI Service, defendant failed to file a Form R for six chemicals and was assessed a penalty of $99,000. Judge Greene ruled that CBI Services, Inc. "processed" three of the chemicals in amounts exceeding the reporting threshold of 75,000 lbs. for "processed" chemicals. Defendant argued that it did not meet this threshold since the chemicals were used on only a portion of the steel plating being manufactured. Judge Frazier noted that "processing is an incorporative activity." He held that the weight of the entire steel plating determined whether the RQ was met.

EPCRA also has a citizen suit provision. In Atlantic States Legal Foundation v. Whiting Roll-Up Door Manufacturers, the United States District Court for the Western District of New York, determined that citizens could sue for reporting violations that had already been corrected. In allowing suit for wholly passed violations, the court noted that the purpose of EPCRA would be subverted by barring suit once the forms had been filed. The court noted that EPCRA allows suit for "failure to" comply with the Act's reporting requirements, unlike the Clean Water Act's similar provision for suits against a person "who is alleged to be in violation" of provisions of the Act.

Also, the court distinguished EPCRA's use of the past tense with the Clean Water Act's use of present tense. Finding the clear language of EPCRA to control, the district court in Whiting Roll-up Door Manufacturers allowed a citizen enforce-

148. Id. at 44.
150. Defendant argued that only the quantity of material at the edge of the steel plating where cutting, blasting, and welding occur determines whether a Form R should be filed. Docket No. EPCRA-05—1990 (Feb. 28, 1991).
151. Id.
152. Id.
ment action, under section 326(a), to seek civil penalties for EPCRA reporting violations.

VI. CONCLUSION

EPA is actively enforcing EPCRA in order to meet the Act's goals of establishing emergency response organizations at the local and state levels and requiring facilities to provide the public with information about certain chemicals. Facilities are required to adhere to the Act's emergency release reporting, inventory reporting, and toxic chemical release reporting provisions. Fines for failing to comply with the Act are climbing every year, as are the number of enforcement actions brought by the EPA under EPCRA.

Each year the TRI database expands. TRI information already has played a significant role in guiding public policy and in the formation of federal and state programs and legislation such as the hazardous air pollutant provisions of the Clean Air Act. EPCRA generated data called EPA's and Congress' attention to the importance of individual facilities in releasing toxics into the environment. Congress and the EPA reacted to this situation through such measures as the PPA of 1990 and the 33/50 program. It is a virtual certainty that EPCRA will continue to be used in such a manner in the future. As the most recent EPA report under EPRCA noted, the public's environmental awareness has been enhanced by the Act. Awareness will most likely lead to further expansion of right-to-know legislation.