
Brad Schweiger
SAFETY VS. SECURITY: HOW BROAD BUT SELECTIVE PUBLIC ACCESS TO ENVIRONMENTAL DATA PROPERLY BALANCES COMMUNITIES' SAFETY AND HOMELAND SECURITY

BRAD SCHWEIGER

I. INTRODUCTION

The Supreme Court articulated the principle that “[p]eople in an open society do not demand infallibility from their institutions, but it is difficult for them to accept what they are prohibited from observing.” Freedom of information is a primary freedom guaranteed to the American people. As such, Americans have developed an expectation of access to government information, or a community right-to-know.

Consider now Bhopal, India, where, far away from American soil, at 12:30 in the morning on December 3, 1984, a toxic cloud started to disperse over a makeshift village of 100,000 people surrounding the Union Carbide facility. The toxic cloud spread across Bhopal and turned the city of one million people into a gas chamber. By morning, the toxic cloud had taken 2,000 lives and injured 200,000 others living in the surrounding areas. Authorities estimate that 3,500 people died within

5. Bhopal Gas Tragedy, supra note 3.

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days of this "Chemical Hiroshima."\textsuperscript{7} Evidence indicates an incident similar to the one in Bhopal could occur in the United States.\textsuperscript{8} Congress responded to the public's growing concern regarding the safety of chemical facilities and enacted The Emergency Planning and Community Right to Know Act ("EPCRA") in 1986.\textsuperscript{9}

Extending the right to know into the area of environmental law,\textsuperscript{10} EPCRA's provisions created the Toxic Release Inventory ("TRI").\textsuperscript{11} This program was designed to track and compile facility data regarding releases of hazardous chemicals.\textsuperscript{12} Under the TRI requirements, the Environmental Protection Agency ("EPA") is required to make TRI information electronically available.\textsuperscript{13} Since 1986, the TRI has expanded to encompass a greater number of chemicals and require facilities to report at lower release thresholds. Included in these expansions is the addition of Envirofacts, an on-line and publicly accessible database that combines TRI information with a wide variety of environmental data.\textsuperscript{14}

However, after the September 11, 2001 terrorist attacks, people began to fear that information, electronically available and otherwise, might be used to aid the perpetration of another terrorist act.\textsuperscript{15} People feared the Internet provides society with too much information, including environmental information, quickly and cheaply.\textsuperscript{16} Consequently, the EPA began removing information from its Web site. Today, the Envirofacts database provides only limited public access. Moreover, the EPA also reduced the TRI's facility reporting requirements, despite heavy opposition to this measure.

It is important to keep in mind the words of Thomas Jefferson that, "an informed citizenry is vital to the functioning of a democratic soci-

\textsuperscript{7} ABC News Online, supra note 4.
\textsuperscript{8} Susan Hazen, EPA, Chemicals in the Environment, Public Access Information, The History of TRI (Fall 1997), available at http://www.epa.gov/oppt/cie/archive/issue06j.htm#A.
\textsuperscript{12} 42 U.S.C. § 11023(a) (2006).
\textsuperscript{15} Gidiere & Forrester, supra note 2, at 139.
\textsuperscript{16} See Stephen M. Johnson, Junking The "Junk Science" Law: Reforming The Information Quality Act, 58 Admin. L. Rev. 37, 53 [hereinafter "Junk Science"] (Winter 2006) (stating that the Internet allows a broad range of information available to a large segment of the public).
Otherwise, it is difficult for society to question the government's action when formerly available information is withdrawn. Moreover, a secretive climate fosters fraud, waste, and exploitation. As a result, community, industry, and the government can benefit only through disclosure of information.

The Bush Administration's limitation of public access to TRI data is misguided, because the TRI data is mostly available from nongovernmental sources and has little utility for terrorist plotting. Also, TRI provides an array of vital information with which to hold industry and government accountable. Communities with access to necessary information can protect themselves from present threats to their safety—toxic chemicals. Part II of this comment will describe how and why the TRI was established. A discussion of the subsequent dismantlement of TRI requirements will follow. Part III will analyze the impact of TRI and its subsequent changes, as demanded by the Bush administration following the September 11th terrorist attacks. Solutions will then be presented to address security concerns while preserving TRI's value to our society. Part IV concludes that TRI's value to Americans can be preserved, even though policies regarding access to TRI may change to better serve America's new security environment.

II. BACKGROUND

A. HISTORICAL DEVELOPMENT OF ENVIRONMENTAL REPORTING STATUTES

1. The Truman Era

The Truman administration launched a new era in the ability of Americans' to access government information. In 1946, Congress approved the Administrative Procedure Act ("APA"), which allowed limited access to federal agency records. Under the APA, records were accessible to the information seeker who was "properly and directly concerned,"

17. Gidiere & Forrester, supra note 2, at 139.
except where other legislation required the information's secrecy.\textsuperscript{22} However, the APA did not include enforcement procedures to protect citizens' rights where governmental officials unjustifiably refused access to records.\textsuperscript{23} The lack of an enforcement procedure had a chilling effect on the public's ability to obtain government records.\textsuperscript{24} In addition, despite the public's apparent access to governmental records, agencies were granted broad discretion to label records secret or confidential with a showing of good cause.\textsuperscript{25}

2. The Freedom of Information Act

The road leading to the Freedom of Information Act ("FOIA") was long and arduous.\textsuperscript{26} It took ten years of civil rights groups and newspaper lobbyists pressuring for improved public access to government information to enact FOIA.\textsuperscript{27} By the 1960's, newspapers sought greater access to government information to make investigation of government misconduct easier, without relying primarily on government leaks.\textsuperscript{28} The newspaper lobbyists prevailed, and Congress enacted FOIA on July 4, 1966.\textsuperscript{29}

The FOIA grants to "any person"\textsuperscript{30} the right to a copy of any document requested from a government agency.\textsuperscript{31} However, an agency may still withhold all or part of a document upon a showing of any of nine narrowly construed\textsuperscript{32} exemptions, including national security.\textsuperscript{33} Despite

\begin{itemize}
  \item \textsuperscript{22} Id. at 560-61.
  \item \textsuperscript{23} See id. at 560 (indicating that the Administrative Procedure Act did not provide a mechanism to enforce the discretionary option to keep records confidential "for good cause").
  \item \textsuperscript{24} See id. at 560-61 (explaining that the Administrative Procedure Act lacked could not prevent an unwilling bureaucrat from withholding records).
  \item \textsuperscript{25} Id. at 560-61.
  \item \textsuperscript{26} See id. at 560 (stating that the Freedom of Information Act was eventually adopted, but over stern warnings from the Executive Branch).
  \item \textsuperscript{27} Barkas, supra note 19, at 203.
  \item \textsuperscript{28} See O'Reilly, supra note 21, at 560 (explaining that the newspaper lobby viewed government information as a commodity, therefore by pushing for FOIA the newspaper lobby gained more leverage over that commodity).
  \item \textsuperscript{29} See id. at 560 (acknowledging the drudgery reporters would endure prior to the passage of FOIA in digging through stacks of government papers to find evidence of government misconduct).
  \item \textsuperscript{30} See id. at 561 (indicating that the access granted to "any person" does not take into account location, status, or motivation in requesting information).
  \item \textsuperscript{31} Barkas, supra note 19, at 204.
  \item \textsuperscript{32} Susan Nevelow Mart, Let The People Know The Facts: Can Government Information Removed From The Internet Be Reclaimed?, 98 Law Lib. J. 7, 9 (2006); see also, Dep't of the Air Force v. Rose, 425 U.S. 352, 361 (1979).
  \item \textsuperscript{33} See Barkas, supra note 19, at 204 (providing examples of some exemptions including but not limited to: national security, trade secrets, and an employee's personal records); see also 5 U.S.C. § 552(b) (2006) (listing all nine FOIA exemptions).\end{itemize}
these exemptions, the new FOIA rules forced agencies to release most information.\textsuperscript{34} Aware of governmental agencies' and their employees' reluctance to disclose records under the Administrative Procedure Act, Congress intended the new FOIA provisions to force agencies to disclose requested records.\textsuperscript{35}

Providing greater access to government records, FOIA bolstered support for the right-to-know movement.\textsuperscript{36} Some argue the inception of FOIA bred an entitlement to government information and expectation of government disclosure into the American psyche.\textsuperscript{37} This expectation grew as FOIA developed and expanded.

3. \textit{Later Amendments to the Freedom Of Information Act}

Like the original FOIA, early amendments to the statute met rigorous opposition.\textsuperscript{38} In 1974, President Ford vetoed a FOIA amendment to broaden the definition of an agency; revise the time limit for responding to requests for information; require agencies to index information for easier access; clarify congressional intent by allowing judicial review of challenges to nondisclosure due to a document's classified status; and require annual reports to Congress.\textsuperscript{39} Among President Ford's concerns was that the amendment provided too much judicial review of classified documents.\textsuperscript{40} However, the Ford Administration failed to preserve the status quo when Congress overruled the Ford's veto and passed the FOIA amendment.\textsuperscript{41}

In 1996, Congress further tightened existing FOIA requirements by closing loopholes in the act.\textsuperscript{42} One example was the enactment of the Electronic Freedom of Information Act,\textsuperscript{43} which required every govern-

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\item \textsuperscript{34} Nevelow Mart, \textit{supra} note 32, at 8.
\item \textsuperscript{35} See O'Reilly, \textit{supra} note 21, at 560 (stating that government employees would not turn over information that disclosed their own actions unless Congress forced them).
\item \textsuperscript{36} See Nevelow Mart, \textit{supra} note 32, at 8.
\item \textsuperscript{37} O'Reilly, \textit{supra} note 21 at 560.
\item \textsuperscript{38} See generally, Nevelow Mart, \textit{supra} note 32, at 9.
\item \textsuperscript{39} \textit{Id.} (discussing President Ford's veto of the 1974 FOIA amendment, as counseled by Chief of Staff Donald Rumsfeld and Deputy Chief of Staff Dick Cheney and noting that, Antonin Scalia, the then Assistant Attorney General, interjected that the proposed FOIA amendments would be unconstitutional).
\item \textsuperscript{40} See \textit{id.}
\item \textsuperscript{41} \textit{id.}
\item \textsuperscript{42} See \textit{id.} at 10 (explaining that between 1974 and 1966, a number of FOIA amendments were enacted, but the 1996 Electronic Freedom of Information Act was the next major amendment).
\item \textsuperscript{43} See \textit{id.} (describing two main provisions of the Electronic Freedom of Information Act that require each agency to (1) make copies available for public inspection, any records released to any person or are likely to be requested and (2) make these records available by computer telecommunications or other electronic means).
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mental agency to create "electronic reading rooms" for FOIA requests. In 2002, however, the Homeland Security Act exempted agencies' compliance with FOIA, where the information requested related to voluntarily disclosed information regarding infrastructure or other potential terrorist targets.

4. Emergency Planning and Community Right-to-Know Act

With FOIA's success, the public's entitlement to government information has expanded into a general community right-to-know about the environmental dangers that exist in his or her own community. The community's heightened desire for information set the stage for more recent statutes such as the Emergency Planning and Community Right-to-Know Act of 1986 ("EPCRA").

i. The Genesis of EPCRA

In 1978, following the discovery of California pesticide manufacturing plant employees' increased incidence of reproductive problems, chemical plant workers started demanding better access to chemical information. The national chemical workers' union demanded a right to know the health risks posed by workplace chemicals. However, it took two industrial accidents to initiate a general demand for a right to know environmental information.

The first accident occurred on December 3, 1984, at a Union Carbide facility in Bhopal, India. Recall that a tank containing toxic gas developed a leak and by morning, the toxic gas killed 2,000 and injured 44. See id. at 11 (stating that most agencies failed to meet the statutory deadline for compliance with E-FOIA).

45. See Barkas, supra note 19, at 204 (illustrating that FOIA requests have lead to finding radioactive waste in New Mexico drinking water as well as a specific Congressional findings that "FOIA has led to disclosure of waste, fraud, abuse, and wrongdoing in the Federal Government") (citation omitted).

46. See Jacobson, supra note 9, at 349 (explaining that ERPCA was the first statute to promote an "inherent right to be made aware of environmental hazards which may affect" an individual).

47. See O'Reilly, supra note 21, at 562 (indicating that the chemical exposure was to a chemical used to combat an insect infestation in Central America).

48. See id. at 563 (stating that the head of the union called on local unions demand their right-to-know the risks chemicals at the workplace pose).

49. Durham-Hammer, supra note 6, at 325.

50. Id.

200,000 others living in the surrounding areas. Authorities estimate that 3,500 people died within days of this event. Some activists estimate that 33,000 others have died in the years following. The next accident occurred in August 1985 at the Union Carbide's Institute in West Virginia, where the facility leaked pesticide injuring six workers and hospitalizing 135 local residents. People then realized an incident similar to the one in Bhopal could occur in the United States.

The EPA found that chemicals similar to the one leaked at the Bhopal, India plant were stored and manufactured in the United States. However, manufacturers did not disclose much information about the chemicals. The existing regulations did not provide information needed for emergency plans. Under the regulations, the public would not know about the chemicals until after major accidents occurred. Congress responded to the public's growing concern regarding the safety of chemical facilities by enacting EPCRA in 1986.

ii. Sections of EPCRA

The EPCRA has three subsections. The first subsection describes the "Emergency Planning and Notification" requirements. The second and third subsections create the Toxic Release Inventory ("TRI") requirements. The second subsection requires that facilities use toxic chemical release forms, and the third subsection mandates public access to the toxic chemical release forms. The EPCRA objective most closely related to TRI is to "provide the public with information regarding the

53. Durham-Hammer, supra note 6, at 325.
54. ABC News Online, supra note 4.
55. Id.
56. See Durham-Hammer, supra note 6, at 325; see also Jacobson, supra note 9, at 349; Chronology of the Union Carbide Corporation, http://www.endgame.org/carbide-history.html (last visited Oct. 13, 2006) (showing that there were twenty-eight leaks of MIC at the Institute, West Virginia facility between 1980 and 1984. The Union Carbide subsequently spent five million dollars to improve safety to no avail, for two more leaks occurred in 1990 where MIC leaked injuring seven workers and muriatic acid leaked causing the ordering of 15,000 residents indoors).
57. Susan Hazen, supra note 8.
58. Id.
59. Id.
60. Id.
62. Joseph A. Siegel, supra note 18, at 343
63. See id. at 344 (explaining what is needed to comply with TRI and discussing the importance of the subsection).
64. See 42 U.S.C. § 11023 (2006) (explaining how to comply with the statute and defining the various important terms found throughout the statute).
presence of hazardous chemicals in the community ..." Thus, one might argue TRI creates an indispensable "right to know" about the chemicals in one's environment.67

B. Toxic Release Inventory

1. Evolution of Reporting Requirements

i. Early TRI

The TRI is the first statute requiring the government to make collected data electronically available.68 It requires the EPA to compile information on an electronic database, thereby making the information publicly available online.69 At first, TRI required facilities70 that manufactured, processed, or used more than a specific threshold71 amount of any listed toxic chemical to file a report with the EPA annually.72 The list of toxic chemicals included approximately 300 chemicals and implicated users in 28,000 facilities.73 The annual report required an accounting of the quantity of toxic chemicals "released."74 The public was then able to view this information.75 The first public disclosure of TRI information educated some owners and managers of manufacturing plants who had little understanding of the amount or type of chemicals released from their facilities.76 TRI creates an environmental reporting

67. Johnson, supra note 20, at 135-36.
69. Id; see also Siegel, supra note 18, at 345 (explaining the role of the filing forms that TRI requires).
70. See 42 U.S.C. § 11049 (2006) (defining facility as "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person ... the term includes motor vehicles, rolling stock, and aircraft.")
71. See 42 U.S.C. § 11023(f) (2006) (setting out the threshold requirements as follows: 75,000 pounds of toxic chemical per year on or before July 1, 1988; 50,000 pounds of toxic chemical per year on or before July 1, 1989; 25,000 pounds of toxic chemical per year on or before July 1, 1990; and 10,000 pounds of toxic chemical per year today).
72. Susan E. Dudley, It Is Time To Reevaluate The Toxic Release Inventory, 12 Mo. ENVT. L. & POL'Y REV. 1, 2 (2004) (stating that data used on and movement of chemicals within a facility are also required to file a TRI report); see also Karkkainen, supra note 69, at 287 (discussing the results of the mandatory form-filing that TRI demands).
73. Hazen, supra note 8.
74. Dudley, supra note 72, at 2.
75. Barkas, supra note 19, at 205.
76. Karkkainen, supra note 69, at 287, 297 (explaining that after the first year of TRI reporting in 1988 many manufacturers, undoubtedly surprised by what they found in their TRI filings, implemented plans to reduce TRI releases).
requirement, but not a typical environmental regulation.\textsuperscript{77}

\textit{ii. Pollution Prevention Act}

Shortly after TRI went into effect, the Pollution Prevention Act of 1990 ("PPA") amended its reporting requirements.\textsuperscript{78} One important change under the PPA involved a more inclusive definition of "release" than under the previous TRI regime.\textsuperscript{79} The new definition of "release" included chemicals recycled, treated, or transferred off-site as waste. The new definition also included chemicals routinely or accidentally released into the land, air, or water,\textsuperscript{80} as well as chemicals combusted for energy recovery.\textsuperscript{81}

\textit{iii. The Clinton Administration}

Three years later, in 1993, President William Clinton issued an Executive Order directing all federal agency facilities to comply with the provisions of EPCRA, including TRI.\textsuperscript{82} Further, President Clinton acknowledged the usefulness of community right-to-know laws by encouraging informed environmental decisions and providing a strong incentive for businesses to engage in self-regulation.\textsuperscript{83} While talking about TRI, President Clinton stated, the "Community Right to Know [sic] should be enhanced wherever possible..."\textsuperscript{84}

Further expansion of the TRI occurred when Vice President Al Gore unveiled the Chemical Right-to-Know Initiative on Earth Day in 1998.\textsuperscript{85} This initiative provided greater information regarding the toxicity of chemicals and encouraged self-testing of toxicity.\textsuperscript{86} Vice President Gore also proposed the inclusion of several persistent bioaccumulative toxic ("PBT") chemicals in TRI reporting, as well as lowering the threshold for

\textsuperscript{77} See id. at 289 (explaining the benefits for TRI reporters, including trimming costs and filing much less paperwork since everything is done electronically).


\textsuperscript{79} See Dudley, supra note 72, at 2 (discussing the new changes to the more inclusive definition of "release").

\textsuperscript{80} Id.

\textsuperscript{81} Maria Doa, EPA, Chemicals in the Environment, Public Access Information, Expanding the Public's Right to Know (1997), available at http://www.epa.gov/oppt.cie/archive/issue06j.htm#B.


\textsuperscript{83} 60 Fed. Reg. 41,791 (Aug. 8, 1995).

\textsuperscript{84} Id.

\textsuperscript{85} Dudley, supra note 72, at 3.

\textsuperscript{86} Id.
PBT chemical releases. Vice President Gore’s proposed TRI reporting change went into effect in October 1999.

2. TRI Provisions

TRI requires any owner or operator of a facility having ten or more employees to report listed chemicals annually for those chemicals manufactured, processed, or otherwise used during the calendar year. TRI requires each facility to submit its annual report no later than July 1st. Furthermore, the EPA Administrator ("Administrator") may add or delete chemicals from the list. Guided by generally accepted scientific principles, the sufficiency of the evidence will guide the Administrator's decision. Therefore, there must be evidence that the chemical may cause: (a) "significant adverse acute health effects;" (b) cancer or teratogenic effects; (c) serious or irreversible reproductive, neurological, heritable, or other chronic health effects; or (d) "significant adverse effect on the environment of sufficient seriousness" due to the toxicity, persistence, or bioaccumulate effect. An important feature of TRI is the power of individuals to petition the EPA for the addition or deletion of chemicals from the list.

TRI also includes annual quantitative requirements for reporting listed chemicals. For chemicals used at facilities, the reporting requirement is 10,000 pounds. In addition, for facilities that manufacture or process listed chemicals, the threshold is 25,000 pounds of toxic chemicals per year. Again, the Administrator may change these reporting requirements.

87. See id. (explaining that PBT chemicals are chemicals that exist in the environment for a certain length of time before they degrade).
88. See id. (stating that in 1997, the EPA expanded the industries covered by the EPA, increasing the number of facilities to approximately 6,000); see also Doa, supra note 81; Dwight Peavey, EPA, Chemicals in the Environment, Public Access Information, Using TRI to Measure Progress: A Regional Perspective (1997), available at http://www.epa.gov/oppt.cie/archive/issue06j.htm#E (stating that since the inception of TRI reporting, the EPA has added over 350 chemicals, more than doubling the size of the TRI to include over 650 chemicals and chemical categories, while subtracting only sixteen chemicals).
89. See 42 U.S.C. § 11023(b) (2006) (defining “manufacture” as producing, preparing, importing or compounding a toxic chemical; and “produce” as “preparation of a toxic chemical, after its manufacture, for distribution in commerce . . . ” in the same or different physical state or merely containing the toxic chemical); see also 42 U.S.C. § 11023(c) (2006) (explaining where a list of the covered “toxic chemicals” may be found).
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thresholds.98

Once a facility has met a threshold amount of chemical releases, the facility must file a form for each chemical that meets the threshold.99 The purpose of these forms is to inform any interested person about the toxic chemical released into the environment.100 As with many sections of the TRI, the Administrator may change the reporting frequency for many reasons.101 However, a reporting change may be limited to a specific geographic area.102

Once every covered facility has filed its report, the EPA must maintain a computer database of the TRI information.103 The database must be made "accessible by computer telecommunication and any other means to any person."104 42 U.S.C. Section 11044 reinforces the EPA's posting requirement.105 This statute provides that toxic chemical release forms must be made available to the public.106 In addition, local emergency planning committees must publish notice in local newspapers that the toxic chemical release forms have been completed.107

3. Envirofacts

Following the passage of the EPCRA and its TRI provisions, the EPA, by its own initiative, created a database called Envirofacts.108 Envirofacts provides TRI with information that allows it to improve the quality and utility of environmental information available to the public.109 Originally, Envirofacts was not publicly available, but used only by the EPA to organize a wide variety of environmental databases.110 However, due to the prevalence of the Internet, in 1995 the Clinton Ad-

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99. 42 U.S.C. § 11023(g)(1) (2006) (explaining the required information on an annual form includes: (1) the name, location and principle activity of facility; (2) a signature verifying the accuracy of the report and the use of the chemical; (3) an estimate of the amount of chemical present at the facility, at any time; and (4) the waste treatment or disposal method; and an estimate of efficiency of the treatment, as well as the annual quantity of the chemical entering the land, water, and air).
102. See 42 U.S.C. § 11023(i)(1) (2006) (suggesting the recently proposed reporting change may be directed more to geographic areas which experience the heaviest reporting burden).
104. Id.
106. Id.
108. Reeder, supra note 14, at 161.
110. Reeder, supra note 14, at 161.
administration declared that ensuring public access to environmental information was crucial. The EPA describes the Envirofacts database as a “multi-system data warehouse” that provides “powerful query capability” to utilize TRI data. Indeed, Envirofacts does contain a wide variety of EPA data, including TRI information.

C. TRI UNDER THE BUSH ADMINISTRATION

Following the events of September 11, 2001, the Bush Administration emphasized the importance of homeland security issues and began to reexamine existing statutes related to those issues, including TRI requirements. Since September 11, 2001 and in light of increased homeland security concerns, Congress has considered the relevance and importance of TRI and other environmental disclosure statutes.

Within days of the September 11th attacks, government agencies began removing data from their Web sites fearing terrorists’ misuse of the information. The EPA participated in this removal effort by shutting down the Envirofacts database on September 20, 2001. Five days later, on September 25, 2001, access was restored to Envirofacts. However, the American Chemistry Council wrote the EPA urging it to revisit policies concerning public availability of industrial data. These actions prompted the EPA to again limit access to Envirofacts. Specifically, on April 1, 2002, the EPA limited Envirofacts’ “Direct Connect Access to U.S. EPA employees, U.S. EPA Contractors, the Military, Federal Government, and State Agency employees.” “Direct Connect Access” enables a user access to the entire database and the ability to build the

111. Id. at 171.
113. Reeder, supra note 14, at 163.
115. 9 WIDENER L. SYMP. J. 339 (disclosing that the U.S. Department of Transportation, The Centers for Disease Control and Prevention, and the Nuclear Regulatory Commission all withdrew mapping information as well as other pertinent information that terrorists may find useful. In addition, the Nuclear Regulatory Commission disabled its entire Web site on October 11, 2001).
117. Id.
120. Id.
users own query. One month later, an executive order gave the EPA Administrator authority to classify any information as secret.

Next, the EPA issued a proposed amendment to TRI reporting requirements in October 2004. The proposed rule change would have increased the reporting threshold and changed from annual to biennial reporting. The higher thresholds for reporting would have allowed increased use of TRI short forms, decreasing the detail of reported information. The proposed rule would have allowed a threshold of 5,000 pounds as opposed to the current 500 pounds of toxic release and transfer to be eligible for short form use. In addition, the EPA planned to reduce reporting frequency to biennially in order to save money and reinvest in a data quality program. The EPA proposed this change under the pretext of “burden reduction.”

Following the introduction of the proposed rule changes, there was overwhelming public opposition to the EPA’s burden reduction plan. This action prompted the House to vote to suspend funding for the proposed rule change, and in September 2006, the House voted to strike the proposed reporting frequency.

Some feared that the votes might not stop the EPA from implementing the TRI reporting changes. This was especially apparent, with


124. Id.

125. Id.

126. Id.

127. Id.


respect to reporting frequency, considering that the EPA only needed to notify Congress of a proposed rule change.\textsuperscript{133} Pursuant to TRI, the EPA Administrator had sole discretion in implementing a reporting frequency change.\textsuperscript{134} As a result, Representative Frank Pallone, Jr., Democrat, NJ, introduced the “Toxic Right-to-Know Protection Act” to strike TRI provisions dealing with modifications in reporting frequency.\textsuperscript{135}

Nevertheless, on December 22, 2006, the EPA published the TRI burden reduction rule.\textsuperscript{136} The EPA estimated that the increased threshold for reporting is likely to eliminate effective reporting for approximately sixteen chemicals.\textsuperscript{137} However, an independent estimate calculated the elimination of effective reporting for thirty-nine chemicals.\textsuperscript{138} In response to the new TRI requirements, California passed the California Toxic Release Inventory Act of 2007 (Assembly Bill 833) in order to restore the weakened TRI to its original thresholds.\textsuperscript{139} Additionally, twelve states are suing the U.S. EPA.\textsuperscript{140} The complaint challenges the EPA’s authority and justification under EPCRA to make substantial changes to the TRI and alleges that the EPA failed to follow its own rulemaking procedures.\textsuperscript{141}

\textsuperscript{134} Id.
\textsuperscript{135} See H.R. 6219 (showing that on September 27, 2006 the bill was referred to the House Committee on Energy and Commerce); see also Toxic Right-To-Know Protection Act, H.R. 1055, 110th Cong. (2007); S. 595, 110th Cong. (2007) (indicating that the “Toxic Right-to-Know Protection Act” was introduced to the House and Senate and made it at least to the subcommittee stage of the House and was placed on the Senate Legislative Calendar).
\textsuperscript{136} See generally Toxic Chemical Release Reporting: Community Right to Know, 40 C.F.R. § 372 (displaying the TRI burden reduction final rule as increasing the reporting threshold for most TRI chemicals from 500 lbs. to 5,000 lbs. so long as only a maximum of 2,000 lbs. of the chemical is released directly into the environment. The EPA is also allowing a reduced reporting for persistent bioaccumulative toxins).
\textsuperscript{138} Id.
\textsuperscript{139} See OMB Watch, California Restores TRI Reporting for the State (Oct. 23, 3007), available at http://www.ombwatch.org/article/articleview/4059/1/241?TopicID=1 (stating that California is the only state which has restored the TRI to its previous standards).
\textsuperscript{141} See id. (stating the complaint alleges nineteen total claims which may be categorized into four topics: (1) The change violates EPCRA because EPA did not apply the substantial majority standard on a chemical-by-chemical basis, (2) EPA’s analysis in justifying the rule change was flawed, (3) EPA’s “burden reduction” justification is flawed and not in keeping with original legislative intent, and (4) EPA’s response to comments was inadequate and failed to meet the standards for the rule change process).
III. ANALYSIS

A. TOXIC RELEASE INVENTORY’S NECESSITY

1. Community Awareness and Activism

Environmental disclosure laws like TRI principally benefit individuals and the communities in which they live.\textsuperscript{142} TRI provides critical information that holds industry and government accountable, thereby protecting communities from present threats to their safety.

i. TRI Increases Quantity and Quality of Information for Public Use

TRI has evolved from its original mandate to include a broader array of chemicals and facilities,\textsuperscript{143} prompting some to describe TRI as a “panacea of environmental knowledge” and “a ‘watershed’ in environmental disclosure.”\textsuperscript{144} The TRI and its related databases, such as Envirofacts, work to increase both quantity and quality of information disseminated to the public.\textsuperscript{145} When the public accesses TRI, TRI educates the people about the type and quantity of toxic chemicals in their communities.\textsuperscript{146} As such, electronic databases, such as Envirofacts, enhance TRI data by making the information more useful to the public.\textsuperscript{147} Moreover, the increased usefulness of TRI information maximizes the benefits derived from public commentary.\textsuperscript{148} As the quantity and quality of information increases, public commentary becomes more specific and allows for improved environmental decision-making by the government.\textsuperscript{149} Such developments allow communities to protect themselves from environmental hazards.

ii. TRI Promotes Informed Participation in Community Decision-Making

The disclosure of information promotes individual autonomy because it enhances the ability to participate in democratic decision-mak-

\textsuperscript{142} Junk Science, supra note 16, at 45-45, 51; Johnson, supra note 20, at 134-35.

\textsuperscript{143} Durham-Hammer, supra note 6, at 325.

\textsuperscript{144} Id.

\textsuperscript{145} See Junk Science, supra note 16, at 51 (discussing information quantity and quality as increasing the informed electorate).

\textsuperscript{146} See Echeverria & Kaplan, supra note 120, at 589 (explaining that information disclosure helps educate the public).

\textsuperscript{147} See id. (describing how technology is used to give citizens new or more extensive understanding of public issues).

\textsuperscript{148} See Johnson, supra note 20, at 134 (explaining that as quantity and quality of public comment increases, the government’s decisions become more rational and more likely to reduce environmental risks).

\textsuperscript{149} See id. (describing “cooperative federalism” as bringing “regional and local environmental problems to the attention of regional and local authorities” and getting rid of the need for national response to the problems).
Meaningful participation in the democratic decision-making process requires a well-informed individual.\textsuperscript{151} Thus, the ability to locate, understand, and use toxic chemical release information is vital to a citizen's participation as an equal with the government and industry.\textsuperscript{152}

\textbf{a. Request Lower Toxic Chemicals in Their Community}

TRI is the first law that enables individual citizens to know about the toxic chemicals in their communities and allows each citizen to interact with industry and the government to implement change.\textsuperscript{153} Communities can engage in a variety of activities to persuade polluters to meet community standards.\textsuperscript{154} For example, private organizations compile TRI information and publish reports based on TRI data to notify the public and to pressure industry.\textsuperscript{155} One such group called Environmental Defense developed a "Scorecard" program.\textsuperscript{156} This program allows any citizen to access information on the sources of pollution and subsequent health effects simply by entering in a zip code into the "Scorecard" database.\textsuperscript{157} Another group called OMB Watch runs "RTK Net," which allows the public to search EPA databases for chemical accidents by facility, chemical, or geographic area.\textsuperscript{158} Thus, when TRI information is publicly available, individuals, private organizations, or even the government are able to pressure the worst polluting facilities to reduce toxic chemical releases.\textsuperscript{159} Knowledge is paramount to individuals' ability to protect themselves against dangers that exist in their communities.\textsuperscript{160}

\begin{itemize}
\item \textsuperscript{150} See Junk Science, supra note 16, at 51 (stating that an informed electorate is the hallmark of the democratic process).
\item \textsuperscript{151} Id.
\item \textsuperscript{152} See, Terry Greene, EPA, Chemicals in the Environment, Public Access Information, A Non-Profit Organization’s Perspective on TRI (1997), available at http://www.epa.gov/oppt/cie/archive/issue06j.htm#M.
\item \textsuperscript{153} See, Geraldine Nowak, EPA, Chemicals in the Environment, Public Access Information, TRI/Right to Know Conference (Fall 1997), available at http://www.epa.gov/oppt/cie/archive/issue06j.htm#G.
\item \textsuperscript{154} Karkkainen, supra note 68, at 316.
\item \textsuperscript{155} Echeverria & Kaplan, supra note 120, at 583; see, e.g., http://www.rtk.net (last visited Oct. 20, 2006) (publishing reports of TRI information).
\item \textsuperscript{156} E.g., Scorecard Home, Pollution in Your Community, http://www.scorecard.org (last visited Oct. 20, 2006) (providing facts on pollution in your community).
\item \textsuperscript{157} E.g., http://www.scorecard.org (Oct. 20, 2006), available at (providing an in-depth pollution report on any “county, covering air, water, chemicals, and more” and shows how a county rates compared to other U.S. counties, who are the top polluters in the country, and what are the top chemicals released in the county, among other information).
\item \textsuperscript{158} E.g., http://www.rtk.net (last visited Oct. 20, 2006) (providing links to search the EPA databases).
\item \textsuperscript{159} Peavey, supra note 88.
\item \textsuperscript{160} See Terry Greene, EPA, Chemicals in the Environment, Public Access Information, CA Non-Profit Organization’s Perspective on TRI (Fall 1997), available at http://www.epa.gov/oppt/cie/archive/issue06j.htm#M.
\end{itemize}
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With an enhanced ability to identify possible toxic chemical releases, communities can encourage businesses to reduce the levels of toxic releases.161

b. TRI Allows Citizens to Boycott Heavier Polluters

Under TRI, community groups can boycott or picket a chemical facility, thereby tarnishing the facility's reputation.162 For instance, after community activists discovered that Sheldahal Incorporated was the nation's forty-fifth largest emitter of airborne carcinogens, the activists joined with local textile union members to campaign for emissions reductions.163 The campaign resulted in an agreement for Sheldahal Incorporated to reduce emissions of the carcinogens.164

Negative publicity from TRI data can negatively influence stock prices,165 and community groups could sell the stock of chemical facilities that release an unacceptable amount of toxins, or buy only stock in chemical facilities that meet community standards.166 Increased awareness of environmental issues has increased the importance of environmental performance in investment decisions.167 Socially responsible investment groups, such as Green Century Funds, are committed to promoting environmental responsibility.168 Using TRI data, Vanderbilt University's Owen Graduate School of Management drew a correlation between stock value and environmental performance.169 The study showed that facilities are penalized in the stock market for poor pollu-

161. Echeverria & Kaplan, supra note 120, at 590.
162. Karkkainen, supra note 68, at 316.
164. Id. (explaining that the agreement was for a sixty-four percent reduction of airborne carcinogens over two years and a ninety-percent reduction over three years).
165. Id. at 121-22 (2000) (explaining studies which show that "firms that pollute more suffer greater declines in stock value as TRI information is released," while at the same time "show greater improvements in environmental performance." The average loss to a facility on the day of a poor TRI data release is $4.1 million in stock value.).
166. Johnson, supra note 20, at 135.
168. Id. at 15 (explaining that Green Century Funds screens out companies with poor environmental records using TRI data).
169. Id. (describing reasons for the correlation between stock value and environmental performance, the Investor Responsibility Research Center suggested that "chemical releases are associated with higher risks of negative publicity, more tort actions, and higher costs for pollution control and waste management."
tion prevention programs.\textsuperscript{170} The Calvert Group, for example, used Tyco's TRI data to identify trends that indicated possible mismanagement, which led the group to sell its shares months before the Tyco scandal.\textsuperscript{171} These and other community actions could affect chemical facilities' cost of doing business and create a more even playing field when communities campaign for reduced toxic chemical releases.\textsuperscript{172} Thus, public access to TRI information keeps communities safe from environmental hazards by holding industry accountable.

2. \textit{Industry}

\begin{itemize}
  \item \textit{i. Comparison With Other Facilities and With Past Performance}

TRI allows facilities to continuously improve chemical releases in relation to other facilities and its own past performance.\textsuperscript{173} By comparing toxic releases with a competitor's and its own past performance, each facility can determine a sufficient level of reduction.\textsuperscript{174} Comparison creates greater flexibility for each chemical facility to determine whether to reduce its toxic releases and, if so, by how much.\textsuperscript{175} For instance, Eastman Chemical Company receives TRI updates through its Community Advisory Panel.\textsuperscript{176} The advisory uses TRI data to recommend improvements for waste management.\textsuperscript{177} Boeing also uses TRI to track the company's progress in order to invest and create pollution prevention programs.\textsuperscript{178} These efforts have resulted in an eighty-two percent reduction of reportable emissions since 1991.\textsuperscript{179} One EPA survey estimated that TRI is at least partly responsible for the efforts of seventy percent of reporting facilities in reducing reportable waste.\textsuperscript{180}
\end{itemize}

\begin{footnotes}
\item 170. \textit{Id.}
\item 171. \textit{TRI Success Stories}, http://www.ombwatch.org/tricenter/TRIsuccess.html (last visited Nov. 27, 2006) (explaining that the Calvert Group noticed that Tyco's TRI data was drastically different from the previous years and drew an inference that the company was having difficulty).
\item 172. Karkkainen, \textit{supra} note 68, at 316; Johnson, \textit{supra} note 20, at 135.
\item 173. \textit{Id.} (explaining that continuous monitoring are characteristics of the most successful, innovated and sophisticated firms, and that TRI's approach is consistent with the most cutting edge facility innovation).
\item 174. Johnson, \textit{supra} note 20, at 136-37.
\item 176. Toxic Release Inventory Program Div. EPA, \textit{supra} note 169, at 34.
\item 177. \textit{Id.} (stating that the Eastman Chemical Company's Community Advisory Panel also uses TRI data to find favorable ways to present information to the public).
\item 178. \textit{Id.} at 10, 32.
\item 179. \textit{Id.} at 10.
\item 180. Karkkainen, \textit{supra} note 68, at 288; see Dudley, \textit{supra} note 72, at 4 (stating that TRI is given credit for a fifty-four percent reduction on- and off-site release of toxic chemicals, leading to a 1.72 billion pound reduction in toxic chemical releases); see also Maria Doa, \textit{supra} note 81 (stating that between 1988 and 1994 toxic releases decreased by forty-four percent from 3.54 billion pounds to 1.56 billion pounds); Siegel, \textit{supra} note 18, at 346
\end{footnotes}
disclosure of TRI information allows facilities to voluntarily reduce waste, making communities safer.

**ii. Decrease Compliance Costs and Increased Profits**

The compliance costs of TRI are much lower than traditional environmental regulations. A chemical facility typically spends a mere fifty hours per year to produce each required report. While time spent reporting is consistent with traditional regulation, TRI does not require large direct compliance costs, as do other common environmental regulations such as mandatory emissions reductions. Thus, TRI is a more efficient environmental mechanism.

Greater efficiency has led some facilities to discover ways to reduce chemical releases while at the same time increasing profit. For instance, after attending the 1997 Toxic Release Inventory and Right-to-Know Conference, Marathon Oil installed a system to recover 120,000 barrels of oil and Georgia Gulf Corporation recovered 9,300 gallons of methanol after adjusting a purge line. The recovery of previously disposed or released chemicals yield increased profits, as demonstrated by the Haartz Corporation. The Haartz Corporation saves approximately $200,000 annually by reducing releases of methyl ethyl ketone. In addition, due to TRI and public awareness Florida Power and Light created a recycling center which generates profits of $1.8 million (stating that toxic releases continue to fall despite an overall increase in industrial production).

181. See Junk Science, supra note 16, at 51 (stating that compliance costs are lower under information disclosure laws because the facility maintains the flexibility to determine the most efficient way to make a product and when an environmental controls are economically efficient).

182. Karkkainen, supra note 68, at 292.

183. Id. at 292.

184. See Johnson, supra note 20, at 137 (describing information disclosure laws as “a hallmark of reflexive environmental law.” Businesses can identify “the risks posed by their activities and determine that the public may view those risks as unacceptable when compared to the activities of their competitors.” Consequently, businesses may implement programs voluntarily to reduce risks to communities).

185. See Toxic Release Inventory Program Div. EPA, supra note 169, at 10 (suggesting that TRI allows facility managers to take a closer look at the quantity of chemicals released and take a proactive approach to decrease waste and increase productivity of raw materials).

186. Id. at 9.

187. Id. at 10.

188. See id. (describing methyl ethyl ketone (MKE) as a solvent which causes dizziness, nausea, or unconsciousness when inhaled and indicating that the facility previously used 800,000 pounds of MKE per year).
annually.\textsuperscript{189} When facilities voluntarily reduce the quantity of chemical releases communities become safer.

\textit{i. Promote Accountability to the Public and Environment}

\textit{a. Prevent Waste and Exploitation}

A "secretive climate" fosters fraud, waste, and exploitation.\textsuperscript{190} For some industries, the TRI reporting was the first time company managers and operators realized the quantity of chemicals released from their facilities.\textsuperscript{191} To avoid corporate waste, some companies vowed to reduce their toxic chemical release which, as discussed previously, may increase profits.\textsuperscript{192} Others, faced with squandering of chemicals through releases, establish Environmental Management Systems.\textsuperscript{193} These systems provide proactive environmental protection and may reduce corporate costs.\textsuperscript{194}

One way industries can be more proactive is to improve internal auditing of TRI misreporting and failed reporting.\textsuperscript{195} Additionally, the EPA rewards self-policing by significantly reducing or eliminating potential fines altogether.\textsuperscript{196} For instance, a Pennsylvania company, PolyOne Corp, self-reported that it had failed to submit a 2004 TRI form and the EPA waived its $21,922 fine.\textsuperscript{197} Similarly, another Pennsylvania company realized it had not filed a TRI form for 2000-2002 and for 2004 and avoided a $77,905 penalty.\textsuperscript{198} Finally, Novozymes Biologicals, Inc. self-reported several potential violations, including a failure to submit TRI forms for chemicals in 2001 and 2005.\textsuperscript{199} The EPA rewarded this disclo-

\textsuperscript{189} See \textit{id.} at 32 (noting that the public only became aware of the Florida Power and Light's waste after electric utilities were added to the TRI and that the recycling center recovers and sells a variety of scrap materials to produce its profits).

\textsuperscript{190} Barkas, \textit{supra} note 19, at 214.

\textsuperscript{191} Toxic Release Inventory Program Division, EPA, \textit{How are the Toxics Release Inventory Date Used?} (May 2003), available at http://www.epa.gov/tri/guide_docs/2003_datause paper.pdf.

\textsuperscript{192} \textit{id.} at 10.

\textsuperscript{193} \textit{id.}

\textsuperscript{194} \textit{id.}

\textsuperscript{195} \textit{id.} at 9.

\textsuperscript{196} Press Release, EPA, Companies Come Clean About Environmental Violations (Oct. 2006), available at http://yosemite.epa.gov/ops/admpress.nsf/31f0470aee334e5c852572a000 655938/3902ba81651887908525721200522563!OpenDocument (describing the qualifications for the EPA's audit policy as reporting and taking action to correct violations. The EPA policy excludes criminal acts, violations which pose significant harm to the public or environment, or violations that are economically beneficial. The audit policy can cover most EPA regulatory requirements).

\textsuperscript{197} \textit{id.}

\textsuperscript{198} \textit{id.}

\textsuperscript{199} \textit{id.}
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sure by waiving the penalty. As demonstrated, TRI information allows companies to assess corporate wastes and implement programs to reduce chemical releases, while increasing profits and avoiding EPA penalties. This, in turn, enables communities to be safer by reducing environmental exploitation.

b. Prevents an Industry Monopoly on Information

Without TRI disclosures chemical facilities have a monopoly on information. Traditionally, TRI and Envirofacts provide access to citizens, removing the chemical facilities' monopoly on information. The Working Group on Community Right-to-Know explains that TRI transfers information from previously unavailable facility files and places them in the hands of individual citizens. In this manner, TRI aids citizens in acquiring facility specific information. Informed and educated communities are in a better position to demand lower chemical releases and facility negotiators are less likely to mislead communities and community groups. Since TRI information has regulatory approval, facilities are less likely to dismiss the information as fallacious. Thus, TRI information keeps communities safe by creating a more level public forum to hold facilities accountable.

3. Government

The advantages TRI provides to the government are standardization of information and the ability to compare and track industry data.

200. Id.
201. See Karkkainen, supra note 68, at 316 (indicating that, without TRI, only the most visible pollution would be challenged).
202. Id. at 316-17 (stating that the removal of the industry monopoly on information through TRI is at no direct cost to citizens).
203. See Fung & O'Rourke, supra note 165, at 118 (explaining that the transferring of formerly unavailable facility files to citizens broadens public participation, essentially leveling the playing field with facilities).
204. Karkkainen, supra note 68, at 316-17.
205. See Barkas, supra note 19, at 214 (discussing freedom of information and community right-to-know laws in the context of terrorism and stating that simply hiding potential vulnerabilities is not sufficient to stop a terrorist attack).
206. See Karkkainen, supra note 68, at 317 (indicating that TRI brings pollution to the attention of communities or confirms suspicions that may have otherwise not been validated).
207. Id.
208. Id. at 294.
i. Standardization

a. Efficiency

TRI's Internet databases and reporting in standard units makes processing and storing information less time consuming for the government. TRI and other similar information disclosure programs do not require the government to mandate pollution reduction or eliminate the use of any chemical. Instead, the government is free to regulate a much larger array of chemicals and facilities in a shorter period of time. Since TRI has a low information threshold, the EPA Administrator is able to respond to changing circumstances and new scientific knowledge quickly. Instead of the slow rule making process, which requires notice and comment and recording support for the proposed change, the EPA need only create or update databases. Updating and creating databases takes a fraction of the time, as compared to the normal rule making process. Increased efficiency raises the quality of government decision-making by creating more rational environmental policies. For instance, using TRI data the EPA identified seventeen priority chemicals and initiated the "33/50" program. Thus, increased government efficiency creates laws and policies which keep communities safe.

b. Reduces Costs

Administrative efficiency translates directly into cost reduction by eliminating the EPA's need to find appropriate exposure levels or

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209. See id. at 289 (explaining that storage capacity is practically limitless due to electronic filing and storage and suggesting the expanding role of the EPA in collecting, processing and distributing data); Junk Science, supra note 16, at 52.

210. See Junk Science, supra note 16, at 51-52 (indicating that databases can be updated and created in a fraction of the time compared with creating or amending existing laws).

211. Karkkainen, supra note 68, at 291.

212. Id.


214. See id. (stating that in theory, TRI information can be quickly released and the market can react to reduce pollution years before new standards could have been formed through traditional environmental regulations).

215. Id.

216. See Toxic Release Inventory Program Division., EPA, How Are the Toxic Release Inventory Data Used? (May 2003) 11, available at www.epa.gov/tri/guide_docs/2003_data_usepaper.pdf (describing the goal of the "33/50" program as reducing the priority chemicals by thirty-three percent by 1992 and by fifty percent by 1995, which the program achieved in just one year).

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risks through costly studies.\(^{218}\) The EPA Administrator merely needs to make a determination that at some level a chemical is anticipated to cause cancer or other chronic health effect.\(^{219}\) In addition, the EPA does not need to engage in an expensive program to monitor compliance because non-reporting is visible from the TRI report itself.\(^{220}\) However, constant non-reporters that release a reportable quantity of listed chemicals may go undetected because there is no system to identify them.\(^{221}\) Consequently, EPA's Office of Enforcement and Compliance uses TRI data in conjunction with other resources to identify non-reporters, late reporters, and data quality errors.\(^{222}\)

**ii. Allows Comparison Over the Years & Tracks Changes**

The electronic nature of TRI reporting enables the EPA to apply the data to show year-by-year trends, compare chemical facilities or industrial sectors, and even rank regional performance\(^{223}\) using databases such as *Envirofacts*.\(^{224}\) All governments, from the federal to the local, use TRI data to comprehend the impact on their environment, engage in debate, and influence the law.\(^{225}\) Louisiana, for instance, used TRI data to track progress of emissions from various facilities in order to analyze an emissions reduction program.\(^{226}\) The EPA uses TRI data to cross-check data from other sources and to compare TRI data with facilities owned by the same parent corporation.\(^{227}\) In addition, the EPA's Office

\(^{218}\) See Karkkainen, *supra* note 68, at 291 (showing the EPA budget as $7 billion and TRI costs as $25 million).

\(^{219}\) See id. at 291 (explaining that traditional environmental laws require extensive, costly, and time consuming studies to prove significant or unreasonable risks and to set proper exposure levels).

\(^{220}\) See id. at 294 (explaining that traditional environmental laws require complex measurements and on-site investigations).

\(^{221}\) See id. (explaining that in the early years of TRI nonreporting was frequent because many facilities were unaware of TRI reporting requirements).


\(^{223}\) See Karkkainen, *supra* note 68, at 289 (describing how the EPA compiles, assembles, manipulates, analyzes TRI data and makes the data available for use by large groups of interested parties).

\(^{224}\) See Envirofacts database, *supra* note 111.

\(^{225}\) See Dudley, *supra* note 72, at 4 (explaining that the early success of TRI led Congress to enact the Clean Air Act in 1990 in response to the large, but previously unknown, amounts of hazardous air pollution).


\(^{227}\) See id. at 42 (stating that enforcement personnel use the Facility and Company Tracking System in conjunction with TRI data to compare parent and subsidiary data).
of Solid Waste and Emergency Response analyze long-term trends and industry practices using TRI data.\textsuperscript{228} Thus, TRI is an important tool for the government to hold the industry accountable.

B. RE-EVALUATING LIMITED PUBLIC ACCESS TO TRI INFORMATION

After the Bush Administration curtailed public access to TRI data for security reasons, some questioned whether there was an appropriate balance between the public's ability to understand their environment and protecting people from security threats. While the environment and homeland security are intimately related,\textsuperscript{229} some argue that government has a duty not to improve one at the expense of the other.\textsuperscript{230} Environmental right-to-know laws, like the TRI, are assets for increasing public safety.\textsuperscript{231} Limiting access to TRI information has a greater impact on public safety than simply restricting public access to toxic chemical release information.\textsuperscript{232} According to terrorism expert Timothy Ballard, refusing to talk about a terrorist threat does not diminish that threat; only an informed citizenry can forewarn local authorities.\textsuperscript{233} Therefore, a new approach is necessary to better balance public access to environmental information against national security interests.


A new facility and specific chemical framework for assessing the sensitivity of TRI information needs to be devised. This new framework would account for the legitimate security threat publicly available TRI information poses while keeping in mind that public disclosure reduces the security threat.\textsuperscript{234} Recently, a RAND Corporation study compared the value of public access to geospatial information with its potential for misuse by terrorists.\textsuperscript{235} The report developed a two-pronged approach to balance usefulness, uniqueness, and the costs and benefits of informa-

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{228} Id. at 43.
  \item \textsuperscript{229} Gidiere & Forrester, supra note 2, at 139.
  \item \textsuperscript{230} Barkas, supra note 19, at 234.
  \item \textsuperscript{231} See Johnson, supra note 20, at 128 (stating that information disclosure laws play an increasingly vital role in environmental protection; increased disclosure reduces or eliminates environmental hazards created by chemical facilities).
  \item \textsuperscript{232} See Echeverria & Kaplan, supra note 120, at 616 (comparing the low security risk of the general category of environmental law with the increased concerns with off-site consequences involving "extremely hazardous material").
  \item \textsuperscript{233} See Durham-Hammer, supra note 6, at 351 (explaining that Timothy Ballard is a researcher at the Monterey Institute of International Studies).
  \item \textsuperscript{234} Nevelow Mart, supra note 32, at 18.
\end{itemize}
\end{footnotesize}
tion, thereby carefully restricting public access to only the most sensitive data.\textsuperscript{236} The first prong consists of an evaluation of the attacker's demand for information.\textsuperscript{237} The second prong encompasses the publicly available supply of information, including alternative nonfederal sources.\textsuperscript{238} In addition, the EPA has set out a four-prong (type, specificity, connectivity, and availability of information) test for assessing information sensitivity.\textsuperscript{239} Combining the EPA's "type" prong with the RAND approach is useful for addressing environmental data access and security concerns.

Once merged, the two approaches create a three-prong approach assessing the type, exclusivity, and the utility of TRI information.\textsuperscript{240} The type of information disclosed describes the quantity of a listed chemical, the location of the facility, and the effects the chemical has on human health.\textsuperscript{241} The exclusivity prong assesses the alternative sources of TRI or TRI-like information.\textsuperscript{242} Utility relates to whether would-be attackers need the information in order to carry out their attack.\textsuperscript{243}

\begin{enumerate}
\item \textit{Type of Information Available}

The type analysis attempts to evaluate reportable information on the quantity of toxic chemicals at a given facility, the disclosed location of the chemical facility, and the possible detrimental effect on community health and safety.\textsuperscript{244} The type consideration assesses individual chemical facility trends, as well as general industry trends, to determine the possible security and environmental risks posed.\textsuperscript{245} Chemical facilities that consistently report large quantities of toxic chemicals pose greater national security risks than facilities that consistently report low levels of toxic chemicals.\textsuperscript{246} However, the analysis also considers the individual facility as well as industry trends.\textsuperscript{247} For example, if facility A re-

\textsuperscript{236} \textit{Id.} at xviii-xix.
\textsuperscript{237} \textit{Id.} at xix.
\textsuperscript{238} \textit{Id.} at xix.
\textsuperscript{239} See Jacobson, \textit{supra} note 9, at 373 (listing the four prongs as type, specificity, connectivity, and the availability of information).
\textsuperscript{240} See id. (defining type as "information on a facility's or a pollutant's location, chemical identification, volume, acute effects, and plant processes and management").
\textsuperscript{241} \textit{Id.}
\textsuperscript{242} Baker, \textit{supra} note 237, at xviii-xix.
\textsuperscript{243} Jacobson, \textit{supra} note 9, at 373.
\textsuperscript{244} \textit{Id.}
\textsuperscript{245} \textit{Id.}
\textsuperscript{246} \textit{Id.}
\textsuperscript{247} See id. (listing plat processes and management within the type prong).
\textsuperscript{248} See Baker, \textit{supra} note 237, at xvi-xvii (indicating that facilities should be associated with specific protection levels based on the facility's needs).
\textsuperscript{249} See Jacobson, \textit{supra} note 9, at 373 (suggesting that plant process and management as well as volume may contribute to the sensitivity of information).
ported a comparatively large volume of toxic chemical Z for ten years, then facility A should be considered a greater threat than facility B, who only once posted comparatively large volume of toxic chemical Z.

Next, an assessment of information regarding a facility's location and stock of chemicals' detrimental effect on human health is necessary. Chemical facilities located in rural areas are less of a threat than chemical facilities located in more urban settings. Most chemical facilities are located in densely populated urban environments. Consequently, urban facilities would come under greater scrutiny due to the increased overall danger to the public. However, mitigating circumstances might exist and change the analysis. For example, if a chemical facility used a comparatively low amount of a listed chemical or the chemicals used posed a low health risk, a facility located in a populous area may pose a low risk. Thus, the information regarding the facility would not have to be shielded from public access.

While TRI information empowers communities to reduce the level of toxic releases in their environments and prevent potential disasters, terrorists may also use TRI information to select targets and plan attacks. As described earlier, TRI information is a benefit and a risk to American communities. However, national security concerns are heightened only when a large quantity of toxic chemicals with a potentially significant effect on community safety are stored in a populous area. In all other situations, mitigating factors exist. With this selection process identified, a common theme emerges. A terrorist is most likely to use information that helps in the selection of a target and planning for an attack. Thus, the only real national security threats are chemical facilities located in heavily populated areas that use large amounts of chemicals that have a significant impact on public health and safety. Therefore, access to information should be limited to only those facilities most likely to be attacked.

250. See id. (indicating that volume, location, and acute affects on human health are factors for assessing sensitivity of information).
251. See Johnson, supra note 20, at 136 (describing one environmental injustice scenario where the largest concentration of chemical facilities are located in densely populated low income communities, that are ill equipped to pressure government or industry).
252. Id.
253. See id. (explaining that chemical facilities in populous areas are more likely targets for attack, however they are also a greater danger to the general health and welfare of citizens).
254. See, Jacobson, supra note 9, at 387-88 (rebutting the argument that posting environmental information on the Internet makes planning an attack easier and suggesting the fallacy of the argument by explaining the complexity of the September 11 four-pronged attack).
255. Nevelow Mart, supra note 32, at 18.
256. Baker, supra note 237, at xxi.
ii. Exclusivity

Generally, the EPA’s Web site is not the exclusive location for TRI information. According to the RAND study, TRI information may be nice to have, but it is not an attacker’s first choice of information because alternative sources of information exist. Consistent with this view, most TRI information is available through industry publications and from the chemical facilities themselves. Other sources of TRI information are accessible through non-governmental Internet databases, such as the OMB’s RTK Net and Environmental Defense’s Scorecard program. The lack of exclusivity shows that the TRI is not necessary to discover the location of potential targets. A terrorist could easily find this information in a trade journal, on the Internet, or by direct observation. As demonstrated by the September 11, 2001 attack, terrorists are committed to a long-term planning approach, which is not deterred by spending a little extra time searching the Internet or other sources for their valued information.

Anecdotal evidence supports the view that spending minimal time on the Internet does not deter terrorists. One author spent a mere two hours researching non-governmental Web sites to discover all the information needed to plan an attack on a chemical facility. The author located a plastics facility on the Internet and accessed the company’s own Web site. From the company’s Web site, he determined the type and amount of chemicals used in production. The most valuable data came from an industry group, the American Chemistry Council (“ACC”). From the ACC Web site a user can link to chemical facilities

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257. Id. at 87.
258. Id.
259. Durham-Hammer, supra note 6, at 351.
262. Siegel, supra note 18, at 365 (discussing the location of chemical facilities in the context of Risk Management Plans).
263. Id.
264. Jacobson, supra note 9, at 387-89.
265. Id. at 389.
267. Jacobson, supra note 9, at 389; see, e.g., http://www.fpcusa.com (providing links to showing Formosa’s 2.5 billion pound per year polyvinyl chloride operations and claiming 2.2 billion pounds per year chlor-alkali capacity used for a variety of purposes).
based on location or type of chemical used.\textsuperscript{269} Most chemical facility Web sites contain information about chemical characteristics, potential harmful effects, the number and size of storage tanks, and chemical transportation methods.\textsuperscript{270} The relative ease with which a potential terrorist can access TRI and TRI related material from non-governmental Web sites, as well as other sources, indicates the lack of TRI information's exclusivity. Thus, reducing access to TRI information would not frustrate the efforts of terrorists.\textsuperscript{271}

\section*{iii. Utility}

TRI information is not necessary to provide a "roadmap for terrorists."\textsuperscript{272} Terrorists do not need a "Terrorism for Dummies"\textsuperscript{273} handbook in order to choose a target and plan an attack.\textsuperscript{274} The RAND study emphasizes terrorists' flexibility in obtaining all necessary information to carry out an attack.\textsuperscript{275} Publicly available information is usually not a terrorist's primary source of information.\textsuperscript{276} Attackers often need detailed information not available to the public.\textsuperscript{277} TRI information lacks the currency terrorists demand of their information.\textsuperscript{278} The usual delay of TRI information to the public is between two and three years.\textsuperscript{279}

Similar to the geospatial information in the RAND study, TRI information is outdated and terrorist will most likely utilize other sources of information for planning and implementing an attack.\textsuperscript{280} While TRI may be a starting point for terrorists, TRI will not yield better information than industry and chemical facility Web sites or direct infiltration of a chemical facility.\textsuperscript{281} The abundance of alternative sources of information degrades the value of TRI's usefulness in planning and implementing an attack.\textsuperscript{282} Therefore, TRI's utility to terrorists is low.\textsuperscript{283}


\textsuperscript{270} See Jacobson, \textit{supra} note 9, at 390-91 (concluding that off site consequence analysis is helpful to fully implement any potential attack).

\textsuperscript{271} Id. at 387.

\textsuperscript{272} Id.

\textsuperscript{273} Barkas, \textit{supra} note 19, at 217.

\textsuperscript{274} Jacobson \textit{supra} note 9, at 397.

\textsuperscript{275} Baker, \textit{supra} note 237, at 122.

\textsuperscript{276} Id.

\textsuperscript{277} Id.

\textsuperscript{278} Id.

\textsuperscript{279} Durham-Hammer, \textit{supra} note 6, at 341; \textit{see also} Karkkainen, \textit{supra} note 68, at 336 (indicating that the TRI time lag is curable by implementing real time monitoring and electronic reporting, however this would increase compliance costs).

\textsuperscript{280} Baker, \textit{supra} note 237, at 122.

\textsuperscript{281} Id.

\textsuperscript{282} Id. at 87.
Despite the time lag between reporting deadline and public dissemination, TRI information keeps communities better informed than they would be without the TRI. This increases the overall social utility and mitigates in favor of greater access to TRI information. Even with delayed information, the public is still able to track year-by-year trends in toxic releases. In addition, it is easy to track, compare, and rank a chemical facility across a number of datasets because TRI utilizes a variety of electronic databases, including Envirofacts. With increased access to TRI information and the ability to analyze TRI information in a number of different ways, communities have the ability to discover what types of chemicals exist in their environment, where they are located, the volume of an individual chemical’s presence, and into what environment (land, air, or water) the chemical is released. Armed with this information, communities may exert the maximum influence on federal and local governments, as well as individual chemical facilities, to reduce a facility’s environmental impact and any existing national security implications. Since TRI data has little value to terrorist and great value to community safety, classification of only the most sensitive data is the best way to balance security and safety.

2. The Need for Particularized Interest Groups to Focus on Increased Access to TRI Information

Very few of the many environmental interest groups devote adequate attention to TRI issues. For example, a search of Greenpeace’s Web site produced only one TRI related result. Another Web site, Environmental Defense, displays 128 TRI related documents, but lacks current information. A focused public interest group is necessary because public access acts as a counterweight to industry and government
decision-making and acts to uphold community interests. The new interest group should focus primarily on TRI information in order to distribute current information to the public.

The recent attempts to reduce TRI reporting highlight the need for this type of interest group. A public interest group concentrated on TRI issues would be able to properly and more adequately address the government and advocate for improved, not limited access to TRI information. With an interest group in place, communities would have a readily accessible and open forum to address concerns with proposed government rules or the effects of current rules, thereby allowing the individual to subvert the protracted forums designed to address government agencies. The interest group would then shift the burden of directly addressing the government away from the individual, creating a stronger, more united, and vocal community. Using this vocal community, the interest group would be in a position to employ its experts to more effectively address local chemical facilities and government agencies and officials, evening the bargaining power of each side. By providing a forum for discussion, the interest group will enhance public knowledge and discussion, thereby enhancing the overall social utility of TRI information, which keeps communities and America secure.

IV. CONCLUSION

Toxic Release Inventory Information is necessary to communities, industries, and government because such information increases the quality and quantity of information that communities receive. The increase in quality and quantity of information allows communities to know exactly what dangers exist in their environments. Communities can then act on this information to participate in community decision-making processes by requesting a reduction in toxic chemical use, or boycotting heavy polluters. Industries use TRI reporting to compare performance with similar companies. TRI reporting is also less costly than compliance with traditional environmental regulations. Government also benefits from standardization of reporting data, which increases the ability to track and compare TRI data.

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290. See O'Reilly, supra note 21, at 616 (explaining that public access is necessary to curb industry and government decision-making, especially when the information is potentially hazardous).

291. See Karkkainen, supra note 68, at 298-94 (explaining the benefits of burden shifting from the government to industry).

292. Id. at 317 (explaining the benefits of open forums in facilitating discussion between community groups and facilities).
Once the importance of TRI data is established and weighed against national security concerns, a new framework to assess the reduced access to TRI information should be developed. The new framework should take into consideration the type, exclusivity, and utility of TRI information. After the framework is applied, the TRI emerges as a poor candidate for information restriction, because the TRI information is available from a wide variety of sources and is of little use for planning a terrorist attack. To protect the TRI from present and future reductions in access and advocate for increased reporting standards, a public interest group should be formed which focuses exclusively on TRI information.

Using such a framework to evaluate access to environmental data, as well as implementing a particularized interest group, will ensure that the appropriate balance is struck between national security and community safety.