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ENVIRONMENTAL ARTICLE

THE LOGIC AND LIMITS OF PUBLIC INFORMATION MANDATES UNDER FEDERAL HAZARDOUS WASTE LAW: A POLICY ANALYSIS

Robert F. Blomquist*

INTRODUCTION

Public information laws generally mandate the private or public sectors to provide specific facts, data, documents, and reports to various groups of people. These laws have been in existence for a relatively short time. The origin of public information laws can be traced back to legislation enacted during the New Deal under President Franklin D. Roosevelt.¹ Public information laws have proliferated since the introduction of federal securities laws and state Blue Sky provisions which required disclosure of material financial data by firms seeking to raise capital from the public sale of stock.² Examples of such laws, promulgated by both legislative and judicial design, include product labeling requirements, product warranty laws, land use planning provisions, freedom of information dictates, campaign reporting provisions, and bankruptcy disclosure requirements. Indeed, public information laws have become more commonplace because of the nearly universal assumption that dissemination of information is socially desirable and thus leads to more efficient markets and more responsible behavior by business, government, and individuals.

While public information laws *can* lead to socially desirable results, insufficient attention has been devoted to analyzing how these mandates may also create negative second-order consequences.³ The thesis of this article is that public environmental in-

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1. See generally J.M. BURNS, *THE CROSSWINDS OF FREEDOM* 25-26 (1989).

2. See The Securities Act of 1933, 15 U.S.C. §§ 77a-77aa (1988). See generally M. PARINO, *TRUTH IN SECURITIES: AN INTRODUCTORY GUIDE TO THE SECURITIES ACT OF 1933* 23-25 (1968). The most noteworthy public information law is The Freedom of Information Act, 5 U.S.C. § 552 (1988).

3. See Blomquist, *Solar Energy Development, State Constitutional Interpretation and Mount Laurel II: Second-Order Consequences of Innovative Policymaking by the New*

formation alone does not necessarily result in public knowledge or societal wisdom. Indeed, too much raw, undigested information can lead to confusion, dissonance, and counterproductive social policy.

The Superfund Amendments and Reauthorization Act of 1986 (SARA)⁴ contains several public environmental information mandates with potential revolutionary legal and policy consequences. This article is divided into three major parts and explores the nature and implications of these public information requirements. First, the article provides general background on public environmental information and disclosure laws. As part of this analysis, the article sketches potential public policy roles and pathologies of these generic types of laws. Second, the article describes three significant hazardous substance information programs under SARA: (1) the chemical inventory and emissions provisions of Title III; (2) the responsibilities of federal health officials both to develop toxicological profiles of the most troublesome toxic substances released into the environment and to provide health assessments of existing Superfund sites; and (3) the availability of federal funds for citizen groups to obtain technical assistance for amassing, collecting, and analyzing information on abandoned hazardous waste facilities. Finally, the article concludes with an analysis of the policy limits of hazardous substance information roles of SARA.

I. POLICY ROLES AND PATHOLOGIES OF PUBLIC ENVIRONMENTAL INFORMATION LAWS

Public environmental information laws have been a fixed feature of the American legal landscape since the passage of the Air Pollution Prevention and Control Act amendments of 1970 (Clean Air Act)⁵ and the Federal Water Pollution and Control Act amendments of 1972 (Clean Water Act).⁶ For example, under section 114 of the Clean Air Act, the Administrator of the Environmental Protection Agency (EPA) is authorized to require "any person who

Jersey Supreme Court, 15 RUTGERS L.J. 573, 576-77 (1984). See generally R. BAUER, SECOND-ORDER CONSEQUENCES: A METHODOLOGICAL ESSAY ON THE IMPACT OF TECHNOLOGY (1969); D. HOROWITZ, THE COURTS AND SOCIAL POLICY 292 (1977).

4. Pub. L. No. 99-499, 100 Stat. 1613 (1986) (codified as amended at 42 U.S.C. §§ 9601-9675 (Supp. V 1987)). SARA amended the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

5. Pub. L. 91-604, 84 Stat. 1676 (1970) (codified as amended at 42 U.S.C. §§ 7401-7642 (1982 & Supp. V 1987)).

6. Pub. L. No. 92-500, 86 Stat. 816 (1972) (codified as amended at 33 U.S.C. §§ 1251-1376 (1982 & Supp. V 1987)).

owns or operates any emission source or who is subject to any requirement" of the Act to generate information necessary to fulfill the EPA's mission in regulating air pollutants.⁷ The Administrator is authorized by Congress to require operators to perform the following functions: "(A) establish and maintain such records, (B) make such reports, (C) install, use, and maintain such monitoring equipment or methods, (D) sample such emissions . . . and (E) provide such other information as may be reasonably require[d]."⁸ These records are available to the general public, subject to non-disclosure if the records constitute trade secrets.⁹

In language closely tracking the Clean Air Act, section 308 of the Clean Water Act authorizes the EPA Administrator to "require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods . . . (iv) sample such effluents . . . and (v) provide such other information [as may be] reasonably require[d]" to carry out the purposes of the Act.¹⁰ The Clean Water Act also affords the public access to pollution data subject to the trade secret exception.¹¹

Public environmental information laws have grown in popular and legal prominence since the early 1980's when citizen suits under federal pollution control laws increased dramatically.¹² Concurrent with the increased availability of public information, the perceived usefulness of environmental information laws has also gained recognition. Yet, little thought and comprehensive analysis have been dedicated to the possible policy roles and pathologies of these laws.¹³

7. 42 U.S.C. § 7414(a) (1982).

8. *Id.* § 7414(a)(1)(A)-(E).

9. *Id.* § 7414(c).

10. 33 U.S.C. § 1318(a)(4)(A) (1982).

11. *Id.* § 1318(b).

12. See generally Blomquist, *Rethinking the Citizen as Prosecutor Model of Environmental Enforcement Under the Clean Water Act: Some Overlooked Problems of Outcome-Independent Values*, 22 GA. L. REV. 337 (1988); Boyer & Meidinger, *Privatizing Regulatory Enforcement: A Preliminary Assessment of Citizen Suits Under Federal Environmental Laws*, 34 BUFFALO L. REV. 833, 835 (1985) (assessing the potential effects of the rise of private regulatory enforcement proceedings and speculating on how this realignment might affect the regulatory process); Fadil, *Citizen Suits Against Polluters: Picking Up the Pace*, 9 HARV. ENVTL. L. REV. 23 (1985).

13. See *infra* notes 14-50 and accompanying text.

A. Possible Policy Roles

Four discernible policy roles exist for affording the public access to environmental information produced by private industry and governmental analysis: (1) helping private individuals and communities minimize health risks; (2) promoting economic accountability by particular businesses for the residuals they created; (3) pressuring business to reduce or eliminate harmful environmental contaminants; and (4) enhancing certain process values that are inherent in American democracy.

1. *The Individual Risk Minimization Role*

In theory, access to information about environmental contaminants enables individuals and community groups to take appropriate action to minimize adverse health risks. Appropriate action in response to this information might include: (a) avoiding areas where harmful pollutants are located; (b) minimizing exposure to contaminated media, for example, by drinking bottled water in areas where water discharges exceed permitted levels, or by staying indoors in nonattainment air quality regions; or (c) using the political and legal systems to pressure business to stop or reduce pollution.

2. *The Economic Accountability Role*

Public environmental information laws may also be useful to recapture a company's economic benefit gained by its failure to control the release of residuals¹⁴ into the environment. A business can choose to invest its retained earnings in technological improvements that will reduce residuals or use them for other purposes. These other purposes may include higher wages for workers, greater dividends for shareholders, and increased bonuses for managers. Therefore, if a private enterprise chooses any of these latter alternatives, public information concerning the quantity and qual-

14. A residual is:

[a] nonproduct (material or energy) output, the value of which is less than the costs of collecting, processing, and transporting it for use. Thus, the definition is time dependent, that is, it is a function of (1) the level of technology in the society at the point in time and (2) the relative costs of alternative inputs at that point in time. For example, manure in the United States is now a residual, whereas thirty or so years ago it was a valuable raw material.

A. KNEESE & B. BOWER, ENVIRONMENTAL QUALITY AND RESIDUALS MANAGEMENT, 6 n.1 (1979).

ity of pollutants can assist in holding that enterprise accountable for reduction in property values in the surrounding community, increased medical expenses from acute and chronic diseases, and diminution in the quality of life in the proximity of a plant.

3. *The Action-Forcing Role*

A legal mandate requiring public availability of environmental information, produced by either private industry or governmental agencies, may induce businesses to improve their operations and reduce harmful environmental contaminants. By way of scientific analogy, this action-forcing policy role is akin to potential energy;¹⁵ by contrast, the individual risk minimization and economic accountability roles are in the nature of kinetic energy.¹⁶ Businesses subject to public environmental information laws may be encouraged as a result of press coverage of corporate irresponsibility to modernize their operations and to take environmental responsibilities more seriously than they might otherwise be inclined to do.

4. *The Process-Enhancing Role*

In addition to serving substantive policy roles, public environmental information laws can also function to enhance important process values¹⁷ of American democracy. First, *participatory governance* can be fostered because citizens are given the opportunity to become involved in monitoring dischargers and acting as watchdogs over government environmental enforcement activity. Second, the value of *process legitimacy* can be enhanced because a climate of openness tends to bolster public confidence in the administrative monitoring and enforcement scheme.

Third, public environmental information laws have the capacity to advance *humaneness* and *respect for individual dignity* because individuals are given "fair access to legal processes on an

15. Potential energy may be defined as the energy derived from position rather than motion. WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY 920 (1984).

16. Kinetic energy may be defined as energy associated with motion. *Id.* at 605. In this context, kinetic energy refers to social outcomes produced by individual litigation, governmental regulation, or political action.

17. See generally Blomquist, *supra* note 12, at 344-51. According to Professor Robert Summers, "[l]egal systems operate through various legal processes, including processes for designating officials, for creating law, for applying it, for enforcing remedies, and for imposing sanctions." Summers, *Evaluating and Improving Legal Processes - A Plea for Process Values*, 60 CORNELL L. REV. 1, 1 (1974).

equal basis with other citizens."¹⁸ Fourth, and closely related to the two previous process values, these laws are capable of promoting *consensualism* because their underlying purpose defers "to individual choice and motivation in participating, or declining to participate, in various democratic activities."¹⁹ Such activities include: monitoring environmental progress, complaining to company officials, petitioning government officials, litigating against recalcitrant or rogue companies, and organizing public boycotts of products produced with high environmental impacts.

Fifth, these public information laws have a potential to promote *truth telling* by private industry and government. Ready public availability of detailed effluent, emissions, and chemical storage data tends to "encourage candor and accuracy, while allowing [public] discovery of misrepresentation and speculation."²⁰

Sixth, the value of *public openness* is advanced by affording "access to [environmental] decisionmaking by members of the public"²¹ in the same way that open public meeting laws, freedom of information laws, public comment opportunities to proposed agency rule-making, and chances to file *amicus* briefs with the courts afford indirect access to public and private decisionmakers. Finally, the value of *civic friendship* may be promoted because giving citizens access to important environmental information catalyzes "fraternalism or genuine trust, concern, and synergistic benefits accruing from [the] shared enterpris[e]"²² of community environmental protection.

B. Potential Policy Pathologies

In general, environmental public information laws may give rise to eight policy "pathologies":²³ (1) lack of coordination, (2) conflict over goals, (3) hyperactivity, (4) faulty informational re-

18. Blomquist, *supra* note 12, at 348 (footnote omitted).

19. *Id.* at 348-49.

20. *Id.* at 350.

21. *Id.*

22. *Id.* at 351. See also Huff, *Protecting Due Process and Civic Friendship in the Administrative State*, 42 MONT. L. REV. 1 (1981).

23. See generally, B. HOGWOOD & B. PETERS, *THE PATHOLOGY OF PUBLIC POLICY* (1985). Hogwood and Peters base their book on an analytical taxonomy of certain pathologies of policymaking. The use of this medical metaphor provides a framework for the categorization of the "diseases" of certain public policies and contributes to an understanding of policy dysfunctions. In an analogous way, the concept of policy pathologies is similar to the more general policy concept of second-order consequences. See *supra* note 3.

ceptors, (5) failures in communicating information to decisionmakers, (6) government learning disabilities, (7) pathologies arising from attempts to improve existing information, and (8) informational placebo effects.

1. *Lack of Coordination*

The first pathology consists of a lack of coordination among state and federal governmental enforcement officials and citizen groups. Certain environmental protection policies of state and federal governmental enforcement officials arguably suffer negative consequences²⁴ because of the "countervailing impacts"²⁵ of citizen-initiated actions. These actions have proliferated under the Clean Water Act in the 1980's, encouraged by widespread public access to discharge monitoring reports and notices of violations filed by permit holders under the National Pollution Discharge Elimination System (NPDES).²⁶ Similar coordination problems can also result from other environmental public information laws.

2. *Conflict Over Goals*

Environmental information laws may produce "fundamental goal conflicts"²⁷ among government agencies, private industry, and members of the public. For example, one goal conflict exists between citizen groups, environmental agencies, and private industry. When prosecuting cases for civil penalties under the Clean Water Act, these citizen groups possess differing interests and agendas than do agencies and private industry. Disclosure of environmental information regarding industry efforts to meet discharge standards may lead to responses of citizen groups that risk undermining le-

24. Blomquist, *supra* note 12, at 407-21. These negative consequences were engendered by specific legal rules which, among other things:

- allow private parties with no prior involvement in administrative enforcement negotiations, who have suffered no palpable personal or property injury, to seek substantial monetary fines . . . ;
- provide an unrealistically short period of time for government officials to ponder the merits of a penalty enforcement action . . . ;
- tend to discourage further negotiation and conciliation between government and industry, while perversely dissuading government officials from providing input into crucial issues

Id. at 412 (citations omitted).

25. B. HOGWOOD & B. PETERS, *supra* note 23, at 44.

26. *See supra* note 12.

27. *Id.* at 46.

gitimate government regulatory goals.²⁸ While Congress intended citizen groups to fill the void of recalcitrant government enforcement agencies,²⁹ it is unlikely that Congress anticipated or endorsed goal conflicts that would be counterproductive to fair and effective environmental regulation between private citizen groups and public agencies.³⁰

3. *Hyperactivity*

In the realm of environmental information laws, hyperactivity by government regulators in response to pressure by an inflamed public can prove dysfunctional and pathological. As explained by Professors Hogwood and Peters in more generic terms:

[The pathological public policy characteristic of hyperactivity] is manifested in the need of some agencies to promulgate rules and regulations . . . but may go beyond that. As well as merely making more rules, organizations may attempt to do *something* even if something is not required, or even if the action may be counterproductive. Organizations concerned with a particular policy area may believe they have more than a watching brief over the area, and that they are required to respond to any problems which arise.³¹

4. *Faulty Informational Receptors*

Public environmental information laws necessitate that government utilize informational receptors.³² Government "failure to design [suitable] information collection procedures in advance may lead to inadequate information being available when problems be-

28. Cf. Blomquist, *supra* note 12, at 407-21 (negative impacts of citizen as prosecutor model under the Clean Water Act regarding federal and state government enforcement and facilitation of trust and support between government regulators and industry).

29. Pursuant to 33 U.S.C. § 1365 (1982 & Supp. V 1987) citizens may sue water polluters for injunctive relief and civil penalties upon meeting a sixty-day notice provision of their intention to file suit. However, no citizen suit is actionable under the Clean Water Act:

[I]f the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States, or a State, to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any citizen may intervene as a matter of right.

Id. § 1365(b)(1)(B) (1982).

30. See generally Blomquist, *supra* note 12, at 403-07.

31. B. HOGWOOD & B. PETERS, *supra* note 23, at 55.

32. See generally *id.* at 63.

come current.”³³ Indeed, with faulty environmental information receptors in place, “in times of crises . . . [private and public] organization[s] may suffer from information overload.”³⁴ In a related way, “there is a danger that as a result of inertia (or lack of any thinking about policy relevance when the administrative data collection system was designed) inappropriate or inadequate sources of data may be generating misleading signals.”³⁵

Because of the complexity of managing environmental information, it is arguable that “policy analysts should not actively engage in seeking out new information and new problems for government, since this would entail increasing the demands on the political system without necessarily increasing the resources to meet those demands . . . or the capacity of the political system to resolve issues.”³⁶ Moreover, “[e]qually daunting is the task of filtering out erroneous information”³⁷ by government policymakers, private citizens, and business executives.

33. *Id.* at 64.

34. *Id.* at 63. This can be particularly troublesome in some policy contexts. For example, “[d]esigning procedures for regulating the amount, kind, and sources of information transmitted within and between organizations engaged in emergency management is central to timely, informed choice by organizational decisionmakers.” Comfort, *Designing Policy For Action: The Emergency Management System*, in *MANAGING DISASTERS: STRATEGIES AND POLICY PERSPECTIVES* 18 (L. Comfort ed. 1988) [hereinafter *MANAGING DISASTERS*]. Indeed, different types of policy problems require different types of organizational information receptors:

[T]he decisionmaking process for emergency organizations is distinctly different under emergency conditions than in routine operations. In an emergency, problems are ill-structured. Environmental conditions are changing and dynamic. Numbers of clientele involved expand and contract dramatically. Time is critical, and complexity increases geometrically with the degree of interaction among participants and conditions. Systematic methods of decisionmaking, based upon orderly search of all possible alternatives for action, prove less effective in complex environments than “rules of thumb” or heuristic decision processes. . . . The function of design in emergency decision-making processes is to structure the elements of decision-information, timing, known constraints, interaction among participants—in a process that is likely to yield the most appropriate choice in the most timely fashion.

Id. at 16 (footnotes omitted). See also Comfort & Cahill, *Increasing Problem-Solving Capacity Between Organizations: The Role of Information in Managing the May 31, 1985 Tornado Disaster in Western Pennsylvania*, in *MANAGING DISASTERS*, *supra*, at 180 (stressing the importance of open flow of information, interpersonal communication and trust, articulation of professional goals and norms, and systematic feedback mechanisms).

35. B. HOGWOOD & B. PETERS, *supra* note 23, at 66.

36. *Id.* at 67.

37. *Id.* at 68.

5. *Failures in Communicating Information to Decisionmakers*

Public environmental information laws mandate that great quantities of information be made available to the public. The quality of this information becomes problematic when juxtaposed with independent, and sometimes confidential, government, citizen, and industry information sources. Due to the substantial quantity and variable quality of information, these laws may pose a risk of pathological policy outcomes if appropriate information is not communicated to private or public decisionmakers. Unfortunately, it is an administrative reality that

[m]uch of the information which is collected [within a single organization] never reaches the parts of an organization which would find it most useful. Such failures of communication can be vertical (i.e. failure of front-line subordinates to report relevant information to superiors) or horizontal, as when a line unit fails to pass on information about opportunities to, say, a research or policy analysis section.³⁸

This pathological policy results in public and private decisionmakers receiving information in a garbled form with the jamming of the overall information network. This may occur with varying degrees and "drastic consequences for the functioning of the network as a whole may occur."³⁹

6. *Government Learning Disabilities*

"One of the major pathologies of modern public policy is the failure of government to realize that programs it is delivering are failing to achieve their objectives or are even acting in a way contrary to those objectives."⁴⁰ This problem arises because systematic evaluation is complicated by several variables: (a) "the objectives of [a] program may not have been clearly specified";⁴¹ (b) the program itself may be poorly understood or ambiguously defined; (c) "major difficulties may arise in *measuring* what has or has not happened";⁴² and (d) "the given program is likely to be impacting on its target clientele in conjunction with a wide range of other

38. *Id.* at 68-69.

39. *Id.* at 71.

40. *Id.* at 80.

41. *Id.* at 81.

42. *Id.* at 82.

influences, including other public policy programs, whose overall effect may be extremely difficult to disentangle."⁴³

The difficulty of systematically evaluating the efficacy of environmental information laws is illustrated by the following general points. Availability and public access of environmental information are frequently ends in themselves. Separate government environmental policy analysis and enforcement actions compete with private citizen suits and toxic tort actions for access to the same environmental information. Moreover, it may be problematic to track how the public uses environmental information.

7. *The Pathological Paradox of "Improved" Information*

In any informational system, "[t]here is a danger that improved information technology may lead to 'hard' quantitative data driving out 'soft,' but arguably more important, qualitative data. It is much more difficult to impose the preparation and use of qualitative assessments than to improve hard information collection and flow."⁴⁴ According to Professor Roszak,⁴⁵ our capacity to think creatively about social problems is being undermined by the very information that is supposed to help us understand it. Data processing replaces thought; data glut obscures basic questions of justice and purpose. Roszak states:

Information has taken on the quality of that impalpable, invisible, but plaudit-winning silk from which the emperor's ethereal gown was supposedly spun. The word has received ambitious, global definitions that make it all good things to all people. Words that come to mean everything may finally mean nothing; yet their very emptiness may allow them to be filled with a mesmerizing glamour.⁴⁶

43. *Id.*

44. *Id.* at 86.

45. T. ROSZAK, *THE CULT OF INFORMATION* (1986).

46. *Id.*

The loose but exuberant talk we hear on all sides these days about "the information economy," "the information society," is coming to have exactly that function. These often-repeated catch phrases and cliches are the mumbo jumbo of a widespread public cult. Like all cults, this one also has the intention of enlisting mindless allegiance and acquiescence. People . . . have no clear idea what they mean by information or why they should want so much of it

Id. at x.

There is a danger in the area of public environmental information laws that more intricate and detailed raw data about pollutants, emissions, ambient concentrations, and media transfers will be generated for public consumption without a concomitant level of sophistication in understanding the meaning of the data and its overall implications for public health, economic progress, and environmental sustenance.

8. *Informational Placebos*

A final policy pathology that may result from public environmental information laws is the danger that production and widespread access to environmental information may act as a substitute for substantive environmental policy. "Placebo policies are designed to produce the impression of action with little or no substance in order to placate those demanding action."⁴⁷ Indeed, "[p]lacebo actions do not merely have a nil effect. The removal of an issue from the political agenda by the announcement of a placebo policy makes it difficult to get attention paid to arguments for more substantive policies."⁴⁸

For example, the Environmental Protection Agency may publish warnings about natural radon contamination in home basements,⁴⁹ or advise people to let their drinking water run for a few extra minutes to minimize lead contamination.⁵⁰ In the long run, however, this type of agency action risks displacing more important collective social action to resolve problems of environmental pollution and degradation.

47. B. HOGWOOD & B. PETERS, *supra* note 23, at 172.

48. *Id.* at 173.

Further, the "lulling effect" produced by the belief that a problem is being dealt with might enable the problem to deteriorate drastically in the meantime. In the long run, symbolic gestures may be worse than nothing. They may cause disappointment and alienation, and this may cause more damage than ignoring the problem entirely.

Id. (citations omitted).

49. See 3 Tox. L. Rep. (BNA) 534 (Sept. 21, 1988) (EPA recommends radon testing for all homes).

50. See U.S. ENVIRONMENTAL PROTECTION AGENCY, LEAD AND YOUR DRINKING WATER (1988). See also 2 Tox. L. Rep. (BNA) 1415 (May 18, 1988) (EPA warns that lead in drinking water can cause health hazards).

II. THE LOGIC OF SARA'S HAZARDOUS SUBSTANCES PUBLIC INFORMATION PROGRAMS

A. SARA's Public Information Programs

Congress promulgated three regulatory programs in the 1986 SARA legislation that take a proactive approach to environmental quality by establishing public environmental information programs that address the presence and dangers of hazardous waste in communities. These programs are: (1) Title III of SARA—the federal Emergency Planning and Community Right-to-Know Act;⁵¹ (2) Section 110 of SARA, which deals with the preparation of toxicological profiles of designated hazardous substances by the Agency for Toxic Substances and Disease Registry (ATSDR);⁵² and (3) Section 117(e) of SARA, which creates a public grant program to finance technical assistance for groups of individuals affected by releases from certain hazardous waste sites.⁵³

1. SARA Title III: The Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act was passed by Congress as Title III to SARA.⁵⁴ The two general objectives of Title III are to encourage and support emergency planning efforts by local governments with regard to chemical hazards, and to provide citizens and local governments with information concerning potential community-based chemical hazards.⁵⁵ Congress included three provisions within Title III to effectuate these objectives. The first concerns government emergency response planning. The second provision addresses emergency release notification by private industry. The third requires the com-

51. 42 U.S.C. §§ 11001-11050 (Supp. V 1987).

52. See *infra* notes 79-84 and accompanying text.

53. See *infra* notes 85-94 and accompanying text.

54. Superfund Amendment and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499, §§ 301-330, 100 Stat. 1613, 1729 (1986) (codified at 42 U.S.C. §§ 11001-11050 (Supp. V 1987)). See also *supra* note 4.

55. See *Committee of Conference, Superfund Amendments and Reauthorization Act of 1986*, H.R. CONF. REP. No. 962, 99th Cong., 2d Sess. 281 (1986) [hereinafter *Conference Committee Report*]. See also, 51 Fed. Reg. 41,570 (Nov. 17, 1986). See generally, J. O'REILLY, *EMERGENCY RESPONSE TO CHEMICAL ACCIDENTS* (1987); Oleinick, Fodor & Suselman, *Risk Management for Hazardous Chemicals: OSHA's Hazardous Communication Standard and EPA's Emergency Planning and Community Right-to-Know Regulations*, 9 J. LEGAL MED. 179 (1988); Comment, *Developments in Chemical Emergency Planning Legislation: Toward a Comprehensive Response Program in Ohio*, 17 CAP. U.L. REV. 143 (1983).

pilation and reporting of information concerning chemical properties, manufacturing, usage, properties, and release.

The first provision of Title III requires the governors of the various states to have established a state emergency response commission by April 17, 1987.⁵⁶ State commissions are also required to have established emergency planning districts no later than July 17, 1987,⁵⁷ and to have appointed local emergency planning committees for each district by August 17, 1987.⁵⁸

Each local committee is required to have completed preparation of an emergency response plan, no later than October 17, 1988, containing the following information:

- 1) facilities within the district at which any one of numerous statutorily designated "extremely hazardous substances" at "threshold planning quantities" are present;⁵⁹
- 2) methods and procedures for reporting a release of an extremely hazardous substance;
- 3) names of community and facility coordinators;
- 4) public notification procedures;
- 5) methods for determining the occurrence of a release and the geographic area or population likely to be impacted;
- 6) the available emergency equipment and facilities within the community;
- 7) training programs; and
- 8) evacuation plans.⁶⁰

"Congress intended the local planning process to be a truly community-based activity, and not simply an exercise carried out by a few representatives of industry and the government bureaucracy in a back room at city hall."⁶¹

The second component of Title III—the emergency release notification provisions—requires the owner or operator of a "facil-

56. SARA § 301(a), 42 U.S.C. § 11001(a) (Supp. V 1987).

57. *Id.* § 301(b), 42 U.S.C. § 11001(b).

58. *Id.* § 301(c), 42 U.S.C. § 11001(c) (committees to be appointed by August 17, 1987, or thirty days after the designation of emergency planning districts, whichever was earlier).

59. SARA §§ 302(a)(2) & 303(c), 42 U.S.C. §§ 11002(a)(2), 11003(c) (Supp. V 1987). The list of extremely hazardous substances—originally containing 402 substances—is set forth at 40 C.F.R. Part 355, Appendix A. Forty substances were later deleted from the initial list. *See* 52 Fed. Reg. 48,072, 48,075 (Dec. 17, 1987); 53 Fed. Reg. 5574 (Feb. 25, 1988).

60. SARA § 303(c), 42 U.S.C. § 11003(c) (Supp. V 1987).

61. G. LOWRY & R. LOWRY, *LOWRY'S HANDBOOK OF RIGHT-TO-KNOW AND EMERGENCY PLANNING* 124 (1988).

ity"⁶² to provide notification of a hazardous substance release⁶³ within any affected area to the community emergency coordinator of the local committee and to the affected state's commission.⁶⁴ The statute mandates that the notification contain specific information. This information must include data about the chemical released,⁶⁵ the estimated quantity of the hazardous substance,⁶⁶ "the time and duration of the release,"⁶⁷ "[a]ny known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals,"⁶⁸ precautions to be taken in response to the release,⁶⁹ and pertinent details regarding the contact person who can provide further information.⁷⁰

The final provision is perhaps the most important public environmental information mandate under Title III. This provision contains reporting requirements for chemical usage, chemical properties, manufacturing, and environmental releases. "In order to inform citizens about chemicals located in their communities, Title III requires the owners and operators of certain facilities to submit three types of information concerning such chemicals to state and local authorities."⁷¹ This information entails: (a) material safety data sheets (MSDS) and hazardous chemical lists;⁷² (b) haz-

62. A "facility" is defined, for purposes of emergency release notification, as including motor vehicles, rolling stock, or aircraft. See 40 C.F.R. § 355.20 (1988).

63. The hazardous substance must be of a "reportable quantity" of either an extremely hazardous substance or a hazardous substance as defined by CERCLA § 102, 42 U.S.C. § 9602(a), unless the release results in exposure to persons solely within the boundaries of a site on which a facility is located or is a federally permitted release as defined under CERCLA. SARA § 304(a), 42 U.S.C. § 11004(a) (Supp. V 1987); 40 C.F.R. § 355.40(a)(2) (1988).

64. SARA § 304(b)(1), 42 U.S.C. § 11004(b)(1) (Supp. V 1987); 40 C.F.R. § 355.40(b)(1) (1988).

65. SARA § 304(b)(2)(A), 42 U.S.C. § 11004(b)(2)(A); 40 C.F.R. § 355.40(b)(2)(1).

66. SARA § 304(b)(2)(C), 42 U.S.C. § 11004(b)(2)(C); 40 C.F.R. § 355.40(b)(2)(iii).

67. SARA § 304(b)(2)(D), 42 U.S.C. § 11004(b)(2)(D); 40 C.F.R. § 355.40(b)(2)(iv).

68. SARA § 304(b)(2)(F), 42 U.S.C. § 11004(b)(2)(F); 40 C.F.R. § 355.40(b)(2)(vi).

69. SARA § 304(b)(2)(G), 42 U.S.C. § 11004(b)(2)(G); 40 C.F.R. § 355.40(b)(2)(vii).

70. SARA § 304(b)(2)(H), 42 U.S.C. § 11004(b)(2)(H); 40 C.F.R. § 355.40(b)(2)(viii).

See also, G. LOWRY & R. LOWRY, *supra* note 61, at 129-30.

71. 2 THE LAW OF HAZARDOUS WASTE § 10.01[4][a] at 10-8 (S. Cooke, ed. 1988) [hereinafter 2 HAZARDOUS WASTE].

72. With certain technical exceptions, any facility required to prepare MSDS's under the Occupational Safety and Health Administration's (OSHA) Hazardous Communication Standard is governed by Title III reporting requirements if a threshold quantity, as defined by EPA, of a substance defined as a hazardous chemical is present at the facility. SARA §§ 311(a)(1), (b), 42 U.S.C. §§ 11021(a)(1), (b) (Supp. V 1987); 40 C.F.R. §§ 370.20, 370.21(a), (b) (1988). SARA § 311(a)(1), 42 U.S.C. § 11021(a)(1) (Supp. V 1987); 40 C.F.R. §§ 370.21(a), (b) (1988). See also 29 C.F.R. § 1910.1200(g) (1987) (material safety data sheet

ardous chemical inventory information;⁷³ and (c) toxic chemical usage, manufacture, and release information.⁷⁴

All three components of Title III—government emergency response planning, emergency release notification procedures, and chemical inventory and usage reporting—are accessible to the public. Three specific public environmental information policies promote this accessibility: first, public participation requirements for local emergency response committees' formulation of emergency response plans;⁷⁵ second, liberal public availability of local facility records (emergency response plans, follow-up emergency release notification, MSDS's, inventory forms, lists of hazardous chemicals, toxic chemical release forms);⁷⁶ and, third, the EPA's development of a national computerized toxic chemical inventory database.⁷⁷ Moreover, citizen suit provisions create "the possibility of community self-help enforcement of SARA Title III by allowing suits against the facility owners or operators, state and local governments, or the EPA."⁷⁸

requirements).

73. The owner or operator of any facility subject to the chemical listing/MSDS submission requirements of Title III is also required to comply with annual inventory mandates. SARA §§ 311(d)(2), 312(a)(1), 42 U.S.C. §§ 11021(d)(2), 11022(a)(1) (Supp. V 1987). These requirements provide that by March 1 of each year, the facility owner or operator must prepare and submit a "tier I" or "tier II" inventory reporting form that provides information on any hazardous chemical present at the facility in a threshold quantity during the previous year. 40 C.F.R. §§ 370.20(b)(2), 370.21(c)(1), 370.25 (1988).

74. For manufacturing facilities with U.S. Department of Commerce Standard Industrial Classification (SIC) numbers 20 through 39, Title III requires that the facility submit a yearly toxic chemical release report. SARA § 313(a), 42 U.S.C. § 11023(a) (Supp. V 1987). This requirement is limited to (a) facilities which have ten or more full-time employees and (b) which used, manufactured, or released a threshold quantity of any of 329 toxic chemicals which have been listed as causing, or anticipated to cause, significant adverse human health effects, various chronic human health effects, or adverse effects on the environment. 40 C.F.R. § 372.22 (1988). The initial list of chemicals contained 209 specific chemicals and 20 chemical compound categories. SARA § 313(c), 42 U.S.C. § 11023(c) (Supp. V 1987); 40 C.F.R. § 372.65 (1988). The EPA is given administrative discretion to add or delete from this list, and any person may petition the EPA to take such action. SARA §§ 313(d), (e), 42 U.S.C. §§ 11023(d), (e) (Supp. V 1987).

75. See *supra* notes 59-60 and accompanying text.

76. See SARA § 324(a), 42 U.S.C. § 11044(a) (Supp. V 1987). See also SARA §§ 303, 304, 311(c)(2), 312(e)(3), 313(c), 313(h), 324(a), 42 U.S.C. §§ 11003, 11004, 11021(c)(2), 11022(e)(3), 11023(c), 11023(h), 11044(a) (Supp. V 1987).

77. SARA § 313(j), 42 U.S.C. § 11023(j) (Supp. V 1987). See also 53 Fed. Reg. 6567 (Mar. 9, 1988) (notice of public meeting to discuss options for making information available).

78. G. LOWRY & R. LOWRY, *supra* note 61, at 161. Title III follows the "citizen as prosecutor" model by permitting citizen suits for civil penalties as well as injunctive relief. SARA § 326(c), 42 U.S.C. § 11046(c) (Supp. V 1987). See generally Blomquist, *supra* note 12.

2. Section 110: ATSDR Toxicological Profiles and National Priorities List (NPL) Health Assessments

In section 110 of SARA Congress added substantially to the responsibilities of the ATSDR.⁷⁹ The ATSDR is now required within five years after the enactment of SARA to identify, develop, and update toxicological profiles regarding each of the 275 hazardous substances most commonly found at Superfund sites.⁸⁰ Consistent with its past actions in setting firm and ambitious deadlines for the EPA, Congress directed the ATSDR to prepare 100 profiles⁸¹ within the first six months after SARA's enactment.⁸² In addition, section 110 requires the ATSDR to perform health assessments for each facility on the NPL.⁸³ "When such health assessments indicate that exposure at a site presents a significant risk to human health, the EPA is directed to take actions such as providing alternative water supplies and permanently relocating residents to reduce such exposure and risk."⁸⁴

3. Section 117(e): Public Technical Assistance Grants

Section 117 of SARA assures public input on the selection of all proposals for cleanup remedies of abandoned hazardous waste

Importantly, the citizen suit provision provides in pertinent part for "other rights" of citizens:

Nothing in this section shall restrict or expand any right which any person (or class of persons) may have under any Federal or State statute or common law to seek enforcement of any requirement or to seek any other relief

SARA § 326(g), 42 U.S.C. § 11046(g) (Supp. V 1987).

79. SARA § 110, 42 U.S.C. § 9604(i) (Supp. V 1987).

80. *Id.*

81. The toxicological profiles under SARA § 110, "are to include an analysis of all available toxicological and epidemiological evaluations for a hazardous substance to ascertain levels of human exposure that may trigger adverse health effects and, where appropriate, an identification of toxicological testing needed to identify levels of exposure that may cause health concerns." Hayes & MacKerron, *Superfund II: A New Mandate - A BNA Special Report*, 17 Env't Rep. (BNA) 83 (Feb. 13, 1987) (citations omitted).

82. SARA § 110, 42 U.S.C. § 9604(i)(2)(A) (Supp. V 1987).

83. Hayes & MacKerron, *supra* note 81, at 83.

84. 2 HAZARDOUS WASTE, *supra* note 71, § 12.05[2][h] at 12-101.

ATSDR may also perform health assessments in response to petitions where individuals or physicians provide data on exposure to hazardous substances. If ATSDR does not initiate a health assessment in response to a petition, it must provide a written explanation.

Atkeson, Goldberg, Elrod & Connors, *An Annotated Legislative History of the Superfund Amendments and Reauthorization Act of 1986 (SARA)*, 16 Env'tl. L. Rep. (Env'tl. L. Inst.) 10,360, 10,393 (1986).

sites on the Superfund NPL.⁸⁵ The Administrator or State must provide a notice and analysis of the proposed cleanup plan sufficient to "provide a reasonable explanation of the proposed plan"⁸⁶ and a "reasonable opportunity for submission of written and oral comments, and an opportunity for a public meeting at or near the [site]"⁸⁷ must also be provided. Likewise, notice of the EPA's final cleanup plan must be published along with a discussion of any significant changes and the reasons for such changes. The EPA must also reply to significant comments, criticisms, and new data submitted by the public.⁸⁸

Section 117(e) creates a public grant program to support technical assistance and the gathering of information for citizen groups in the vicinity of sites on the NPL. Under the statute, grants of up to \$50,000 per site "may be used for technical assistance in interpreting information with regard to the nature of the hazard, remedial investigation and feasibility study, record of decision, remedial design, selection and construction of remedial action, operation and maintenance, or removal action."⁸⁹ Congress intended that "[s]uch grants are not . . . to be used to underwrite legal actions. However, any information developed through grant assistance may be used in any legal action affecting the [site], including any legal action in a court of law."⁹⁰ Moreover, while the grant recipient must contribute at least twenty percent of the cost of the technical assistance grant, both the \$50,000 ceiling and the contribution requirement may be waived by the EPA. No more than one grant under section 117(e) may be made for a single site, but Congress has authorized grant renewal to facilitate public participation at all stages of remedial action.⁹¹

Testimony and deliberation before the House of Representatives reveals that Congress responded to citizen demands for greater public involvement in the Superfund clean-up process by enacting the new public participation and grant provision of SARA. Although theoretically the EPA has provided for public participation,⁹² the congressional testimony indicated that actual

85. SARA § 117, 42 U.S.C. § 9617 (Supp. V 1987).

86. *Conference Committee Report*, *supra* note 55, at 230.

87. *Id.*

88. Atkeson, Goldberg, Elrod & Connors, *supra* note 84, at 10,390-91.

89. *Conference Committee Report*, *supra* note 55, at 231.

90. *Id.*

91. *Id.*

92. *See* 40 C.F.R. § 300.67 (1988) (NCP provisions on community relations).

involvement in site investigation, remedy selection, litigation, and settlement was primarily limited to the federal government and private potentially responsible parties.⁹³ In response, Congress concluded that increased public participation was both necessary and desirable.⁹⁴

B. *The Policy Logic of SARA's Public Information Programs*

1. *Title III*

SARA's public information programs, particularly the Title III component, will promote six different policy goals. First, Title III will produce a baseline of

data [that] can be used to characterize exposure levels, evaluate existing regulatory strategies and develop new ones, focus on specific locations of concern, identify important chemical releases and the types of operations they come from, compare permitted releases to reported releases, and aid in the development of waste minimization strategies.⁹⁵

Second, Title III holds promise for acting as "a valuable mechanism for effective emergency management, protecting environmental concerns, offering local citizens the opportunity to have a significant impact on the safety of their community, and for providing a structured forum in which industry, government, and citizens can work collectively on these issues."⁹⁶

Third, Title III should be applauded as "Congress' most significant experiment to involve the private sector and decentralize environmental problem solving. . . . [C]itizens [must] be informed about hazardous materials being stored, handled, or manufactured in their community, and local communities [must] have a coordinated emergency response plan to respond to chemical emergencies."⁹⁷

Fourth, while the information gathered in the Title III process should be viewed as preliminary, and subject to refinement, this

93. See H.R. Rep. No. 253, 99th Cong., 1st Sess., pt. 1, 122-23, 131 (1985), *reprinted in* 1986 U.S. CODE CONG. & ADMIN. NEWS 2904-05, 2913.

94. *Id.*, at 90-91, *reprinted in* 1986 U.S. CODE CONG. & ADMIN. NEWS at 2872-73; *id.* pt. 5, at 65-66, *reprinted in* 1986 U.S. CODE CONG. & ADMIN. NEWS 3188-89.

95. Berkowitz, *The Law and The Promise*, 5 ENVTL. F. 24, 28 (Oct. 1988).

96. Makis, *Now It's Everybody's Job*, 5 ENVTL. F. 25, 30 (Oct. 1988).

97. Matsumoto, *Confrontation or Compromise?*, 5 ENVTL. F. 25, 25 (Oct. 1988).

public environmental information law will "provide Americans with at least two powerful pictures of the industries that put them at risk. Total annual discharges from the [Toxic Release Inventory] data will be one picture. Another is the 'plume maps' or 'footprints' of potential chemical gas releases as they travel downwind or downstream."⁹⁸ In a related way, the Toxic Release Inventory data generated by the imprimatur of section 313⁹⁹ will promote the better understanding of two major risk management problems: (a) identifying and specifying the "[m]any U.S. chemical plants [that] do not [currently] use the Best Achievable Control Technology (BACT) to minimize chemical discharges";¹⁰⁰ and (b) developing some rudimentary information "regarding chemical discharges once they have left the plant."¹⁰¹

Fifth, the emergence of information regarding toxic chemical releases and mass balance inventories will, no doubt, serve as "strong public educational and motivational tools toward the improvement of chemical safety."¹⁰² Finally, Title III will facilitate the development of comparative emissions statistics of hazardous substances that will spur some industrial firms to take a leadership role by "openly communicating about risks"¹⁰³ with the public in meetings that may reflect a "new era, and a new partnership."¹⁰⁴ This industrial leadership has the potential of providing exemplary corporate models that will inspire other companies to respond to the competitive need to match the leaders' efforts.¹⁰⁵

Title III of SARA holds considerable promise for being an ef-

98. Millar, *The Beginnings of Chemical Control*, 5 ENVTL. F. 26, 32 (Oct. 1988).

99. See *supra* notes 71-74 and accompanying text.

100. Millar, *supra* note 98, at 32. "For example, a recent [Chemical Manufacturer's Association (CMA)] study found that some small chemical plants in Louisiana are discharging greater amounts of toxic chemicals than the much larger, but better equipped plants in Michigan." *Id.*

101. *Id.*

People want to know if their family's health will be affected, if pollutants will come down on their children's schoolyard or on their vegetable garden. Combined with their lack of knowledge regarding health effects, the industry looks less than socially responsible when, as reported [in the Baton Rouge press] . . . a CMA consultant says that 'we're not really sure where . . . [the emissions] go, what they mix with, what they turn into, [and] where they come down.'

Id.

102. *Id.*

103. Young, *Nothing To Lose But Fear Itself*, 5 ENVTL. F. 27, 27 (Oct. 1988).

104. *Id.* at 33.

105. Millar, *supra* note 98, at 26.

fective public environmental information law when it is reformulated into the four policy roles discussed in part II of this article. The most impressive aspect of the statutory scheme is its process-enhancing nature. The process value of *participatory governance* is advanced by Title III because citizens are provided a significant stake in learning about specific details concerning the environmental quality of their communities. *Process legitimacy* is also furthered along with *consensualism*, and *humaneness* and *respect for individual dignity*. These values are enhanced because community residents are theoretically given equal access to environmental information and are tacitly invited to participate in negotiating improvements with area businesses regarding specific measures of environmental improvement.

Title III's impact on other process values, however, is more problematic. While *civic friendship* is specifically acknowledged by bringing citizens into the information loop in conjunction with industrial and governmental representatives, it is debatable whether *public openness* and *truth-telling* process values will be enhanced. Fulfillment of both of these latter values depend upon knowledgeable and informed public involvement. In its current form, Title III makes no provision for systematic education and training of citizen groups to understand the welter of chemical data and mass balance information that businesses will be reporting to local emergency response committees. Thus, it will be difficult, if not impossible, for untrained citizen activists to discern exaggeration in reporting improvement in environmental quality and the decreased use and dissemination of chemical substances. The attainment of *truth-telling* will be haphazard at best without a firm statutory provision to penalize false and misleading data reporting.

Disparities between the availability of raw information and the ability to clearly understand its significance also bear on the efficacy of Title III in achieving the substantive policy roles of *risk minimization*, *economic accountability* and *corporate action-forcing*. To the extent that chemical emissions information is crudely or incompletely linked to actual human exposure and medical risk, individuals will be hampered in their abilities to take responsible actions to minimize these risks and stymied in holding specific firms accountable for causing medical injury, diminished life quality, and reduced property values.

It is questionable whether Title III will force action by laggard firms without more coercive laws focused on measurable environ-

mental improvements.¹⁰⁶ The efforts of several socially responsible businesses enterprises to follow the lead of innovative firms in reducing hazardous waste generation and emissions should not be considered dispositive.

2. Sections 110 & 117(e)

Section 110¹⁰⁷ will generate much interesting and potentially useful data. For example, in response to the mandate of section 110, ATSDR has already generated draft toxicological profiles for numerous hazardous substances, including the following: benzene, selected PCB's, nickel, chloroform, chrysene, arsenic, aldrin/dieldrin, dioxin, beryllium, chromium, methylene chloride, cadmium, tetrachloroethylene, cyanide, vinyl chloride, trichloroethylene, and lead.¹⁰⁸ Consistent guidelines for publication of toxicological profiles have been jointly developed by the EPA and ATSDR.¹⁰⁹ The introduction to each profile sets forth the general research approach, explanation of research gaps, and the anticipated audiences for the toxicological information. ATSDR notes, in this regard:

Each toxicological profile begins with a public health statement, which describes in nontechnical language a substance's relevant toxicological properties. Following the statement is material that presents levels of significant human exposure and, where known, significant health effects. The adequacy of information to determine a substance's health effects is described in a health effects summary. Research gaps in toxicologic and health effects information are described in the profile. . . .

The principal audiences for the toxicological profiles are health professionals at the federal, state, and local levels, in-

106. According to Garrett Hardin, "social arrangements that produce responsibility are arrangements that create coercion." Hardin, *The Tragedy of the Commons*, 162 *Sci.* 1243 (1968), reprinted in T. SCHOENBAUM, *ENVIRONMENTAL POLICY LAW* 19, 23 (1985). Cf. Blomquist, *Beyond the EPA and OTA Reports: Toward a Comprehensive Theory and Approach to Hazardous Waste Reduction in America*, 18 *ENVTL. L.* 817, 875, 894-95 (1988).

107. See *supra* notes 79-84 and accompanying text.

108. On April 17, 1987, ATSDR and EPA published the 100 most significant hazardous substances commonly found at superfund sites on the NPL. See 52 *FED. REG.* 12,869 (Apr. 17, 1987). See also Johnson, *Health Effects of Hazardous Waste: The Expanding Function of the Agency for Toxic Substances and Disease Registry*, 18 *Envtl. L. Rep.* (Envtl. L. Inst.) 10,132, 10,138 (Apr. 1988) (listing 100 substances).

109. 52 *FED. REG.* 12,869 (Apr. 17, 1987).

terested private sector organizations and groups, and members of the public. We plan to revise these documents [at least every three years] in response to public comments . . . that will make the toxicological profile series of the greatest use.¹¹⁰

Each toxicological profile published by ATSDR presents information in a format that can be useful to laypersons and scientifically trained specialists. One of the most publicly useful portions of each profile is the public health statement, contained in the first chapter of each report. The public health statement presents complicated scientific information on each hazardous substance by answering seven basic questions. For example, with regard to the hazardous substance benzene, the ATSDR public health statement answers the following questions:

- 1) What is Benzene?
- 2) How might I be exposed to Benzene?
- 3) How does Benzene get into my body?
- 4) How can Benzene affect my health after brief exposures at high levels, or long-term exposures at various levels?
- 5) Is there a medical test to determine whether I have been exposed to Benzene?
- 6) What levels of exposure have resulted in harmful health effects?
- 7) What recommendation has the federal government made to protect human health?¹¹¹

Moreover, pursuant to section 110 of SARA, the ATSDR has commenced developing a comprehensive national exposure registry of persons exposed to hazardous substances.¹¹² The rationale for developing this registry indirectly bears on public environmental information. The ATSDR noted the following in a recent report:

When considering environmental health issues, of particular concern is the lack of information on the effects of low-level exposures of long duration, the exposures typically found for the population surrounding hazardous waste sites. Also, very limited data are available on the health outcomes for the

110. Agency for Toxic Substances and Disease Registry, U.S. Public Health Service, Toxicological Profile for Benzene iv (Dec. 1987).

111. *Id.* at 1-3.

112. See generally Agency for Toxic Substances and Disease Registry, U.S. Public Health Service, Policies and Procedures for Establishing a National Registry of Persons Exposed to Hazardous Substances: National Exposure Registry 3 (1988).

populations receiving a one-time, high-level environmental exposure such as that experienced at chemical spill sites. Registries can be a valuable tool in addressing the potential health outcomes of both types of exposures.

... In addition to facilitating research, the registry activities can further serve public health by being of direct service or benefit to the registrants. This goal can be accomplished by *keeping the registrants informed of relevant research, medical interventions, or preventative measures related to their exposure.*¹¹³

Because of the EPA's delay in implementing regulations for Technical Assistance Grants, section 117(e) of SARA, compared to Title III and section 110, is still in its nascent stage of implementation.¹¹⁴ These grants hold great potential for permitting citizen groups to interpret scientific and regulatory data about Superfund sites. Certain features of the program, however, suggest that bureaucratic provisions may hamper their widespread availability and a full understanding of cleanup options.

Specifically, the EPA would require citizen groups seeking these grants to show that the group is "threatened" by the site from a health, economic, or environmental standpoint.¹¹⁵ Along with this ambiguous task, these citizen groups—which will have to be nonprofit organizations—must demonstrate to the EPA's satisfaction that they have established reliable procedures for record keeping and financial accountability in grant management.¹¹⁶ Technical advisors selected to help citizen groups would be required to possess certain credentials, including a demonstrated knowledge of hazardous waste issues and academic training in a relevant discipline such as biochemistry, toxicology, environmental sciences, or engineering.¹¹⁷ The EPA's proposed procedures would also require that these scientific experts be able to translate tech-

113. *Id.* (emphasis added). *Cf.* Agency for Toxic Substances and Disease Registry for Health Assessments and Health Effects Studies of Hazardous Substances Releases and Facilities, 53 FED. REG. 32,259 (1988) (to be codified at 42 C.F.R. pt. 90) (proposed Aug. 24, 1988).

114. *See* 2 Tox. L. Rep. (BNA) 19 (June 3, 1987) (EPA accused of delay by Sen. Lautenberg in issuing community action grant guidelines). *See also* 3 Tox. L. Rep. (BNA) 660 (Oct. 19, 1988) (EPA finally announces first four Superfund community action grants after several months of harsh criticisms).

115. 53 FED. REG. 9736 (Mar. 24, 1988).

116. *Id.* at 9737-38.

117. *Id.* at 9745-46.

nical information into terms understood by laypersons.¹¹⁸ To the EPA's credit, the agency "plans to provide guidance materials to aid citizens in understanding the grant program and procedures. These materials include a *Citizens' Guidance Manual for the Technical Assistance Grant Program*, three videotapes, and training, workshops, and fact sheets on various aspects of the program."¹¹⁹

Sections 110 and 117(e) of SARA both have potential for being effective public environmental information laws when evaluated in terms of the four policy roles discussed above. Both sections mirror the focus of Title III on process values by ameliorating *participatory governance*, *process legitimacy*, *consensualism*, and *humaneness and respect for individual dignity*. Moreover, the presence of process intermediaries—an expert public health assessment agency and professional consultants—differentiate these public information programs from the raw information reporting mechanism of Title III. Accordingly, it is likely that the ATSDR toxicological profile program and the EPA Technical Assistance Grant Program have greater potential than Title III of SARA to enhance process values in *truth-telling* and *public openness*, assuming that political motivations to manipulate the significance of scientific data and to reduce available funding can be overcome. To the extent, however, that the ATSDR or technical information consultants do a poor job in communicating technical information and options to the public, the process value of *civic friendship* will be compromised.

Sections 110 and 117(e) hold considerable promise for improving individual *risk minimization* and corporate *economic accountability* because the language and structure of the provisions establish a careful and systematic legal structure for information gathering. Presumably, good scientific information and technical analysis will lead individuals to make rational risk assessments about the dangers related to hazardous waste exposure and reasonable monetary settlements with those firms responsible for causing medical or property damage. Sections 110 and 117(e) may be counterproductive to achieving a meaningful *action-forcing* role to the extent that business' fears are realized regarding public abuse of information laws by the plaintiffs' bar pursuing unjustified liti-

118. *Id.* at 9736.

119. 18 *Env'tl. L. Rep.* (Env'tl. L. Inst.) 2366 (Mar. 25, 1988).

gation. Consequently, industry may opt to wage a legal war fighting off tort claimants rather than engage in thoughtful hazardous waste reduction and risk minimization measures.

III. THE POLICY LIMITS OF SARA'S HAZARDOUS SUBSTANCE INFORMATION PROVISIONS

Utilizing the potential policy pathologies suggested earlier in this analysis, what are the specific deficiencies of the tripartite hazardous information provisions of SARA? What detailed problems can be anticipated from the policy interaction between Title III, section 110, and section 117(e) by employing the metaphor of "pathology"?

First, Congress did not give much attention to *coordinating* the various public environmental information provisions of SARA *inter se* or with preexisting state law. For example, before Congress enacted Title III, several states and local governments had already established community right-to-know programs and emergency management networks.¹²⁰ With one narrow exception, Congress specifically provided that Title III should not preempt these state and local laws.¹²¹ The question remains as to whether multiple environmental public information requirements are cost-effective and useful.

Similarly, Congress inadequately addressed two issues regarding the mass of information created by Title III's chemical usage and mass balance requirements, section 110's toxicological profiles and health effects studies, and section 117(e)'s technical assistance grants. First, Congress failed to resolve whether this information could be used in toxic tort suits. By way of specific illustration, several members of Congress insisted in debate that the information generated by toxicological profiles and health assessments was intended only for scientific and regulatory purposes, and not tort litigation. No statutory provision of SARA, however, contains this purported exclusion. With respect to the second issue, Congress did not indicate how this information could be used in the tort

120. See Millar, *supra* note 98, at 28 (discussing New Jersey's programs).

121. SARA § 321, 42 U.S.C. § 11401 (Supp. V 1987). State and local laws enacted after August 1, 1985 requiring the submission of MSDS's are to require that the MSDS be identical in form and content to those required under Title III. *Id.* States and local governments are specifically authorized to require additional MSDS information through the use of additional sheets or other appropriate means. *Id.*

context. It is conceivable, therefore, that a private tort plaintiff could utilize the public record exception contained within Federal Rule of Evidence 803(8)(c) to admit as hearsay ATSDR findings on toxicity or health effects. A tort plaintiff could also cite Federal Rule of Evidence 703 for the proposition that "ATSDR's profiles and health assessments, although arguably inadmissible for other reasons, may nevertheless form the basis of [an] expert's opinion so long as . . . experts in his particular field of competence rely on the profiles and health assessments in forming their opinions."¹²²

Second, as a partial consequence of lack of policy coordination, the public environmental information provisions of SARA ostensibly *conflict* with other policy goals. Generally, policy conflicts occur because of the strong emphasis on protecting public health provided by public environmental information programs of SARA. The ATSDR's responsibilities under section 110 and the public participation rights under section 117(e), pose serious tensions with other sections of SARA that mandate expedited remedial action at hazardous waste sites.

In SARA, Congress took major strides toward making public health the primary focus of the Superfund program. Given the paramount importance of public health questions, this is a welcome development. For the regulated community, the environmental community, and government agencies charged with implementing the new provisions, there are great challenges presented by the need to reconcile the health goals of the Act with other goals, especially the need for rapid remedial action. Such potential conflict is vexing, particularly when one considers that a public health threat might be heightened because selection of a remedial action is delayed in order to assemble comprehensive health effects data.¹²³

Moreover, the policy goals of accuracy and professional consensus, generally employed by the scientific community, are likely to conflict with the time schedule provisions in section 110. "[T]he

122. Sherwood & Fitzsimmons, *The ATSDR: A Plaintiff's Dream Come True?*, 2 Tox. L. Rep. (BNA) 1072, 1078 (Mar. 2, 1988). See also 2 Tox. L. Rep. (BNA) 265 (July 29, 1987) (section 110 "creates new field for toxic tort litigation"); 1 Tox. L. Rep. (BNA) 1257 (Apr. 8, 1987) (SARA said to provide plaintiff's counsel with "motherlode" of health-effects evidence).

123. Strock, *Superfund Amended: A New Emphasis on the Public Health*, 2 Tox. L. Rep. (BNA) 648, 652 (Nov. 4, 1987) (citing 42 U.S.C. § 9616 which imposes new schedules for Superfund program to the EPA) (footnote omitted).

rapidity with which the ATSDR is required to generate numerous toxicity profiles and health studies raises a concern as to the quality and reliability of the resulting data."¹²⁴ In addition, strict business reporting requirements under the emergency notification and Community Right-to-Know provisions of Title III have the potential to undermine the salutary federal commercial policy of protecting legitimate trade secrets and proprietary information.¹²⁵

In attempting to comply with the emergency notification requirements, businesses will face several competing considerations. On the one hand, the notice provided might trigger toxic tort suits—based on theories ranging from physical injury to enhanced risk or injury to emotional distress. On the other hand, if companies do not report the full scope of the risk presented on the basis of the best information available, they could face immense civil and criminal penalties.¹²⁶

Indeed, an implicit conflict may exist between congressional policy to encourage voluntary and effective waste reduction and waste minimization measures.¹²⁷

A third potential policy pathology of the threefold public environmental information structure of SARA is the anticipated *hyperactivity* resulting from the information that the reporting requirements will spur. One commentator has suggested the likelihood of an unintended and counterproductive linkage between "Title III data [and] ATSDR's toxicological profiles to create an instant docket of toxic tort suits."¹²⁸ Thus, according to this viewpoint,

[T]he information regarding toxic chemical releases required to be disclosed by Title III could be similar in effect to the effluent discharge self-reporting required under the Federal Clean Water Act, i.e., admissions at the hands of plaintiff attorneys. Thus, there is considerable uncertainty as to how the information generated by the SARA programs will be used.¹²⁹

124. 2 HAZARDOUS WASTE, *supra* note 71, § 12.05[3][h], at 115-16.

125. *Id.*

126. Strock, *supra* note 123, at 650 (citing 42 U.S.C. § 11045 (Supp. V 1987)) (footnote omitted). See 20 *Env'tl. L. Rep.* (BNA) 496 (June 30, 1989) (EPA fines 42 companies \$1.65 million, citing failure to report toxic discharges).

127. See generally Blomquist, *supra* note 106.

128. Ruhl, *Increased Public Information: How Will It Be Used or Abused?*, 3 *NAT. RESOURCES & ENV'T.* 32, 33 (Fall 1988).

129. *Id.*

Another knowledgeable observer, focusing on the impact of publicly available ATSDR data on the proliferation of toxic tort suits, contends that:

The mandate of the ATSDR both to study the most common Superfund site contaminants and to perform health assessments at all NPL sites will generate a great deal of publicly available chemical toxicity and health risk data. This information is likely to generate significant public concern and controversy in communities near Superfund sites. It will also provide a readily accessible and potentially powerful source of evidence for toxic tort plaintiffs seeking to prove that their health problems and risks were caused by contamination from hazardous waste sites.¹³⁰

In response to Title III disclosures, an industrial engineer expressed the following concern about government hyperactivity:

Given the lack of resources [from inadequate congressional funding, Title III] has the potential to cause the worst kind of bureaucratic disaster. First, the entire question of how to control hazardous chemicals is a volatile one. The public both fears and distrusts industry despite its own ignorance and unpreparedness to deal with the management of these chemicals.

Industry vehemently opposes outside involvement in what it views as its own management decisions. Some fear that [Title III's] directives will lead to further government controls as the public responds with fear to risks from the disclosed data. Others are afraid that [Title III] will create a database that the government will use against them for enforcement purposes. At the very least, they fear that the data will generate unnecessary public concern.¹³¹

Fourth, there are numerous potential information-specific policy pathologies¹³² inherent in the public environmental information programs of SARA. The prospect of "information overload"—vast quantities of raw data about chemical use, emissions, and health effects—leading to *faulty informational receptors* seems to be a problem caused by the haphazard way that Congress designed the

130. 2 HAZARDOUS WASTE, *supra* note 71, § 12.05[3][h], at 12-115 (footnote omitted); *see id.* n.57.

131. Matsumoto, *supra* note 97, at 31.

132. *See also* notes 32-50 and accompanying text.

programs. While sections 110 and 117(e) provide the public with assistance in processing vast quantities of raw data, Title III provides "absolutely no guidance or assistance . . . to local authorities on how to digest [chemical inventory and emissions] information."¹³³ Because Congress and other responsible federal, state, and local governmental authorities have not adequately determined the policy relevance of the deluge of environmental information disclosed to the public, the SARA programs risk developing pathological *failure in communicating information* to private and public decisionmakers, *government learning disabilities*, and pathologies arising from *attempts to improve existing information*. Consequently, the quantity of environmental information does not necessarily lead to qualitative policy outcomes. In order for qualitative government policy judgments and public understanding to ensue, companies which use or store hazardous chemicals in the community, or have been identified as Potentially Responsible Parties at Superfund sites, will need to explain the risk significance of the raw data to government officials and private citizens. In order to do this, it is fundamental that toxicity information be matched with exposure information.¹³⁴ Likewise, it is essential that limitations in available information be explained since "[e]xperience suggests that health risk assessment is at best an inexact and uncertain science, dependent on numerous unverified assumptions, and that the results of such studies are susceptible to being misinterpreted and misused."¹³⁵

Government and business will both risk the pathological policy outcomes of achieving *informational placebos*, at best, or litigious and regulatory *hyperactivity*, at worst, unless they pursue extraordinary outreach efforts in starting the long and arduous process of educating the public about the meaning of specific toxicity, health assessment, and chemical usage data generated through the public hazardous waste information programs. Indeed,

[t]o bring this message home to the [public] requires an in-depth, knowledgeable, fairly personalized presentation of the facts. A proper balance must be struck. On the one hand, the

133. Ruhl, *supra* note 128, at 33.

134. See Young, *supra* note 103, at 27 (exploring Monsanto's efforts at accompanying chemical mass balance information with air-modeling); Millar *supra* note 98, at 32 ("Worthwhile toxic risk assessment requires a detailed emissions monitoring system of toxic air or water discharges; a system that could be lacking in as many as 99 percent of American communities.").

135. 2 HAZARDOUS WASTE, *supra* note 71, § 12.05[3][h], at 12-115; see *id.* n.58.

instruction must impress the audience enough to galvanize proper preventive behavior; on the other hand, a message that is either too forceful or hyperbolic will either turn off listeners or quite possibly make many of them neurotic. The objective is to make [the public] respond positively to the risk by instilling a reasonable degree of anxiety or apprehension without engaging in the sort of unfounded exaggeration that engenders irrational responses.¹³⁶

CONCLUSION

The logic and limits of public information mandates under SARA—the chemical usage and mass balance data requirements, toxicological and health assessment information, and technical assistance grants for citizens living in the vicinity of Superfund sites—point to the need for government, business, and citizens to build a relationship of trust. As persuasively articulated in the book *Getting Together: Building A Relationship That Gets to Yes*,¹³⁷ this will require more than a mere exchange of information and partisan perceptions about the environmental information.¹³⁸ It will require unconditionally constructive interaction which balances emotion with reason, seeks true understanding, listens to opposing views, exhibits reliability, tries persuasion, and accepts others as worth dealing with and learning from.¹³⁹

Without a relational approach between government, business, and the public, the policy roles of public environmental information laws are less likely to be achieved and their policy pathologies more likely to result.

136. Harris, *Communicating the Hazards of Toxic Substance Exposure*, 39 J. OF LEG. EDUC. 97, 109 (1989) (footnote omitted). Cf. G. LOWRY & R. LOWRY, *supra* note 61: Sometimes people are unwilling to accept a situation because they think it is much riskier than it actually is. Other times, some individuals may be willing to accept a situation because they think it is much less risky than it actually is. A large part of the reason for the Right-to-Know movement is to provide [people] with reliable information about material hazards so they can better understand the risks and consequently make better decisions.

Id. at 13.

137. See generally R. FISHER & S. BROWN, *GETTING TOGETHER: BUILDING A RELATIONSHIP THAT GETS TO YES* (1988).

138. *Id.* at 25.

139. *Id.* at 40.