

# “Putting It Down”<sup>1</sup>

## Hazardous-Waste Management in the Throwaway Culture

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Stroll down the sidewalks of middle-income American Suburbia. One familiar object you are unlikely to meet up with is the garbage can. Enter the kitchen of a single family dwelling in the same neighborhood, but don't expect to find the trash bag in plain view. As members of a throwaway culture,<sup>2</sup> we have tended to dispose of the garbage disposal problem by hiding it behind the fence or under the kitchen sink—or by washing it down the drain. By putting our garbage out of sight, we put it out of mind.<sup>3</sup>

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1. The expression “putting it down” is derived from the lament of a mayor in one of America's major cities: “Everyone wants us to pick up their trash, but no one wants us to put it down.” Quoted in Kovacs & Klucsik, *The New Federal Role in Solid Waste Management: The Resource Conservation and Recovery Act of 1976*, 3 COLUM. J. ENVTL. L. 205, 206 (1977). Although the mayor was talking about conventional solid waste, the principle holds true for hazardous waste as well. Even though approximately 90 percent of hazardous waste is in a liquid or semi-liquid form, the federal government considers hazardous waste a type of solid waste. COMPTROLLER GENERAL OF THE UNITED STATES, HAZARDOUS WASTE MANAGEMENT PROGRAM WILL NOT BE EFFECTIVE: GREATER EFFORTS NEEDED at 1 (Jan. 23, 1979) (hereinafter cited as GAO REPORT).

2. Some commentators were sure that we had left a three-decade throwaway age behind by 1974. *End of the Throwaway Age*, U.S. NEWS AND WORLD REPORT, Dec. 9, 1974, at 46. The weight of authority runs more along the following lines: “The trash piles of the throwaway society are growing faster than ever, and American cities are crying for help to combat the solid waste threat.” Hamer, *Solid Waste Technology*, EDITORIAL RESEARCH REPORTS, Aug. 23, 1974, at 643. F.P. Grad also struck a cynical note when he commented: “Judging from the amount of solid waste that has increased year by year, . . . American consumption patterns have not changed in spite of allegedly increased environmental awareness.” 1 F. GRAD, TREATISE ON ENVIRONMENTAL LAW (1980), at 4-5.

3. Steffen Plehn, the Environmental Protection Agency's (EPA) deputy assistant administrator for solid waste, used the phrase “out of sight, out of mind” to describe past attitudes toward hazardous-waste disposal. Jasen, *Health Hazard*, Wall St. J., May 22, 1979, at 1, col. 6. S. Friedland maintains that this attitude emanates from government and industry as well as the public. Friedland, *New Hazardous Waste Management System: Regulation of Wastes or Wasted Regulation?* 5 HARV. ENVTL.

But the garbage we Americans throw away today differs markedly from our grandparents'. Much of theirs—potato peels and the Sears catalog, for example—was biodegradable. Our garbage features increasing amounts of synthetic and manufactured substances such as plastics and batteries, which do not degrade naturally. In addition, the processes used to manufacture these products—products which we now demand and discard in ever-greater numbers—leave behind their own wastes. Many of these wastes are both non-biodegradable and dangerous: poisonous, highly explosive, highly flammable, carcinogenic, or hazardous to the environment and living things in a host of other ways.<sup>4</sup> Yet we continue to act as if our waste problem were merely one of disposal, i.e., one of putting it down in the ground and covering it up. While this may have been true when garbage piles were smaller and more organic, today's waste problem is fundamentally one of production. But neither we nor the government perceive it that way.

This paper is about the law of dangerous discards—otherwise known in legal circles as hazardous waste<sup>5</sup>—and how this law has come to reflect America's throwaway mentality. The paper attempts to put across one main point: as with everyday garbage, America's idea of dealing with the hazardous-waste problem is to bury it and forget it. Currently, thanks to the Resource Conserva-

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L. REV. 89, 90 (1981). This paper focuses on some of the ways that government removes hazardous waste from our sight and helps to perpetuate this attitude.

4. See generally U.S. ENVIRONMENTAL PROTECTION AGENCY, EVERYBODY'S PROBLEM: HAZARDOUS WASTE (1980) (hereinafter cited as WASTE ALERT).

5. Governments disagree on how hazardous waste should be defined. According to the Federal Government, hazardous waste means:

a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may

(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

42 U.S.C. § 6903 (1980). California not only defines hazardous waste differently; she also treats extremely hazardous waste separately for definitional purposes. See *infra* note 101.

For a discussion advocating EPA adoption of the "degree of hazard" method of classifying hazardous waste, see, e.g., [9 Current Developments] ENV'T REP. (BNA) 1055 (Sept. 29, 1978), [9 Current Developments] ENV'T REP. (BNA) 2039 (March 2, 1979), and SUBCOMM. ON INTERSTATE AND FOREIGN COMMERCE, HAZARDOUS WASTE DISPOSAL REPORT TOGETHER WITH ADDITIONAL AND SEPARATE VIEWS, 96th Cong., 1st Sess. (1979) (hereinafter cited as SUBCOMM. REPORT).

tion and Recovery Act of 1976<sup>6</sup> (RCRA) and its offspring,<sup>7</sup> we are burying the problem more securely and with more ceremony than every before. This paper does not suggest that managing the burial of hazardous waste is not an important consideration. The thesis here is simply that this aspect of the situation should not be getting the priority it now does. Instead, we should give priority to determining ways to cut the output of hazardous waste.

The paper opens with a section on hazardous waste history. For legislative purposes, this history began around 1970.<sup>8</sup> Popular history tells a different story, however; according to popular accounts, the hazardous-waste problem did not surface until over half a decade later.<sup>9</sup> The historical section demonstrates how changing perspectives on the hazardous-waste problem became part of the problem.

Section II builds on Section I's changing-perspectives theme by introducing the usefully vague and widely-held perception that the hazardous-waste problem is "special." Although Congress has recognized that hazardous waste confronts America with special health dangers,<sup>10</sup> this finding leaves much of the story untold. Hazardous waste is also special in its complexity, its persistence,

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6. 42 U.S.C. §§ 6901-6987 (1980). Subtitle C of RCRA deals with hazardous waste management. For a detailed discussion of RCRA and the issues which it raises, see Anderson, *Resource Conservation and Recovery Act of 1976: Closing the Gap*, 1978 WIS. L. REV. 633.

7. One RCRA offshoot is the so-called "Superfund", formally known as the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. §§ 9601-9656 (West Supp. 1981). "The new statute provides a relatively broad response and liability mechanism for dealing with toxic substances pollution and represents a significant improvement over the inchoate patchwork quilt of federal law previously applicable to releases of hazardous substances." However, Superfund has drawn criticism because it neither provides for private recoveries nor for oil spills coverage. Trauberman, *Superfund: A Legal Update*, ENV'T, March, 1981, at 25.

8. In 1970, Congress identified hazardous-waste storage and disposal as "a problem of grave national concern." Consequently, via the Resource Recovery Act of 1970, Congress directed EPA to prepare a comprehensive report on hazardous-waste storage and disposal. EPA submitted its report to Congress on June 30, 1978. GAO REPORT, *supra* note 1, at 1.

9. The horror of hazardous waste became big news for general public consumption about 1978, after the Federal Government declared an emergency in response to the Love Canal disaster. Nader and Brownstein, *Beyond the Love Canal*, PROGRESSIVE, May, 1980, at 28. The first popular news magazine articles on the Love Canal began to appear in mid-1978. See, e.g., *Nightmare in Niagara*, TIME, Aug. 14, 1978, at 46.

10. Congress' findings regarding environment and health in RCRA include the following: "Hazardous waste presents, in addition to the problems associated with non-hazardous solid waste, special dangers to health and requires a greater degree of regulation than does non-hazardous solid waste." 42 U.S.C. § 6901(b)(5) (1976).

its ability to cover its tracks for years, its dynamic tendencies, and—if we are to believe the people doing the talking—its ever-increasing inevitability. In fact, no one can tell us with any confidence just how much of just what is already buried out there<sup>11</sup> and just when it is likely to bubble up in the backyard. All the experts agree on two things, though. The United States will generate and dispose of more hazardous waste this year than it did last year. And this pattern will continue for the foreseeable future.<sup>12</sup>

Section III gives a flavor for how various levels of government are responding to the hazardous-waste problem. The analysis is meant to be illustrative rather than exhaustive. In addition, the focus in this section differs dramatically from the conventional and painstaking “what’s wrong with this statute?” approach. Section III does conclude on a familiar theme, however: current efforts by government are inadequate to solve the hazardous-waste problem.

Another question flows quite naturally from the conclusion reached in Section III. It reads rather like a mathematical expression: If not this way, then how? Unlike many of those in mathematics, however, the hazardous-waste problem does not lend itself to “solution.” If we turn to technology for answers, we will learn only two things, neither of which is news. First, hazardous waste cannot be destroyed; it can only be transformed<sup>13</sup> or transported.<sup>14</sup>

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11. I believe that it [hazardous waste] is probably the first or second most serious environmental problem in the country. One of the difficulties is that we really do not know what the dimensions of the problem are.

SUBCOMM. REPORT, *supra* note 5, at 1 (statement of James Moorman, Assistant Attorney General for Land and Natural Resources, U.S. Department of Justice).

12. According to Mr. Kaufman of EPA’s Hazardous Waste Management Division, industry waste is expected to grow by 32 percent in the years 1977-87. An estimated 14 percent of this waste will be hazardous. [7 Current Developments] ENV’T REP. (BNA) 1490 (Feb. 4, 1977).

The Senate Committee on Public Works put it this way: “The United States in the foreseeable future can expect to continue generating significant quantities of solid wastes. Land disposal will continue to be the primary solid waste management tool . . . .” SENATE COMM. ON PUBLIC WORKS, REPORT: SOLID WASTE UTILIZATION ACT OF 1976, TOGETHER WITH INDIVIDUAL VIEWS, S. Rep. No. 988, 94th Cong., 2d Sess. (1976) (hereinafter cited as SENATE REPORT).

13. Materials can be transformed into other, different, materials, for instance by burning; similarly, material can be transformed into energy, for example by fission or fusion processes.

14. Practically speaking, technology to transport hazardous waste does not exist. Although one of the author’s colleagues suggested that we could rid ourselves of hazardous waste by sending it in space ships to the sun, the enormous expense and risks involved in this type of “final solution” will doubtlessly preclude its consideration as a serious proposal.

Second, practical technology to transform or transport hazardous waste does not exist.<sup>15</sup> On the other hand, government's role in dealing with the problem is constrained by what is politically feasible. Political feasibility in the hazardous-waste area seems to be limited to burying hazardous waste in one of two ways: 1) burying the problem under the mountains of paper characteristic of the regulatory process, or 2) burying the waste itself in clay-lined vaults where it will be "safe."<sup>16</sup> Section IV concludes the paper by suggesting that we can reasonably expect only to *deal* with the problem of hazardous waste. To do that we must look to ourselves and at the bag under the sink. We must learn to think of hazardous waste as a production problem, and change our behavior accordingly.

## I.

### PERSPECTIVES ON HAZARDOUS WASTE HISTORY

The origins of the hazardous-waste problem are lost in the mists of the last half-century. Commentators tend to link the birth of the problem with the revolution in chemical production which broke out at the end of World War II.<sup>17</sup> Government officials speak vaguely in terms of our improper *disposal* sins of the past thirty to forty years.<sup>18</sup> In effect, the hazardous-waste problem began at different times and for different reasons, depending on the viewer's perspective.

#### A. The View From Capitol Hill

Hazardous-waste law is a relative newcomer on the federal environmental scene. Congressional commitment to clean water manifested itself in 1948, with passage of the Federal Water Pollu-

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15. Commentator S.M. Wolf notes that "the industrial technology for waste recovery and recycling lags light years behind the universally used conventional manufacturing and energy generating activities fed by raw and virgin materials." What is more, federal research and development in this area simply does not exist. Wolf, *Public Opposition to Hazardous Waste Sites: The Self-defeating Approach to National Hazardous Waste Control Under Subtitle C of the Resource Conservation and Recovery Act of 1976*, 8 B. C. ENVTL AFF. L. REV. 463, 531 (1980).

16. Proposed regulations under RCRA envision clay-lined and capped fill for hazardous-waste burials. This is essentially the same burial method that was used at Love Canal. SUBCOMM. REPORT, *supra* note 5, at 12.

17. See, e.g., Friedland, *supra* note 3, at 90.

18. [10 Current Developments] ENV'T REP. (BNA) 29 (June 8, 1979). The state of the art in the mid-1960s in solid waste disposal is suggested by these figures relating to cities and towns with populations greater than 2500: less than one-half had sanitary waste programs before 1960. Kovacs and Klucsik, *supra* note 1, at 213.

tion Control Act (now known as the Clean Water Act).<sup>19</sup> Congress' campaign to clear the skies, the Air Pollution Control Act (now called the Clean Air Act), commenced in 1955.<sup>20</sup> These legislative road-blocks to the formerly fuss-free avenues of disposal, most importantly ocean dumping and open incineration, ushered in the age of the "promiscuous" or "open" dump.<sup>21</sup> This form of land degradation stood alone as an easily available disposal method by 1972;<sup>22</sup> by the time RCRA became law, ninety percent of all America's waste was laid to rest in the ground.<sup>23</sup>

Federal entrance into hazardous-waste legislation was indirect

19. 33 U.S.C.A. §§ 1251-1376 (West 1978). Section 1251(a) sets out the objectives of the act: "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective, it is hereby declared that . . . (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited."

20. 42 U.S.C.A. §§ 7401-7642 (West Supp. 1980). Section 7401(b) lists the purposes of the Clean Air Act. These goals are ambitious indeed; the act aims for protection and enhancement of air quality, as well as promotion of public health and the production ethic—all in one swoop. In addition, the act calls for research and development on a national scale toward ridding America of air pollution. Freely translated, these provisions seem to ask for more of what produces pollution while at the same time supporting its prevention and control with respect to the air.

21. Promiscuous dumps are unplanned, uncontrolled areas where wastes of all kinds are carelessly and indiscriminately discarded. Common hazardous waste dump areas have included pits, lagoons, ponds, and roadsides. Kovacs and Klucsik, *supra* note 1, at 209 n.24 and 211.

Congress was especially concerned with the problem of open dumping in enacting RCRA. Close to fifty percent of all Americans depend on groundwater supplied to wells or springs for drinking; groundwater contamination seems to go hand in hand with open dumping. Essentially, the process of groundwater contamination works like this: groundwater is contained underground in pockets of permeable rock known as aquifers. If water or other liquid percolates through to these pockets after picking up dangerous solubles from an open dump—a leaching phenomenon—the aquifer becomes contaminated. Once contaminated, aquifers are virtually impossible to clean up. See generally SUBCOMM. REPORT, *supra* note 5, at 13 *et seq.* Incidentally, aquifer contamination is no imaginary horror. In the State of New Jersey, every underground aquifer is now believed to be contaminated with hazardous waste. Statement of Don Oliver, legal consultant on RCRA, Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

Open dumping also results in air and surface water pollution from fire and storm runoff, respectively. Consequently, Congress now requires that all land disposal be made into sanitary landfills conforming to specified criteria, and that all existing open dumps be upgraded. 42 U.S.C. §§ 6945, 6961 (1980).

22. Anderson, *supra* note 6, at 640.

It has also been suggested that unsafe land disposal practices survived the initial onslaught of environmental consciousness because of "this justifiable preoccupation with the quality of air and water." Comment, *Problems Associated with the Management of Solid Wastes: Is there a Solution in the Offing?* 83 W. VA. L. REV. 131, 131 (1980).

23. Kovacs & Klucsik, *supra* note 1, at 208.

and tentative. This hesitancy can be traced to two factors: Congress' perception that waste disposal was a "local problem" and Congress' failure to perceive that hazardous waste posed problems separate from those of ordinary garbage.

Federal legislators perceived waste disposal as a local problem because state and local officials had traditionally made the law of garbage.<sup>24</sup> An abrupt federal leap into waste control would have been likely to raise jurisdictional difficulties, so Congress eased itself gently into the area. First, Congress passed a statute devoted mainly to encouraging research into better disposal methods.<sup>25</sup> Next, Congress tied the statute procedurally to air pollution legislation, where federal involvement was already well-established.<sup>26</sup> But as if to verify the Congressional perception that garbage was a local problem, a flurry of state and local legislative activity followed passage of the federal statute.<sup>27</sup>

A second factor in Congress' hesitancy to legislate in the hazardous-waste area was that legislators thought of waste miscellaneously.<sup>28</sup> No special category of *hazardous* waste existed in law

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24. *Id.* at 205. Kovacs & Klucsik question the desirability of leaving solid waste management to the states and municipalities. Ante-RCRA, the lack of coherent legislative guidelines led to a reign of confusion wherein planning and spending to solve waste problems simply did not exist. In addition, existing state programs were "balkanized", i.e., characterized by self-interest and obliviousness to the national scope and threat of the problem.

25. The Solid Waste Disposal Act of 1965, Pub. L. No. 89-272 (1965) reaffirmed federal reliance on local governments. At the same time, the act directed the Department of Health, Education and Welfare to provide technical and financial aid to municipalities for planning disposal programs. Kovacs & Klucsik, *supra* note 1, at 214.

26. The Solid Waste Disposal Act passed as part of a package of 1965 amendments to the Clean Air Act. Treatise author F.P. Grad suggests that the Solid Waste Disposal Act reflected "federal awareness of both a growing national problem and of the interrelationship of solid waste disposal with the regulation of air pollution. Thus, the 1965 Solid Waste Disposal Act must be viewed in part as legislation in aid of more effective air pollution control measures." 1 F. GRAD, *supra* note 2, at 4-40.

27. Some authors have interpreted "the wave of state and federal legislative action which began in earnest with the enactment of the Solid Waste Disposal Act of 1965" as a valid index of the gravity of the problem. See Anderson, *supra* note 6, at 643 (quoting Comment, *Solid Waste Disposal By Means of Sanitary Landfill*, 36 ALB. L. REV. 632, 633 (1972)). On the other hand, it is possible to link the gravity of the problem to the fact that it was not perceived as a problem until 1965.

28. For many years, the Congressional wisdom was that management of solid waste—and hazardous waste—was "merely a municipal garbage problem." SUB-COMM. REPORT, *supra* note 5, at 56. According to W. Goldfarb, legislative failure to separate out hazardous waste from the concept of everyday garbage has compounded the hazardous-waste problem. Lumping the two types of waste together, Goldfarb asserts, distracted legislators from the "most compelling pollution problem" of how to deal with hazardous waste. Goldfarb, *Hazards of Our Hazardous Waste Policy*, 19 NAT. RESOURCES J. 249 (April, 1979).

or in human minds. The name given to the act Congress eventually passed typified the conventional perception of the garbage problem: the Solid Waste Disposal Act of 1965.

By 1976, commentators and RCRA's legislative history would make much of the fact that the statute marked a shift in the direction of greater and more direct federal involvement in the solid waste area.<sup>29</sup> What these accounts did not relate is that Congress needed a hook to hang its federal waste program on—a hook that would make responsible garbage control politically exciting enough to gain it public support without Congress having to deal with the hard problem of shifting industrial production patterns and consumer-consumption patterns. Congress found that hook in the hazardous-waste problem.

Congressional concern with hazardous waste stayed in the background while the United States had a brief flirtation with resource recovery and recycling in the early 1970s.<sup>30</sup> Within three years, however, it had become painfully clear that statistically successful programs lacked the all-important elements of environmental enhancement and economic feasibility.<sup>31</sup> As confidence in waste-reduction efforts waned, the Environmental Protection Agency (EPA) delivered its first report on hazardous waste to Congress.<sup>32</sup> A new problem was "born". All things considered,

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29. See, e.g., Kovacs & Klucsik, *supra* note 1, at 205.

30. Congress was right on the environmental consciousness bandwagon that swept through America in the wake of Earth Day, 1970. The Congressional contribution to environmental awareness of the solid waste problem was the Resource Recovery Act (RRA) of 1970, Pub. L. No. 91-512 (1970). Like the Solid Waste Disposal Act, RRA's tone was one of encouragement to local governments; it emphasized the virtues of management, recovery, and enhancement of air, water, and land resources. To promote resource recovery, RRA added provisions for grants to these programs. Kovacs & Klucsik, *supra* note 1, at 215; see also Wolf, *supra* note 15, at 463, n. 2.

31. After Earth Day and passage of RRA, EPA personnel working in solid waste dropped by 25% and a high incidence of environmental damage admittedly remained, though the program was still dubbed a "statistical success." Kovacs & Klucsik, *supra* note 1, at 216. By 1973-74, the rash of recycling programs which had dotted the map of the United States was disappearing, a victim of economic infeasibility. Meanwhile, despite recycling efforts, piles of waste grew steadily. Hamer, *supra* note 2, at 645-6. Support for recycling withered; almost as soon as municipal source separate programs were implemented in places such as Somerville, Massachusetts in 1975, they faced constant labor shortage problems and dubious futures. Skilling, *Solid Waste Programs and the Resource Conservation and Recovery Act of 1976*, [6 Monographs] ENV'T REP. (BNA) 14 (1977).

32. ENVIRONMENTAL PROTECTION AGENCY, REPORT TO CONGRESS ON HAZARDOUS WASTE DISPOSAL (1973). The report recommended that Congress adopt a law regulating hazardous-waste handling. Land disposal was singled out for concern, since it was a relatively unregulated area and since no national controls existed to assure environmentally acceptable disposal practices.

however, this was a happy development for federal legislators. The new problem was easily couched in terms of widespread crisis calling for the proverbial coordinated federal response.<sup>33</sup> Moreover, jurisdictional questions seemed clearer; the discard-and-dash techniques of midnight dumpers<sup>34</sup> raised both interstate-commerce considerations<sup>35</sup> and a pollution spectre analagous to those Congress had already dealt with in the Clean Air and Water Acts. Best of all, Congress could now put aside fundamentally disturbing questions relating to ever-increasing production of waste and concentrate instead on how best to put it down.<sup>36</sup> Or so it seemed in 1976.

## B. The View From the Street

To most Americans, the hazardous-waste problem went from nothing to nightmare in the time it took to read a newspaper headline about a place called Love Canal.<sup>37</sup> Initially, the problem

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33. It was easy to speak of a hazardous-waste "crisis" because discreet tragedies relating to hazardous-waste dumping produced concrete health and environmental effects—such as children getting burned by chemicals at their play areas—which could arouse public indignation. (This potential for crisis characterization was not present in the context of ordinary garbage.) Congress enhanced the crisis-like character of the hazardous-waste problem by detailing fifty-eight instances of improper hazardous-waste disposal practices from twenty-eight states in RCRA's legislative history. H.R. REP. NO. 1491, 94th Cong., 2d Sess., 17-23, *reprinted in* 1976 U.S. CODE CONG. & AD. NEWS 6238. (hereinafter cited as HOUSE REPORT). These examples in turn pointed to the states' lack of planning and spending to solve their hazardous-waste problems and to the need for a "comprehensive federal policy for waste management." Kovacs & Klucsik, *supra* note 1, at 205.

34. Midnight dumper is a colloquial term used to describe a person who disposes of hazardous waste improperly, but very "cheaply".

35. Interstate commerce issues reared up as states such as New Jersey purported to enact laws restricting or banning hazardous waste brought into the state by out-of-state transporters. Import bans were eventually held unconstitutional in *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978). Declining to accept New Jersey's assertion that its import ban was analagous to a quarantine regulation, the Supreme Court held that the parochial and discriminatory law had greater than incidental effects on interstate commerce, since it purported to shut the article of commerce entirely out of the state.

36. Commentator Anderson observes that in RCRA, as compared with dumping concerns, Congress was "much less specific" as to materials and energy savings. In fact, Congress merely noted the "waste" involved in burying useables and the benefits of using them. Anderson, *supra* note 6, at 648.

Kovacs and Klucsik also commented indirectly on Congress' preoccupation with disposal. They noted that EPA's regulatory authority over generators was limited by the fact that EPA could in no way limit the generation of hazardous waste. Kovacs & Klucsik, *supra* note 1, at 226.

37. The Love Canal, located in Niagara, New York, was used as a chemical disposal site by Hooker Chemical Company from 1942 to 1952. In accordance with state-of-the-art technology, wastes were poured directly into the clay-type dirt canal or

implied all the elements of crisis: a nonroutine issue different from other crises—which occurred only rarely and then for reasons beyond the control of government and industry (who were coping with it as best they could)—and a suggestion that sacrifice would be necessary to overcome it.<sup>38</sup>

During a crisis, people will normally sell their civil liberties, accept repression, or swallow their criticisms of government action<sup>39</sup> in return for leadership and reassurances that their interests are being protected against powerful groups or forces. However in the hazardous-waste crisis, governments failed miserably at creating an appearance of leadership. President Carter declared an emergency at Love Canal, yet state and federal officials “bickered” over who would pay for cleanup and at least one commentator predicted that it would take another crisis to move government to action.<sup>40</sup> In North Carolina, where PCB-laced oil is buried along 210 miles of road shoulder, the governor was unable to deliver on his promise to have the contaminated soil dug up and reburied in another county.<sup>41</sup> Meanwhile, EPA was sued for its failure to promulgate regulations implementing the hazardous-waste section of RCRA, Subtitle C.<sup>42</sup> Congress itself defended the lack of merits:

It is important that a perspective be maintained on the issue of the behavior of government officials. The officials are not the source of the problems. The dumping was done by private concerns which at times profited substantially at the expense of the environment and,

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buried there in drums. About twenty-five years later, the waste began to leach through the earth's surface, and families living nearby slowly began to connect its appearance with many health problems they had been having. By 1978, President Carter had declared the incident an emergency under the Disaster Relief Act, and over 200 families living at the southern end of the canal evacuated. Nader & Brownstein, *supra* note 9.

38. J.M. EDELMAN, *POLITICAL LANGUAGE: WORDS THAT SUCCEED AND POLICIES THAT FAIL*, at 44 (1977).

39. *Id.* at 48.

40. Nader and Brownstein, *supra* note 9, at 28-31.

41. Begley, *Toxic Waste Still Pollutes Roadways*, NEWSWEEK, Oct. 27, 1980, at 25.

42. *Illinois v. Costle*, 9 ENVTL. L. REP. (ENVTL. L. INST.) 20,243 (1979). The State of Illinois and several environmental groups sued EPA for its failure to meet statutory deadlines for promulgating RCRA regulations. The court found that EPA had proceeded in good faith given that the agency was subject to funds shortages, technicality of information, complexity of the problem and the scope of the regulations, and to the needs for intergovernmental cooperation, interagency coordination, and public input. However, the court set out a promulgation-compliance schedule much like EPA's own which EPA was also unable to meet. A large proportion of the regulations were eventually promulgated in the May 19, 1980 Federal Register.

at times, the public health.<sup>43</sup>

With public confidence at a low ebb and open-dump stories frequently in the news, it was not surprising that "political concerns" became the biggest barriers to governments' search for new sites to put hazardous waste safely down in.<sup>44</sup> In California, fierce local opposition forced three of California's existing class I disposal sites<sup>45</sup> to close<sup>46</sup> before the legislature could pass a bill removing the power to close these sites from local hands.<sup>47</sup> These repressive government measures, though couched in terms of emergency, seem ironic in light of recommendations made by Congress only two years ago: "As minimum measures to rebuild public confidence in the efficacy of hazardous waste regulation, state and local governments as well as EPA should encourage maximum public participation in siting decisions."<sup>48</sup> Actually, as the discussion in Section III will demonstrate, government implementation of hazardous-waste regulation has been characterized by a pattern of redefinition, undirected activity, and diversionary tactics designed to

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43. SUBCOMM. REPORT, *supra* note 5, at 18.

44. [9 Current Reports] ENV'T REP. (BNA) 1406 (Dec. 8, 1978). Government asserted that local community opposition could be explained in terms of the public's lack of knowledge about the safety and security of proposed facilities. To combat this unreasonableness, public education programs, strong political leadership, and bills not subject to local veto which charged states with disposal facility siting were "needed". *Id.* at 1407.

Were it not for the time differential, such statements of need could well have been inspired by experience in Massachusetts. In 1979, the state developed from a survey a list of appropriate hazardous-waste disposal sites. No sooner had word of the results leaked out than special bills prohibiting facility location in these areas were pushed through. Berkeley, *Dearth of Dumps*, Wall St. J., Nov. 18, 1980, at 56, col. 2.

45. A disposal site may be classified according to its geological characteristics and this, in turn, determines the types of wastes it can accept. A Class I disposal site by its natural characteristics presents no possibility of waste discharge to useable waters. Operators of these sites may use artificial barriers only to control lateral waste movement; inundation and leachout must not be allowed to occur. Class I sites—as opposed to Class II-1, II-2, and III—are the only type that can consistently accept wastes which could significantly impair the quality of useable waters, and which this paper refers to as hazardous. Materials from Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981) (on file with author).

46. As of August, 1981, Calabasas Landfill, Otay Sanitary Landfill, and Palos Verdes Landfill were no longer accepting hazardous wastes, according to hazardous-waste transporter Yoshiko Findly of Findly Chemical. Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981) (on file with author).

47. The bill, S.B. 501, was signed into law by Governor Brown in late July, 1981. Statement of Pete Rogers, Director of California Hazardous Materials Department, at Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981) (on file with author).

48. SUBCOMM. REPORT, *supra* note 5, at 28.

direct public attention away from waste generation and towards putting it down.

Even laying health and the environment aside, hazardous-waste disposal facilities (HWDFs) have virtually nothing beneficial to offer nearby communities which must immediately suffer their effects. Unlike power plants and refineries, HWDFs do not pay huge property taxes; unlike prisons and other such institutions, HWDFs do not provide a large number of jobs.<sup>49</sup>

EPA believes that public opposition is a short-term phenomenon.<sup>50</sup> One way or another, EPA may turn out to be right. Of those who live next to large hazardous waste generators, some openly support the companies while others—asking not to be named—are scared.<sup>51</sup> But many people are confused<sup>52</sup> or defeated.<sup>53</sup> Like the effects of TV violence on children, the dangers of hazardous waste have been characterized by a pattern of media overkill, and consequently the feeling of crisis which allowed communities to band together in opposition to new HWDFs may now be diffusing in the minds of most Americans.<sup>54</sup> For the present, public opposition remains as an irritating and significant obstacle to putting it down. But remaining opposition only leads government to push its waste-disposal policy all the more insistently while the harder, more unsettling problem of waste generation gets buried in the shuffle. As Section III will show,

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49. Berkeley, *supra* note 44, at 56, col. 2.

50. [9 Current Developments] ENV'T REP. (BNA) 2081 (March 9, 1981).

51. Jasen, *Health Hazard*, Wall St. J., May 22, 1979, at 41, cols. 1 & 3.

52. One resident of Charles City, Iowa, who lives near the on-site disposal area of the Salisbury Company, exemplified this confusion: "I've said to my husband for years that they shouldn't be dumping there. But chemicals are everywhere. One test will show it's dangerous, one test will show it's not. In this day and age, who do you believe?" (The Salisbury Company was ordered by EPA in 1977 to stop dumping and remove the hazardous wastes it had already put down adjacent to its plant, because of the danger to the area's drinking water aquifer. The company countered with a proposal to cover the site with clay, seed it with grass, and monitor it carefully. EPA agreed.) *Id.*

53. Lois Gibbs has been trying for years to make government provide real relief for the families—including her own—involved in the Love Canal disaster. Her experience has been disillusioning: "I've learned that if your problem doesn't fit into a slot or program, your problem doesn't exist as far as the government is concerned." Nader & Brownstein, *supra* note 9, at 28-29. *Cf.* text and notes at nn. 32-36, *supra*.

54. For example, the citizens of West Covina, California recently voted to keep their local hazardous-waste disposal site open for business. L.A. Times, Nov. 4, 1981, at 1, col. 5. The measure involved, Proposition k, would have prohibited "dumping of all hazardous material in the only remaining landfill south of the Tehachapis certified to take them." *Id.* at 3, col. 2.

government's entrenchment in this single-minded policy is dangerous.

## II.

### A SPECIAL KIND OF WASTE

As the preceding section has suggested, it is possible to view hazardous waste in terms of its characteristics (i.e., the dangers of hazardous waste) or in terms of the problem it presents. While government has tended to operate according to the problem view, citizen constituents have reacted to media presentations of the characteristics of hazardous waste. Therefore, in order to implement its program of putting it down, government has had to become involved in dealing with the characteristics of hazardous waste. This section will explore some of the considerations and consequences of this involvement.

#### A. Complexity

Most ordinary garbage is like obscenity;<sup>55</sup> one knows it when one sees it. But distinguishing hazardous waste from ordinary garbage is rather like trying to decide whether a vial of clear liquid is water or sulfuric acid. In both cases, one cannot tell the difference just by looking. And it practically goes without saying that treating the dangerous substance as if it were the innocuous one leads to tragic consequences.

One of EPA's tasks in setting up regulations under RCRA was to help generators identify hazardous waste so that it could be handled differently than ordinary garbage.<sup>56</sup> Working from the statutory mandate to protect human health and the environment,<sup>57</sup> EPA devised three different methods that generators can use to determine whether a waste they produce is hazardous.<sup>58</sup> First, generators can refer to a listing of hazardous wastes or substances. References include EPA's listing under RCRA;<sup>59</sup> state

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55. See Justice Stewart's concurrence in *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964).

56. Section 3001(a)-(b)(1) of RCRA, 42 U.S.C.A. § 6921 (West Supp. 1980), authorizes EPA to promulgate criteria for identification and listing of hazardous wastes, as well as to identify and list particular wastes determined hazardous under the criteria. The statute contemplates an open-ended listing.

57. 42 U.S.C.A. §§ 6903, 6922, 6923, 6924 (West Supp. 1980).

58. WASTE ALERT, *supra* note 4, at 26.

59. EPA's original listing of wastes identified as hazardous appears at 45 Fed. Reg. 33,122 (1980) (codified in 40 C.F.R. § 261 (1980)).

listings;<sup>60</sup> listings under other statutes, such as the Clean Water Act;<sup>61</sup> or listings given by a chemical textbook of substance characteristics, such as the Coast Guard/Department of Transportation's chemical sourcebook, the C.H.R.I.S.<sup>62</sup> Second, generators can test a waste stream to determine whether it displays hazardous characteristics. Finally, generators can simply declare a waste hazardous.

Of course the big issue is whether these regulations will actually protect human health and the environment. Unfortunately, the regulations seem to raise more questions than they answer.

Identifying hazardous waste would be relatively simply if a generator had only to refer to a list.<sup>63</sup> The reality is that most generators do not even know *what* they are producing, much less whether or not it is hazardous.<sup>64</sup> One participant at a recent hazardous-waste management seminar for generators noted that he had attended the function in hopes of discovering someone who could do complex chemical analysis. The reason: he was involved in testing rocket fuel which produced a new kind of waste.<sup>65</sup> No one knew what to call it or what it was likely to do. Consequently, no hazardous-waste listing was of any use to him. Even assuming a list could have helped, EPA's listing effort under RCRA is far from complete. EPA failed, for example, to list many known carcinogens.<sup>66</sup>

Assuming now that a generator chooses to test a waste for hazardousness, will the results yield data sufficient to assure protection of human health and the environment? Two considerations suggest that the answer is "no." The first consideration concerns the testing criteria EPA developed to determine whether a waste is hazardous. EPA decided that a waste can be hazardous according to four different criteria: ignitability, corrosivity, reactivity, and

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60. See, e.g., CAL. ADMIN. CODE tit. 22, § 66680 (1981).

61. Under the Clean Air Act, toxic pollutants are listed in the form of criteria documents. EPA announces the availability of these documents in the Federal Register (see, e.g., 45 Fed. Reg. 79318 (1980)), and periodically compiles them into book form. *Id.* at 79319.

62. Statement of Don Oliver, legal consultant on RCRA, Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

63. Indeed, this is the focus of EPA's identification system under the RCRA regulations. Friedland, *supra* note 3, at 104.

64. *Id.* at 95.

65. Inquiry from unidentified member of audience, Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

66. SUBCOMM. REPORT, *supra* note 5, at 40.

toxicity.<sup>67</sup> However, EPA has been roundly criticized for failing to require testing of other indicators of hazardousness, including radioactivity, infectiousness, phytotoxicity, and teratogenicity. The oversight committee doing the criticizing was not impressed by EPA's lack of confidence that test protocols existed for these indicators.<sup>68</sup>

Even granting that EPA's testing criteria for hazardous waste are adequate to meet RCRA's standard, a second consideration thwarts protection of human health and the environment: it is a hazardous-waste *stream* that generators produce. While tests may be reasonably valid at a point in time and under test conditions, in real life each hazardous-waste stream is unique in its ingredients and concentration, and becomes subject to a different set of non-laboratory conditions. Hazardous-waste streams' characteristic uniqueness renders them unattractive for reuse,<sup>69</sup> and it is hard to understand why this consideration should be irrelevant in the hazardous-waste identification context.

Before moving on to evaluate generators' third alternative for identifying hazardous waste, we should factor in a consideration relating to both the listing and testing methods. This consideration is best illustrated by a recent article in *Environment Reporter*

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67. One of EPA's recent public education publications describes the four characteristics selected by EPA for testing wastes' hazardousness as follows:

- Ignitability, which identifies wastes that pose a fire hazard during routine management . . . .
- Corrosivity, which identifies wastes requiring special containers because of their ability to corrode standard materials, or requiring segregation from other wastes because of their ability to dissolve toxic contaminants.
- Reactivity . . . which identifies wastes that, during routine management, tend to react spontaneously, to react vigorously with air or water, to be unstable to shock or heat, to generate toxic gases, or to explode.
- Toxicity, which identifies wastes that, when improperly managed, may release toxicants in sufficient quantities to pose a substantial hazard to human health or the environment.

WASTE ALERT, *supra* note 4, at 12-13.

68. For a discussion criticizing EPA's failure to recognize characteristics such as radioactivity, infectiousness, and mutagenicity in the hazardousness testing process, see SUBCOMM. REPORT, *supra* note 5, at 39-41.

69. S. Wolf notes that though the lack of federal incentives to reduce and reuse waste is one reason why these strategies have not caught on in the United States, the technological complexity of the waste streams is another reason:

Complicating recovery and recycling of industrial hazardous wastes is the fact that their chemical and physical characteristics are nearly as numerous and diverse as the millions of production processes which generate them. Consequently, industrial hazardous waste streams must be specifically suited or adapted for the manufacturing or energy producing activity which recovers or recycles that waste.

Wolf, *supra* note 15, at 530.

which suggests that EPA is not checking up too closely on industry's test results. Nine firms had petitioned EPA to delist waste with respect to those industries, because given the individuality of the waste streams, the wastes in them were not hazardous. A sworn affidavit was submitted with each petition. EPA did not run spot checks on the submitted test reports because the affidavit "sufficiently [bound] the petitioners to ensure presentation of truthful and accurate test results."<sup>70</sup> Some people may differ with EPA on the merits of letting industry de-list with unchecked impunity, given that human health and the environment are at stake.

Not surprisingly, testing waste streams is expensive and time-consuming. Geraldine Cox, environmental scientist for the American Petroleum Institute, feels that industries will sidestep this reality by simply declaring their wastes hazardous.<sup>71</sup> In a state that assesses generators a fee for disposing of hazardous waste, generators may find it worthwhile to test on the chance that some of their waste can be declared nonhazardous.<sup>72</sup> Failing this, Ms. Cox's statement sounds plausible. Unfortunately, it now seems that our analysis has come full circle. We hoped that the identification process would aid generators in safely managing particular hazardous wastes. But simply having said that a waste is hazardous tells us nothing about the circumstances under which it is hazardous and why. Moreover, a mere declaration of hazardousness says nothing about the disposal controls the waste requires in order to ensure that human health and the environment are protected (although cutting down on production would certainly further this goal). We should learn from the fatal experience of the bulldozer operator who blew up along with the drums of unidentified chemical waste he was burying.<sup>73</sup> When it comes to hazardous waste, what we don't know can hurt us. And *if* we don't know about many wastes, it makes sense to cut down on the amount we create, rather than finding out about their special hazardous qualities the hard way.

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70. [11 Current Developments] ENV'T REP. (BNA) 1398-99 (Jan. 9, 1981).

71. [9 Current Developments] ENV'T REP. (BNA) 1411 (Dec. 8, 1978).

72. Statement of Pete Rogers, Director of Hazardous Materials Department, California, at Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

California is an example of a state which helps to finance its hazardous-waste management program by charging generators a per-ton fee for disposing of hazardous waste. CAL. ADMIN. CODE tit. 22 R. 66670-66676 (1981). For a discussion explaining and applauding fee systems for state hazardous-waste programs, see GAO REPORT, *supra* note 1.

73. WASTE ALERT, *supra* note 4, at 5.

## B. Longevity and Insidiousness

With hazardous waste, it is not the sudden but rather the non-sudden, creeping kind of disaster that sends chills down the respective spines of those who follow the nightly news.<sup>74</sup> Toxic waste specializes in this type of disaster, for it is long-lasting and insidious by nature.<sup>75</sup> Toxic waste tends to be practically "forever" because it seldom breaks down naturally. If one assumes that necessary technology exists, the biodegradation process can sometimes be encouraged if the waste is treated before burial.<sup>76</sup> But as of 1977, only five percent of the hazardous waste EPA knew about received this kind of treatment.<sup>77</sup> After burial, the problem is literally in the ground. Soil used to be seen as a huge sponge to sop up waste spills; in fact, one common dumping method involved rolling barrels of hazardous waste off the back of trucks and then breaking these containers open with axes to ensure that as much hazardous waste as possible would spill out and be soaked up by the soil.<sup>78</sup> The bitter irony lies in the fact that the great sponge turned out to be a pollution sink. While air and water feature natural transportation systems and much assimilative capacity, land has neither of these characteristics. So hazardous wastes merely stay underground, "like ticking time bombs."<sup>79</sup>

It is easy to forget about hazardous wastes because once put

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74. Marshall Shapo's thesis is that Americans have come to a consensus during the last forty years about the risks that accompany scientific benefits. As these risks come into the public eye, Americans "adopt a generally risk averse perspective on being exposed to dangers that are cumulative, unseen, and uncertain over the long term." A desire for self-protection manifests itself in safety statutes (such as RCRA) and worry over exposing random groups to horrors that strike, insidiously and invisibly over months or years. Shapo, *Introduction* to M. SHAPO, *A NATION OF GUINEA PIGS* at xiv (1979).

This risk averse perspective is also reflected in the fact that insurance companies will not issue coverage for so-called "nonsudden occurrences" at closed hazardous waste disposal facilities. Wolf, *supra* note 15, at 514-23.

75. Anderson, *supra* note 6, at 640.

EPA points out that wastes classified under its fourth testing criterion, toxicity, tend to show their effects chronically and over a long period of time. WASTE ALERT, *supra* note 4, at 12.

76. On the other hand, treatment may have the effect of making a hazardous waste far less bulky, yet far more concentrated and toxic. This result sometimes occurs with the residue left after hazardous wastes are incinerated. COMPTROLLER GENERAL OF THE UNITED STATES, *HAZARDOUS WASTE DISPOSAL METHODS: MAJOR PROBLEMS WITH THEIR USE 6-7* (November, 1980) [hereinafter cited as *HAZARDOUS WASTE DISPOSAL METHODS*].

77. [7 Current Developments] ENV'T REP. (BNA) 1490 (Feb. 4, 1977).

78. SUBCOMM. REPORT, *supra* note 5, at 11.

79. *Nightmare in Niagara*, *supra* note 9, at 46.

underground, they may no longer offend the senses in a direct way. Similarly, some chemicals which smell extremely noxious at low levels become odorless above their threshold limit values.<sup>80</sup> If hazardous wastes do bubble up in the basement, it may take time for people to connect this manifestation with the general ill health they have been having. This is exactly what happened at Love Canal.<sup>81</sup> Toxic hazardous wastes are often found in connection with those special kinds of health problems that may go unsolved or unnoticed for long periods of time: acute sensitive reactions, cancers, birth defects, and miscarriages.<sup>82</sup>

By whatever categorizations or criteria hazardous wastes are named, they are also characterized by extreme chemical complexity, persistence in their hazardousness beyond the corporate lifetimes of most disposal companies, and insidious effects which leave their mark on the sensitive and the unborn. It makes one wonder why the ranks of hazardous wastes are being allowed to grow so rapidly.

### C. Dynamic Tendencies and Inevitability

It is difficult to say just how much more hazardous waste the United States produces each year; the estimates are gross and their origin obscure. But the available figures present a situation that is anything but static. Setting aside the issue of new *kinds* of hazardous wastes brought to us by the so-called advance of technology, which have not yet been recognized as hazardous, we find the following: EPA estimated that approximately forty-six million tons of hazardous waste were produced in 1978.<sup>83</sup> By 1980, that total

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80. Don Oliver, legal consultant on RCRA, described a sulfur compound with these characteristics at the Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

Threshold limit value (TLV) is a general guide to toxicity, given in terms of parts per million (gases) or milligrams per cubic meter (solids). Substances of high toxicity have low TLVs; the TLV number indicates the amount of exposure to a substance that a person should not exceed over an eight-hour day. Therefore, TLVs are directly applicable only in a situation of repeated exposure to low concentrations over a substantial time period. Materials from Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981) (on file with author).

81. *Nightmare in Niagara*, *supra* note 9, at 46.

82. At Love Canal, for instance, the escape of hazardous chemicals was linked with a high incidence of birth defects, miscarriages, and other chronic health problems. To this day, residents and ex-residents also have to live with the fact that as much as 90 percent of the chemicals found there have tested out carcinogenic. [9 Current Developments] ENV'T REP. (BNA) 581 (Aug. 11, 1978).

83. [9 Current Developments] ENV'T REP. (BNA) 1301 (Nov. 17, 1978).

had skyrocketed to "at least 57 million *metric tons*".<sup>84</sup> To bring this two-year growth pattern into the realm of lay imagination, this increase alone represents the combined weight of approximately 200 million men!<sup>85</sup>

It is no answer to say that "the tonnages requiring disposal will increase because production is increasing"<sup>86</sup> or that public cooperation with government disposal programs is vital because "the American way of life as we know it today depends upon an abundance of . . . material goods . . . whose manufacture generates hazardous waste as a by-product."<sup>87</sup> These phrases merely restate the tired theme of more hazardous waste, inevitably. The more often this theme is played, the more people will come to feel they should live with it<sup>88</sup> unless they fancy life in a cave. It may make more sense to consider hazardous waste's inevitability characteristic from a different angle.

Interestingly, the pre-Love Canal literature on RCRA and hazardous waste did not focus on inevitable increases in production but on technology assessment, in-depth detoxification studies, and resource conservation.<sup>89</sup> Even then, though, a strange sort of bias often appeared in the reasoning as alternative strategies were considered. The bias was not in favor of protecting human health and the environment; rather, it was a bias in favor of growth and increased production. A discussion on resource conservation in RCRA's legislative history provides a prime example. Two alternatives, resource conservation by reduction and by reclamation, were advanced. The second approach was found to be especially desirable because it would lessen the demand for raw materials and preserve the domestic reserves.<sup>90</sup> (One is compelled to ask what the first approach would do if not the very same thing.) At

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84. WASTE ALERT, *supra* note 4, at 1 (emphasis supplied).

85. The weight of a man was taken to be 150 pounds; a ton is 2000 pounds while a metric ton is 2204 pounds.

86. WASTE ALERT, *supra* note 4, at 36.

87. *Id.*

88. Murray Edelman has observed this phenomenon in politics generally, whenever an opposing ripple meets the political mainstream. Otherwise, "effective political action is likely when it does not disturb power, income, or status hierarchies. More often, politics creates a way of living with social problems by defining them as inevitable. . . ." EDELMAN, *supra* note 38, at 141.

89. Skilling, *supra* note 31, at 24. This focus may in part be attributable to EPA preparation to write RCRA regulations, though it is difficult to see just how such a focus would relate to identification, transportation, treatment, storage, and disposal—the major concerns of Subtitle C.

90. HOUSE REPORT, *supra* note 33, at 10.

other times the bias appeared more subtly, as in one commentator's warning that "EPA ought to be concerned about the potential of the waste industry to dominate EPA decision-making and discourage technology-forcing regulation."<sup>91</sup> (This assumes, of course, that production-ethic-oriented technology is the answer to the waste problem.)

The point about bias is this. Most analyses concerning hazardous waste begin by asserting that "we have it and we're [emphatically] not going to stop [or curtail] producing it."<sup>92</sup> One could even argue that starting analysis from this position is implicit in the concept of hazardous-waste management; after all, if it doesn't exist already, why does it need to be managed? But this innocent little slant parallels the bigger bias in an economic system where "reduction" is a dirtier word than garbage.<sup>93</sup> Industry will not fight EPA's RCRA regulations, so long as the cost of complying with them can be recovered on the open market or will be covered by subsidies or other government handouts. Similarly, if industry can secure rollbacks in the regulatory standards as easily under RCRA as under the ambient air quality standards of the Clean Air Act,<sup>94</sup> why should industry worry about the initial regulations EPA promulgates? As the world of hazardous-waste management now turns under RCRA and comparable state laws, most generators need not yet consider the awful production consequences of significantly reducing or holding constant the amount of hazardous waste they produce.

### III.

#### GOVERNMENT GIVES A PROPER BURIAL

We turn now to the "disposal problem" view of hazardous waste, a view cherished by many government officials. By now the problem has collected additional dimensions: public opposition, special technical difficulties, and unspeakable implications for ever-increasing production. But for governments, both the problem and the implied solution are still easy to state: How can

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91. Anderson, *supra* note 6, at 656.

92. Remark of Jan Schienle, Environmental Health and Safety, U.C.S.B., at Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

93. "The solid waste problem is subversive of America's production ethic to a greater degree than either air or water pollution. . . ." This is because actual products—not just by-products—need to be discarded commensurate with consumption levels. Goldfarb, *supra* note 28, at 250.

94. *See generally* R. STEWART & J. KRIER, ENVIRONMENTAL LAW AND POLICY 325-504 (2d ed. 1978).

we best put it down?<sup>95</sup> This section isolates three types of attempts—definition-redefinition, action versus activity, and divert and inter—engaged in by various levels of government to facilitate the put-down process in light of the hazardous-waste problem's many dimensions.

#### A. Definition-Redefinition

The hazardous-waste definition-redefinition phenomenon occurs among legislators and administrators. It manifests itself through laws, regulations, and media releases. During the definition phase, as seen in Section I, government officials may have been more concerned about determining the contours of their roles in the problem than in determining the scope of the problem itself.<sup>96</sup> Nevertheless, much of the scope-setting language used by governments in defining the hazardous-waste problem is extremely astute and sensitive politically. Two examples from RCRA's background highlight this careful choice of words. The ultimate example may be in the name Congress gave to its dealings with hazardous waste, i.e., "management".<sup>97</sup> It is hard to imagine a word with stronger, clearer connotations that the problem is in capable hands and, more specifically, that government has the problem under control. Given these connotations, one might predict that questions about the government program of hazardous-waste management would tend to relate to program adequacy rather than to government competency to program at all. One might also suspect that questions of adequacy are more easily answerable, in a statistical form familiar to citizens,<sup>98</sup> than questions of competency.

A pair of popular phrases, associated with Subtitle C and often

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95. Here is a statement typical of the government problem view: "The failure to properly dispose of hazardous waste is costing the public millions and the cost of cleanup is far more expensive than proper disposal in the first place." SUBCOMM. REPORT, *supra* note 5, at 5.

96. See notes and accompanying text, *supra* at nn. 24-36.

97. Subtitle C of RCRA is entitled "Hazardous Waste Management."

98. Despite the generally-known flexibility of statistics, we are used to reading about and consequently to giving some respect to statistical justifications of program adequacy.

It is interesting to note that the companion bill to RCRA, the Solid Waste Utilization Act of 1976 (S. 2150), had a section analogous to Subtitle C but called "Hazardous Waste Disposal Control." In this context, disposal meant "the environmentally unacceptable practice for dealing with . . . hazardous waste . . ." Perhaps this characterization did not win out because the colloquial meaning for disposal was too close to what government was trying to do. SENATE REPORT, *supra* note 12, at 26.

seen in scholarly articles<sup>99</sup> and public relations pamphlets alike,<sup>100</sup> provides another example of the way the federal government defined its solution to the hazardous-waste problem. Read together, they conjure up a neat picture of the aims of hazardous-waste management: "closing the circle of Federal environmental protection"<sup>101</sup> by tracking hazardous wastes from "cradle to grave."<sup>102</sup> Closer inspection of these terms reveals their usefulness. "Closing the circle" bespeaks getting a job done right and lacks the negative connotations of tying off loose ends; it also symbolizes something many of us associated with nature and the natural, i.e., complete cycles. "Cradle to grave coverage" implies that hazardous waste lives and dies the way people do, and that if we put a marker where it is buried and remember it occasionally on holidays as we do the dearly departed, we have paid our respects to the dead. Never mind that hazardous waste does not cycle nor stay "dead" just because it is buried.

At best, the hazardous-waste problem definition process has been a rough-edged one. In order to deal with public opposition, technical complications, and economic realities, governments use definitional fine-tuning, or redefinition. Although examples of redefinition are legion, this paper will point out only three. The first is a popular media representative which shows how New York State government is redefining the Love Canal disaster. Based on its confidence in a new drainage system, the state has decided to "revitalize" and "arrest blight." The State program focuses not on moving families away or boarding up homes, but rather on "applying for Federal funds for the urban renewal and beautification of the area, purchasing the homes of residents who wish to leave, and reselling them."<sup>103</sup> Through the redefinition process, what used to be a national emergency<sup>104</sup> has now become a real-estate bonanza. The state is betting that people will decide that the benefits of owning homes at bargain-basement prices will outweigh the health risks of living next door to the Love Canal.<sup>105</sup>

Redefinition at the state administrative agency level is exemplified by a proposed plan of the California Department of Health

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99. See, e.g., Anderson, *supra* note 6.

100. See, e.g., WASTE ALERT, *supra* note 4.

101. An alternative way to say this is closing the "loop" or "gap" of federal environmental protection.

102. WASTE ALERT, *supra* note 4, at 9.

103. Nader & Brownstein, *supra* note 9, at 30.

104. See *supra* note 37.

105. Nader & Brownstein, *supra* note 9, at 30.

Services (DHS).<sup>106</sup> Current California regulations (April, 1981) define intensely regulated waste as "hazardous" or "extremely hazardous".<sup>107</sup> Recently, DHS officials have faced growing pressure from citizens who rest uneasily with the thought of large-scale hazardous-waste burials in their communities.<sup>108</sup> Luckily for DHS officials, a number of the wastes (such as oil drilling muds) can be described as only marginally hazardous. Future regulations may reclassify some of these wastes as "special", thus avoiding the politically unwelcome "hazardous" adjective. DHS' leading rationale is *admittedly* to make it easier to put these wastes down!<sup>109</sup>

In developing regulations for Subtitle C of RCRA, EPA itself has engaged in multiple redefinition. Sometimes it seems as though EPA, if it cannot get the problem underground, will at least manage to bury it under mountains of paper. Perhaps the most dramatic case in point is EPA's scheme for issuing technical regulations covering hazardous-waste land disposal facilities. The saga began on December 18, 1978, when EPA issued "proposed draft regulations" based on specific design requirements,<sup>110</sup> with the understanding that a complete, comprehensive set of regulation on this concept would soon follow.<sup>111</sup> In ensuing months, EPA came to understand that this approach was "unnecessarily inflexible" and insensitive to site-specific factors obviating the

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106. DHS is the umbrella agency in charge of health and environmental matters in California. The Hazardous Materials Department deals specifically with hazardous waste and the state hazardous-waste management plan.

107. CAL. ADMIN. CODE tit. 22, §§ 66064, 66088 (1981).

Extremely hazardous waste "means any hazardous waste or mixture of hazardous wastes which, if human exposure should occur, may likely result in death, disabling personal injury or illness because of the quantity, concentration or chemical characteristics of the hazardous waste or mixture of hazardous wastes."

Hazardous waste "means any waste material or mixture of wastes which is toxic, corrosive, flammable, an irritant, a strong sensitizer or which generates pressure through decomposition, heat or other means, if such a waste or mixture of wastes may cause substantial injury, serious illness or harm to humans, domestic livestock or wildlife. Hazardous waste includes extremely hazardous waste." *Cf.* note 5, *supra*.

108. *See supra* note 46.

109. Hazardous Materials Department Director Pete Rogers based this projection both on the fact that California now has fewer Class I disposal sites (*see supra* text accompanying note 45) and the prediction that public reaction to burying something "special" will be less unfavorable than the opposition to burying something "hazardous".

110. 45 Fed. Reg. 66,817 (1980). "For example, one proposed landfill standard would have required placement of a soil liner of at least 1.5 meters which had a permeability of less than  $1.0 \times 10^{-7}$  cm/sec."

111. Wolf, *supra* note 15, at 501.

need for such stringent requirements. Consequently, EPA redefined its requirements in a supplemental proposal which appeared on October 8, 1980, in the Federal Register.<sup>112</sup> This reproposal became an "interim final promulgation" on February 13, 1981,<sup>113</sup> to allow for an 180-day public comment period before its effective date of August 13th.<sup>114</sup> Further redefinitions may be forthcoming in EPA's "final final" land disposal standards, now optimistically expected to appear sometime in 1982.<sup>115</sup>

With the benefit of hindsight, one can say that the hazardous waste definition-redefinition process is flawed in two important ways. Initially, the process redefines the hazardous-waste problem instead of painting a more realistic picture of government's ability to handle it. Next, in a significant number of instances redefinition is accomplished by covertly changing the protection standards set by RCRA and its state counterparts. While cloak-and-dagger techniques may be appropriate on the economic scene—where, for instance, government disguises inflationary impacts by manipulating the consumer price index—the considerations are different here. Human health, the environment, and life in the future are at stake, and government must not be allowed to compromise their legally-mandated protection by a process of redefinition.

## B. Action versus Activity

Because the hazardous-waste problem is a very lively issue today, it behooves government officials to demonstrate their true concern by engaging in lots of activity in the area. Ironically, the most noticeable results of all this legislative and regulatory activity are protracted delay, mass confusion, and mounting frustra-

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112. 45 Fed. Reg. 66,817 (1980). EPA had originally considered four types of standards—facility design requirements, containment strategies, specific ambient health and environmental performance standards, and non-numerical health and environmental standards. Because containment standards offer protection to human health and the environment for only a specified, finite period, EPA decided not to use this approach; interim final regulations are a combination of the other three approaches. *Id.* at 66,817-19.

113. 46 Fed. Reg. 12,427-28 (1981). Interim final regulations under RCRA are "final" in the sense that they go into effect six months after they are promulgated and "interim" in the sense that EPA accepts additional comments on them before issuing "final final" rules. This strategy was adopted to avoid an additional regulation-free period of at least nine months while EPA redefined the hazardous-waste-land-disposal-facility problem.

114. *Id.* at 12,414-15.

115. *Id.* at 12,415.

tion—none of which has anything favorable to do with definitive *action* in the direction of hazardous-waste management.

Protracted delay is facilitated not only by the various dimensions of the hazardous-waste problem discussed in Section II, but also by administration of the “solution” from the top level of government down and by scanty funds commitments at all levels. These points have been noted and exhaustively analysed by government officials as well as commentators.<sup>116</sup> One might get the impression from these discussions that the people in charge of doing something about hazardous waste merely sit around in their offices collecting their paychecks. Undeniably, the figures cited in these publications are damning and the scapegoats convenient, but telling observations are likewise conspicuously absent. Protracted delay also results when legislators and administrators *over-act*, or find themselves at the ends of too many political yo-yos. These phenomena are also prominent among government officials in hazardous-waste-management sectors.

There is certainly no paucity of legislative activity relating to hazardous waste. “Everyone wants to be a pioneer in the hazardous waste area,” noted one California administrator.<sup>117</sup> At that time there were about forty different bills before the California legislature. Most of them dealt with Superfunds and clean-up issues. Meanwhile, this administrator was wondering how his office was going to harmonize his state’s plan with RCRA regulations, absorb the vastly expanded administrative costs for his department of all those successful legislative pioneers, and still retain enough person-power to enforce the law of hazardous waste.<sup>118</sup>

The yo-yo effect of government activity showed up recently at the federal level when regulatory reform hit the Reagan adminis-

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116. See, e.g., Wolf, *supra* note 15, at 525; GAO REPORT, *supra* note 1, at 14; SUBCOMM. REPORT, *supra* note 5, at 38; H.R. REP. No. 1016, 96th Cong., 2d Sess. at 21 (1980) (hereinafter cited as HOUSE STUDY); Fisher, *The Toxic Waste Dump Problem and a Suggested Insurance Program*, 8 B. C. ENVTL. AFF. L. REV. 421, 442 (1980).

117. Statement of Pete Rogers, Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

118. Don Oliver, legal consultant on RCRA, remarked that generators could ride on a regulatory backlog for the next two years before DHS could come knocking on their doors to see if hazardous-waste regulations were being complied with. Hazardous Waste Management Seminar, in Santa Barbara (Aug. 5, 1981).

A related prediction was made before the subcommittee in charge of RCRA oversight: “It is reasonable that the industry and states will not gear up to do anything as long as they realize that the pending regulations are in a state of flux and may change.” SUBCOMM. REPORT, *supra* note 5, at 46 (quoting Wilber Campbell of the General Accounting Office).

tration.<sup>119</sup> According to the President's Task Force on Regulatory Relief, no hazardous-waste regulations will be immune from review on cost-benefit analysis principles.<sup>120</sup> Vice President Bush is quite certain that review will result in "an awful lot of changes" in the regulations, since the balance sought by the administration focuses on "eliminating from our economy unneeded regulations so that we can grow and increase our nation's productive capacity."<sup>121</sup> Obviously, increased production, if it happens in hazardous-waste-producing industries, means more hazardous waste. Whatever else this increased activity will bring, it will not inspire definitive action to ensure that "final final" hazardous-waste management regulations issue by early 1982.<sup>122</sup> In the meantime, compliance with regulations by generators is even less probable given that no one, even within EPA, completely understands the whole hazardous-waste regulatory system.<sup>123</sup> Multiply the resulting confusion by the fact that many generators are currently expected to comply with a set of state regulations as well as EPA's,<sup>124</sup> and the product is more confusion and less likelihood of protection for human health and the environment.

In short, government officials are discovering, to their mounting frustration, that much ado about hazardous waste does not necessarily equal a program of action to put hazardous waste down. One state environmental official plainly expressed his own feelings about the futility of activity for activity's sake: "We may have to dig it all up, put it in Baggies, and bury it in the same hole."<sup>125</sup>

### C. Divert and Inter

It is one thing for governments to be thwarted in their efforts to put hazardous waste down according to human health and environmental standards. It is quite another when "paper wars"—as illustrated by the examples in the two subsections immediately

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119. The yo-yo effect can also be observed in the context of Congressional oversight. 1 F. GRAD, *supra* note 2, at 4-52.8.

120. [11 Current Developments] ENV'T REP. (BNA) 2131 (March 27, 1981).

121. *Id.*

122. *See supra* notes 112-115 and accompanying text.

123. [11 Current Developments] ENV'T REP. (BNA) 986 (Nov. 7, 1980).

124. For instance, generators in California must comply with that portion of the state program which has been granted interim authorization by EPA (essentially, California regulations corresponding to 40 C.F.R. §§ 260-263 and 265, and their amendments). In addition, they must comply with EPA's "interim final" regulations which will eventually be codified in 40 C.F.R. § 264. Oftentimes, it is not at all clear which standard applies—a forty-day or a sixty-day storage limit, for example.

125. Jasen, *supra* note 3, at 41, col. 1.

above—threaten the putting-down process itself. Faced with this prospect, governments are gearing up to play “divert and inter” with the hazardous-waste problem. The object of this game is to divert public attention from the perceived inadequacies of government programs and then to bury the problem.

Governments can play diversion in a variety of ways. One all-time favorite strategy, employed with gusto under RCRA’s resource conservation provisions, is selective or token enforcement.<sup>126</sup> Good game strategy may also involve indirect diversionary tactics. Here, repeated chemical-dump disasters like Love Canal have actually proved a boon to governmental hazardous-waste-management goals. From 1978 to 1980, as media redirected public attention to the hazards of open dumping, government officials became very vocal about the desirability of clean-up and proper disposal, and the need to provide retrospective relief. RCRA itself was blasted as a prospective statute; retrospective-style Superfund proposals literally poured from Congressional pens.<sup>127</sup> Meanwhile, EPA Region II administrator Eckhardt C. Beck articulated the official government line: “People shouldn’t jump to the conclusion that just because of Love Canal, all landfill disposal is bad . . . . It is still the best method of disposal in some cases.”<sup>128</sup> Mr. Beck went on to note that EPA was looking for a “permanent solution” to Love Canal—a more appropriate landfill site, for example.<sup>129</sup>

Gaining general acceptance for the idea of putting it down does not win the game, however, for few if any people want a hazardous-waste-disposal facility in their backyard.<sup>130</sup> Short of forcing the facilities on us “for our own good,”<sup>131</sup> government could dilute local opposition by siting facilities on a regional basis.<sup>132</sup> But

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126. This is especially clear in the resource conservation and recovery provisions of RCRA. The enforcement discrepancy is so great that one critic suggested that a better name for RCRA would be “DRIP, for Dump Regulatory and Investigatory Planning Act.” Wolf, *supra* note 15, at 525.

127. HOUSE STUDY, *supra* note 116, at 22.

128. [9 Current Developments] ENV’T REP. (BNA) 581 (1978).

129. *Id.*

130. Tarlock, *Anywhere But Here, An Introduction to State Control of Hazardous-Waste Facility Location*, 2 UCLA J. ENVTL. L. & POL’Y 1 (1981).

131. The manager of Phillips Petroleum maintains that it is in the public interest for government to override local opposition. Green, *Industry is Bracing for Stiff New Rules on Hazardous Waste*, Wall St. J., May 1, 1978, at 15, col. 2.

132. HAZARDOUS WASTE DISPOSAL METHODS, *supra* note 76, at 8.

Division of labor can also be a useful strategy for governments wishing to avoid forced siting. For instance, Environmental Health officers in Santa Barbara County, California, have gotten encouragement at the state level for their enforcement and

so far, government has proceeded by way of public involvement ceremonies emphasizing our responsibility as a nation to begin "working toward a solution of the hazardous waste problem."<sup>133</sup> For those who find ridiculous the EPA slogan "citizens and governments working together hold the key to the solution of hazardous waste problems,"<sup>134</sup> the prospect of forced siting on a regional basis, perhaps on government land, looms ominously.<sup>135</sup> With regional, forced siting, it would be just too easy for the hazardous waste problem to slip back into the twilight zone—out of sight, out of mind.

#### IV.

#### CONCLUSION

We might as well face it: government does not know how to solve the hazardous-waste problem; in fact, government is currently having trouble covering it up. And before we lull ourselves into believing that technology to change waste from hazardous to innocuous is waiting just around the corner, we should remember that the federal government is putting its money into putting it down.<sup>136</sup> As citizens of a throwaway culture, this should not surprise us. Despite our recent coming to environmental consciousness, each of us throw away almost three times as much solid waste today as our grandparents did forty years ago, and less and less of what we throw away is organic and biodegradable.<sup>137</sup>

This paper has suggested that ordinary people tend to think about hazardous waste in one way and government officials in another. Ordinary people think about hazardous waste as they read about it in the news magazines—as a bringer of horrible mutation,

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response capability efforts. In turn, these officers tend to be very supportive of the state's burial efforts; as a result, governmental champions of local opposition to the Casmalia disposal site are few and far between.

133. WASTE ALERT, *supra* note 4, at 36.

134. *Id.*

135. According to a 1978 news report, "[t]he EPA is trying to win the public over with public hearings and educational programs using slide shows, for example, to demonstrate that haphazard dumping could be eliminated by tightly regulated new disposal sites. But many corporations and waste disposal firms feel that the government ultimately may have to force public acceptance." Green, *supra* note 131, at 15, col. 2.

136. In the face of spending slashes on every major EPA program, current EPA administrator Anne Gorsuch maintains that the Superfund clean-up effort deserves top funding priority. *This Ice Queen Does Not Melt*, TIME, Jan. 18, 1982, at 16. Manifestly, what is cleaned up must be put down. See *supra* note 128.

137. 1 F. GRAD, *supra* note 2, at 4-3.

a symbol of what we neglected to do in the past, as a crisis and an aberration. When the news media stop talking about hazardous waste or people tire of reading about it, they forget about it. This is dangerous. On the other hand, government officials tend to think about hazardous waste as a management problem, i.e. managing people and programs to reach a predetermined end: hazardous waste tucked snugly into the ground where government can forget about it and plunge ahead to solve other problems. This is also dangerous.

We cannot make hazardous waste go away by forgetting it or hiding it in the ground. Nor can we solve the hazardous-waste problem by shifting from one agency or one disposal site to another, or by making it impossible to put waste down.<sup>138</sup> What we have already we must keep essentially forever, unless and until we learn to undo the technology which made it hazardous. In the meantime, there is no way—repeat, no way—to say with certainty that we will be safe from those ticking time bombs.<sup>139</sup> Consequently, this paper does not pretend to have answers or solutions. It merely voices an appeal to reasoning human beings to broaden their vision.

The effects of hazardous waste may be surer or more severe than those of ordinary garbage, but this does not mean that the sources of hazardous wastes are bizarre. Everyday products such as plastics, medicines, paints, oil and gasoline, metals, leather, and textiles generate hazardous waste streams.<sup>140</sup> The more of these products we buy, the more hazardous waste we will get. The more we ignore this fact, the more hazardous waste government will force into the ground for us.

We owe it to our own survival and that of all living things to produce less hazardous waste. This involves a refocusing of government programs and a refocusing of our individual attention. Government redefinition programs only serve to hide the problem of over-production of hazardous waste. Although safe disposal is very important, if government continues to focus exclusively on disposal, the hazardous-waste problem will overcome us later if not sooner. Therefore, government must refocus its approach to include production and conservation, rather than engaging in pointless redefinition. But government cannot change us. We must refocus our attention by recognizing what we are advocating

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138. This strategy was proposed in SUBCOMM. REPORT, *supra* note 5, at 28.

139. Wolf, *supra* note 15, at 523.

140. WASTE ALERT, *supra* note 4, at 13.

when we consume mass quantities of hazardous-waste-generating products, only to throw them out and demand more—and change this behavior. Then we must resist the urge to forget about hazardous waste when it is no longer news. Finally, we must make a healthy concern (as opposed to a defeating panic) about hazardous waste a part of our daily lives, manifesting that concern in part by putting steady pressure on government officials not to compromise human health and the environment. This may mean that we must mark the last days of the throwaway age.