Superfund vs. Environmental Progress:

Explaining A Disaster

by Richard L. Stroup

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EXECUTIVE SUMMARY

The Superfund program has been criticized by Presidents and Members of Congress of both parties. It has been less effective than hoped in cleaning up waste sites. It is regarded by many analysts as extremely bad law, giving EPA bureaucrats virtually unlimited power to penalize private individuals and businesses who are denied appropriate rights of appeal to judicial review. The program is in need of revision or repeal.

In the late 1970s, a hazardous waste site known as Love Canal made national news. The people living near Love Canal were horrified and outraged because hazardous wastes leaked from the clay-lined Canal onto their property and, in some cases, even into their basements. The 96th Congress, nearing adjournment in 1980, was under pressure from angry Love Canal residents, activists, and political figures to take action quickly.

Congress never examined who was actually at fault in the Love Canal incident — who had allowed the release of the chemicals, what the health risks really were, what the remedy should be, or who should pay for it. Convinced that there were other "ticking time bombs" in hazardous waste dumps across the country, Congress hastily enacted a far-reaching Superfund program. Congress had a ready villain — corporate polluters — to attack, and speed was to be the order of the day. The fine points of legal proof would not stand in the way of saving lives. As the U. S. Court of Appeals for the 5th Circuit later said, "Shooting first and asking questions later was the intent of Congress."

The people near Love Canal, like others exposed to hazardous waste, had remedies available under prior law for the harm caused by leaking chemicals. The traditional way of dealing with such harm is to go to court to protect one's property rights. Courts regularly force the owners of such sites to clean them up and to pay for damage done. In each case, however, the relevant facts are examined and precedents considered, prior to the decision being made.

With the Superfund Legislation, Congress replaced common-law concepts with nearly unchecked bureaucratic control. It allowed the Environmental Protection Agency to judge liability and prescribe remedies without requiring evidence and to recover its costs from those accused of pollution. And Congress drastically restricted the opportunity for those required to pay to have an independent legal review. So long as the EPA follows the procedures it wrote for itself, its orders are the law. Furthermore, Congress financed a large portion of the program through special industrial taxes, rather than the normal budget process.

Superfund was sold to Congress on the principle of "polluter pays." The law placed liability for the cost of cleanup on those who had some connection to the contaminated site. The connection could be quite remote, however — so remote that the polluter pays principle, properly understood, is routinely violated. A company that produced waste that ended up in the site could

be liable for cleanup, even if the company had not placed contaminants at the site, even if its actions had not been illegal when they occurred, and even if no actual harm or clear evidence of serious risk to people in the vicinity was present.

The grand achievements envisioned from Superfund did not materialize. Five years after the law was passed, many initially listed sites were still in limbo and a backlog of additional sites was building up. A frustrated Congress expanded and strengthened EPA's authority and budget. Superfund has been a costly program. Despite spending $20 billion by 1992, the program had shown little gain in the way of human health benefits. Researchers have concluded that:

- Most assessed Superfund "risks" do not currently pose a threat to human health and will do so only if people actually inhabit known contaminated sites in the future.
- Even if exposure did occur, there is less than a one-percent chance that the risks are as great as EPA estimates, because of the extreme assumptions made by EPA.
- Cancer risk is the main concern at Superfund sites. Yet at the majority of sites, each cleanup is expected to avert only 0.1 cases of cancer.
- Estimated median cost per cancer case averted is over $7 billion; at 87 of the 96 sites having the necessary data available, the costs per cancer case averted (only some of which would mean a life saved) was above $100 million. Other federal programs commonly consider a life saved to be worth about $5 million. Diverting expenditures from most Superfund sites to other sites or other risk-reduction missions, *using more realistic analyses,* could save many more lives or save the same number of lives at far less cost.

The Superfund shortcut has proven to be a disastrous departure from the legal principles and traditions developed over the past several centuries. This trampling of legal traditions and rights has caused the extensive and costly problems that virtually all observers have noted. Protecting the rights of those affected by pollution is surely essential to solving the problems with sites containing hazardous wastes; protecting the rights of those accused of violation is another key. Some important principles that should guide reform include:

- Polluters must stop ongoing pollution when the rights of others are being violated.
- Polluters must pay for damages they have caused, and for cleanups necessary to avoid ongoing violations of the rights of others.
- Those who do not violate rights should not be singled out to pay for cleanups.
- Any agency forcing others to pay for cleanups must prove responsibility for the pollution to be remedied.
- The right to an impartial judicial review should be available both to those accused of imposing harm or risk and to those claiming to be victims of pollution or of risk.
- Beyond the court's responsibility to enforce individual rights, local governments should be recognized as having primary responsibility for any further control of local hazardous waste problems.

Superfund vs. Environmental Progress: Explaining a Disaster

By Richard L. Stroup[*]

"Superfund has been a disaster."
—Bill Clinton[1]

"Superfund has failed in its mission."
—George W. Bush[2]

Introduction

Superfund, or, more properly, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended, is a classic case of a program needing serious modification — if not abolition. A strong case can be made for putting an end to most of the program's activities.[3] Abolition would probably endanger no one and would arguably result in fewer deaths and injuries to individuals. It would end an unjust program that, for the most part, is extraordinarily ineffective and exceedingly inefficient. Ending the Superfund program would make environmental policy more efficient, stopping the needless hemorrhaging of the nation's resources into a potentially endless number of hazardous waste sites while gaining little in the way of real benefit.

The Origins of Superfund[4]

In the late 1970s, a hazardous waste site known as Love Canal made national news. The people living near Love Canal were in a panic because hazardous wastes leaked from the clay-

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[1]*Los Angeles Times*, May 10, 1993.

[2]Source: Press Release, part of "Renewing America's Purpose," Apr. 3, 2000, cited in: http://www.issues2000.org/-George_W_Bush_Environment.htm.

[3]For example, see Richard L. Stroup, *Superfund: The Shortcut that Failed*, Policy Series PS-5, (Bozeman, MT: PERC, May 1996), and James DeLong, *Superfund XVII: The Pathology of Environmental Policy* (Washington: Competitive Enterprise Institute, 1997).

[4]Portions of this section and some of those that follow are adapted and updated from Richard L. Stroup, *Superfund: The Shortcut that Failed, op. cit.*

lined Canal onto their property and, in some cases, even into their basements. The 96th Congress, nearing adjournment in 1980, was under pressure from angry Love Canal residents, activists, and political figures. Fearing a veto from incoming president Ronald Reagan, Congress acted in haste, and the lame-duck President Carter signed the law in his last weeks in office.

Unfortunately, Congress never examined who was actually at fault in the Love Canal incident — who had allowed the release of chemicals to occur, what the health risks really were, what the remedy should be, or who should pay for it. That came later.[5] Instead, convinced that there were other 'ticking time bombs' lurking in hazardous waste dumps all over the country, Congress enacted a far-reaching Superfund program. That program is an ongoing disaster, acknowledged as such in the quotes above, from Presidents Bill Clinton, a Democrat, and his Republican successor, George W. Bush.

The people near Love Canal, like others exposed to hazardous waste, had remedies available for the harm caused by leaking chemicals. The traditional way of dealing with such harm is to go to court and protect one's property rights under common law. Courts regularly force the owners of such sites to clean them up and to pay for damages already done.[6] In each case, the relevant facts are examined and precedents considered prior to the decisions being made.

In the tumult of publicity and pressure, however, this history was rejected. One reason was a growing dissatisfaction with the common-law approach. Critics — lawyers, law professors, and others — claimed that the common law could not deal with hazardous wastes for several reasons. The most important ones were outlined in a 1987 book that defended the Superfund program.[7]

- *Demand for Proof.* Judges and juries tend to deny relief where the damage is "speculative" or "uncertain." The weight of the evidence must convince them that a serious harm, or risk of harm, exists, caused by the action that is to be stopped or the contamination that is to be remedied. Suspicion and accusations are not enough.

- *Inconsistency.* Different courts, acting in different jurisdictions or at different times, do not always provide consistent decisions.

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[5]See Eric Zuesse, "The Truth Seeps Out," *Reason*, Vol. 12, No. 10, February 1981.

[6]Roger E. Meiners and Bruce Yandle, *The Common Law: How It Protects the Environment*, PERC Policy Series PS-13 (Bozeman, MT: PERC, 1998).

[7]These five points are presented in Christopher Harris, William L. Want, and Morris A. Ward, *Hazardous Waste: Confronting the Challenge* (New York: Forum Books, 1987), pp. 52, 55.

- *Protection of Private Parties, Not the Public*. Private common-law litigation is primarily aimed at protecting individuals or specific groups, not the general public, from specific pollution problems.

- *Costly Litigation*. Lawsuits are expensive.

- *Uncertainty and Technical Complexity*. In technically complex cases, some judges prefer to transfer the problem to state and federal agencies.

Given these limitations, many people had concluded by the late 1970s that the courts could not address illnesses such as cancer, which can be triggered at one point in time but not actually appear until many years later. Another problem was that the link between chemical exposures and disease might be "probabilistic" rather than clear. Each of these complaints had some basis in fact. Common law was clearly imperfect.

Another factor propelling congressional action was fear that the person who created a dangerous site might be long gone from the scene when the problem arose or might be insolvent and therefore unable to clean up the site. The idea that Love Canal was an "abandoned site" took hold. Yet clearly the city of Niagara Falls owned it. Hooker Chemical, which had put wastes inside the canal, had turned over the deed to the local school board in 1953, and in 1960 the school board deeded the land to the city. Even so, the idea that Hooker had "abandoned" the site fueled pressure to do something about "abandoned" or "orphan" sites.

The residents of Love Canal, and their supporters, were in no mood for lengthy court proceedings. They had "scientific" evidence suggesting causal connections between the chemicals and serious health maladies. This evidence was seriously flawed;[8] in fact it did not show a causal link between the harms and the chemicals. A trial in court would no doubt have revealed this, and put many residents more at ease.

But residents believed what they had already seen in the newspapers. The New York Department of Health had called Love Canal a "public health time bomb."[9] A panel created by the governor of New York called it a "public health emergency" (although the panel did so in order to qualify the area for more state funds).[10] New York Congressman Jack Kemp

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[8]See Aaron Wildavsky with Michelle Malkin, "Love Canal: Was There Evidence of Harm?" and Aaron Wildavsky with David Schleicher, "Superfund's Abandoned Hazardous Waste Sites," both in Wildavsky, *But Is It True?* (Cambridge: Harvard University Press, 1995), pp. 126-52 and 153-84.

[9]Cited in Marc K. Landy, Marc J. Roberts, and Stephen R. Thomas, *The Environmental Protection Agency: Asking the Wrong Questions* (New York: Oxford University Press, 1990), p. 134.

[10]See Landy, *et al.* at 134.

referred to toxic wastes as "among the deadliest of silent killers in this country."[11] The common law approach, as the rule of law (including the legislative approach) normally does, requires some patience and respect for the procedures developed over centuries of experience. Patience was in short supply in this atmosphere of crisis. The rule of law — the common law — was in trouble.

Congress pulled out all the stops. It had a ready villain — corporate polluters — to attack, and speed was to be the order of the day. The fine points of legal proof would not stand in the way of saving lives. As the U.S. Court of Appeals for the 5th Circuit later said, "Shooting first and asking questions later was the intent of Congress."[12]

Congress replaced common-law concepts with nearly unchecked bureaucratic control. Congress allowed the Environmental Protection Agency to judge liability and prescribe remedies without requiring evidence and to recover its costs from those accused of pollution. Furthermore, Congress drastically restricted the opportunity for those required to pay to have an independent legal review. As long as the EPA follows the procedures it wrote for itself, its orders are the law. In addition, Congress financed a large portion of the program through special industrial taxes, rather than the normal budget process.

During the months preceding the passage of the law, a few lone voices were heard questioning this abrogation of normal rights. Senator Alan Simpson, for example, said:

> It does alarm me to see the tendency, with but a sweep of the drafter's pen, to simply brush off on the floor many of the rules of evidence which have been so closely crafted and observed in our procedural life as lawyers.... The rules are there for a purpose. They have "come through the fires" and have been tempered by litigation. They do work. Basic reason and common sense should be the impetus behind their revision—not simply frustration.[13]

But such voices were overcome by the stampede. The Congress wanted to offer quick solutions to the worries of those near sites containing hazardous wastes. Eager to avoid the appearance of imposing serious costs on their constituents and voters, and knowing that quick solutions would surely impose serious costs, Congress assigned the unpopular and politically difficult task of writing the details of the law to the rule-making process at EPA.

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[11]Joint Hearings before the Subcommittees on Environmental Pollution and Resource Protection of the Committee on Environment and Public Works, U.S. Senate (96th Congress), March 28-29, 1979. Field hearing at Niagara Falls, NY.

[12]See *Voluntary Purchasing Groups, Inc. (VPG) v. Reilly (USEPA)* (U.S. Court of Appeals, 5th Circuit, 1989).

[13]"A Legislative History of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund), Public Law 96-510," 97th Cong., 2nd Sess., ser. no. 97-14, v. 1, p. 117.

CERCLA,[14] the resulting law, created a $1.6 billion fund to clean up existing sites over a five-year period. The fund was financed by placing new taxes on the oil and chemical industries and other businesses. The new taxes were unrelated to actual pollution. The law also included a plan for short-term emergency removals of waste to avert an apparent and immediate danger. They were limited to one year in duration, and $1 million in cost (later increased to $2 million), although more than one removal action can be ordered at a site. This portion of the Superfund program is relatively small and typically receives little attention. Able to deal quickly and at low cost with true emergencies, it is one of the few aspects of the Superfund law often praised by analysts and outside observers.[15]

Superfund and the Polluter Pays Principle

Superfund was sold to Congress on the principle of "polluter pays." The law placed liability for the cost of cleanup on those who had some connection to the contaminated site. The connection could be quite remote — so remote that the polluter pays principle, properly understood, is routinely violated.[16] A company that produced waste that ended up in the site could be liable for cleanup, even if the company had not placed contaminants at the site, even if its actions had not been illegal when they occurred, and even if no actual harm or clear evidence of serious risk to people in the vicinity was present.

The "polluter pays" principle was violated in other ways:

- The three taxes set up to pay for the administration of the program were a chemical tax, a petroleum tax, and an "environmental" income tax (based on the alternative minimum tax's definition of taxable income) on large firms. All violated the concept. Companies that may have never contaminated any waste site requiring cleanup had to pay the tax. A firm that found a way to produce the same products with no pollution whatever would still pay the same amount of tax. Production, not pollution, was taxed. Furthermore, the paperwork costs were very high.[17] (These Superfund taxes expired in 1995 and have not been renewed. Since that time, congressional battles have occurred over renewing these taxes and reforming the program.)

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[14]Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

[15]See Wildavsky, *op. cit.*, p. 182.

[16]See Roy E. Cordato, "The Polluter Pays Principle: A Proper Guide for Environmental Policy," *IRET Studies in Social Cost, Regulation and the Environment*: No. 6.

[17]One tax, for example, brought in $520 million in 1990, but it "may impose on firms compliance costs that are more than four times the revenue collected," according to Katherine N. Probst, Don Fullerton, Robert E. Litan and Paul R. Portney, *Footing the Bill for Superfund Cleanups* (Washington, DC: Brookings Institution and Resources for the Future, 1995), p. 62.

- The EPA treats accused polluters, or "potentially responsible parties," as wrongdoers. These are the parties, usually firms, that must pay cleanup costs if they can be found. Yet the EPA has no responsibility to prove that they are guilty of wrongdoing, or that they polluted the site in question, or even that serious risk from pollution exists. The emphasis is on "cleaning up," rather than righting wrongs, protecting people and their property, or reducing real risks.

- To determine whether a site must be cleaned up, EPA uses seriously biased estimates of risks. It can order cleanups and force payment for them without showing (or even claiming) that the health benefits from the cleanups will outweigh the costs, or that the benefits will be attained at the lowest possible cost. Sometimes so little risk is present from the beginning that the cleanup itself may introduce more risk than it removes. The EPA's recent order that General Electric dredge dozens of miles of the Hudson River bottom to remove PCBs that have been entombed in mud for generations may be a case in point.

- Accused parties can do little to challenge the EPA's decisions, except at the very end of the remediation process, after many years. Even then, the burden is on the accused party, rather than the agency. Those accused would have to prove that the EPA has acted arbitrarily or capriciously or has violated its own procedures as listed in its National Contingency Plan.

There is, in other words, little restraint on what the manager of a Superfund site can order and then require "potentially responsible parties" to pay for. Even if the payments demanded are unreasonable, or they pay for unnecessary actions, the EPA has stated clearly that the companies must pay them. In 1992, in a *Federal Register* statement, the EPA said that defendants ordered to pay Superfund costs "cannot avoid payment of United States' costs on the grounds that such costs are 'unnecessary' or 'unreasonable.'"[18] And there is no dollar limit on the cost of cleaning up any site.

As long as the EPA follows the procedures it has written for itself, so that those forced to pay cannot prove that the EPA acted in an arbitrary or capricious manner, the Superfund site manager's decisions will have the force of law. Those required to pay have no recourse to substantive review. Former Assistant Attorney General Roger Marzulla put it well when he said, "With only slight exaggeration, one government lawyer has described a ... [CERCLA] trial as requiring only that the Justice Department lawyer stand up and recite: 'May it please the Court, I represent the government and therefore I win.'"[19]

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[18]See *Federal Register*, Vol. 57, No. 152, (August 6, 1992), at 34755.

[19]Quoted in William D. Evans, Jr., "The Phantom PRP in CERCLA Litigation: EPA to Rescue?" *Environment Reporter*, Vol. 26, No. 43 (March 8, 1996), p. 2110. A PRP ("potentially responsible party") can challenge in court an EPA decision to list a site on the National Priorities List, but at that point the EPA claims only that the site should

In sum, the EPA can order a cleanup without having to demonstrate:

- that any harm or the serious threat of significant harm has been committed;
- any illegal action by those whom it forces to pay for cleanups;
- that chemical contamination was actually caused by the "responsible parties," or even;
- that the cleanup was necessary, or that it was done to a reasonable level or in a reasonable manner.

Superfund Evaluated

The grand achievement envisioned for Superfund did not materialize. Five years after the law was passed, many of the initially listed sites were still in limbo and a large backlog of additional sites was building up. The Superfund Amendments and Reauthorization Act (SARA) was passed in 1986 to extend the program and address its shortcomings. Congress authorized an additional $8.5 billion in special industry taxes and attempted to narrow the discretion of EPA's leadership in the Superfund program. For example, SARA required stringent drinking water standards to be applied as cleanup standards, even when the water is not expected to be drunk. And Congress strengthened the provisions that made it difficult to obtain judicial review of the EPA's decisions.[20] In spite of these efforts, as of April 2000, 19 years after enactment, less than half of the sites placed on the Superfund's National Priorities List (NPL) had been removed to the Construction Completed List.[21] However, the legacy of Superfund is much more than a backlog of cleanups and their costs. The Superfund law has been enforced in courts with the establishment of strict, joint and several liability for virtually anyone who was connected with a Superfund site. Investors who may want to redevelop a hazardous waste site still feel the threat of potentially unlimited liability for multimillion dollar cleanups on any site, previously cleaned or not, including thousands of others which might in the future be declared Superfund sites, even if no genuine danger to human health or the environment exists. "The CERCLA list has become the leper colony of the real estate industry," writes James DeLong. "Once a site is identified as

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be considered for possible cleanup. To get relief, the PRP must show that the EPA's decision to list the site is arbitrary and capricious, so such challenges seldom succeed. A PRP can also refuse an EPA order to clean a site, but it must show that the decisions it challenges were arbitrary or capricious; otherwise it must pay for the cleanup *plus treble damages*.

[20]Mark Reisch, "Superfund Reauthorization Issues in the 106th Congress," Congressional Research Service Report, Oct. 30, 2000.

[21]DeLong, *Superfund XVII: The Pathology of Environmental Policy*, *op. cit.*

a possible candidate for the NPL, it becomes untouchable."[22] This includes thousands of other sites in the nation, and indeed those already cleaned up and removed from the NPL.

Clearly, Superfund has been a costly program. Despite the expenditure of $20 billion by 1992, the program had shown little gain in the way of human health benefits. Researchers James T. Hamilton and W. Kip Viscusi have reported a number of discouraging findings from their analysis of the Superfund program in general and 150 Superfund hazardous waste sites in particular.[23] Among the findings:

- Most assessed Superfund "risks" do not pose a threat to human health now; they will do so in the future only if people violate common-sense precautions and actually inhabit contaminated sites, while disregarding known risks there.

- Even if exposure did occur, there is less than a one-percent chance that the risks are as great as EPA estimates, because of the compounding of extreme assumptions made by EPA.

- Cancer risk is the main concern at Superfund sites. Few serious health problems can be demonstrated, but cancer has a long latency period and some contaminants at the sites can cause cancer, at least in high dose exposures. Yet at the majority of sites, each cleanup is expected to avert only 0.1 cases of cancer. Of the 150 sites studied by Hamilton and Viscusi, only 10 were estimated to have one or more expected cases without any cleanup at all.

- Average cleanup cost per site in the study was $26 million (in 1993 dollars).

- Replacing extreme EPA assumptions with more reasonable ones brought the estimated median cost per cancer case averted to over $7 billion; at 87 of the 96 sites having the necessary data available, the costs per cancer case averted (only some of which would mean a life saved) was above $100 million.

- Other federal programs commonly consider a life saved to be worth about $5 million. Diverting expenditures from most Superfund sites to other sites or other risk-reduction missions, *using more realistic analyses,* could save many more lives or save the same number of lives at far less cost.

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[22]James V. DeLong, *Privatizing Superfund: How To Clean Up Hazardous Waste*, Policy Analysis No. 247 (Washington, DC: Cato Institute, December 18, 1995), available on-line at http://www.cata.org/pubs/pas/pa-247.html.

[23]James T. Hamilton and W. Kip Viscusi, *Calculating Risks* (Cambridge: MIT Press, 1996). Also see Sir Richard Doll and Richard Peto, *The Causes of Cancer*, (New York: Oxford University Press, 1981); and Michael Gough, "How Much Cancer Can EPA Regulate Away?" *Risk Analysis*, Vol. 10, No. 1, (1990), pp. 1–6.

In addition to the failure to provide significant benefits, Superfund has itself caused harm. Many people touched by the program are harmed, including those it is supposed to help. In fact, many communities now seek ways to avoid having sites listed, despite the presence of contaminants.[24] These reasons include:

- Designation as a Superfund site causes property values to fall. Residents may be forced to move away, at least temporarily. People may be badly frightened for no good reason.

- The firms required to pay for the cleanups have little chance to defend themselves against being billed enormous sums, and the EPA doesn't even have to prove that there is a health risk from the site, but only that its own decisions were not arbitrary or capricious.

- Investors and banks often refuse to lend money for development of Superfund sites or sites that might have Superfund liability attached to them. They reject these "brownfields" for untouched "greenfields" in the suburbs, far from the inner-city people who need jobs, and often beyond the boundaries of cities that need a tax base. This brownfields problem continues despite strong efforts of each president and each Congress over many years to fix it.[25]

These Superfund problems reflect, as we will see below, the nearly unchecked powers given by Congress to a set of dedicated public servants, each with a narrowly defined mission.

Why Is Superfund So Inefficient?

Why do we observe such apparent inefficiencies in the Superfund program? There are several reasons.

One is that Congress has delegated to EPA the politically unpopular rule-making, with little guidance in the law as to how the program should operate. David Schoenbrod, formerly an attorney for the Natural Resources Defense Council and now a professor of law, argues that laws such as Superfund give politicians the best of both worlds. They promise tough rules and a clean environment, but delegate the actual writing of the rules to the Environmental Protection

[24]Triumph, Idaho and Aspen, Colorado are examples of cities which have challenged the need for cleanups. See Stroup, *Superfund: The Shortcut that Failed, op. cit.*

[25]Without admitting that its Superfund program is responsible for the severity of the brownfields problem, the federal government has sought to ease the problem it largely created by allowing investors to write off immediately certain brownfields remediation costs. A more efficient way to encourage brownfields rehabilitation would be to repeal or reform the Superfund program.

Agency. Thus, they avoid making the hard choices of which pollutants would be brought to which standards, and by whom. Congress took the credit; the EPA takes the ongoing heat.

When stringent rules that impose large costs are proposed, the same legislators who pressed EPA to promulgate regulations to clean hazardous waste sites can now lobby EPA administrators on behalf of businesses in their districts. When important constituents are about to be harmed by a new rule, the legislator can demand that EPA inflict no such harm. Having claimed credit for protecting the environment, the politician can now claim credit for trying, even if in vain, to protect polluters (and nonpolluters) who seek the politician's help, from harm under the Superfund program.

Another reason for the inefficiencies is tunnel vision within the regulating agency. As Supreme Court Justice Stephen Breyer has observed, tunnel vision is a "classic administrative disease" that arises "when an agency so organizes or subdivides its tasks that each employee's individual conscientious performance effectively carries single-minded pursuit of a single goal too far, to the point where it brings about more harm than good."[26] Breyer calls this trying to achieve "the last 10 percent." EPA's site managers have little reason to worry about whether, in forcing others to spend more money at Superfund sites to reduce environmental risks there, other important goals consequently receive less money.

The EPA pursues the last 10 per cent more than most agencies. The uncertainties associated with environmental damages — the same uncertainties that make common law approaches to environmental problems difficult — allow enormous speculation about the potential benefits of reducing pollution. With other regulations, such as those designed to reduce traffic deaths or deaths from acute poisoning, the approximate number of potential victims is fairly easy to estimate. By contrast, knowledge about harms such as cancer from environmental pollution is extremely uncertain. The best scientific estimates to date indicate that only about 2 percent of all cancers in the U.S. are caused by pollutants.[27] However, the EPA can produce very large risk estimates by speculating about potential victims.

The Superfund program is especially prone to tunnel vision. The focus of the Superfund program is far narrower even than the mission of the EPA. The job of Superfund is to protect citizens and their property against harm from hazardous wastes. Superfund managers are likely to ignore the costs forced on those outside the program, even on the rest of the EPA, and, in focusing narrowly on hazardous wastes, they may ignore heavy monetary and other costs, including those placed on the neighbors of the site and others they are trying to protect from specific risks. The results of tunnel vision are rather extreme in the case of Superfund.

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[26]Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation* (Cambridge: Harvard University Press, 1993), p. 10.

[27]This section is based on Andrew J. Yates and Richard L. Stroup, "Media Coverage and EPA Pesticide Decisions," *Public Choice*, 102: 2000, pp. 297-312, and the work leading up to its publication.

Hamilton and Viscusi estimate that 95 percent of Superfund expenditures are directed at the last 0.5 percent of the risk.[28] Their work also indicates that the first 5 percent of Superfund expenditures reduced cancer risk at an average cost of $389,000 per case avoided, while the next 90 percent of expenditures reduced such risks at a cost per case ranging from $137 million to $227 *billion*. And the last 5 percent of expenditures gain no reduction at all in cancer deaths.[29] By contrast, the National Highway Traffic Safety Administration will not approve regulatory changes which save lives at any cost greater than $3 million.[30] In pushing cleanups to extreme levels, EPA's operation of Superfund clearly wastes the nation's resources. Large expenditures are producing small gains in citizen safety, at best.

Activists and the Media: Fear Sells

Another factor for Superfund inefficiencies was the pressure to "do something" that stemmed from incentives facing the media and activist organizations. A health threat is always a good news story.[31] Editors and reporters know that frightening news catches readers' attention. Facts that reduce such fears are dull. (The same seems to be true in other realms, too. Financial doomsday stories always seem to sell in the financial press.)

The incentives facing reporters and editors to use crisis as a story line seem self-evident. But there is also evidence that environmental crisis stories appeal to leading journalists because they have policy implications that support an activist agenda. Stanley Rothman and Robert Lichter[32] conducted an ingenious study of how the media interpret science — in this case, the danger from nuclear power. They found that journalists paid more attention to scientists who were opposed to nuclear power than those who supported it. Opposition to nuclear power has been virtually a litmus test for environmental activists.

The desire of the press for sensational stories can also be manipulated, as the briefly famous story of the chemical Alar illustrates.[33] Alar is a plant growth regulator that offers many benefits to apple growers. In 1980, the EPA began to review the risks and benefits of Alar to determine if it should be re-approved for use on food crops. Over the next several years, the agency was bombarded with pressure from both Uniroyal, Alar's producer, and the Natural

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[28]Hamilton and Viscusi, *op. cit.*

[29]W. Kip Viscusi, *Rational Risk Policy* (Oxford: Clarendon Press, 1998), p. 101.

[30]Viscusi, 1998, *op. cit*.

[31]See Stanley Rothman and S. Robert Lichter, "Elite Ideology and Risk Perception in Nuclear Energy Policy," *American Political Science Review*, Vol. 8, No.2, June 1987, pp. 387-404.

[32]See Yates and Stroup, *op. cit.*, p. 297.

[33]*Ibid.*

Resources Defense Council (NRDC). The former supported approval and the latter opposed it. Although each side had minor victories, neither source of pressure was overwhelming, and by 1989, the EPA had still not made a binding decision.

In early 1989, NRDC hired a public relations firm to sway public opinion toward eliminating the use of Alar. Utilizing a new scientific study (which subsequently was widely criticized), along with a famous actress, Meryl Streep, as spokesperson, NRDC brought Alar to the attention of the press and the public. NRDC claimed an intolerable danger to pre-school children from eating apples treated with Alar. Television news media referred to Alar as the most potent cancer-causing agent in the food supply. In March and April of 1989, stories about Alar were featured almost daily in newspapers across the country.

Sales of Red Delicious apples, a variety of apple on which Alar was used, dropped dramatically. Some school districts even banned the sale of apples at schools. Congress responded to the pressure by introducing a bill that would ban Alar, completely bypassing normal EPA pesticide procedures. The Alar issue, which had spent nine years in a gridlock of competing interest groups, was quickly resolved when populist pressure aligned with one of the interest groups.

The EPA had earlier cited evidence (also later revealed to be faulty) that Alar was at least as dangerous as later claimed by NRDC. However, this information was released to the press in a matter-of-fact format, without the link to preschoolers or the aid of celebrities. Without the emotional connection later presented by NRDC, the initial story did not receive any followup attention from the press. No change in the availability of Alar resulted from these earlier EPA claims. The role of the press can be very large in determining what voters believe.

The Alar scare severely harmed many farmers. It probably also had the perverse effect of reducing public health. Apples and other fruits are some of the healthiest foods in most people's diets. When people cut their consumption of apples and other fruits in response to the Alar scare, they tended to replace them with other, less healthy foods.

Rationally Ignorant Voters and Superfund

The press may exaggerate some risks and therefore propel laws like Superfund, but the press is responding to concerns that are widely shared by the American people. Many people are ready to latch onto easy explanations when it comes to concern about toxic pollutants, especially those that may cause cancer.

Cancer is a large problem in a wealthy nation like the United States. Cancer is largely a disease of older people, and in the United States, most people can expect to live long lives. About one American in four will die of cancer. And it is well known that certain toxic chemicals, when received by individuals in sufficient doses, can cause cancer. The same

chemicals in sufficiently small doses, however, will not significantly raise cancer risks. So a key question for any site where toxic chemicals are generated or stored, is whether the chemicals in question will reach individuals in doses large enough to significantly increase cancer risk.

One controversy illustrates how fear of cancer can lead people astray in analyzing a problem. For many decades, Louisiana's Gulf Coast has been a center of oil and chemical plants. In the same region, the death rate from cancer is abnormally high. Many people assume that emissions from the chemical plants are causing cancer along the Gulf Coast. An area of the lower Mississippi River valley has been called "cancer alley" in newspaper and television reports.

But available evidence suggests that this assumption is wrong. In 1992, the Louisiana Cancer and Lung Trust Fund Board reported on its study of cancer incidence and mortality.[34] The incidence rate of virtually all cancers was "at or below the national average," reported Joel L. Nitzkin, Director of Special Projects for the Louisiana Office of Public Health. (The exception was lung cancer in males, but Nitzkin attributed more than 90% of these cancers to cigarette smoking).

Yes, death rates from cancer were high. But the reason, Nitzkin explained, was not that chemical plants were inducing more cancer, but that people were not getting timely, adequate medical care when they contracted cancer. The actual incidence of cancer cases was no different than the national average; but the death rate was higher. Shutting down the plants would not have reduced the cancer deaths. In fact, if shutting down the chemical plants reduced residents' income, it might reduce their ability to get timely and adequate medical assistance, and thus increase cancer deaths.

This incident illustrates how easy it is for the public (and even experts, absent peer review or cross examination) to misread information about risk and to support policies that are counterproductive. When that is combined with exaggerated risk estimates and a political and bureaucratic system ready for action, the result can be a series of major government programs that are unlikely to increase public health or welfare. That is what we have today in the Superfund program.

Voters and Superfund: Something for Nothing?

Another factor contributes to the willingness of the public to push for costly and wasteful laws like Superfund. Voters may believe that they can benefit from risk reduction, however slight, and that giant, faceless corporations will pay. Voters seldom anticipate any hassle from the EPA to individuals such as themselves, since they are not industrial emitters of chemicals, and they do not necessarily envision that the costs will be passed to consumers. We should not

[34]Joel L. Nitzkin, "Cancer in Louisiana: A Public Health Perspective," *Journal of the Louisiana Medical Society,* April 1992, p. 162.

be surprised if they support strong police powers for the EPA while demanding little or no proof when EPA (or a member of Congress) alleges harm or risk from emitters of pollutants. Seeing little cost to themselves, voters will tend to support heavy expenditures to reduce risks, however small. From their point of view, they are simply "making the polluter pay."

Superfund or the Common Law?

The Superfund shortcut has proven to be a disastrous departure from the legal principles and traditions developed over the past several centuries. This trampling of legal traditions and rights has caused the extensive and costly problems that virtually all observers have noted. Protecting the rights of those affected by pollution is surely one key to solving the problems with sites containing hazardous wastes; protecting the rights of those accused of violation is another key. Allowing the affected parties to seek low-cost solutions, within a framework that assures justice, is yet another worthy goal. Using the following principles to guide reform would address each of the three criteria above, and would be consistent with common law procedures and precedents as well:

- Polluters must stop ongoing pollution when the rights of others are being violated.

- The rights of a person are violated when that person is involuntarily subjected to levels of harm or risk that exceed those commonly tolerated from other activities that impose involuntary risks (such as operation of motor vehicles, communicable diseases, etc.).

- Polluters must pay for damages they have caused, and for cleanups necessary to avoid ongoing violations of the rights of others.

- Those who do not violate rights should not be singled out to pay for cleanups.

- Any agency that forces others to pay for cleanups must first prove responsibility for the pollution to be remedied, and prove that the ordered actions are justified.

- In truly emergency situations, public-works emergency removals may be justified but should be selected and administered by local and state governmental units.

- The right to an impartial judicial review should be available both to those accused of imposing harm or risk and to those claiming to be victims of pollution or risk.

- Beyond the court’s responsibility to enforce individual rights, local governments should be recognized as having primary responsibility for any further control of local hazardous waste problems.

Toward a Solution

Restoration of the common law and elimination of the Superfund program is the simplest way to restore these principles. In the light of the difficulties that we have seen with Superfund, let us return to the admitted shortcomings of the common-law approach outlined at the beginning of this paper.

- *Demand of Proof.* Superfund removed the requirement for proof of harm or undue risk based on rules of evidence and with the assurance of judicial review. This led to excesses by zealous bureaucrats pursuing their goals with tunnel vision.

- *Inconsistency*. Standards for what constitutes a violation of rights can logically differ from one site to another, depending especially on likely uses of each site and its surroundings. Then too, site managers under Superfund are only loosely controlled by EPA headquarters, which itself is subject to constant political pressure. No one claims that the thousands of potential cleanup sites would be treated consistently in that program.

- *Protection of Private Parties, Not the Public*. Common law was indeed intended to protect private parties by dealing with specific pollution problems. But just as market transactions between individuals serve all the community, common-law remedies set precedents that protect the entire community. They also induce potential polluters to alter their activities in order to avoid future liability.

- *Costly Litigation.* Superfund litigation is itself time-consuming and immensely expensive, drawing in parties who have only a peripheral connection with alleged harms and risks.

- *Uncertainty and Technical Complexity*. Under Superfund, the uncertainty remains but is largely ignored. Speculation and suspicion are sufficient to justify the expenditure of tens of millions of dollars per site.

In other words, the hoped-for advantages of Superfund turned out to be illusory.

There are other reasons to return to the common law as the prime way to deal with harm caused by hazardous waste. The risks and harms from hazardous waste disposal sites are local, and, typically, only a few defendants are likely to be actually responsible for harm. These factors make reliance on common-law courts appropriate at most hazardous waste sites. That common-law approach should not have been abandoned in 1980 when Superfund was enacted.

People can in fact obtain redress in the courts for harm from such pollution. For example, courts have held companies and individuals liable for damage from oil that leaks from

underground storage tanks.[35] When harm is alleged from a hazardous waste site, both alleged victims and accused polluters deserve their day in court. The rights of both should be protected, and the side favored by the preponderance of the evidence should win. Such a regime might result in fewer cleanups, but the sites not cleaned would be those where evidence of potential harm is lacking. The precedents that would be set would help to signal what sorts of sites really need cleaning, and in what circumstances.

Another advantage of the common law is that when protecting these rights imposes a costly cleanup duty on a polluter, there may be a way to make both parties better off. Suppose that the contamination threatens a neighbor's water well and remediation would cost $2 million. The polluter has no right to pollute the water. But the neighbor could accept an offer to sell his or her right. Perhaps, instead of paying the $2 million, the polluter offers to buy the neighbor's right to unpolluted water for $1 million. This might be quite attractive to the neighbor. If it is not, the offer must be raised or the cleanup must be done. The point of this example is that when rights are clear, markets can work. Voluntary trades can sometimes greatly reduce the cost to society of dealing with pollution.

While common law remedies should be the first recourse, they could be supplemented by an "emergency removals" program similar to the short-term program that Superfund operates today for genuine emergencies. It should be run by the state government, not the federal government, because the harms and the benefits of any site will nearly always be local, not national, in scope. True emergencies at sites posing a large and immediate danger could be handled quickly. If the emergency removals did not correct the problem, more extensive cleanup could be ordered by a court or conducted as a local or state public works project, as budget priorities allow.

Such remediation could be carried out more efficiently by the private sector. Sites for which no solvent responsible party exists — truly abandoned sites — should be privatized.[36] Some sites are potentially valuable enough to be sold to the highest bidder for cleanup or containment. In other cases, when the cost of necessary remediation exceeds the value of the property, the state or municipality could offer to pay a private owner to take over responsibility. Companies or individuals could bid; the lowest bidder would get the land.

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[35]Allison Rittenhouse Hayward, "Common Law Remedies and the UST Regulations," *Boston College Environmental Affairs Law Review*, Vol. 21, No. 4, (Summer 1994), pp. 619–65 at p. 631.

[36]See Richard L. Stroup, "Hazardous Waste Policy: A Property Rights Perspective," *Environment Reporter*, Vol. 20, No. 21, (September 22, 1989), pp. 868–73. See also DeLong, "Privatizing Superfund: How to Clean Up Hazardous Waste," *op. cit.*, and Herbert Inhaber, "Hands Up for Toxic Waste," *Nature*, Vol. 347, No. 6294 (October 18, 1990), pp. 611–12.

The new owner would get whatever benefits could be generated from the land, but would also be liable for any damage caused to neighbors, including those downwind or downstream. The state or local government could also require the potential owner of a clearly dangerous site to post a bond, to make sure that neither government nor local residents are stuck with the cost of continued maintenance. The bond would be returned to the owner once the site was clean or permanently secure from leakage and offsite damage (the interest would accrue to the owner in the meantime).

Conclusion

In sum, radical change in Superfund is vital. The Superfund "shortcut" is slow, often ineffective, inefficient and unjust. It is also breeding hatred and contempt for the very public policies and public servants whose goals are to protect citizens from harm. The actions of overreaching bureaucrats, however well-intended, are earning the scorn and the ire of many.

A return to the common law for most problems at hazardous waste sites would restore respect for the public servants who are supposed to be protecting citizens, as well as solve problems stemming from chemicals and other substances at the sites. The common law begins with justice, in the form of recognizing rights and requiring their protection. Efficiency comes next, as rights to locations and resources are traded in order to avoid both rights violations and unnecessary costs. When the pattern of rights is known from previous decisions, potential polluters are on notice and seek to avoid both liability and high-cost, after-the-fact fixes. They seek safer processes, better precautions, and safer locations for any risk that remains.

Such a change is essential if people are to be protected from hazardous waste through a system that is effective, fair, and perceived as fair. Not only are the health and the wealth of the nation at stake; but the very legitimacy of our government is on the line.

Note: Nothing here is to be construed as necessarily reflecting the views of IRET or as an attempt to aid or hinder the passage of any bill before the Congress.

ABOUT IRET

IRET was founded in 1977 as a 501(c)(3) public policy research organization dedicated to the belief that constructive, free-market economic policies are essential for the nation's economic progress. To this end, IRET conducts research and analysis of the economic effects of tax, budget, and regulatory public policy initiatives. IRET is a leader in offering guidance to policy makers regarding fundamental tax reform that would eliminate the bias against saving and investment in the current tax system, including elimination of the estate tax, taxation of capital gains, and the double taxation of corporate income. IRET is also researching ways to replace Social Security with personal saving for retirement.

IRET has a reputation as a no nonsense resource for policy makers and opinion leaders. IRET relies on contributions from individuals, foundations, and corporations to perform its work. It accepts no government funding. IRET is the leading public policy institute in Washington focusing realistically on the growth aspects and economic consequences of federal policy changes.

IRET's resident and contributing economists prepare books, studies, bulletins, and Congressional advisories for publication and distribution to the Congress, the media, and the public. IRET scholars testify at Congressional hearings and consult with Members of Congress on legislation and economic issues, write opinion pieces for journals and newspapers, make radio and television appearances, and speak at conferences on economics and public policy.

IRET's late founder, Norman B. Ture, was a distinguished tax advisor to Congress and served as Under Secretary of the Treasury for Economic Affairs in the Reagan Administration. Dr. Ture played a central role in the development of the Economic Recovery Tax Act of 1981. IRET's current President and Executive Director is Stephen J. Entin. Mr. Entin is a recognized expert on taxation and Social Security. He was Deputy Assistant Secretary for Economic Policy at the Treasury Department in the Reagan Administration, and was instrumental in the development of the 1981 tax cuts, in particular, the "tax indexing" provision that keeps tax rates from rising due to inflation. Mr. Entin represented the Treasury Department in the preparation of the Annual Reports of the Board of Trustees of the Social Security System, and conducted research into the long run outlook for the system. He advised the National Commission on Economic Growth and Tax Reform (the Kemp Commission), assisted in the drafting of the Commission's report, and was the author of several of its support documents. Prior to joining Treasury, Mr. Entin was a staff economist with the Joint Economic Committee of the Congress, where he developed legislation for tax rate reduction (the Kemp-Roth bill) and incentives to encourage saving. Mr. Entin is a graduate of Dartmouth College and received his graduate training in economics at the University of Chicago.